

5 Chassis

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5.1 Chassis Overview

The S series fixed Ethernet switches integrate the access and transmission functions to provide reliable access/aggregation and high-quality transmission of services on enterprise networks. The switches are built on an integrated hardware platform, and the hardware system consists of the chassis, power module, fan module, extended cards, and Switch Control Unit (SCU).

The S series fixed Ethernet switches are available in a variety of models for you to choose based on your network requirements.

The S5700 series includes the S5700-LI, S5700S-LI, S5700-LI-BAT, S5710-LI, S5720-LI, S5720S-LI, S5700-SI, S5720-SI, S5730-SI, S5720S-SI, S5720I-SI, S5700-EI, S5710-EI, S5720-EI, S5730S-EI, S5700-HI, S5710-HI, S5720-HI, S5730-HI, S5731-S, S5731S-S, S5731-H, S5731S-H, S5732-H, S5735-L, S5735S-L, S5735S-L-M, S5735-S, S5735-S-I, S5735S-H, S5736-S, and S5735S-S subseries. The S5700-LI, S5700S-LI, S5700-LI-BAT, S5710-LI, S5720-LI, S5720S-LI, S5735-L, S5735S-L, and S5735S-L-M switches are Layer 2 switches, and all the other models in this series are Layer 3 switches.

5.2 Naming Conventions

Figure 5-1 S5700 switch naming conventions (applicable to V200R013C02 and later versions)

S5730S-H48T4XC-MA

A B C D E F G H I J K L M

 **NOTE**

The device names in this figure are used as examples and do not represent specific devices. The uplink and downlink ports mentioned in this document refer to the recommended usage of the port, and do not indicate that the corresponding port can be used only for the downlink or uplink.

Table 5-1 S5700 switch naming convention description (applicable to V200R013C02 and later versions)

Identifier	Description
A	Product type (1 character) The value is fixed at S, indicating that the device is an S series switch.
B	Role on the network (1 character) <ul style="list-style-type: none"> • 6: aggregation switch • 5: access switch
C	Market positioning (1 character) 7 : switch for enterprise networks
D	Product sub-series (2 characters) The left character indicates the generation, for example, S5720 and S5730. The right character indicates switches of the same series with different specifications, for example, S5720 and S5721.
E	Industry identifier (0 to 2 characters) <ul style="list-style-type: none"> • By default, this field is left empty. • S: channel distribution model
F	Level type (1 character) <ul style="list-style-type: none"> • H: high-level • S: standard • L: lightweight
G	Number of downlink ports (1 or 2 characters)
H	Downlink port type (1 or 3 characters) <ul style="list-style-type: none"> • T: GE electrical port • P: GE electrical port, supporting PoE+ • U: GE electrical port, supporting PoE++ • UM: MultiGE electrical port, supporting PoE++ • XUM: MultiGE electrical port supporting PoE++ or 10GE optical port • X: 10GE optical port • S: GE optical port • Y: 25GE optical port

Identifier	Description
I	Number of uplink ports (1 character)
J	Uplink port type (1 character) <ul style="list-style-type: none"> • S: GE optical port • X: 10GE optical port • C: 100GE optical port • Q: 40GE optical port • Y: 25GE optical port
K	Support for pluggable cards (0 or 1 character) <ul style="list-style-type: none"> • Empty: The switch does not support pluggable cards. • C: The switch supports pluggable cards. NOTE The S5731-H48T4XC-B contains the C flag, but does not support pluggable cards.
L	Special function type (0 or 1 characters) <ul style="list-style-type: none"> • I: The switch supports a wide temperature range. • M: The switch supports monitoring functions. • B: The switch adopts the back-to-front airflow design.
M	Power module type (0 to 2 characters) <ul style="list-style-type: none"> • Empty: The switch uses pluggable power modules. • A: The switches are sold with AC power modules or with built-in AC power modules. • D: The switches are sold with DC power modules or with built-in DC power modules. NOTE This convention is not applicable to the S5735-S4T2X-IA150G1 and S5735-S8P2X-IA200G1.

Figure 5-2 S5700 switch naming conventions (applicable to versions earlier than V200R013C02)

S5700S-52P-PWR-LI-24S-AC

A B C D E F G H I J K

 **NOTE**

The device names in this figure are used as examples and do not represent specific devices. The uplink and downlink ports mentioned in this document refer to the recommended usage of the port, and do not indicate that the corresponding port can be used only for the downlink or uplink.

Table 5-2 S5700 switch naming convention description (applicable to versions earlier than V200R013C02)

Identifier	Description
A	Switch
B	<ul style="list-style-type: none"> ● 6: 10GE downlink ports ● 5: GE downlink ports ● 3: Layer 3 switch with 100M downlink ports ● 2: Layer 2 switch with 100M downlink ports
C	7 : switch for enterprise networks
D	Product sub-series (such as 00 or 10)
E	<ul style="list-style-type: none"> ● S: channel distribution model ● SV2: enhanced channel distribution model ● I: model supporting a wide temperature range
F	Maximum number of ports NOTE On an S5710-EI switch (such as S5710- 28C -EI), this field indicates the maximum number of fixed ports on the switch.
G	Uplink port type: <ul style="list-style-type: none"> ● C: The product supports pluggable cards and its uplink ports are provided by a pluggable card or are fixed 10GE ports. ● PC: The product supports pluggable cards and its uplink ports are provided by a pluggable card or are fixed GE ports. ● X: The product has fixed 10GE uplink ports. ● TP: The uplink ports of the product include combo ports consisting of electrical and optical ports. ● P: The uplink ports of the product are fixed GE optical ports. NOTE If the product name does not contain this field, the switch has no uplink port.
H	<ul style="list-style-type: none"> ● PWR: The product supports Power over Ethernet (PoE). ● PWH: The product supports PoE++. NOTE If the product name does not contain this field, the switch does not support PoE.

Identifier	Description
I	Level type: <ul style="list-style-type: none"> ● LI: lightweight edition ● SI: standard edition ● EI: enhanced edition ● HI: high-end edition, which supports high-performance operation, administration, and maintenance (OAM) and built-in real-time clock (RTC)
J	Downlink port type: <ul style="list-style-type: none"> ● 24S: 24 downlink SFP optical ports ● 48CS: 48 downlink compact SFP (CSFP) optical ports NOTE If the product name does not contain this field, all downlink ports of the switch are electrical ports.
K	Power supply type: <ul style="list-style-type: none"> ● AC or AC1: switch using AC power supply ● ACF: switch using AC power supply and supporting high-power PoE power modules ● ACL: switch using AC power supply and having a built-in low-power PoE power module ● DC or DC1: switch using DC power supply ● BAT: battery LAN switch NOTE Some product models that support pluggable power modules are sold with AC or DC power modules (standard configuration), and their product names contain "-AC" or "-DC". However, the silkscreen or nameplate on the chassis does not contain "-AC" or "-DC". For example, the S5720-56C-HI supports pluggable AC and DC power modules. If its standard configuration includes AC power modules, its product name is S5720-56C-HI-AC, but the name on its silkscreen or nameplate is still S5720-56C-HI.

5.3 Port Numbering Conventions

Physical ports are numbered in the following way:

A single switch uses slot ID/subcard ID/port sequence number to identify physical ports.

- Slot ID: indicates the slot where the switch is located. The value is 0.
- Subcard ID: indicates the ID of a subcard.
- Port sequence number: indicates the sequence number of a port on the switch.

A stacked switch uses stack ID/subcard ID/port sequence number to identify physical ports.

- Stack ID: indicates the ID of a stacked switch. The value ranges from 0 to 8.
- Subcard ID: indicates the ID of a subcard.
- Port sequence number: indicates the sequence number of a port on the switch.

Table 5-3 Port numbering conventions

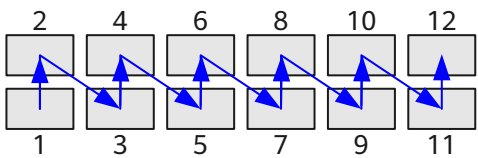
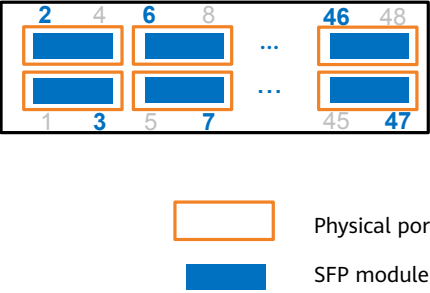
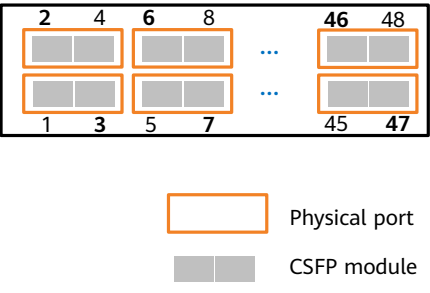
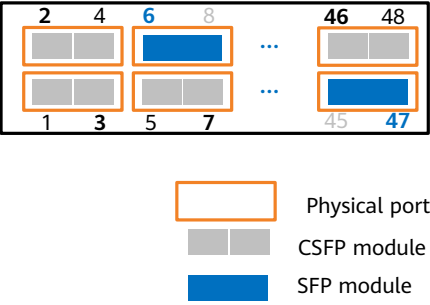
Port Numbering Diagram	Description
	<p>There are two rows of service ports on the device. These ports are numbered from bottom to top and left to right, starting from 1.</p> <p>For example, the port on the top left is numbered 0/0/2.</p> <p>Ports of different speeds are numbered separately. For example, the first 100M port is numbered ethernet 0/0/1, and the first GE port is numbered gigabitethernet 0/0/1. Other 100M and GE ports are numbered in ascending order following the two ports respectively.</p>

Table 5-4 describes the CSFP port numbering conventions.

Table 5-4 CSFP port numbering conventions

Port Numbering Diagram	Description
 <p>Physical port</p> <p>SFP module</p>	<p>For example, an S5700-52X-LI-48CS-AC has 24 physical ports located in two rows of service ports, 12 ports in each row. When all the ports have SFP optical modules installed, the ports are numbered as follows:</p> <ul style="list-style-type: none"> • The ports in the lower row are numbered starting with 3 from left to right, with an increment of 4. • The ports in the upper row are numbered starting with 2 from left to right, with an increment of 4. <p>For example, with SFP optical modules installed, the first port at the lower left of the panel is numbered 0/0/3; the second port at the lower left is numbered 0/0/7; the first port at the upper left is numbered 0/0/2; the second port at the upper left is numbered 0/0/6.</p>
 <p>Physical port</p> <p>CSFP module</p>	<p>When all the ports have CSFP optical modules installed, each port functions as two ports. The switch has a total of 48 ports in this case. These ports are numbered starting with 1 from bottom to top, and left to right.</p> <p>For example, if a CSFP optical module is installed on the first port at the lower left, the port is split into two ports numbered 0/0/1 and 0/0/3. If a CSFP optical module is installed on the first port at the upper left, the port is split into two ports numbered 0/0/2 and 0/0/4.</p>

Port Numbering Diagram	Description
 <p>Physical port</p> <p>CSFP module</p> <p>SFP module</p>	<p>If some ports on the switch use CSFP optical modules and some use SFP optical modules, the ports are numbered following the respective numbering conventions.</p> <p>Assume that the first port at the lower left uses a CSFP optical module and the second port at the upper left uses an SFP optical module. In this case, the two ports derived from the first CSFP port are numbered 0/0/1 and 0/0/3, and the second SFP port is numbered 0/0/6.</p>

5.4 S5700-LI

5.4.1 S5700-10P-LI-AC

Version Mapping

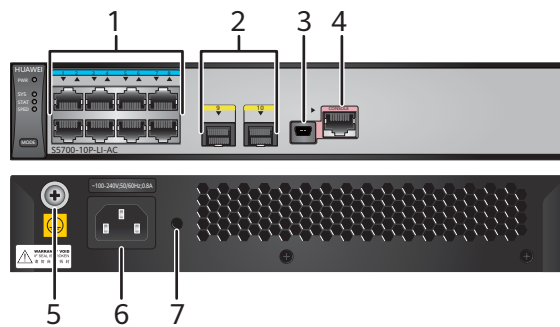
Table 5-5 lists the mapping between the S5700-10P-LI-AC chassis and software versions.

Table 5-5 Version mapping

Series	Model	Software Version
S5700-LI	S5700-10P-LI-AC	V200R002C00 to V200R012C00 versions NOTE This model does not match V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-3 S5700-10P-LI-AC appearance



1	Eight 10/100/1000BASE-T ports	2	Two 1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (applicable in V200R002C00 and later versions, works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s)
3	One mini USB port	4	One console port
5	Ground screw NOTE It is used with a ground cable .	6	AC socket NOTE It is used with an AC power cable .
7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-6** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-6 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-7](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-7 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-8](#).

Table 5-8 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

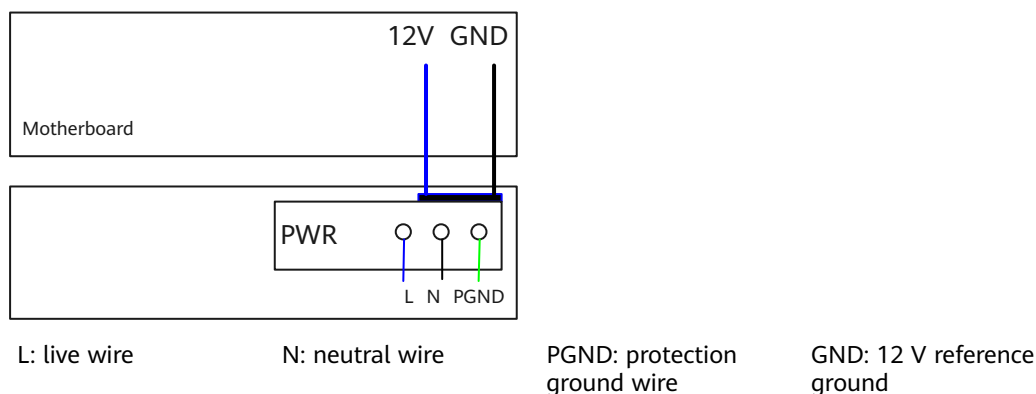
The S5700-10P-LI-AC has similar indicators to those of the S5700-28X-LI-AC, except that the S5700-10P-LI-AC does not have RPS and STCK indicators and two GE optical ports do not support the Speed mode. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-10P-LI-AC has a built-in power module and does not support pluggable power modules.

Figure 5-4 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-4 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700-10P-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

Table 5-9 lists technical specifications of the S5700-10P-LI-AC.

Table 5-9 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB

Item	Description
Mean time between failures (MTBF)	44.41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 250.0 mm x 180.0 mm (1.72 in. x 9.8 in. x 7.1 in.)
Weight (with packaging)	1.3 kg (2.87 lb)
Stack ports	Not supported
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	11.5 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	9.71 W

Item	Description
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02354036

5.4.2 S5700-10P-PWR-LI-AC

Version Mapping

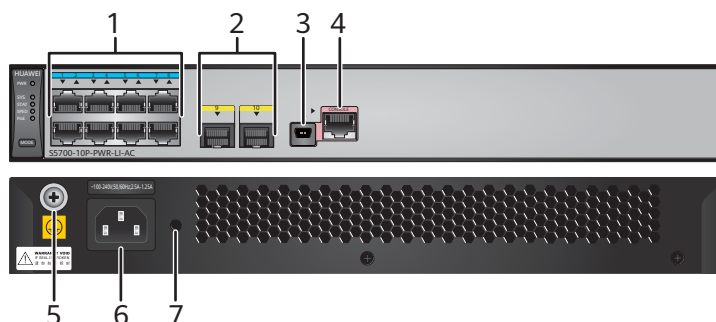
Table 5-10 lists the mapping between the S5700-10P-PWR-LI-AC chassis and software versions.

Table 5-10 Version mapping

Series	Model	Software Version
S5700-LI	S5700-10P-PWR-LI-AC	V200R002C00 to V200R012C00 versions NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-5 S5700-10P-PWR-LI-AC appearance



1	Eight PoE+ 10/100/1000BASE-T ports	2	Two 1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • GE optical module (80 km and 100 km modules not supported) • GE copper module (applicable in V200R002C00 and later versions, works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s)
3	One mini USB port	4	One console port
5	Ground screw NOTE It is used with a ground cable .	6	AC socket NOTE It is used with an AC power cable .
7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-11** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-11 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-12](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-12 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-13](#).

Table 5-13 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

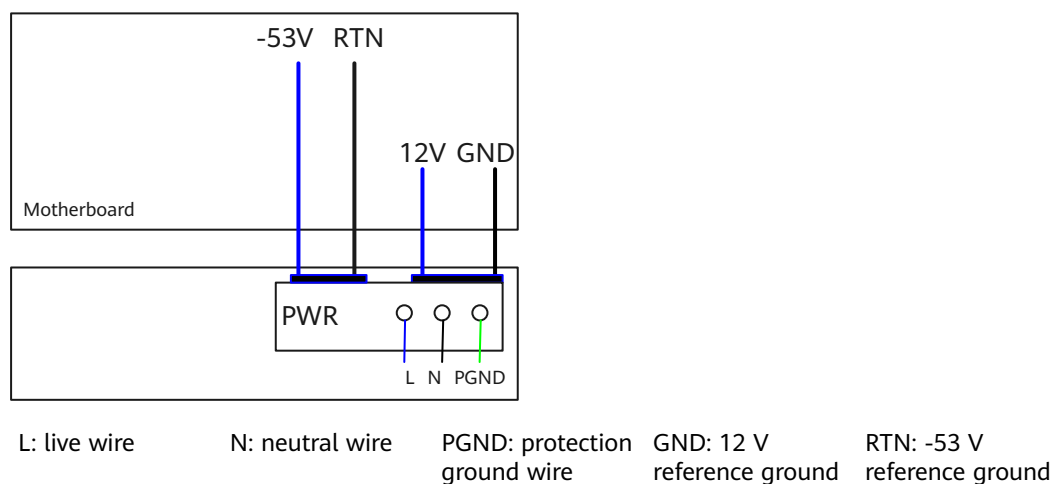
The S5700-10P-PWR-LI-AC has similar indicators to those of the S5700-28X-PWR-LI-AC, except that the S5700-10P-PWR-LI-AC does not have RPS and STCK indicators and two GE optical ports do not support the Speed mode. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-10P-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 124 W PoE power, which ensures full PoE power on 8 ports in compliance with 802.3af or on 4 ports in compliance with 802.3at. The switch cannot connect to an RPS power supply.

Figure 5-6 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 5-6 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5700-10P-PWR-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

Table 5-14 lists technical specifications of the S5700-10P-PWR-LI-AC.

Table 5-14 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	36.89 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 320.0 mm x 220.0 mm (1.72 in. x 12.6 in. x 8.7 in.)
Weight (with packaging)	2.3 kg (5.07 lb)
Stack ports	Not supported
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full PoE)	142.4 W (system power consumption: 18.4 W, PoE: 124 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	13.51 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02354037

5.4.3 S5700-28P-LI-AC

Version Mapping

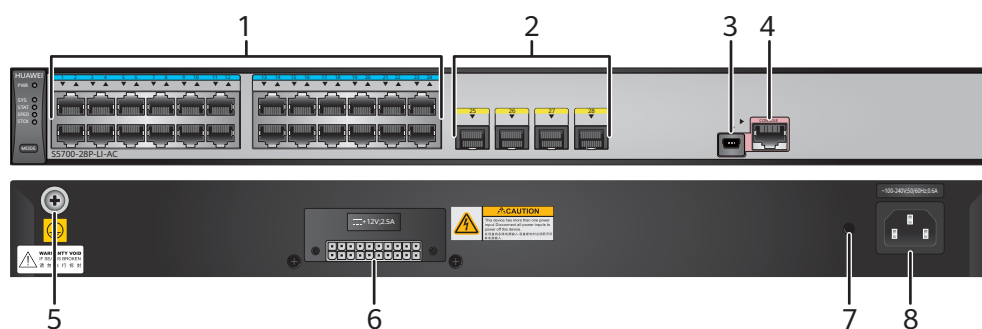
Table 5-15 lists the mapping between the S5700-28P-LI-AC chassis and software versions.

Table 5-15 Version mapping

Series	Model	Software Version
S5700-LI	S5700-28P-LI-AC	V200R001C00 to V200R012C00 versions NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-7 S5700-28P-LI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (applicable in V200R002C00 and later versions, works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection, applicable in V200R007C00 and later versions) • 1 m and 10 m SFP+ copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection, applicable in V200R003C00 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port
5	Ground screw NOTE It is used with a ground cable .	6	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.
7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	AC socket NOTE It is used with an AC power cable .

Port Description

10/100/1000BASE-T Ethernet Electrical Port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-16** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-16 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X Ethernet Optical Port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-17](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-17 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-18](#).

Table 5-18 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

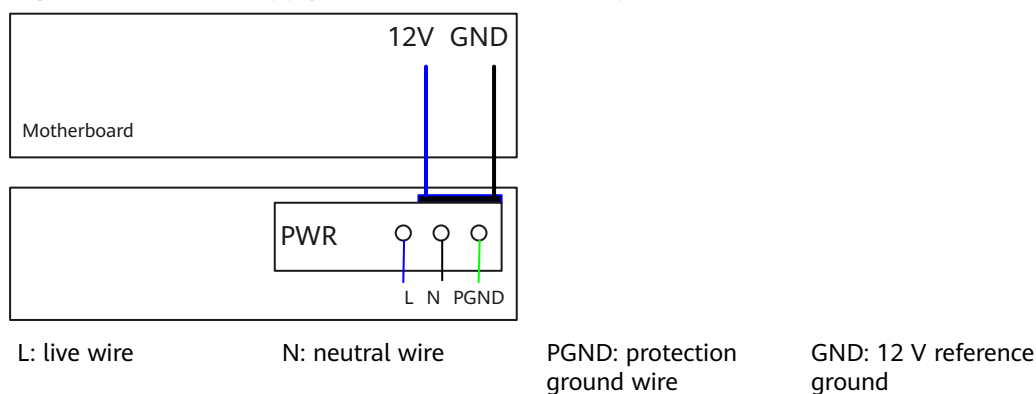
The S5700-28P-LI-AC has similar indicators to those on the S5700-28X-LI-AC, except that the S5700-28P-LI-AC does not have an RPS indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-28P-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

[Figure 5-8](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-8 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700-28P-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

[Table 5-19](#) lists specifications of the S5700-28P-LI-AC.

Table 5-19 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	<ul style="list-style-type: none"> • V200R001: 64 MB • V200R002 and later versions: 200 MB
Mean time between failures (MTBF)	49.69 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	2.8 kg (6.17 lb)
Stack ports	<ul style="list-style-type: none"> • V200R010 and earlier versions: the last two uplink 1000BASE-X optical ports • V200R011 and later versions: four uplink 1000BASE-X optical ports
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	24 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	19.3 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 45°C (32°F to 113°F) when it uses SFP optical modules with 80 km or longer transmission distances.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02353173

5.4.4 S5700-28P-LI-DC

Version Mapping

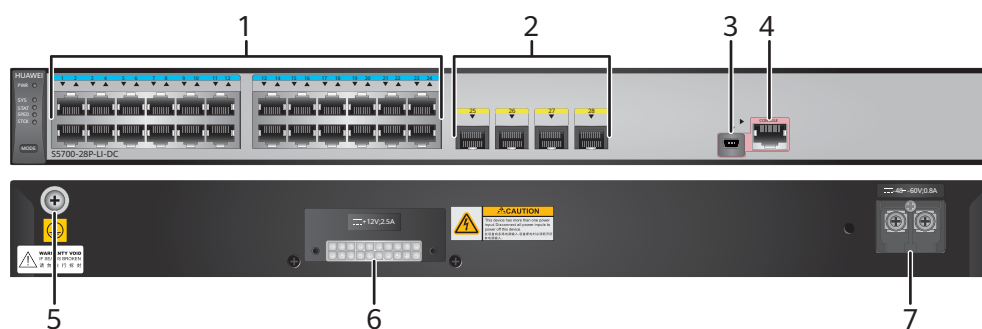
Table 5-20 lists the mapping between the S5700-28P-LI-DC chassis and software versions.

Table 5-20 Version mapping

Series	Model	Software Version
S5700-LI	S5700-28P-LI-DC	V200R001C00 to V200R012C00 versions NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-9 S5700-28P-LI-DC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (applicable in V200R002C00 and later versions, works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection, applicable in V200R007C00 and later versions) • 1 m and 10 m SFP+ copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection, applicable in V200R003C00 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port
5	Ground screw NOTE It is used with a ground cable .	6	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.
7	DC power terminal NOTE It is used together with a DC Power Cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-21** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-21 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-22](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-22 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-23](#).

Table 5-23 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

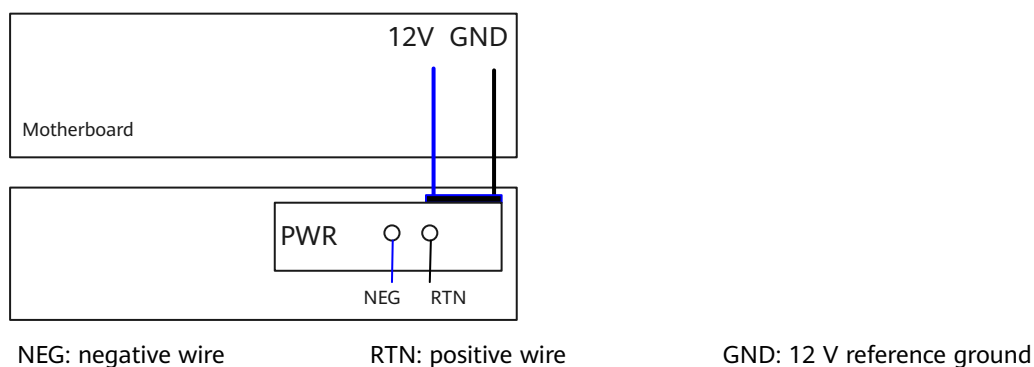
The S5700-28P-LI-DC has similar indicators to those on the S5700-28X-LI-AC, except that the S5700-28P-LI-DC does not have an RPS indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-28P-LI-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

[Figure 5-10](#) shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 5-10 Power supply by a single DC power module



Heat Dissipation

The S5700-28P-LI-DC has no fans and uses natural heat dissipation.

Technical Specifications

[Table 5-24](#) lists technical specifications of the S5700-28P-LI-DC.

Table 5-24 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	<ul style="list-style-type: none"> • V200R001: 64 MB • V200R002 and later versions: 200 MB
Mean time between failures (MTBF)	49.69 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	2.8 kg (6.18 lb)
Stack ports	<ul style="list-style-type: none"> • V200R010 and earlier versions: the last two uplink 1000BASE-X optical ports • V200R011 and later versions: four uplink 1000BASE-X optical ports
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput)	24 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	17.6 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 45°C (32°F to 113°F) when it uses SFP optical modules with 80 km or longer transmission distances.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-3000 m (0-9483 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353831

5.4.5 S5700-28P-PWR-LI-AC

Version Mapping

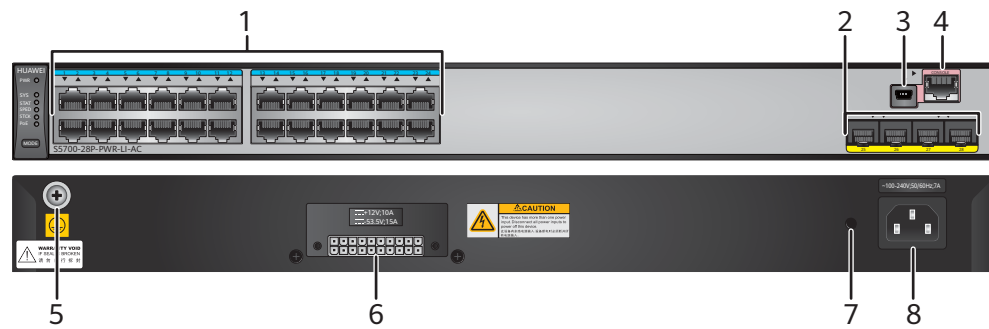
Table 5-25 lists the mapping between the S5700-28P-PWR-LI-AC chassis and software versions.

Table 5-25 Version mapping

Series	Model	Software Version
S5700-LI	S5700-28P-PWR-LI-AC	V200R001C00 to V200R012C00 versions NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-11 S5700-28P-PWR-LI-AC appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (applicable in V200R002C00 and later versions, works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection, applicable in V200R007C00 and later versions) • 1 m and 10 m SFP+ copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection, applicable in V200R003C00 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port
5	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	6	<p>RPS socket</p> <p>NOTE</p> <ul style="list-style-type: none"> • It is used with an RPS cable which is not hot swappable. • A PoE switch can have an RPS power supply connected to this socket to provide inputs for system power supply and PoE power supply. The two inputs are independent of each other. The RPS power supply can also be used as a backup of the system power supply when it does not provide PoE power.

7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	AC socket NOTE It is used with an AC power cable .
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-26](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-26 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-27](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-27 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-28](#).

Table 5-28 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

The S5700-28P-PWR-LI-AC has similar indicators to those on the S5700-28X-PWR-LI-AC, except that the S5700-28P-PWR-LI-AC does not have an RPS indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-28P-PWR-LI-AC has a built-in power module and does not support pluggable power modules.

It can provide PoE power supply and connect to an RPS1800 power supply for power redundancy. [Table 5-29](#) lists its power supply configurations.

Table 5-29 Power supply configurations

Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
No RPS used	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12

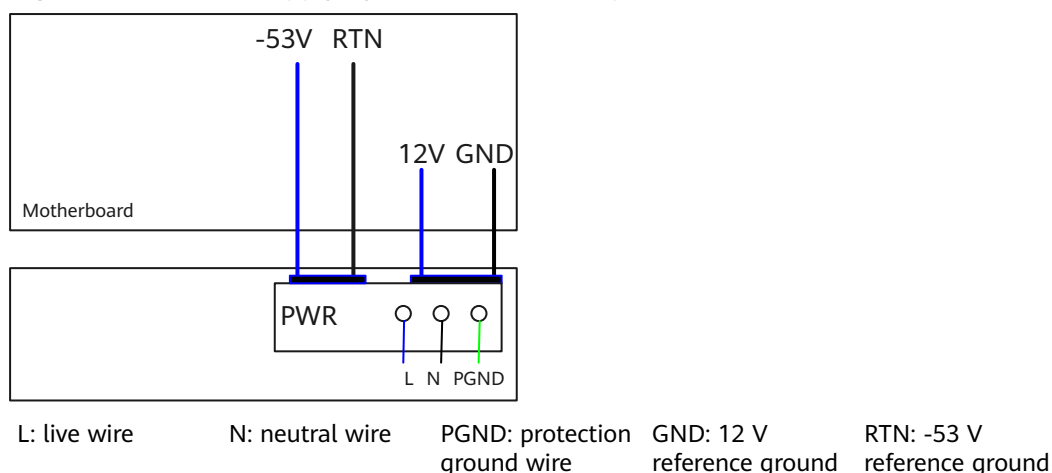
Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
RPS used	<ul style="list-style-type: none"> V200R001: 369.6 W Versions later than V200R001: 800 W 	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

NOTE

When an S5700-28P-PWR-LI-AC switch of V200R001 connects to an RPS1800, the RPS1800 only provides PoE power backup and does not increase the switch's PoE power.

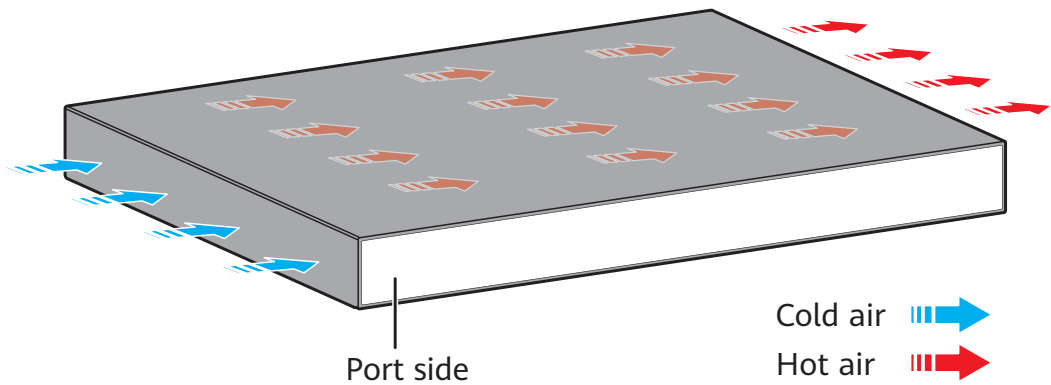
Figure 5-12 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 5-12 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5700-28P-PWR-LI-AC has three built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-30 lists technical specifications of the S5700-28P-PWR-LI-AC.

Table 5-30 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	<ul style="list-style-type: none"> V200R001: 64 MB V200R002 and later versions: 200 MB
Mean time between failures (MTBF)	44.24 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	4 kg (8.82 lb)
Stack ports	<ul style="list-style-type: none"> V200R010 and earlier versions: the last two uplink 1000BASE-X optical ports V200R011 and later versions: four uplink 1000BASE-X optical ports

Item	Description
RTC	Supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	436.5 W (system power consumption: 66.5 W, PoE: 370 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	29.2 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353175

5.4.6 S5700-52P-LI-AC

Version Mapping

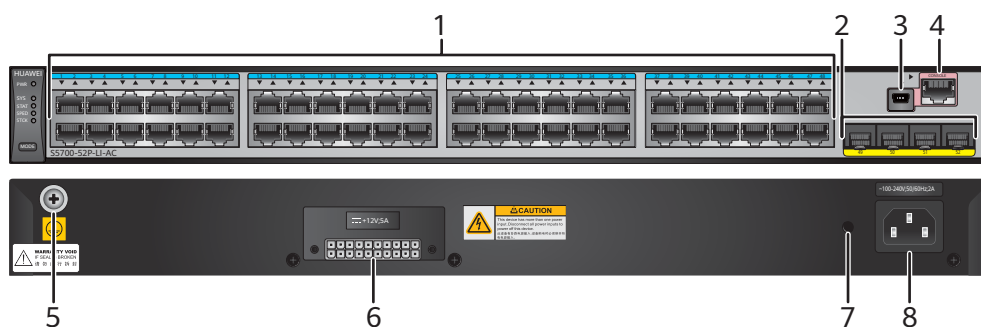
Table 5-31 lists the mapping between the S5700-52P-LI-AC chassis and software versions.

Table 5-31 Version mapping

Series	Model	Software Version
S5700-LI	S5700-52P-LI-AC	V200R001C00 to V200R012C00 versions NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-13 S5700-52P-LI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (applicable in V200R002C00 and later versions, works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection, applicable in V200R007C00 and later versions) • 1 m and 10 m SFP+ copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection, applicable in V200R003C00 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port
5	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	6	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>
7	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>	8	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 5-32](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-32 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-33](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-33 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-34](#).

Table 5-34 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

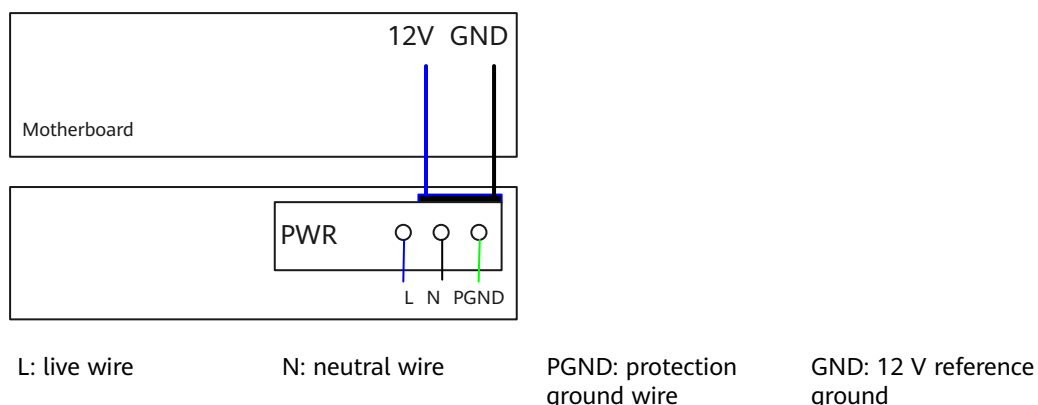
The S5700-52P-LI-AC has similar indicators to those on the S5700-28X-LI-AC, except that the S5700-52P-LI-AC does not have an RPS indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-52P-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

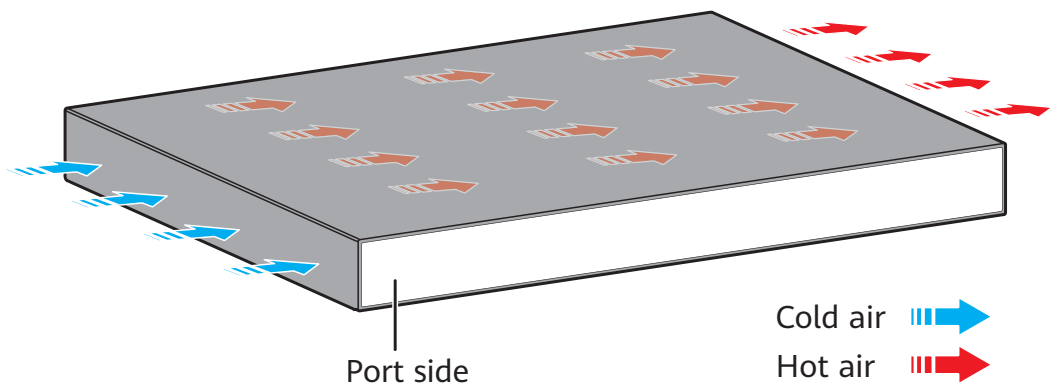
[Figure 5-14](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-14 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700-52P-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-35 lists technical specifications of the S5700-52P-LI-AC.

Table 5-35 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	<ul style="list-style-type: none"> V200R001: 64 MB V200R002 and later versions: 200 MB
Mean time between failures (MTBF)	39.26 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	3.5 kg (7.72 lb)
Stack ports	<ul style="list-style-type: none"> V200R010 and earlier versions: the last two uplink 1000BASE-X optical ports V200R011 and later versions: four uplink 1000BASE-X optical ports

Item	Description
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	48.4 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	32.5 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 43.8 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification

Item	Description
Part number	02353174

5.4.7 S5700-52P-LI-DC

Version Mapping

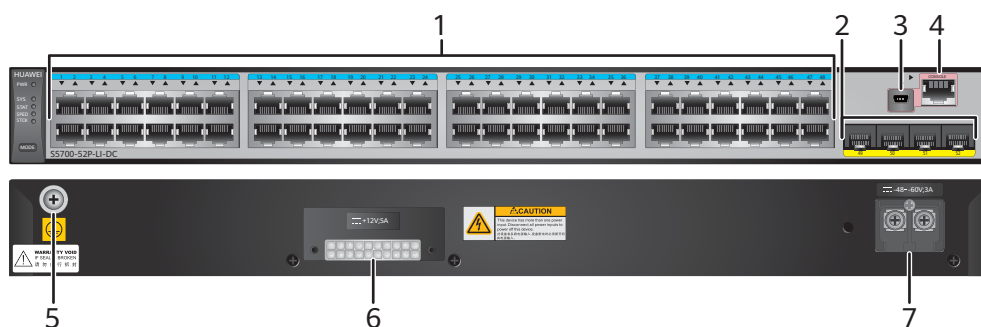
Table 5-36 lists the mapping between the S5700-52P-LI-DC chassis and software versions.

Table 5-36 Version mapping

Series	Model	Software Version
S5700-LI	S5700-52P-LI-DC	V200R001C00 to V200R012C00 versions NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-15 S5700-52P-LI-DC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (applicable in V200R002C00 and later versions, works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection, applicable in V200R007C00 and later versions) • 1 m and 10 m SFP+ copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection, applicable in V200R003C00 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port
5	Ground screw NOTE It is used with a ground cable .	6	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.
7	DC power terminal NOTE It is used together with a DC Power Cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 5-37](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-37 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-38](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-38 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-39](#).

Table 5-39 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

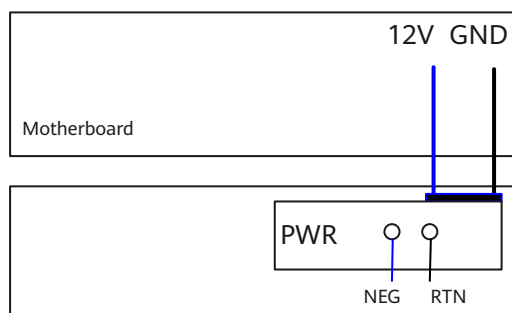
The S5700-52P-LI-DC has similar indicators to those on the S5700-28X-LI-AC, except that the S5700-52P-LI-DC does not have an RPS indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-52P-LI-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

[Figure 5-16](#) shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 5-16 Power supply by a single DC power module



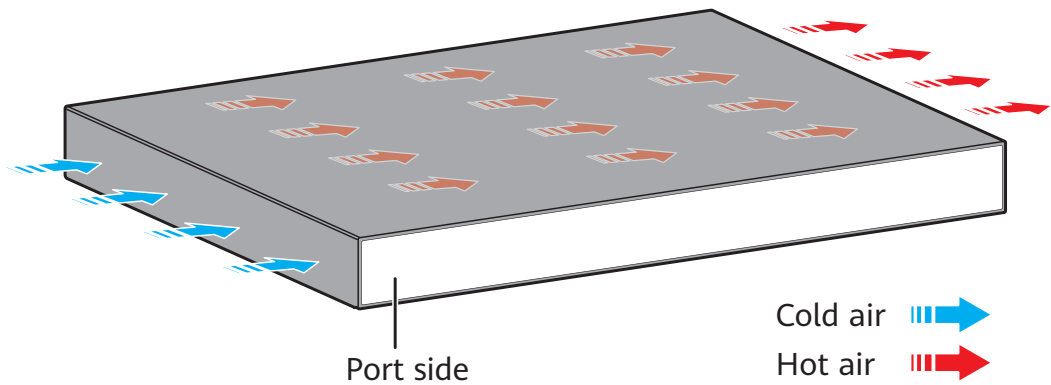
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Heat Dissipation

The S5700-52P-LI-DC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-40 lists technical specifications of the S5700-52P-LI-DC.

Table 5-40 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	<ul style="list-style-type: none"> V200R001: 64 MB V200R002 and later versions: 200 MB
Mean time between failures (MTBF)	39.26 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	3.5 kg (7.72 lb)
Stack port	<ul style="list-style-type: none"> V200R010 and earlier versions: the last two uplink 1000BASE-X optical ports V200R011 and later versions: four uplink 1000BASE-X optical ports

Item	Description
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	48.3 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	30.3 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 43.8 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification

Item	Description
Part number	02353830

5.4.8 S5700-52P-PWR-LI-AC

Version Mapping

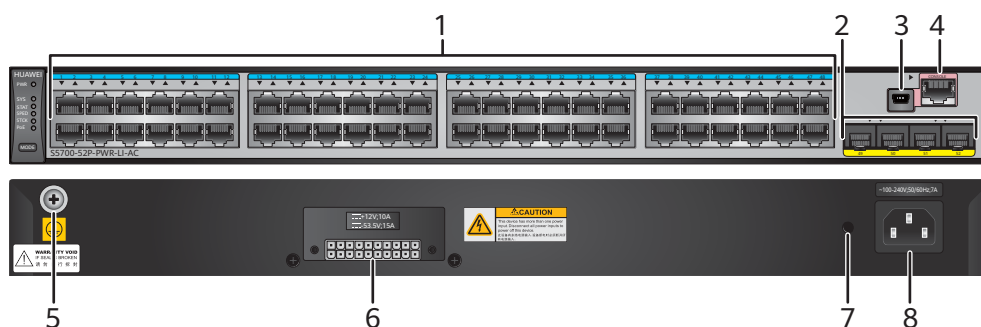
Table 5-41 lists the mapping between the S5700-52P-PWR-LI-AC chassis and software versions.

Table 5-41 Version mapping

Series	Model	Software Version
S5700-LI	S5700-52P-PWR-LI-AC	V200R001C00 to V200R012C00 versions NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-17 S5700-52P-PWR-LI-AC appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module (applicable in V200R002C00 and later versions, works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s)• Stack optical module (only used for stack connection, applicable in V200R007C00 and later versions)• 1 m and 10 m SFP+ copper cables (only used for stack connection)• 3 m and 10 m AOC cables (only used for stack connection, applicable in V200R003C00 and later versions)• 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port
5	Ground screw NOTE It is used with a ground cable .	6	RPS socket NOTE <ul style="list-style-type: none">• It is used with an RPS cable which is not hot swappable.• A PoE switch can have an RPS power supply connected to this socket to provide inputs for system power supply and PoE power supply. The two inputs are independent of each other. The RPS power supply can also be used as a backup of the system power supply when it does not provide PoE power.

7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	AC socket NOTE It is used with an AC power cable .
---	--	---	---

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-42](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-42 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-43](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-43 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-44](#).

Table 5-44 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

The S5700-52P-PWR-LI-AC has similar indicators to those on the S5700-28X-PWR-LI-AC, except that the S5700-52P-PWR-LI-AC does not have an RPS indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-52P-PWR-LI-AC has a built-in power module and does not support pluggable power modules.

It can provide PoE power supply and connect to an RPS1800 power supply for power redundancy. [Table 5-45](#) lists its power supply configurations.

Table 5-45 Power supply configurations

Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
No RPS used	369.6 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 12

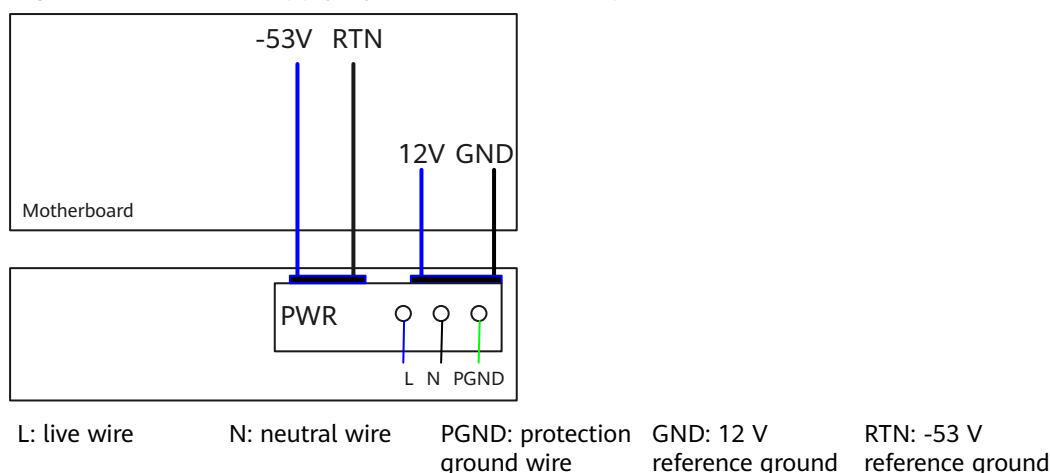
Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
RPS used	<ul style="list-style-type: none"> V200R001: 369.6 W Versions later than V200R001: 800 W 	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 26

NOTE

When an S5700-52P-PWR-LI-AC switch of V200R001 connects to an RPS1800, the RPS1800 only provides PoE power backup and does not increase the switch's PoE power.

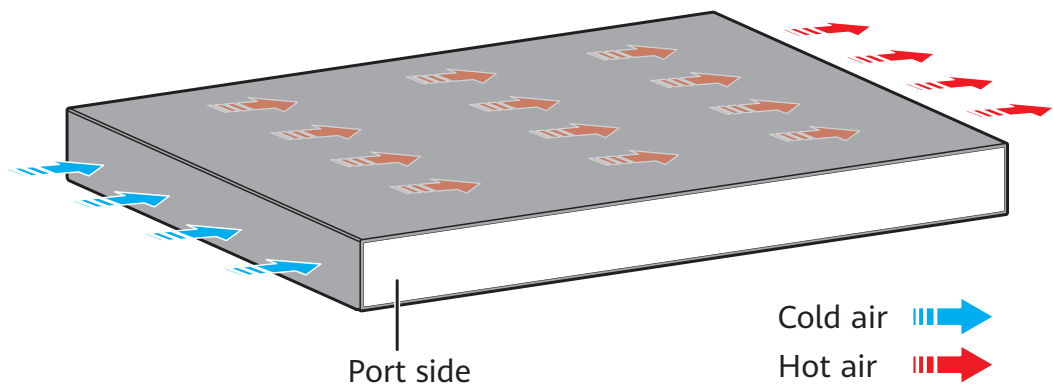
Figure 5-18 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 5-18 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5700-52P-PWR-LI-AC has three built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-46 lists technical specifications of the S5700-52P-PWR-LI-AC.

Table 5-46 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	<ul style="list-style-type: none"> V200R001: 64 MB V200R002 and later versions: 200 MB
Mean time between failures (MTBF)	35.70 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	6 kg (13.23 lb)
Stack port	<ul style="list-style-type: none"> V200R010 and earlier versions: the last two uplink 1000BASE-X optical ports V200R011 and later versions: four uplink 1000BASE-X optical ports

Item	Description
RTC	Supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	464.5 W (system power consumption: 94.5 W, PoE: 370 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	41.2 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353176

5.4.9 S5700-28TP-LI-AC

Version Mapping

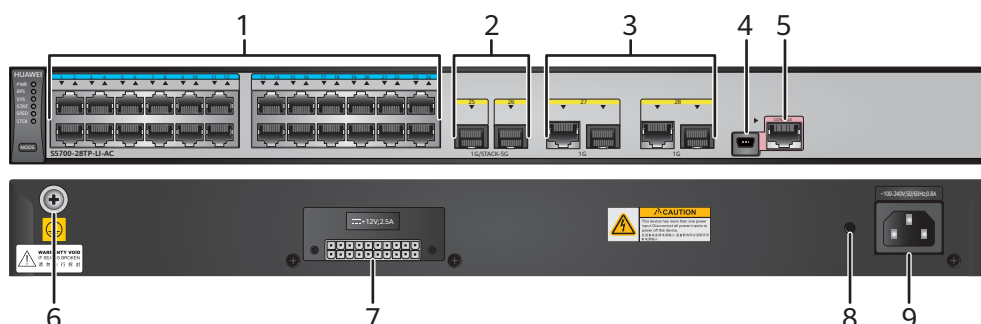
Table 5-47 lists the mapping between the S5700-28TP-LI-AC chassis and software versions.

Table 5-47 Version mapping

Series	Model	Software Version
S5700-LI	S5700-28TP-LI-AC	V200R003C10 to V200R012C00 versions NOTE This model does not match V200R005C00, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-19 S5700-28TP-LI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Two 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection, applicable in V200R007C00 and later versions) • 1 m and 10 m SFP+ copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	Two combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module 	4	One mini USB port
5	One console port	6	Ground screw NOTE It is used with a ground cable .
7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.

9	AC socket	-	-
	NOTE It is used with an AC power cable .		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-48](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-48 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-49](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-49 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one

internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-50](#).

Table 5-50 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

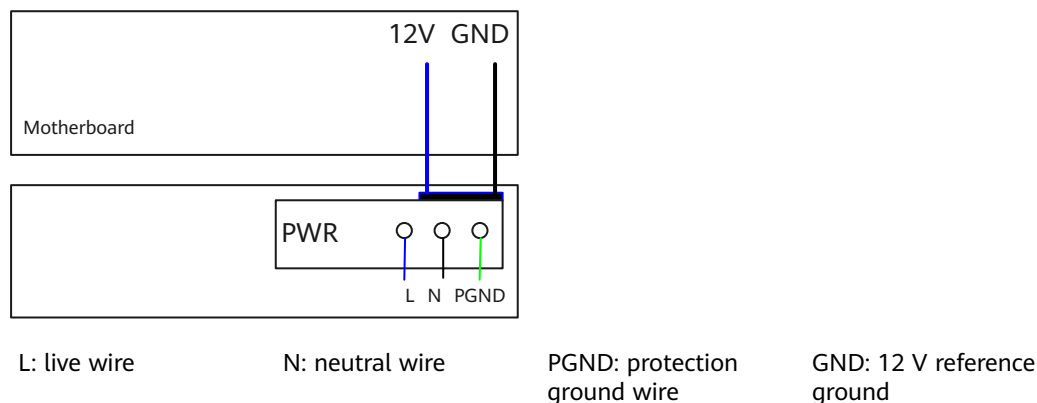
The S5700-28TP-LI-AC has the same types of indicators as the S5700-28X-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-28TP-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

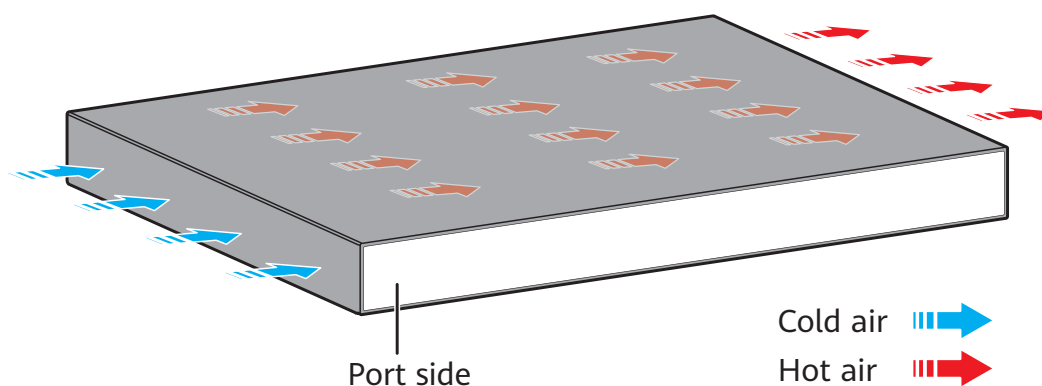
Figure 5-20 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-20 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700-28TP-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-51 lists technical specifications of the S5700-28TP-LI-AC.

Table 5-51 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	65.66 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	4.1 kg (9.04 lb)
Stack ports	Two uplink 1000BASE-X optical ports (non-combo ports)
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	26.4 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	23.4 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 39.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010536

5.4.10 S5700-28TP-PWR-LI-AC

Version Mapping

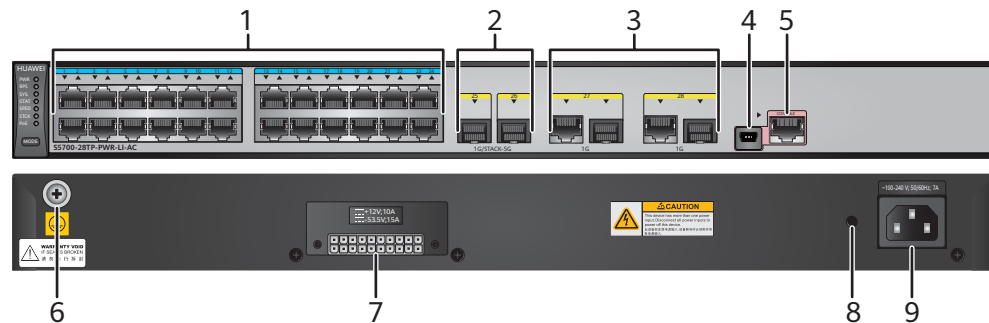
[Table 5-52](#) lists the mapping between the S5700-28TP-PWR-LI-AC chassis and software versions.

Table 5-52 Version mapping

Series	Model	Software Version
S5700-LI	S5700-28TP-PWR-LI-AC	V200R003C10 to V200R012C00 versions NOTE This model does not match V200R005C00, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-21 S5700-28TP-PWR-LI-AC appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Two 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection, applicable in V200R007C00 and later versions) • 1 m and 10 m SFP+ copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	Two combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module 	4	One mini USB port
5	One console port	6	Ground screw NOTE It is used with a ground cable .

7	RPS socket NOTE <ul style="list-style-type: none">It is used with an RPS cable which is not hot swappable.A PoE switch can have an RPS power supply connected to this socket to provide inputs for system power supply and PoE power supply. The two inputs are independent of each other. The RPS power supply can also be used as a backup of the system power supply when it does not provide PoE power.	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-53** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-53 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. **Table 5-54** describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-54 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-55](#).

Table 5-55 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

The S5700-28TP-PWR-LI-AC has the same types of indicators as the S5700-28X-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

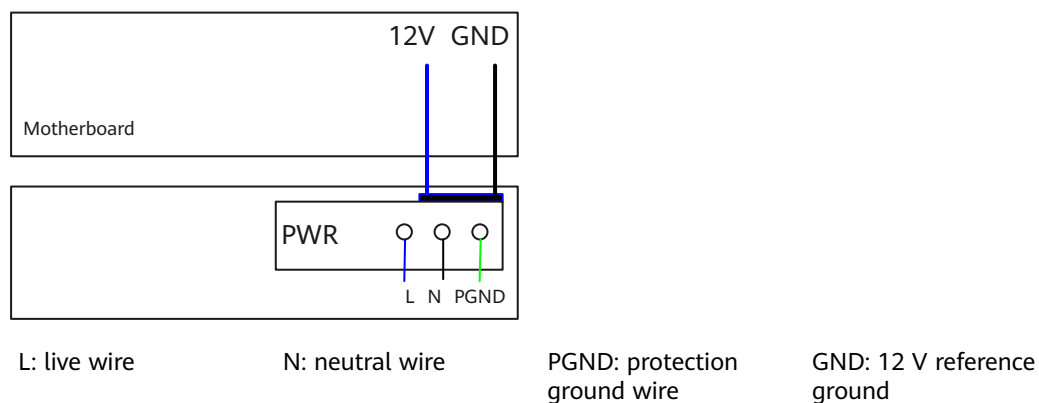
The S5700-28TP-PWR-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy. [Table 5-56](#) lists its power supply configurations.

Table 5-56 Power supply configurations

Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
No RPS used	369.6 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 12
RPS used	800 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 24

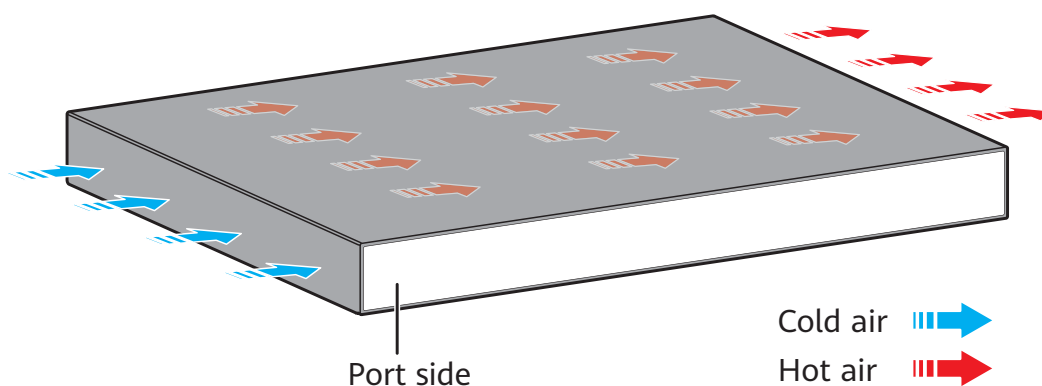
[Figure 5-22](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-22 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700-28TP-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-57 lists technical specifications of the S5700-28TP-PWR-LI-AC.

Table 5-57 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	46.2 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	5.8 kg (12.79 lb)
Stack ports	Two uplink 1000BASE-X optical ports (non-combo ports)
RTC	Supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	469.7 W (system power consumption: 99.7 W, PoE: 370 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	32 W

Item	Description
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 48 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010537

5.4.11 S5701-28TP-PWR-LI-AC

Version Mapping

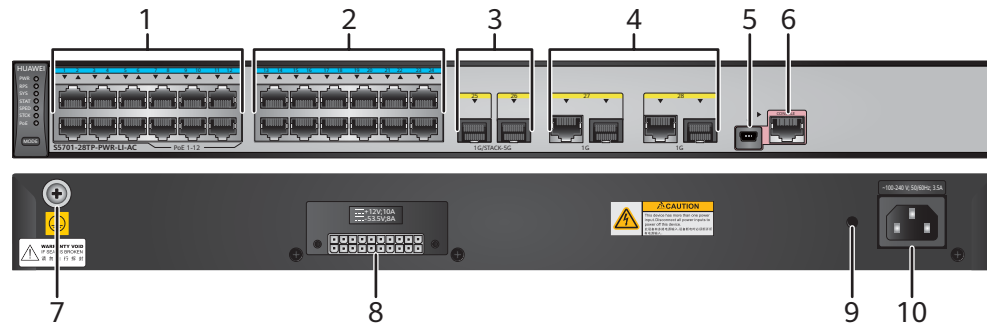
Table 5-58 lists the mapping between the S5701-28TP-PWR-LI-AC chassis and software versions.

Table 5-58 Version mapping

Series	Model	Software Version
S5700-LI	S5701-28TP-PWR-LI-AC	V200R003C10 to V200R012C00 versions NOTE This model does not match V200R005C00, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-23 S5701-28TP-PWR-LI-AC appearance



1	Twelve PoE+ 10/100/1000BASE-T ports	2	Twelve 10/100/1000BASE-T ports
3	Two 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection, applicable in V200R007C00 and later versions) • 1 m and 10 m SFP+ copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) 	4	Two combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
5	One mini USB port	6	One console port

7	Ground screw NOTE It is used with a ground cable .	8	RPS socket NOTE <ul style="list-style-type: none"> It is used with an RPS cable which is not hot swappable. A PoE switch can have an RPS power supply connected to this socket to provide inputs for system power supply and PoE power supply. The two inputs are independent of each other. The RPS power supply can also be used as a backup of the system power supply when it does not provide PoE power.
9	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	10	AC socket NOTE It is used with an AC power cable .

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-59** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-59 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. **Table 5-60** describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-60 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-61](#).

Table 5-61 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

The S5701-28TP-PWR-LI-AC has the same types of indicators as the S5700-28X-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

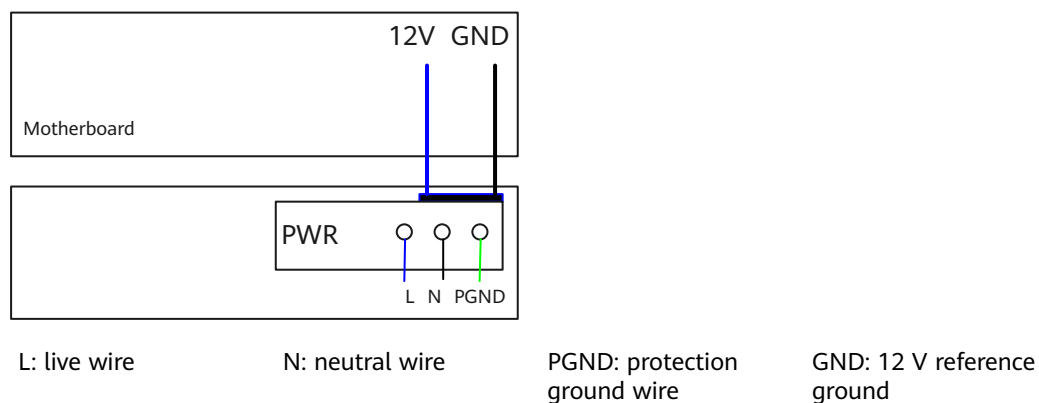
The S5701-28TP-PWR-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy. [Table 5-62](#) lists its power supply configurations.

Table 5-62 Power supply configurations

Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
No RPS used	184.8 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 12 ● 802.3at (30 W per port): 6
RPS used	184.8 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 12 ● 802.3at (30 W per port): 6

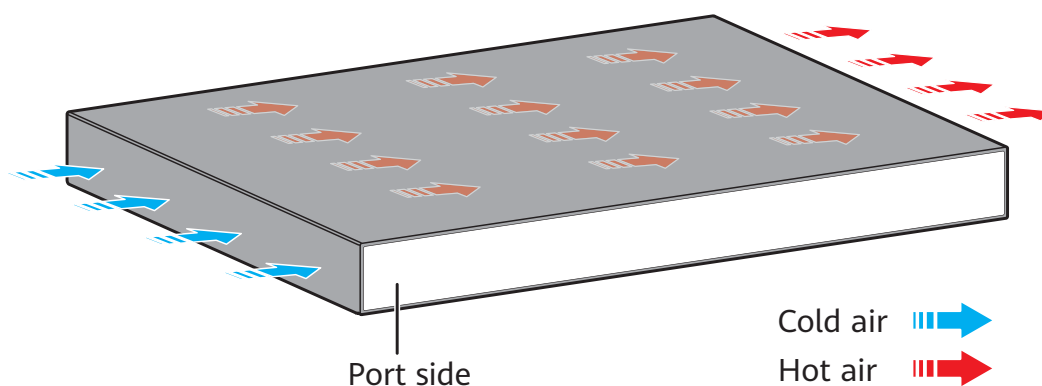
[Figure 5-24](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-24 Power supply mode of a built-in AC power module



Heat Dissipation

The S5701-28TP-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-63 lists technical specifications of the S5701-28TP-PWR-LI-AC.

Table 5-63 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	45.91 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	5.7 kg (12.57 lb)
Stack ports	Two uplink 1000BASE-X optical ports (non-combo ports)
RTC	Supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	238.7 W (system power consumption: 53.9 W, PoE: 184.8 W)
Typical power consumption (30% of traffic load)	29 W
	<ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption

Item	Description
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 45 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010538

5.4.12 S5700-28X-LI-AC

Version Mapping

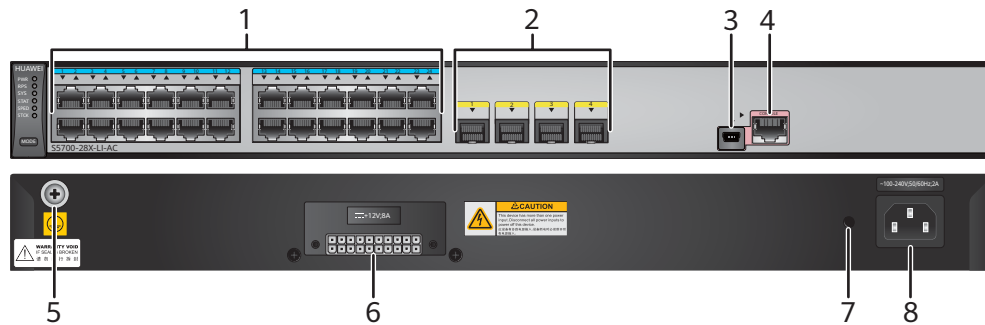
Table 5-64 lists the mapping between the S5700-28X-LI-AC chassis and software versions.

Table 5-64 Version mapping

Series	Model	Software Version
S5700-LI	S5700-28X-LI-AC	V200R002C00 to V200R012C00 versions NOTE This model does not match V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-25 S5700-28X-LI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port

5	Ground screw NOTE It is used with a ground cable .	6	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.
7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	AC socket NOTE It is used with an AC power cable .

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-65** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-65 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. **Table 5-66** describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-66 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-67](#).

Table 5-67 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

NOTE

In V200R007 and later versions, you can hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore to the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-26 Indicators on the S5700-28X-LI-AC

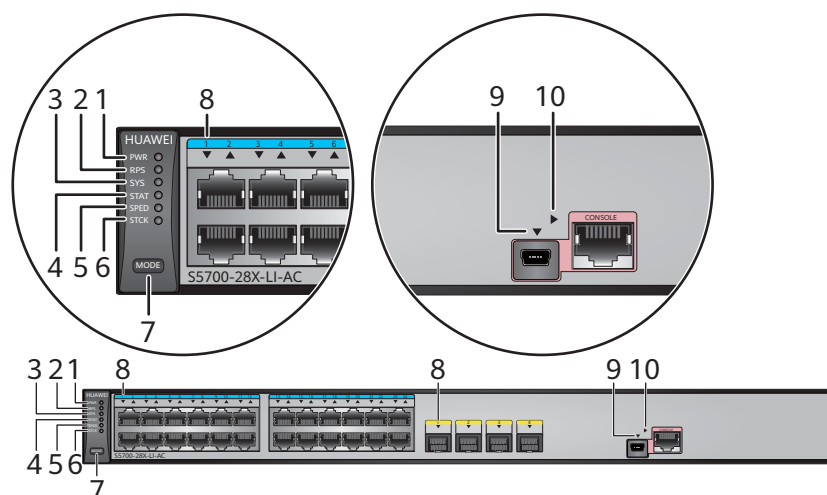


Table 5-68 Description of indicators on the switch

Number	Indicator/ Button	Color	Description
1	PWR: internal power supply indicator	-	Off: The switch is powered off.
		Green	Steady on: The switch is powered on.
		Yellow	Steady on: The built-in power module is faulty, and the switch is powered by the RPS system.
2	RPS: RPS power supply indicator	-	Off: No RPS is connected to the switch.
		Green	<ul style="list-style-type: none"> Steady on: The RPS is in cold backup state. Blinking: The RPS is providing power for another device.
		Yellow	Blinking: The RPS is providing power for the switch and the built-in power module of the switch is faulty.
3	SYS: system status indicator	-	Off: The system is not running.

Number	Indicator/Button	Color	Description
		Green	<p>Fast blinking:</p> <ul style="list-style-type: none"> The system is starting. The system is copying the system software and configuration file from a USB flash drive during a USB-based upgrade (only applicable to S5701-28X-LI-AC). <p>Slow blinking: The system is running normally.</p>
		Yellow	<p>Blinking:</p> <ul style="list-style-type: none"> The switch is in sleeping mode. During a USB-based upgrade, this indicator blinks after the switch downloads required files and restarts. At this time, the upgrade is successful and you can remove the USB flash drive (only applicable to S5701-28X-LI-AC). <p>NOTE The system can wake from the sleeping state if you press the MODE button. The S5700-10P-LI-AC does not support the sleeping function.</p>
		Red	<ul style="list-style-type: none"> Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated. Blinking: The system cannot be upgraded after a USB flash drive is inserted. The USB-based upgrade failed (only applicable to S5701-28X-LI-AC).
4	STAT: status indicator	Green	<ul style="list-style-type: none"> Off: The status mode is not selected. Steady on: The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.

Number	Indicator/ Button	Color	Description
5	SPED: speed indicator	Green	<ul style="list-style-type: none"> Off: The speed mode is not selected. Steady on: The speed mode is selected. If the speed mode is selected, the service port indicator shows the port speed state. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK: stack indicator NOTE This indicator has different states and meanings in different versions. Here are the indicator states and meaning in versions earlier than V200R003C00.	Green	<ul style="list-style-type: none"> Off: The stack mode is not selected. Steady on: The service port indicators show the stack information. After 45 seconds, the service port indicators automatically restore to the status mode. Blinking: The switch is the master switch in a stack or a standalone switch.
	STCK: stack indicator NOTE This indicator has different states and meanings in different versions. Here are the indicator states and meaning in V200R003C00 and later versions.	Green	If you are not changing the indicator mode (default): <ul style="list-style-type: none"> Off: The switch is in stack standby or slave state or the stacking function is not enabled on the switch. Blinking: The switch is a stack master switch or a standalone switch with the stacking function enabled.

Number	Indicator/Button	Color	Description
			<p>If you are changing the indicator mode:</p> <ul style="list-style-type: none">• Off: The stack mode is not selected.• Steady on: The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.• Blinking: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	MODE: mode switch button	-	<ul style="list-style-type: none">• When you press this button once, the service port indicators change to the speed mode and show the speed of each service port.• When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch.• When you press this button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>

Number	Indicator/Button	Color	Description
8	Service port indicator <ul style="list-style-type: none"> • GE electrical ports: The ports are numbered from bottom to top and left to right, starting with 1. • SFP/SFP+ optical ports: Each port has an indicator above it. 		Meanings of service port indicators vary in different modes. For details, see Table 5-69 .
9	Mini USB indicator	Green	<ul style="list-style-type: none"> • Off: The Mini USB port is not active, and the console port is active. • Steady on: The Mini USB port is active. <p>When this indicator is on, the console indicator is off.</p>
10	Console indicator	Green	<ul style="list-style-type: none"> • Off: The console port is not active, and the Mini USB port is active. • Steady on (default): The console port is active. <p>When this LED is on, the Mini USB port indicator is off.</p>

Table 5-69 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.

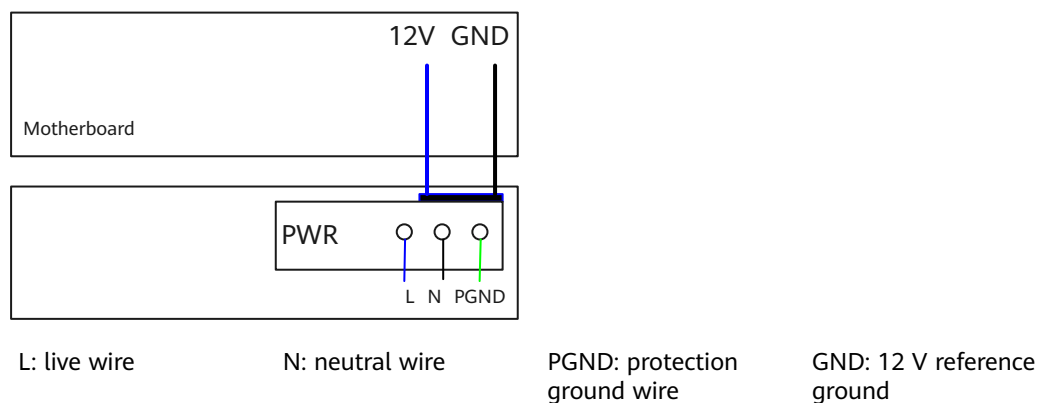
Display Mode	Color	Status	Description
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5700-28X-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

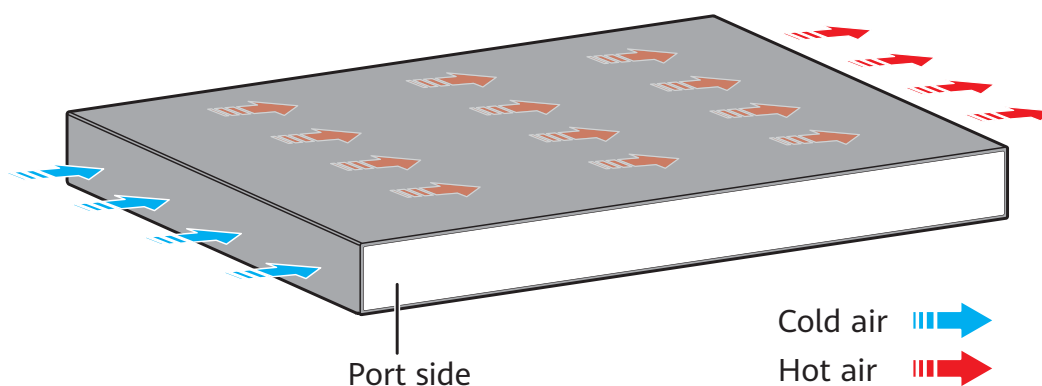
Figure 5-27 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-27 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700-28X-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-70 lists technical specifications of the S5700-28X-LI-AC.

Table 5-70 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	68.95 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	3.4 kg (7.5 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	41 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	29.7 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 44.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02354215

5.4.13 S5700-28X-LI-DC

Version Mapping

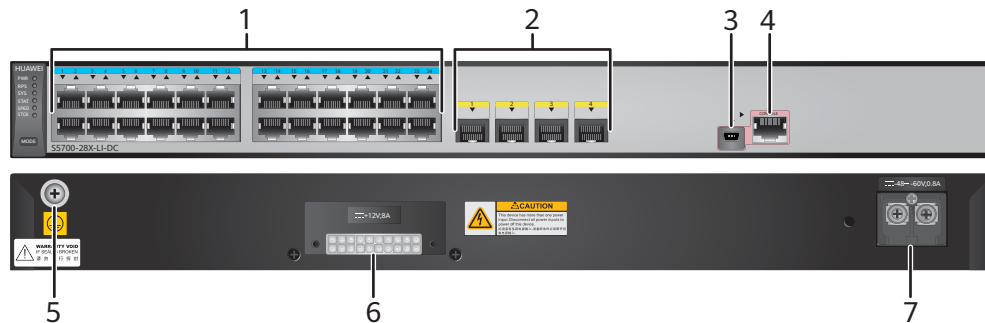
Table 5-71 lists the mapping between the S5700-28X-LI-DC chassis and software versions.

Table 5-71 Version mapping

Series	Model	Software Version
S5700-LI	S5700-28X-LI-DC	V200R002C00 to V200R012C00 versions NOTE This model does not match V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-28 S5700-28X-LI-DC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port

5	Ground screw NOTE It is used with a ground cable .	6	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.
7	DC power terminal NOTE It is used together with a DC Power Cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-72](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-72 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-73](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-73 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-74](#).

Table 5-74 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

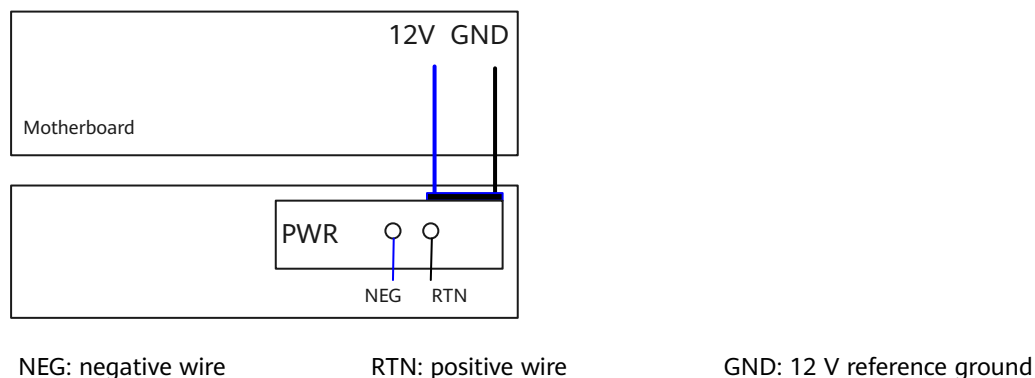
The S5700-28X-LI-DC has the same types of indicators as the S5700-28X-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-28X-LI-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

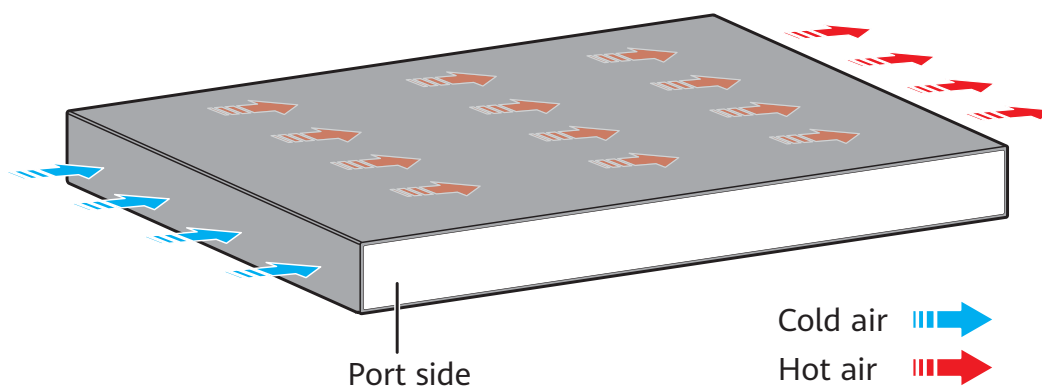
[Figure 5-29](#) shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 5-29 Power supply by a single DC power module



Heat Dissipation

The S5700-28X-LI-DC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-75 lists technical specifications of the S5700-28X-LI-DC.

Table 5-75 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	68.95 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	3.3 kg (7.28 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	42 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	30.7 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 44.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02354234

5.4.14 S5700-28X-PWR-LI-AC

Version Mapping

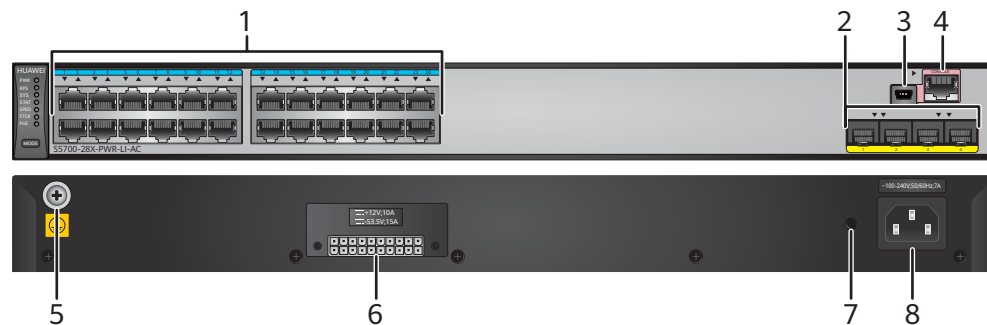
Table 5-76 lists the mapping between the S5700-28X-PWR-LI-AC chassis and software versions.

Table 5-76 Version mapping

Series	Model	Software Version
S5700-LI	S5700-28X-PWR-LI-AC	V200R002C00 to V200R012C00 versions NOTE This model does not match V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-30 S5700-28X-PWR-LI-AC appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port

5	Ground screw NOTE It is used with a ground cable .	6	RPS socket NOTE <ul style="list-style-type: none"> It is used with an RPS cable which is not hot swappable. A PoE switch can have an RPS power supply connected to this socket to provide inputs for system power supply and PoE power supply. The two inputs are independent of each other. The RPS power supply can also be used as a backup of the system power supply when it does not provide PoE power.
7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	AC socket NOTE It is used with an AC power cable .

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-77** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-77 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. **Table 5-78** describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-78 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-79](#).

Table 5-79 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

NOTE

In V200R007 and later versions, you can hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore to the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-31 Indicators on the S5700-28X-PWR-LI-AC

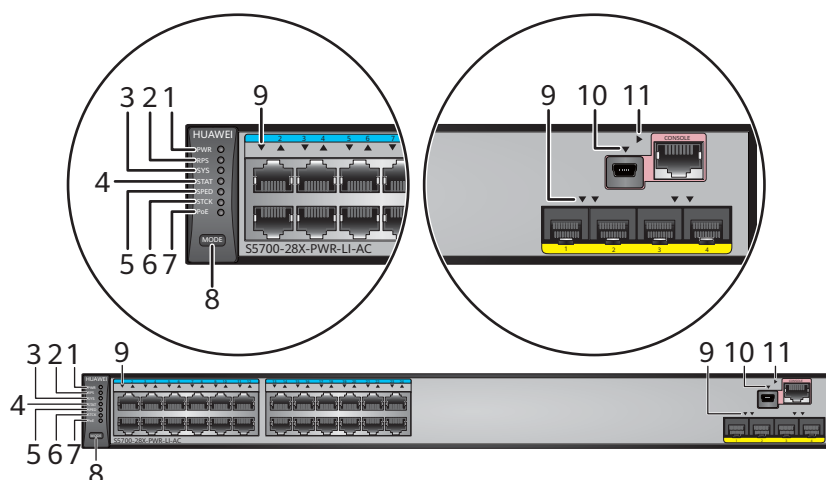


Table 5-80 Description of indicators on the switch

Number	Indicator/ Button	Color	Description
1	PWR: internal power supply indicator	-	Off: The switch is powered off.
		Green	Steady on: The switch is powered on.
		Yellow	Steady on: The built-in power module is faulty, and the switch is powered by the RPS system.
2	RPS: RPS power supply indicator	-	Off: No RPS is connected to the switch.

Number	Indicator/ Button	Color	Description
		Green	<ul style="list-style-type: none"> Steady on: The RPS is in cold backup state or forced power-on state. Blinking: The RPS is providing power for another device.
		Yellow	<ul style="list-style-type: none"> Steady on: The RPS is in alarm state. (No 870 W PoE power module is available in the RPS1800 or the RPS1800 cannot provide power supply to the local switch at this time.) Blinking: The RPS is providing power for the switch and the built-in power module of the switch is faulty.
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> Fast blinking: The system is starting. Slow blinking: The system is running normally.
		Red	Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated.
4	STAT: status indicator	Green	<ul style="list-style-type: none"> Off: The status mode is not selected. Steady on: The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPED: speed indicator	Green	<ul style="list-style-type: none"> Off: The speed mode is not selected. Steady on: The speed mode is selected. If the speed mode is selected, the service port indicator shows the port speed state. After 45 seconds, the service port indicators automatically restore to the status mode.

Number	Indicator/ Button	Color	Description
6	STCK: stack indicator NOTE This indicator has different states and meanings in different versions. Here are the indicator states and meaning in versions earlier than V200R003C00.	Green	<ul style="list-style-type: none"> ● Off: The stack mode is not selected. ● Steady on: The service port indicators show the stack information. After 45 seconds, the service port indicators automatically restore to the status mode. ● Blinking: The switch is the master switch in a stack or a standalone switch.
	STCK: stack indicator NOTE This indicator has different states and meanings in different versions. Here are the indicator states and meaning in V200R003C00 and later versions.	Green	<p>If you are not changing the indicator mode (default):</p> <ul style="list-style-type: none"> ● Off: The switch is in stack standby or slave state or the stacking function is not enabled on the switch. ● Blinking: The switch is a stack master switch or a standalone switch with the stacking function enabled. <p>If you are changing the indicator mode:</p> <ul style="list-style-type: none"> ● Off: The stack mode is not selected. ● Steady on: The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch. ● Blinking: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

Number	Indicator/ Button	Color	Description
7	PoE: PoE indicator	Green	<ul style="list-style-type: none">• Off: The PoE mode is not selected.• Steady on: The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.
8	MODE: mode switch button	-	<ul style="list-style-type: none">• When you press this button once, the service port indicators change to the speed mode and show the speed of each service port.• When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch.• When you press this button a third time, the service port indicators change to PoE mode and show the PoE status of ports.• When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>NOTE On the S5700-52P-PWR-LI-AC and S5700-28P-PWR-LI-AC of the V200R001 version, the indicator switching sequence is Speed -> PoE -> Stack.</p> <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>

Number	Indicator/ Button	Color	Description
9	Service port indicator <ul style="list-style-type: none"> • GE electrical ports: The ports are numbered from bottom to top and left to right, starting with 1. • 10GE optical ports: Each port has an indicator above it. 		Meanings of service port indicators vary in different modes. For details, see Table 5-81 .
10	Mini USB indicator	Green	<ul style="list-style-type: none"> • Off: The Mini USB port is not active, and the console port is active. • Steady on: The Mini USB port is active. <p>When this indicator is on, the console indicator is off.</p>
11	Console indicator	Green	<ul style="list-style-type: none"> • Off: The console port is not active, and the Mini USB port is active. • Steady on (default): The console port is active. <p>When this LED is on, the Mini USB port indicator is off.</p>

Table 5-81 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> • The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. • The total power consumption of PDs has reached the maximum power of the switch. • The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green	Steady on	<p>The switch is not the master switch in a stack.</p> <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	<p>The switch is the master switch in a stack.</p> <ul style="list-style-type: none"> • If the indicator of a port is blinking, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

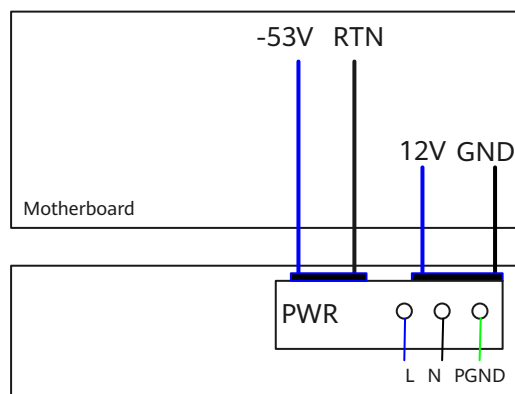
The S5700-28X-PWR-LI-AC has a built-in power module and does not support pluggable power modules. It can provide PoE power supply and connect to an RPS1800 power supply for power redundancy. [Table 5-82](#) lists its power supply configurations.

Table 5-82 Power supply configurations

Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
No RPS used	369.6 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 12
RPS used	800 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24

[Figure 5-32](#) shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

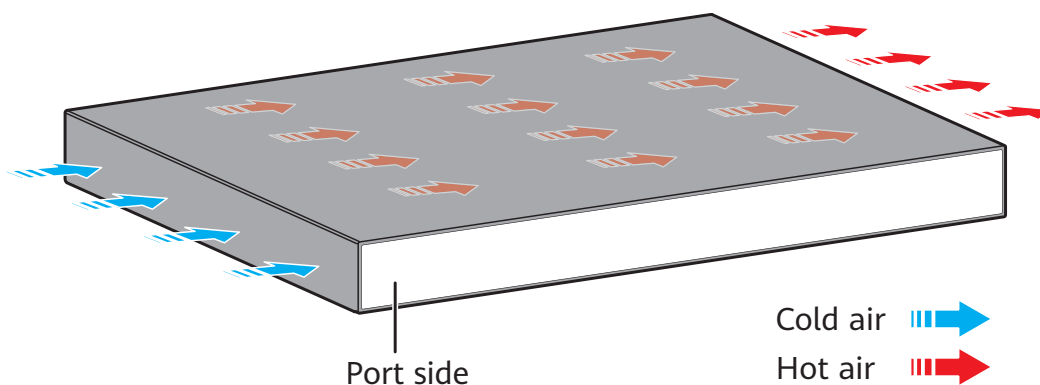
Figure 5-32 Power supply by a built-in AC PoE power module



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5700-28X-PWR-LI-AC has three built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-83 lists technical specifications of the S5700-28X-PWR-LI-AC.

Table 5-83 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB

Item	Description
Mean time between failures (MTBF)	61.53 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	4.7 kg (10.36 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	448.8 W (system power consumption: 78.8 W, PoE: 370 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	39.4 W

Item	Description
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02354217

5.4.15 S5700-28X-LI-24S-AC

Version Mapping

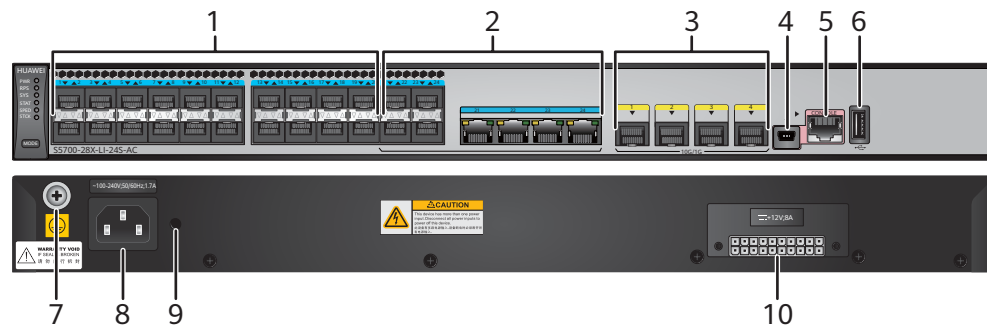
Table 5-84 lists the mapping between the S5700-28X-LI-24S-AC chassis and software versions.

Table 5-84 Version mapping

Series	Model	Software Version
S5700-LI	S5700-28X-LI-24S-AC	V200R003C00 to V200R012C00 versions NOTE This model does not match V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-33 S5700-28X-LI-24S-AC appearance



1	<p>Twenty 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Four combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
---	--	---	---

3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) 	4	One mini USB port
5	One console port	6	One USB port
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>
9	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>	10	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-85](#) describes the attributes of a 100/1000BASE-X port.

Table 5-85 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-86](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-86 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC

Attribute	Description
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-87](#).

Table 5-87 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

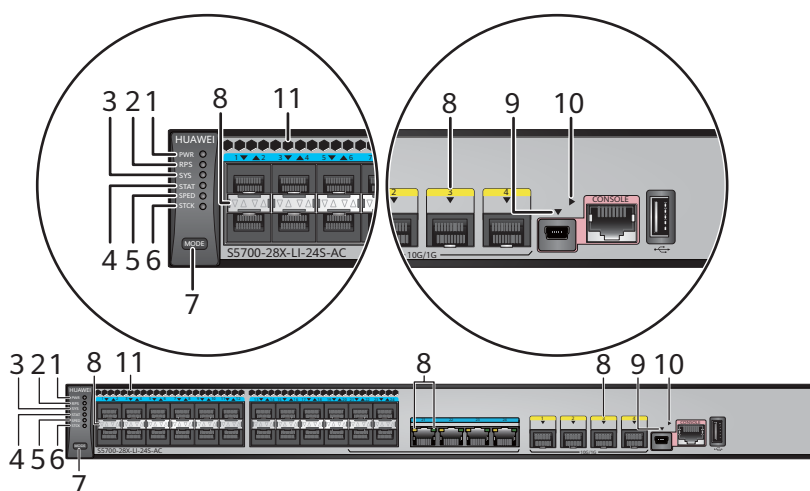
Indicator Description

NOTE

In V200R007 and later versions, you can hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore to the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-34 Indicators on the S5700-28X-LI-24S-AC



NOTE

The S5701-28X-LI-24S-AC, S5700-28X-LI-24S-AC, and S5700-28X-LI-24S-DC have air holes above the 24 optical ports for heat dissipation (numbered 11 in [Figure 5-34](#)). The indicators for the service ports are numbered 8 in [Figure 5-34](#).

Table 5-88 Description of indicators on the switch

Number	Indicator/ Button	Color	Description
1	PWR: internal power supply indicator	-	Off: The switch is powered off.
		Green	Steady on: The switch is powered on.
		Yellow	Steady on: The built-in power module is faulty, and the switch is powered by the RPS system.

Number	Indicator/Button	Color	Description
2	RPS: RPS power supply indicator	-	Off: No RPS is connected to the switch.
		Green	<ul style="list-style-type: none">Steady on: The RPS is in cold backup state.Blinking: The RPS is providing power for another device.
		Yellow	Blinking: The RPS is providing power for the switch and the built-in power module of the switch is faulty.
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none">Fast blinking: The system is starting or is copying the system software and configuration file from a USB flash drive during a USB-based upgrade.Slow blinking: The system is running normally.
		Yellow	Blinking: The switch has restarted after a successful upgrade using a USB flash drive. You can remove the USB flash drive from the switch.
		Red	<ul style="list-style-type: none">Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated.Blinking: The system cannot be upgraded after a USB flash drive is inserted. The USB-based upgrade failed.
4	STAT: status indicator	Green	<ul style="list-style-type: none">Off: The status mode is not selected.Steady on: The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.

Number	Indicator/Button	Color	Description
5	SPED: speed indicator	Green	<ul style="list-style-type: none">• Off: The speed mode is not selected.• Steady on: The speed mode is selected. If the speed mode is selected, the service port indicator shows the port speed state. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK: stack indicator	Green	<p>If you are not changing the indicator mode (default):</p> <ul style="list-style-type: none">• Off: The switch is in stack standby or slave state or the stacking function is not enabled on the switch.• Blinking: The switch is a stack master switch or a standalone switch with the stacking function enabled. <p>If you are changing the indicator mode:</p> <ul style="list-style-type: none">• Off: The stack mode is not selected.• Steady on: The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.• Blinking: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

Number	Indicator/Button	Color	Description
7	MODE: mode switch button	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT mode turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
8	Service port indicator NOTE Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.	Meanings of service port indicators vary in different modes. For details, see Table 5-89 and Table 5-90 .	
9	Mini USB indicator	Green	<ul style="list-style-type: none"> Off: The Mini USB port is not active, and the console port is active. Steady on: The Mini USB port is active. <p>When this indicator is on, the console indicator is off.</p>

Number	Indicator/Button	Color	Description
10	Console indicator	Green	<ul style="list-style-type: none"> Off: The console port is not active, and the Mini USB port is active. Steady on (default): The console port is active. When this LED is on, the Mini USB port indicator is off.

Table 5-89 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green and yellow	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 100M/1000M port: The port is operating at 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green and yellow	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green and yellow	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Table 5-90 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.

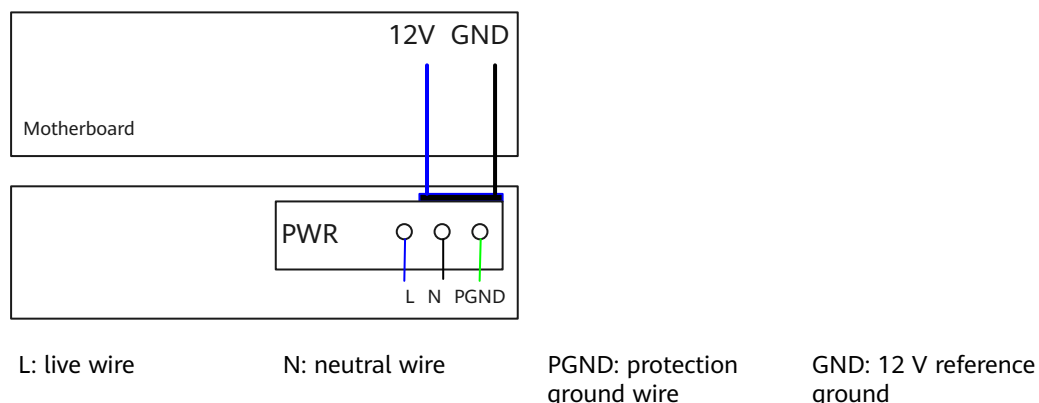
Display Mode	Color	Status	Description
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is blinking, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5700-28X-LI-24S-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

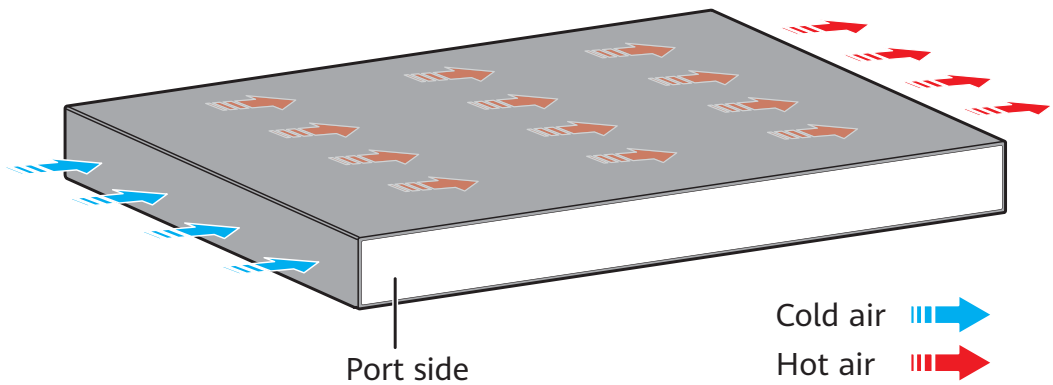
Figure 5-35 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-35 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700-28X-LI-24S-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-91 lists specifications of the S5700-28X-LI-24S-AC.

Table 5-91 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	89.91 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	3.5 kg (7.72 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported
PoE	Not supported

Item	Description
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	60 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	49.7 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.6 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02355271

5.4.16 S5700-28X-LI-24S-DC

Version Mapping

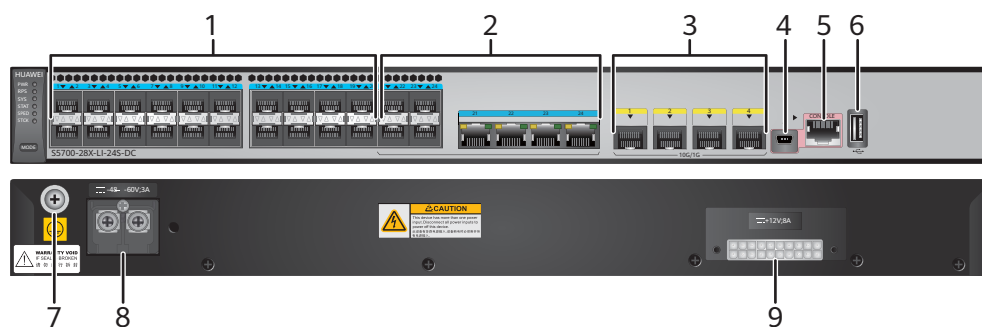
Table 5-92 lists the mapping between the S5700-28X-LI-24S-DC chassis and software versions.

Table 5-92 Version mapping

Series	Model	Software Version
S5700-LI	S5700-28X-LI-24S-DC	V200R003C00 to V200R012C00 versions NOTE This model does not match V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-36 S5700-28X-LI-24S-DC appearance



1	<p>Twenty 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Four combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
---	--	---	---

3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) 	4	One mini USB port
5	One console port	6	One USB port
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>DC power terminal</p> <p>NOTE It is used together with a DC Power Cable.</p>
9	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	-	-

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-93](#) describes the attributes of a 100/1000BASE-X port.

Table 5-93 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-94](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-94 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC

Attribute	Description
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-95](#).

Table 5-95 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

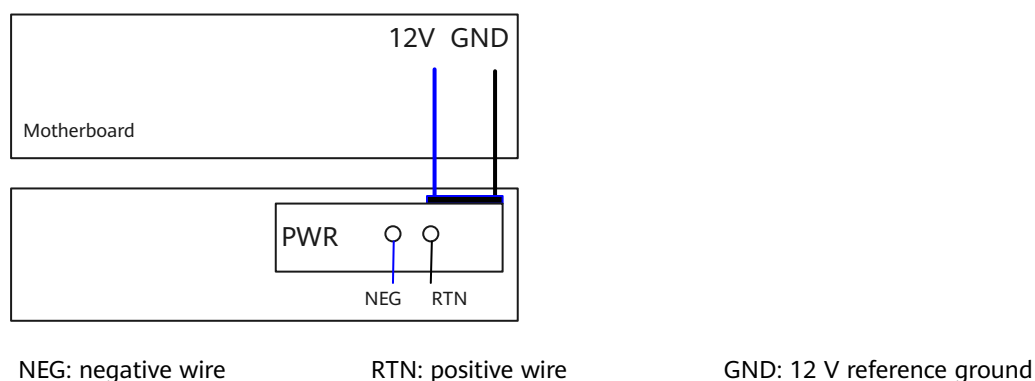
The S5700-28X-LI-24S-DC has the same types of indicators as the S5700-28X-LI-24S-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-28X-LI-24S-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

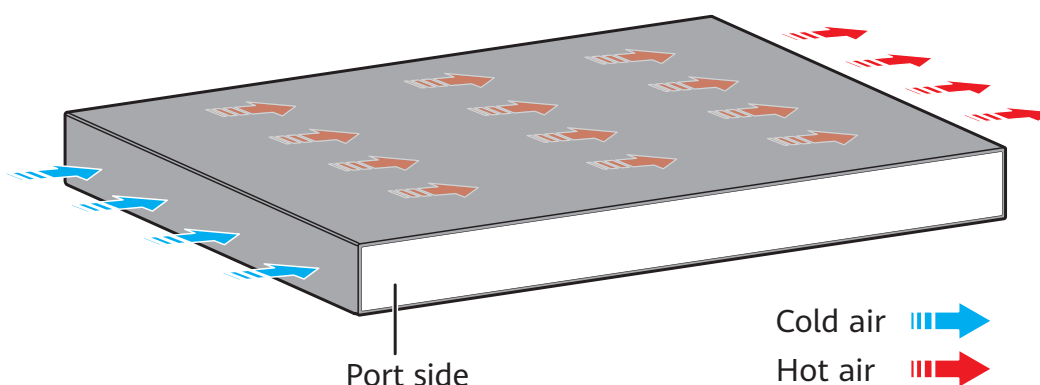
Figure 5-37 shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 5-37 Power supply by a single DC power module



Heat Dissipation

The S5700-28X-LI-24S-DC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-96 lists technical specifications of the S5700-28X-LI-24S-DC.

Table 5-96 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	89.91 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	3.5 kg (7.72 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	57 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	46.9 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.6 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02355303

5.4.17 S5701-28X-LI-AC

Version Mapping

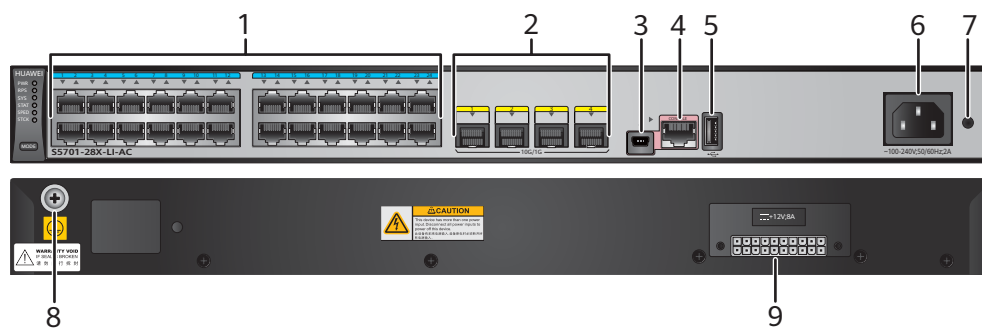
[Table 5-97](#) lists the mapping between the S5701-28X-LI-AC chassis and software versions.

Table 5-97 Version mapping

Series	Model	Software Version
S5700-LI	S5701-28X-LI-AC	V200R003C00 to V200R012C00 versions NOTE This model does not match V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-38 S5701-28X-LI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port
5	One USB port	6	AC socket NOTE It is used with an AC power cable .
7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	Ground screw NOTE It is used with a ground cable .
9	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-98](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-98 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-99](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-99 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-100](#).

Table 5-100 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

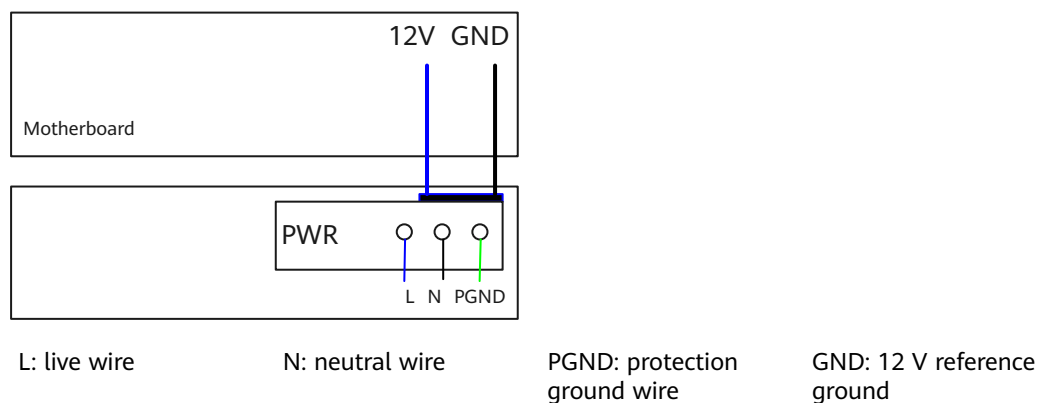
The S5701-28X-LI-AC has the same types of indicators as the S5700-28X-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5701-28X-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

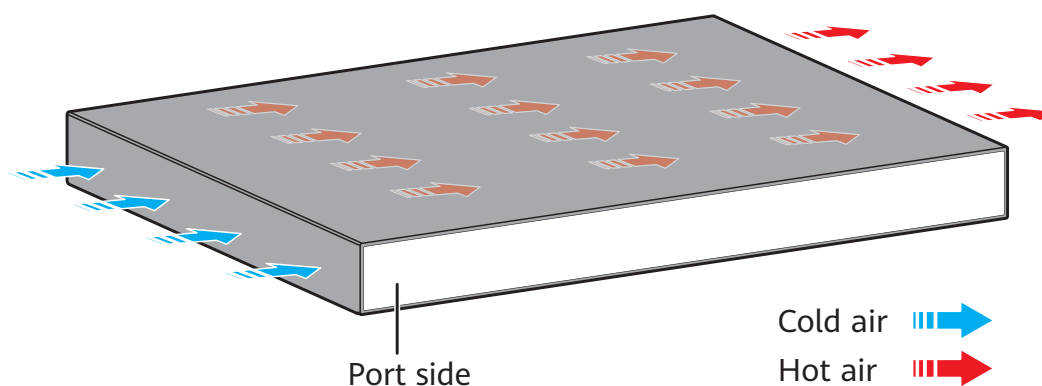
[Figure 5-39](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-39 Power supply mode of a built-in AC power module



Heat Dissipation

The S5701-28X-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-101 lists technical specifications of the S5701-28X-LI-AC.

Table 5-101 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	70.32 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	3 kg (11.02 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	41 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	29.7 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 45.8 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02357675

5.4.18 S5701-28X-LI-24S-AC

Version Mapping

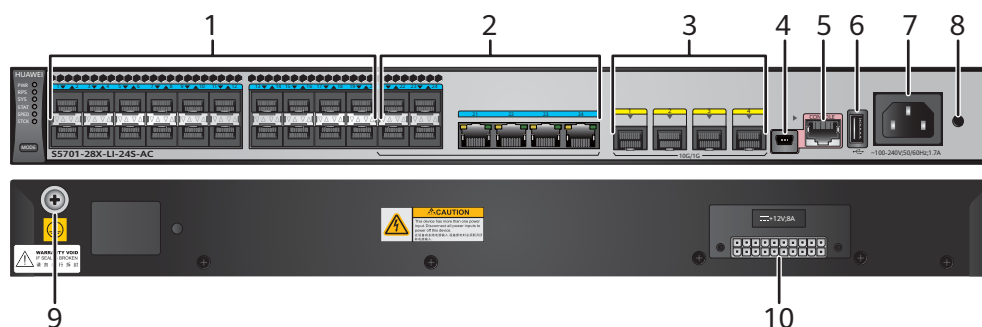
Table 5-102 lists the mapping between the S5701-28X-LI-24S-AC chassis and software versions.

Table 5-102 Version mapping

Series	Model	Software Version
S5700-LI	S5701-28X-LI-24S-AC	V200R003C00 to V200R012C00 versions NOTE This model does not match V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-40 S5701-28X-LI-24S-AC appearance



1	<p>Twenty 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> ● FE optical module ● GE optical module ● GE-CWDM optical module ● GE-DWDM optical module ● GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	<p>2</p> <p>Four combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> ● FE optical module ● GE optical module ● GE-CWDM optical module ● GE-DWDM optical module
---	--	--

3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) 	4	One mini USB port
5	One console port	6	One USB port
7	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>
9	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	10	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-103](#) describes the attributes of a 100/1000BASE-X port.

Table 5-103 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-104](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-104 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC

Attribute	Description
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-105](#).

Table 5-105 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

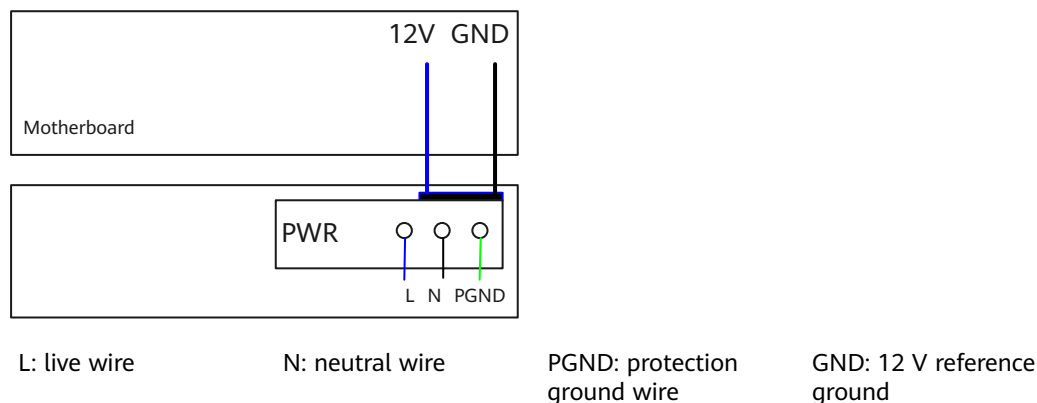
The S5701-28X-LI-24S-AC has the same types of indicators as the S5700-28X-LI-24S-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5701-28X-LI-24S-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

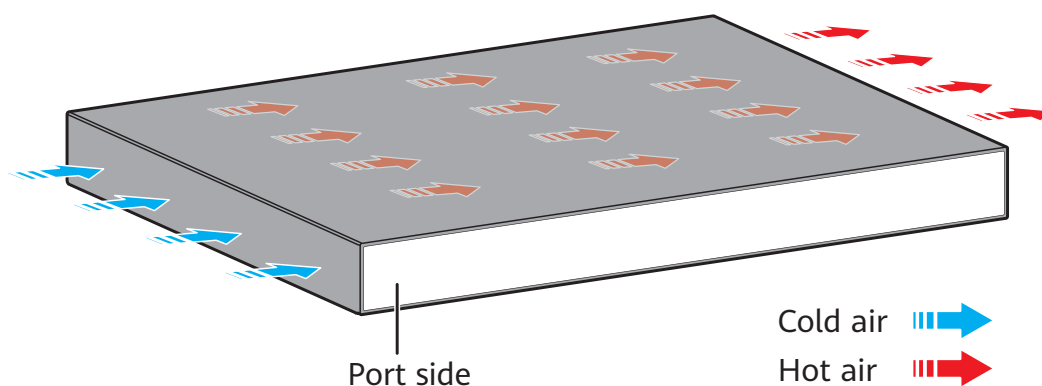
Figure 5-41 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-41 Power supply mode of a built-in AC power module



Heat Dissipation

The S5701-28X-LI-24S-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-106 lists technical specifications of the S5701-28X-LI-24S-AC.

Table 5-106 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	89.91 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	3.5 kg (7.72 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	60 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	49.7 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.6 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02357676

5.4.19 S5700-52X-LI-AC

Version Mapping

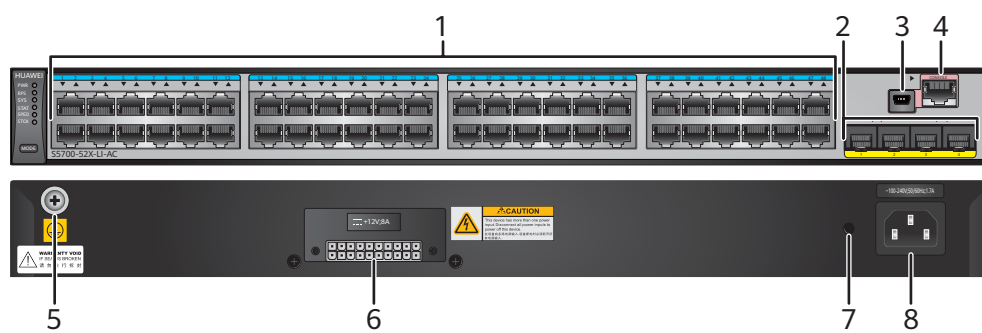
Table 5-107 lists the mapping between the S5700-52X-LI-AC chassis and software versions.

Table 5-107 Version mapping

Series	Model	Software Version
S5700-LI	S5700-52X-LI-AC	V200R002C00 to V200R012C00 versions NOTE This model does not match V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-42 S5700-52X-LI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port
5	Ground screw NOTE It is used with a ground cable .	6	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.
7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	AC socket NOTE It is used with an AC power cable .

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 5-108](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-108 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-109](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-109 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-110](#).

Table 5-110 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

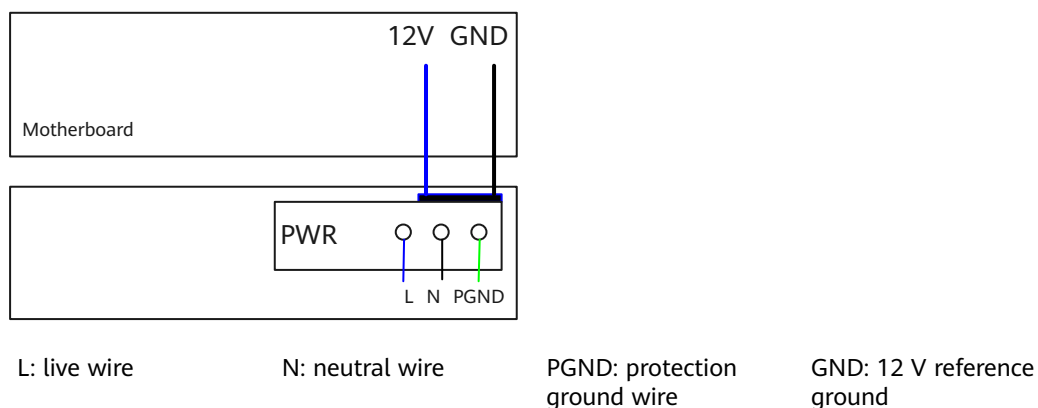
The S5700-52X-LI-AC has the same types of indicators as the S5700-28X-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-52X-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

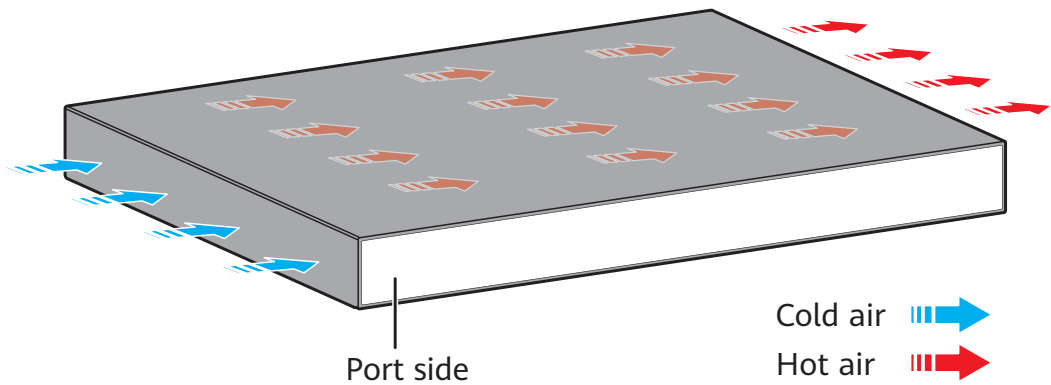
[Figure 5-43](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-43 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700-52X-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-111 lists technical specifications of the S5700-52X-LI-AC.

Table 5-111 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	61.86 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	4.4 kg (9.7 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported
PoE	Not supported

Item	Description
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	61 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	45.5 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 47.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02354216

5.4.20 S5700-52X-LI-DC

Version Mapping

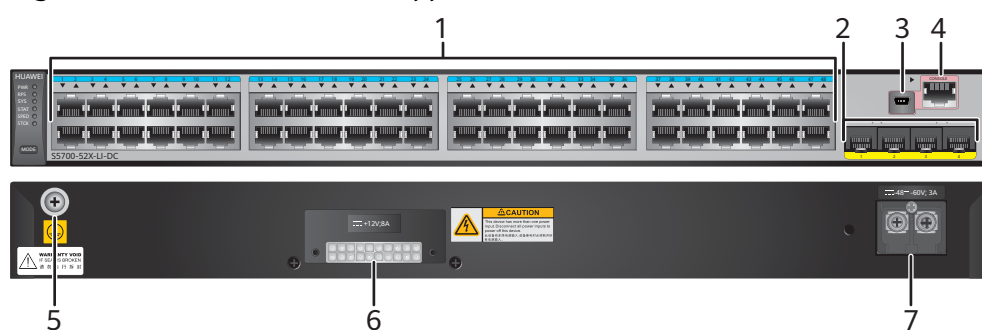
Table 5-112 lists the mapping between the S5700-52X-LI-DC chassis and software versions.

Table 5-112 Version mapping

Series	Model	Software Version
S5700-LI	S5700-52X-LI-DC	V200R002C00 to V200R012C00 versions NOTE This model does not match V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-44 S5700-52X-LI-DC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port
5	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	6	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>
7	<p>DC power terminal</p> <p>NOTE It is used together with a DC Power Cable.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-113** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-113 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-114](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-114 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-115](#).

Table 5-115 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

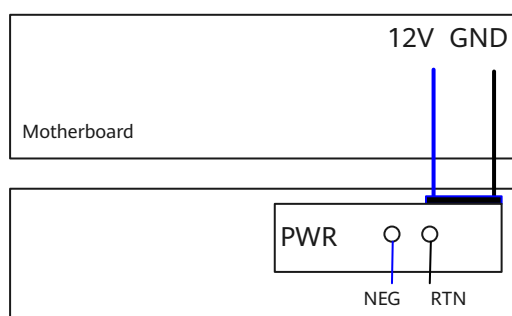
The S5700-52X-LI-DC has the same types of indicators as the S5700-28X-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-52X-LI-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

[Figure 5-45](#) shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 5-45 Power supply by a single DC power module



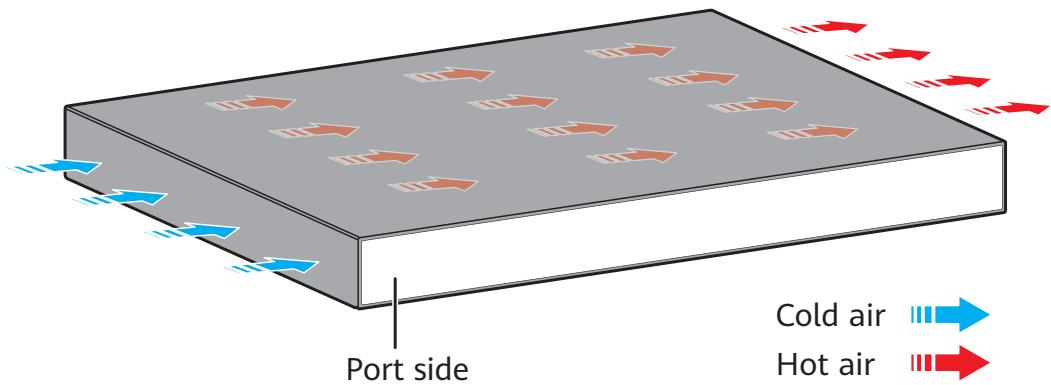
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Heat Dissipation

The S5700-52X-LI-DC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-116 lists technical specifications of the S5700-52X-LI-DC.

Table 5-116 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	61.86 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	4.3 kg (9.48 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported
PoE	Not supported

Item	Description
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	60 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	42.2 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 47.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02354235

5.4.21 S5700-52X-PWR-LI-AC

Version Mapping

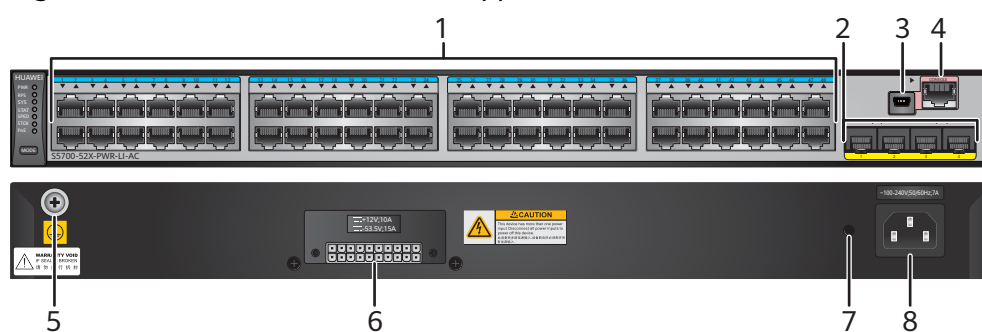
Table 5-117 lists the mapping between the S5700-52X-PWR-LI-AC chassis and software versions.

Table 5-117 Version mapping

Series	Model	Software Version
S5700-LI	S5700-52X-PWR-LI-AC	V200R002C00 to V200R012C00 versions NOTE This model does not match V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-46 S5700-52X-PWR-LI-AC appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One mini USB port	4	One console port
5	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	6	<p>RPS socket</p> <p>NOTE</p> <ul style="list-style-type: none"> • It is used with an RPS cable which is not hot swappable. • A PoE switch can have an RPS power supply connected to this socket to provide inputs for system power supply and PoE power supply. The two inputs are independent of each other. The RPS power supply can also be used as a backup of the system power supply when it does not provide PoE power.
7	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>	8	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-118](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-118 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-119](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-119 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-120](#).

Table 5-120 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

The S5700-52X-PWR-LI-AC has the same types of indicators as the S5700-28X-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

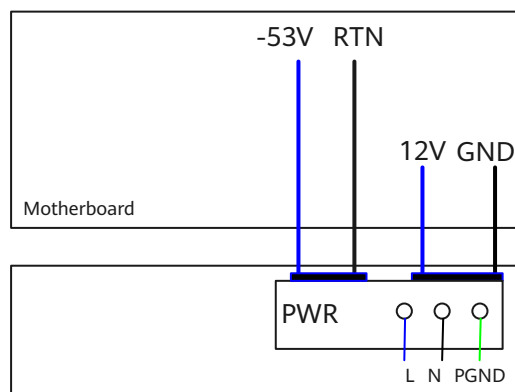
The S5700-52X-PWR-LI-AC has a built-in power module and does not support pluggable power modules. It can provide PoE power supply and connect to an RPS1800 power supply for power redundancy. [Table 5-121](#) lists its power supply configurations.

Table 5-121 Power supply configurations

Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
No RPS used	369.6 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 12
RPS used	800 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 26

[Figure 5-47](#) shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

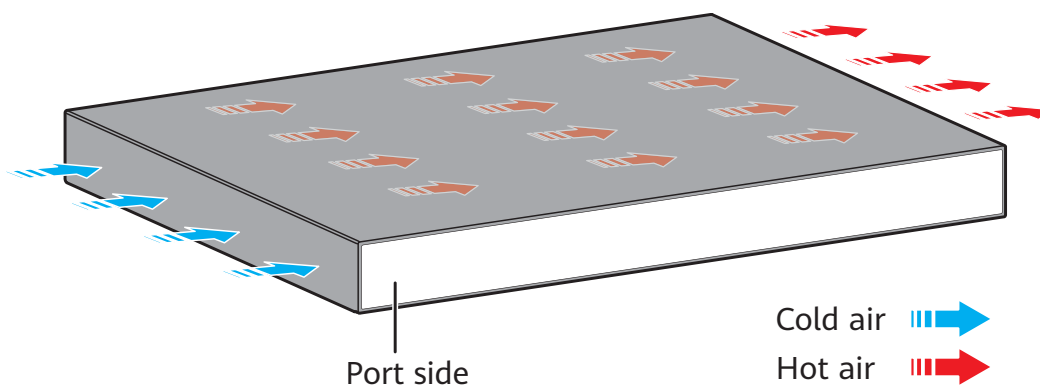
Figure 5-47 Power supply by a built-in AC PoE power module



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5700-52X-PWR-LI-AC has three built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-122 lists technical specifications of the S5700-52X-PWR-LI-AC.

Table 5-122 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB

Item	Description
Mean time between failures (MTBF)	40.72 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	4.8 kg (10.58 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	479.3 W (system power consumption: 109.3 W, PoE: 370 W)
Typical power consumption (30% of traffic load)	48.6 W
	<ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption

Item	Description
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 50.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02354218

5.4.22 S5700-52X-LI-48CS-AC

Version Mapping

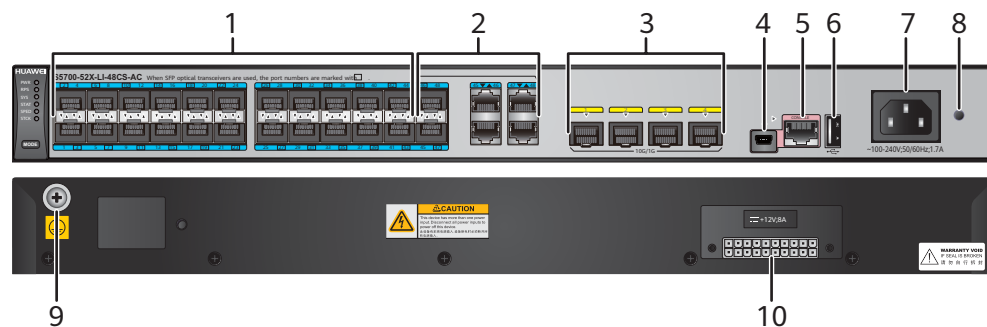
Table 5-123 lists the mapping between the S5700-52X-LI-48CS-AC chassis and software versions.

Table 5-123 Version mapping

Series	Model	Software Version
S5700-LI	S5700-52X-LI-48CS-AC	V200R003C02 to V200R012C00 versions NOTE This model does not match V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-48 S5700-52X-LI-48CS-AC appearance



<p>1 Forty-four 100/1000BASE-X CSFP ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • CSFP optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) <p>NOTE</p> <ul style="list-style-type: none"> • When all the ports have CSFP optical modules installed, each port functions as two ports. The switch has a total of 44 ports in this case. • When all the ports have SFP optical modules installed, each port functions as one port. The switch has a total of 22 ports. 	<p>2 Four combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • CSFP optical module <p>NOTE</p> <p>The four combo ports (numbered 45, 46, 47, and 48) on a CSFP switch include four electrical ports and two optical ports. The two optical ports can function as four optical modules when they have Compact Small Form-Factor Pluggable (CSFP) optical modules installed. When the two optical ports have SFP optical modules installed, the electrical ports 45 and 48 can be used normally.</p>
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) 	4	One mini USB port
5	One console port	6	One USB port
7	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>
9	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	10	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>

Port Description

100/1000BASE-X CSFP port

A 100/1000BASE-X CSFP port can send and receive data at 100 Mbit/s or 1000 Mbit/s. When using a CSFP optical module, each 100/1000BASE-X CSFP port works as two ports. When using an SFP optical module, each 100/1000BASE-X CSFP port works as one port. **Table 5-124** describes the attributes of a 100/1000BASE-X CSFP port.

Table 5-124 Attributes of a 100/1000BASE-X CSFP port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s

NOTE

CSFP ports using CSFP optical modules cannot connect to each other. A CSFP optical module must be connected to two BIDI SFP optical modules using two optical fibers. You can install an SFP optical module on a CSFP port and use it as a common SFP port.

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-125](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-125 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-126](#).

Table 5-126 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

NOTE

In V200R007 and later versions, you can hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore to the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-49 Indicators on the S5700-52X-LI-48CS-AC

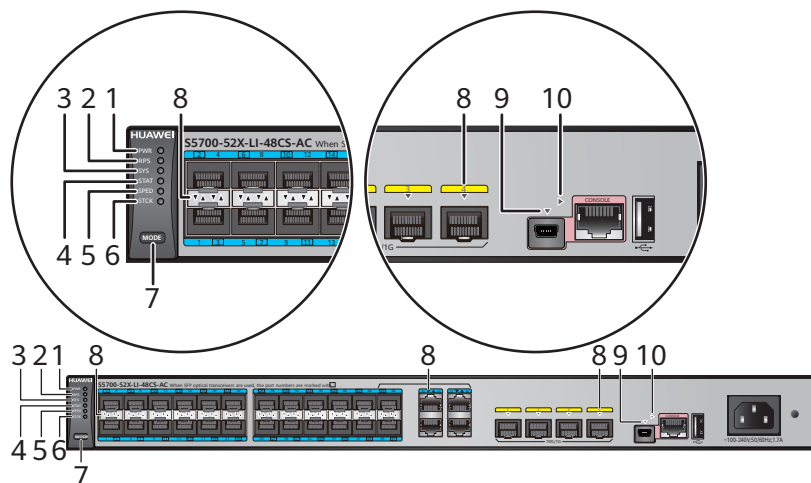


Table 5-127 Description of indicators on the switch

Number	Indicator/ Button	Color	Description
1	PWR: internal power supply indicator	-	Off: The switch is powered off.
		Green	Steady on: The switch is powered on.
		Yellow	Steady on: The built-in power module is faulty, and the switch is powered by the RPS system.
2	RPS: RPS power supply indicator	-	Off: No RPS is connected to the switch.

Number	Indicator/ Button	Color	Description
		Green	<ul style="list-style-type: none"> Steady on: The RPS is in cold backup state. Blinking: The RPS is providing power for another device.
		Yellow	Blinking: The RPS is providing power for the switch and the built-in power module of the switch is faulty.
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> Fast blinking: The system is starting or is copying the system software and configuration file from a USB flash drive during a USB-based upgrade. Slow blinking: The system is running normally.
		Yellow	Blinking: The switch has restarted after a successful upgrade using a USB flash drive. You can remove the USB flash drive from the switch.
		Red	<ul style="list-style-type: none"> Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated. Blinking: The system cannot be upgraded after a USB flash drive is inserted. The USB-based upgrade failed.
4	STAT: status indicator	Green	<ul style="list-style-type: none"> Off: The status mode is not selected. Steady on: The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.

Number	Indicator/Button	Color	Description
5	SPED: speed indicator	Green	<ul style="list-style-type: none">• Off: The speed mode is not selected.• Steady on: The speed mode is selected. If the speed mode is selected, the service port indicator shows the port speed state. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK: stack indicator	Green	<p>If you are not changing the indicator mode (default):</p> <ul style="list-style-type: none">• Off: The switch is in stack standby or slave state or the stacking function is not enabled on the switch.• Blinking: The switch is a stack master switch or a standalone switch with the stacking function enabled. <p>If you are changing the indicator mode:</p> <ul style="list-style-type: none">• Off: The stack mode is not selected.• Steady on: The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.• Blinking: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

Number	Indicator/ Button	Color	Description
7	MODE: mode switch button	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT mode turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
8	Service port indicator NOTE Arrowheads show the positions of ports. A down arrowhead indicates a port at the bottom, and an up arrowhead indicates a port at the top.	Meanings of service port indicators vary in different modes. For details, see Table 5-128 .	
9	Mini USB indicator	Green	<ul style="list-style-type: none"> Off: The Mini USB port is not active, and the console port is active. Steady on: The Mini USB port is active. <p>When this indicator is on, the console indicator is off.</p>

Number	Indicator/Button	Color	Description
10	Console indicator	Green	<ul style="list-style-type: none"> Off: The console port is not active, and the Mini USB port is active. Steady on (default): The console port is active. <p>When this LED is on, the Mini USB port indicator is off.</p>

Table 5-128 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	<p>The switch is not the master switch in a stack.</p> <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

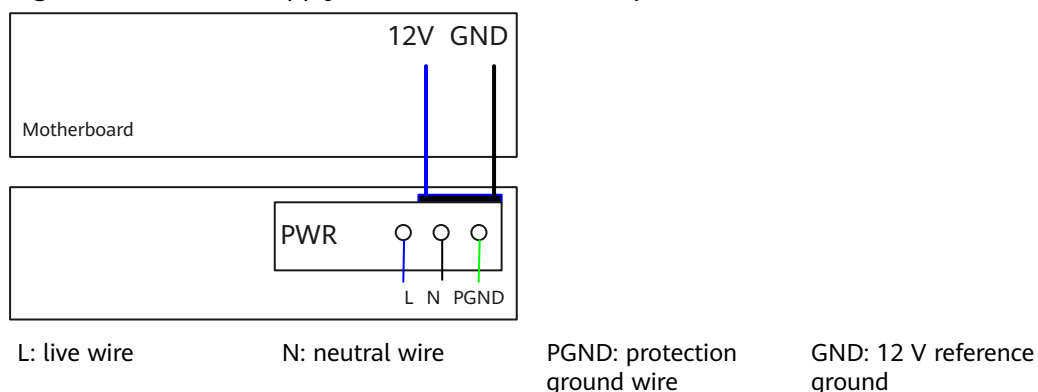
Display Mode	Color	Status	Description
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5700-52X-LI-48CS-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

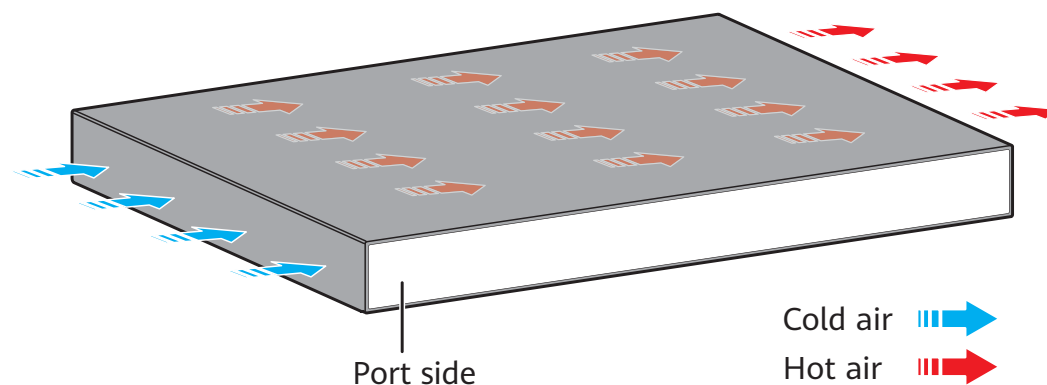
Figure 5-50 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-50 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700-52X-LI-48CS-AC has three built-in fans for forced air cooling. The airflow direction is left-to-right.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-129 lists technical specifications of the S5700-52X-LI-48CS-AC.

Table 5-129 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	92.57 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Combo electrical port: ± 2 kV in common mode
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	3.4 kg (7.5 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	79.93 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	69.17 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 67.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02357823

5.5 S5700S-LI

5.5.1 S5700S-28P-LI-AC

Version Mapping

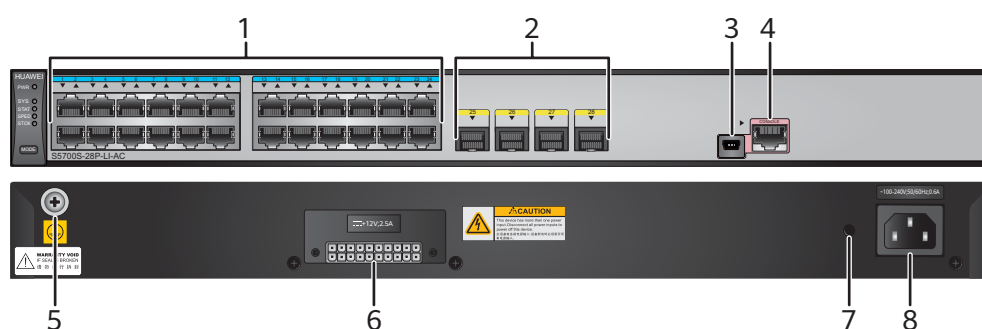
Table 5-130 lists the mapping between the S5700S-28P-LI-AC chassis and software versions.

Table 5-130 Version mapping

Series	Model	Software Version
S5700S-LI	S5700S-28P-LI-AC	V200R001C00 to V200R012C00 versions NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-51 S5700S-28P-LI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (applicable in V200R002C00 and later versions, works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s)
3	One mini USB port	4	One console port
5	Ground screw NOTE It is used with a ground cable .	6	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.
7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	AC socket NOTE It is used with an AC power cable .

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-131](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-131 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-132](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-132 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-133](#).

Table 5-133 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

NOTE

In V200R007 and later versions, you can hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore to the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-52 Indicators on the S5700S-28P-LI-AC

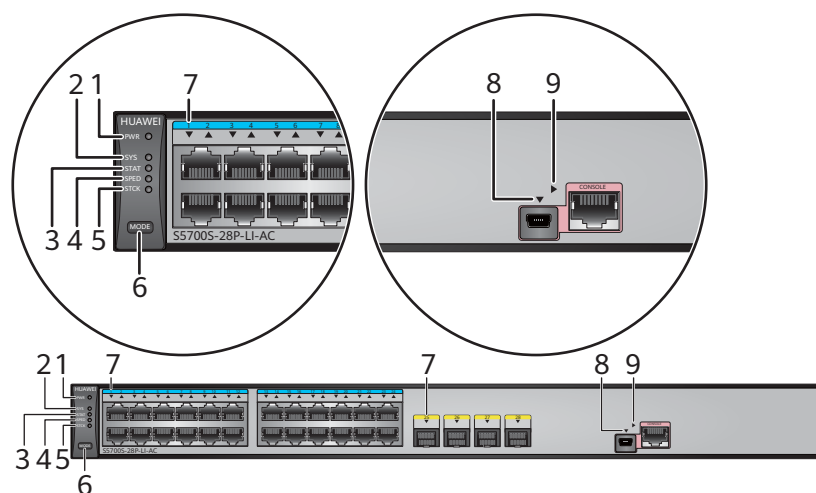


Table 5-134 Description of indicators on the switch

Number	Indicator/ Button	Color	Description
1	PWR: built-in power module indicator	-	Off: The switch is powered off.
		Green	Steady on: The switch is powered on.
		Yellow	Steady on: The built-in power module is faulty, and the switch is powered by the RPS system.
2	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> Fast blinking: The system is starting. Slow blinking: The system is operating properly.
		Yellow	Blinking: The system is in the sleep state. NOTE The system can wake from the sleeping state if you press the MODE button.
		Red	Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated.
3	STAT: status indicator	Green	<ul style="list-style-type: none"> Off: The status mode is not selected. Steady on: The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
4	SPED: speed indicator	Green	<ul style="list-style-type: none"> Off: The speed mode is not selected. Steady on: The speed mode is selected. If the speed mode is selected, the service port indicator shows the port speed state. After 45 seconds, the service port indicators automatically restore to the status mode.

Number	Indicator/Button	Color	Description
5	STCK: stack indicator	-	Currently, the switch does not support stacking. This indicator is reserved for the stacking function.
6	MODE: mode switch button	-	<ul style="list-style-type: none"> When you press this button once, the SPED indicator turns green and the service port indicators show the speed of each service port. When you press the button a second time, the STAT indicator turns green. <p>If you do not press the button within 45 seconds, the indicators restore to the default states. That is, the STAT indicator turns green, and the SPED and STCK indicators are off.</p>
7	Service port indicator <ul style="list-style-type: none"> GE electrical ports: The ports are numbered from bottom to top and left to right, starting with 1. GE optical ports: Each port has an indicator above it. 		Meanings of service port indicators vary in different modes. For details, see Table 5-135 .
8	Mini USB indicator	Green	<ul style="list-style-type: none"> Off: The Mini USB port is not active, and the console port is active. Steady on: The Mini USB port is active. <p>When this indicator is on, the console indicator is off.</p>

Number	Indicator/Button	Color	Description
9	Console indicator	Green	<ul style="list-style-type: none"> Off: The console port is not active, and the Mini USB port is active. Steady on (default): The console port is active. When this LED is on, the Mini USB port indicator is off.

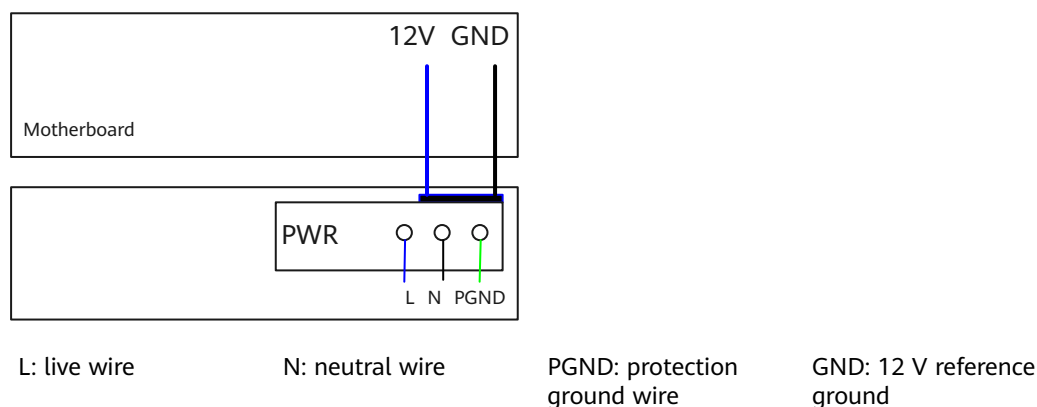
Table 5-135 Description of service port indicators in different modes

Display Mode	Color	Description
Status	Green	<ul style="list-style-type: none"> Off: The port is not connected or has been shut down. Steady on: The port is connected. Blinking: The port is sending or receiving data.
Speed	Green	<ul style="list-style-type: none"> Off: The port is not connected or has been shut down. Steady on: <ul style="list-style-type: none"> 10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s. Blinking: <ul style="list-style-type: none"> 10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.

Power Supply Configuration

The S5700S-28P-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

Figure 5-53 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-53 Power supply mode of a built-in AC power module

Heat Dissipation

The S5700S-28P-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

[Table 5-136](#) lists technical specifications of the S5700S-28P-LI-AC.

Table 5-136 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	<ul style="list-style-type: none"> V200R001: 64 MB V200R002 and later versions: 200 MB
Mean time between failures (MTBF)	49.69 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	2.8 kg (6.17 lb)

Item	Description
Stack ports	Not supported
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	24 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	19.3 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 45°C (32°F to 113°F) when it uses SFP optical modules with 80 km or longer transmission distances.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353836

5.5.2 S5700S-28P-PWR-LI-AC

Version Mapping

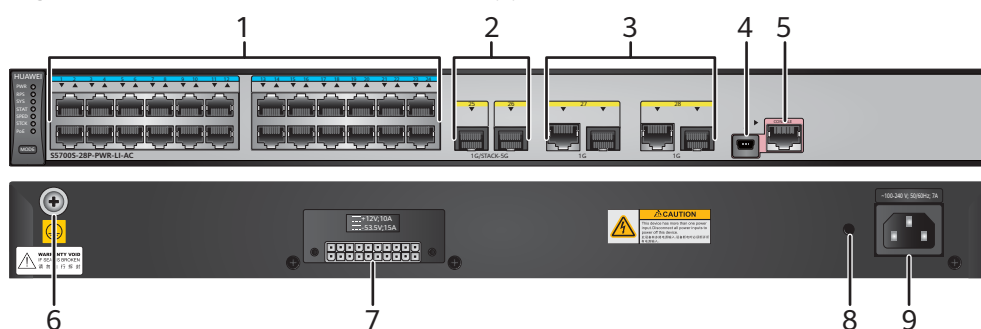
Table 5-137 lists the mapping between the S5700S-28P-PWR-LI-AC chassis and software versions.

Table 5-137 Version mapping

Series	Model	Software Version
S5700S-LI	S5700S-28P-PWR-LI-AC	V200R008C00 to V200R012C00 versions

Appearance and Structure

Figure 5-54 S5700S-28P-PWR-LI-AC appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Two 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m and 10 m SFP+ copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	Two combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module 	4	One mini USB port
5	One console port	6	Ground screw NOTE It is used with a ground cable .

7	RPS socket NOTE <ul style="list-style-type: none">It is used with an RPS cable which is not hot swappable.A PoE switch can have an RPS power supply connected to this socket to provide inputs for system power supply and PoE power supply. The two inputs are independent of each other. The RPS power supply can also be used as a backup of the system power supply when it does not provide PoE power.	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 5-138](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-138 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-139](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-139 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-140](#).

Table 5-140 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-55 Indicators on the S5700S-28P-PWR-LI-AC

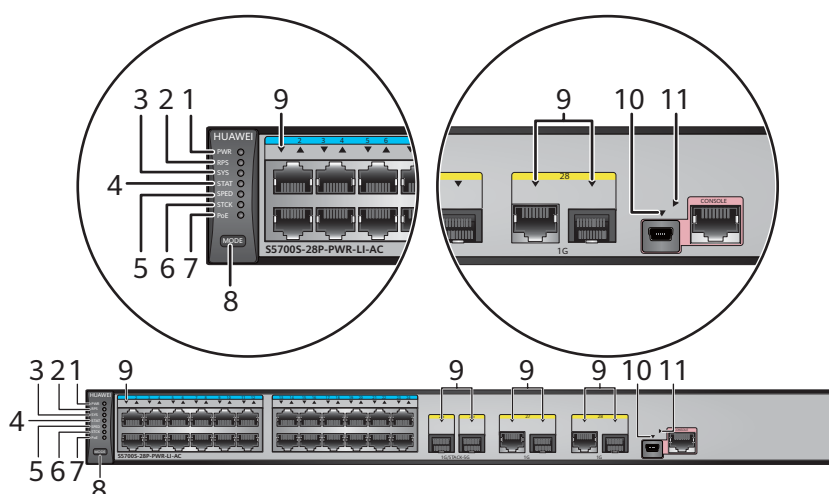


Table 5-141 Description of indicators on the switch

Number	Indicator/ Button	Color	Description
1	PWR: internal power supply indicator	-	Off: The switch is powered off.
		Green	Steady on: The switch is powered on.
		Yellow	Steady on: The built-in power module is faulty, and the switch is powered by the RPS system.
2	RPS: RPS power supply indicator	-	Off: No RPS is connected to the switch.
		Green	<ul style="list-style-type: none"> Steady on: The RPS is in cold backup state or forced power-on state. Blinking: The RPS is providing power for another device.
		Yellow	<ul style="list-style-type: none"> Steady on: The RPS is in alarm state. (No 870 W PoE power module is available in the RPS1800 or the RPS1800 cannot provide power supply to the local switch at this time.) Blinking: The RPS is providing power for the switch and the built-in power module of the switch is faulty.
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> Fast blinking: The system is starting. Slow blinking: The system is running normally.
		Red	Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated.
4	STAT: status indicator	Green	<ul style="list-style-type: none"> Off: The status mode is not selected. Steady on: The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.

Number	Indicator/ Button	Color	Description
5	SPED: speed indicator	Green	<ul style="list-style-type: none">• Off: The speed mode is not selected.• Steady on: The speed mode is selected. If the speed mode is selected, the service port indicator shows the port speed state. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK: stack indicator	Green	<p>If you are not changing the indicator mode (default):</p> <ul style="list-style-type: none">• Off: The switch is in stack standby or slave state or the stacking function is not enabled on the switch.• Blinking: The switch is a stack master switch or a standalone switch with the stacking function enabled. <p>If you are changing the indicator mode:</p> <ul style="list-style-type: none">• Off: The stack mode is not selected.• Steady on: The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.• Blinking: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	PoE: PoE indicator	Green	<ul style="list-style-type: none">• Off: The PoE mode is not selected.• Steady on: The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.

Number	Indicator/ Button	Color	Description
8	MODE: mode switch button	-	<ul style="list-style-type: none">• When you press this button once, the service port indicators change to the speed mode and show the speed of each service port.• When you press the button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch.• When you press the button a third time, the service port indicators change to PoE mode and show the PoE status of ports.• When you press the button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
9	Service port indicator <ul style="list-style-type: none">• GE electrical ports: The ports are numbered from bottom to top and left to right, starting with 1.• 10GE optical ports: Each port has an indicator above it.		Meanings of service port indicators vary in different modes. For details, see Table 5-142 .

Number	Indicator/ Button	Color	Description
10	Mini USB indicator	Green	<ul style="list-style-type: none"> Off: The Mini USB port is not active, and the console port is active. Steady on: The Mini USB port is active. <p>When this indicator is on, the console indicator is off.</p>
11	Console indicator	Green	<ul style="list-style-type: none"> Off: The console port is not active, and the Mini USB port is active. Steady on (default): The console port is active. <p>When this LED is on, the Mini USB port indicator is off.</p>

Table 5-142 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.

Display Mode	Color	Status	Description
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> • The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. • The total power consumption of PDs has reached the maximum power of the switch. • The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is blinking, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

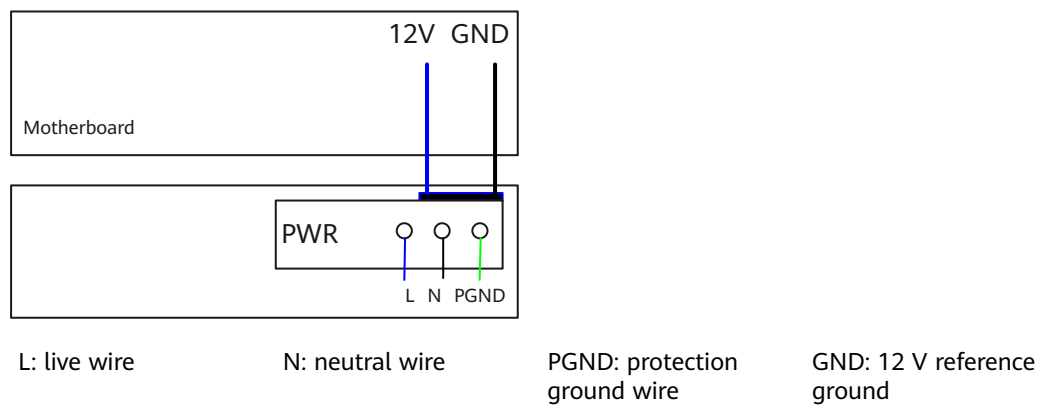
The S5700S-28P-PWR-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy. [Table 5-143](#) lists its power supply configurations.

Table 5-143 Power supply configurations

Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
No RPS used	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
RPS used	800 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

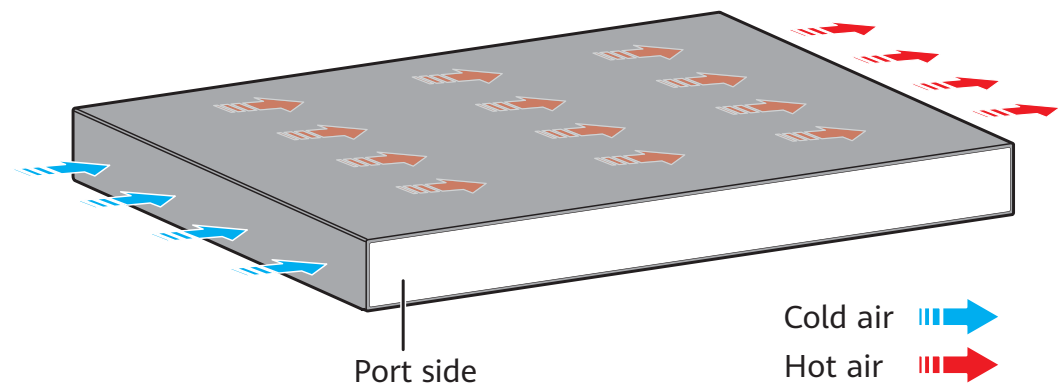
Figure 5-56 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-56 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700S-28P-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-144 lists technical specifications of the S5700S-28P-PWR-LI-AC.

Table 5-144 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	46.2 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	5.8 kg (12.79 lb)
Stack ports	Two uplink 1000BASE-X optical ports (non-combo ports)
RTC	Supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 45.8 W 100% PoE loads: 469.7 W (system power consumption: 100.1 W, PoE: 369.6 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	32 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 48 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010562

5.5.3 S5700S-52P-LI-AC

Version Mapping

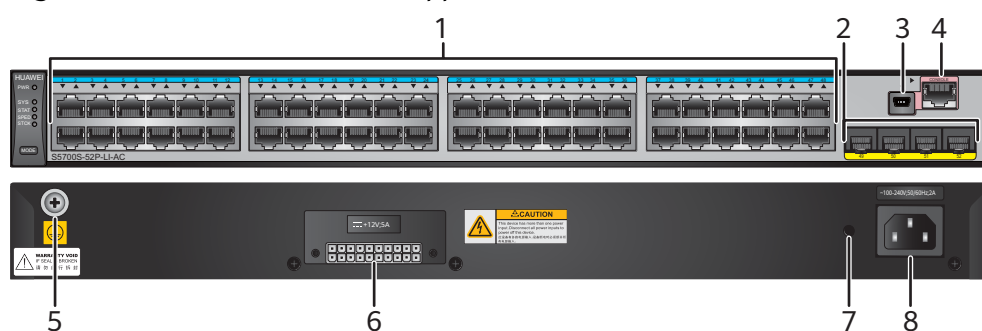
Table 5-145 lists the mapping between the S5700S-52P-LI-AC chassis and software versions.

Table 5-145 Version mapping

Series	Model	Software Version
S5700S-LI	S5700S-52P-LI-AC	V200R001C00 to V200R012C00 versions NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-57 S5700S-52P-LI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (applicable in V200R002C00 and later versions, works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s)
3	One mini USB port	4	One console port
5	Ground screw NOTE It is used with a ground cable .	6	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.

7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	AC socket NOTE It is used with an AC power cable .
---	--	---	---

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-146](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-146 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-147](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-147 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-148](#).

Table 5-148 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

Indicator Description

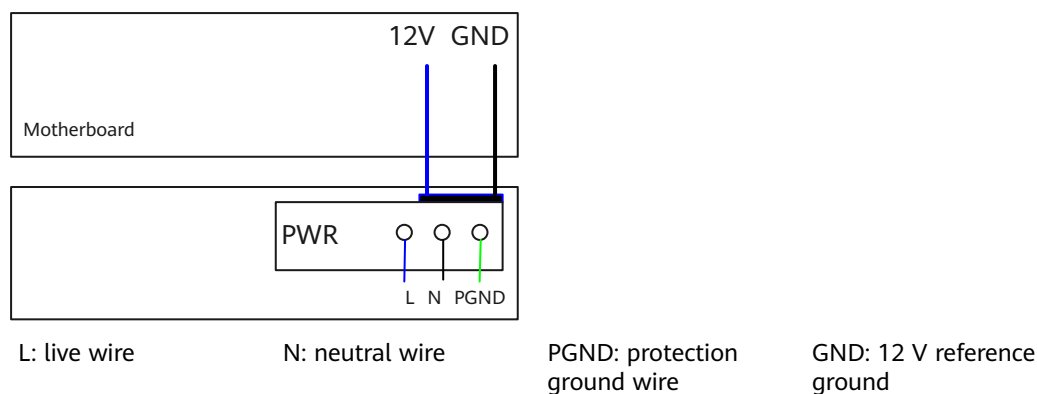
The S5700S-52P-LI-AC has the same types of indicators as the S5700S-28P-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700S-52P-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

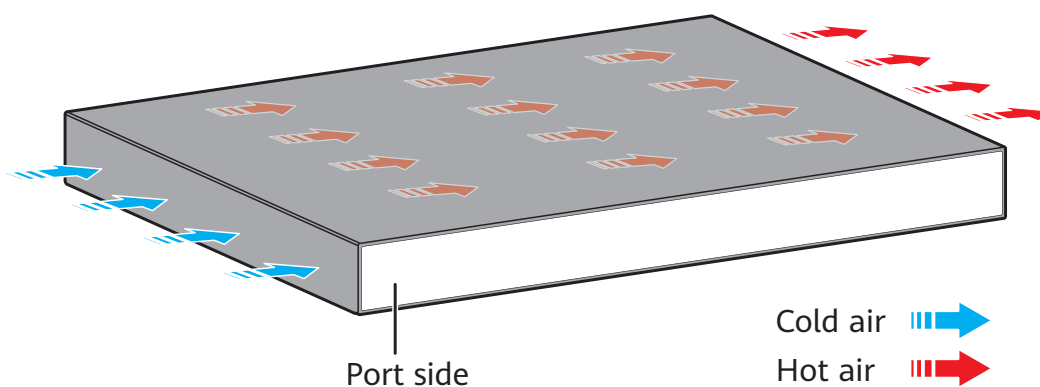
[Figure 5-58](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-58 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700S-52P-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-149 lists technical specifications of the S5700S-52P-LI-AC.

Table 5-149 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	<ul style="list-style-type: none"> • V200R001: 64 MB • V200R002 and later versions: 200 MB
Mean time between failures (MTBF)	39.26 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	3.5 kg (7.72 lb)
Stack ports	Not supported
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	48.4 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	32.5 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 43.8 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353835

5.5.4 S5700S-28X-LI-AC

Version Mapping

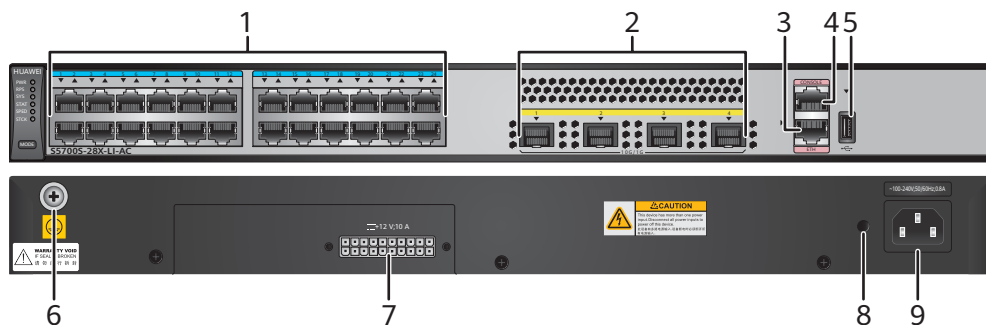
Table 5-150 lists the mapping between the S5700S-28X-LI-AC chassis and software versions.

Table 5-150 Version mapping

Series	Model	Software Version
S5700S-LI	S5700S-28X-LI-AC	V200R008C00 to V200R012C00 versions

Appearance and Structure

Figure 5-59 S5700S-28X-LI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (a maximum transmission distance of 10 km, OSXD22N00 not supported) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	One console port
5	One USB port	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>

9	AC socket	-	-
	NOTE It is used with an AC power cable .		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-151](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-151 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-152](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-152 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 5-153](#).

Table 5-153 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-154](#) describes the attributes of an ETH management port.

Table 5-154 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 **NOTE**

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

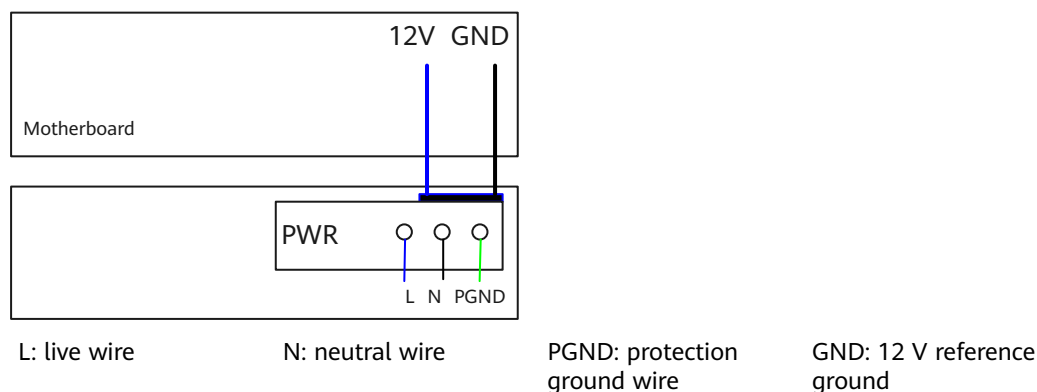
The S5700S-28X-LI-AC has the same types of indicators as the S5700S-52X-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700S-28X-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

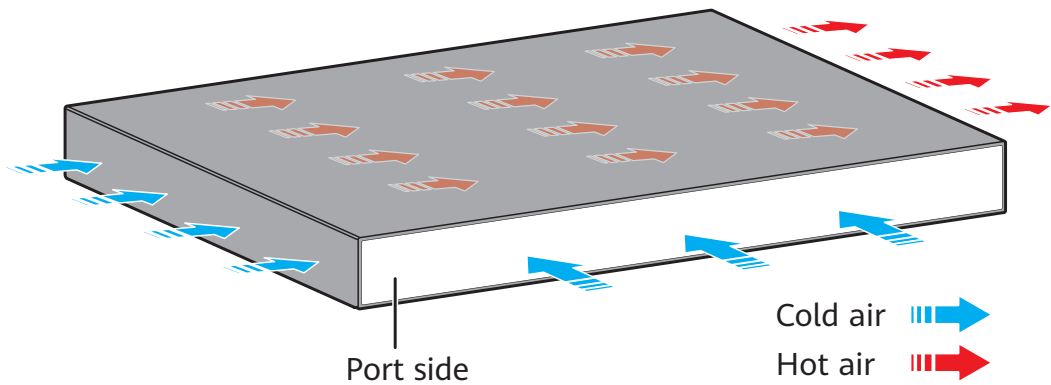
Figure 5-60 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-60 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700S-28X-LI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-155 lists technical specifications of the S5700S-28X-LI-AC.

Table 5-155 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	100.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	4.8 kg (10.58 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported

Item	Description
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	32 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	22 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 50.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350HEC

5.5.5 S5700S-52X-LI-AC

Version Mapping

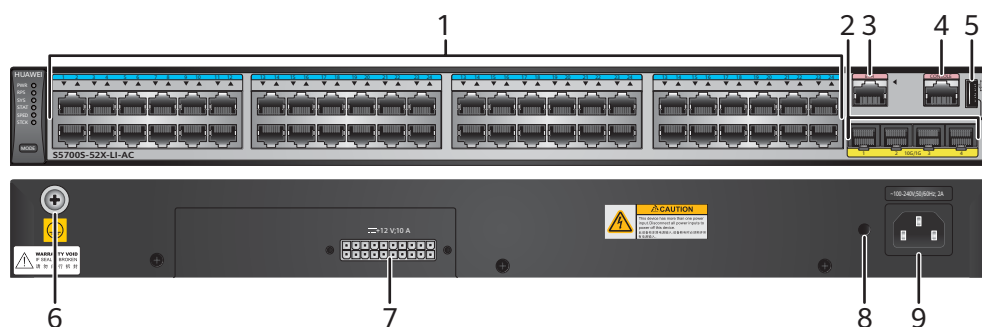
Table 5-156 lists the mapping between the S5700S-52X-LI-AC chassis and software versions.

Table 5-156 Version mapping

Series	Model	Software Version
S5700S-LI	S5700S-52X-LI-AC	V200R008C00 to V200R012C00 versions

Appearance and Structure

Figure 5-61 S5700S-52X-LI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	One console port
5	One USB port	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>

9	AC socket	-	-
	NOTE It is used with an AC power cable .		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-157](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-157 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-158](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-158 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 5-159](#).

Table 5-159 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-160](#) describes the attributes of an ETH management port.

Table 5-160 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

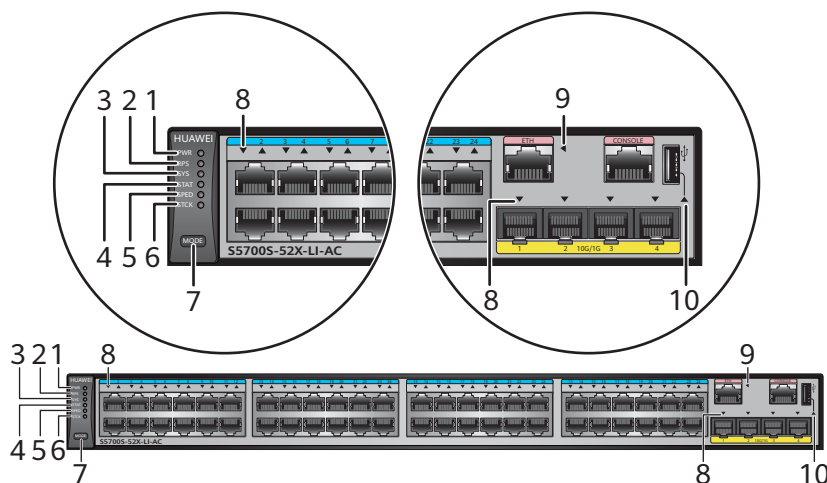
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-62 Indicators on the S5700S-52X-LI-AC

**NOTE**

The S5700S-52X-LI-AC provides a command that can turn on their fault indicators to help field maintenance personnel find a faulty switch.

The SYS indicator and mode indicators (STAT, SPED, and STCK) are used as fault indicators. When an S5700S-52X-LI-AC switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 5-161 Indicator Description

No.	Indicator/ Button	Color	Description
1	PWR: built-in power module indicator	-	Off: The switch is not powered on.
		Green	Steady on: The power module is supplying power normally.
		Yellow	Steady on: The power module has failed, and the switch is receiving power from a redundant power supply (RPS).
2	RPS: RPS indicator	-	Off: The switch is not connected to an RPS.
		Green	<ul style="list-style-type: none"> Steady on: The RPS is in cold standby state. Blinking: The RPS is supplying power to another switch.
		Yellow	Blinking: The RPS is supplying power to the local switch, and the built-in power module of the switch has failed.
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> Fast blinking: The system is starting. Slow blinking: The system is running normally.
		Yellow	Blinking: The system is in the sleep state. NOTE The system can wake from the sleeping state if you press the MODE button.
		Red	Steady on: The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT: status indicator	Green	<ul style="list-style-type: none"> Off: The status mode is not selected. Steady on: The status mode (default mode) is selected. In this mode, service port indicators show the port link or activity state.

No.	Indicator/ Button	Color	Description
5	SPED: speed indicator	Green	<ul style="list-style-type: none">• Off: The speed mode is not selected.• Steady on: The speed mode is selected. In this mode, service port indicators show port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK: stack indicator	Green	<p>If you are not changing the indicator mode (default state):</p> <ul style="list-style-type: none">• Off: The switch is the standby or slave switch in a stack or a standalone switch with the stacking function disabled.• Blinking: The switch is the master switch in a stack or a standalone switch with the stacking function enabled. <p>If you are changing the indicator mode:</p> <ul style="list-style-type: none">• Off: The stack mode is not selected.• Steady on: The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.• Blinking: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

No.	Indicator/ Button	Color	Description
7	MODE: mode switch button	-	<ul style="list-style-type: none"> • When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. • When you press the button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. • When you press the button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
8	Service port indicator (one indicator for each port)		Meanings of service port indicators vary in different modes. For details, see Table 5-162 .
9	ETH port indicator	Green	<ul style="list-style-type: none"> • Off: The ETH management port is not connected. • Steady on: The ETH management port is connected. • Blinking: The port is sending or receiving data.
10	USB-based deployment indicator	-	<p>Off:</p> <ul style="list-style-type: none"> • No USB flash drive is connected to the switch. • The USB port is damaged. • The indicator is damaged. • The USB flash drive does not have any configuration file and cannot be used for deployment. • The switch has been upgraded using the USB flash drive and is restarting.

No.	Indicator/ Button	Color	Description
		Green	<ul style="list-style-type: none"> Steady on: A USB-based deployment has been completed. Blinking: The system is reading data from a USB flash drive.
		Yellow	Steady on: The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
		Red	Blinking: An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-162 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.

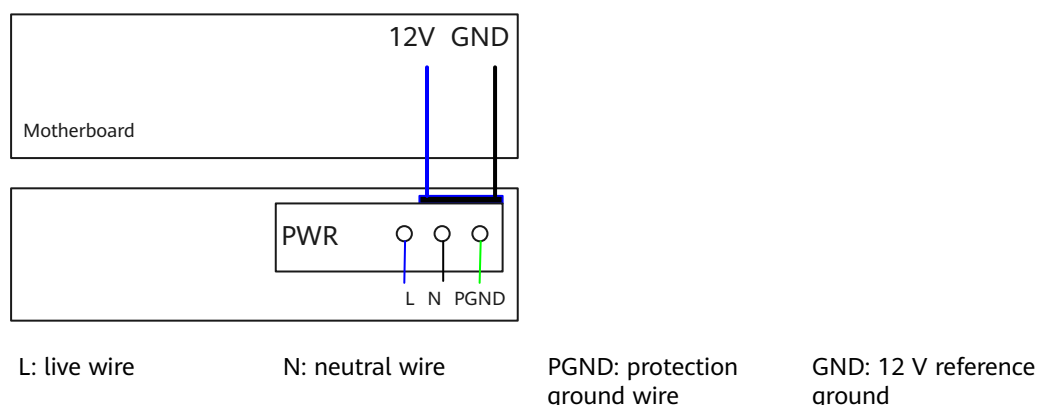
Display Mode	Color	Status	Description
	Green	Steady on	<p>The switch is not the master switch in a stack.</p> <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	<p>The switch is the master switch in a stack.</p> <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5700S-52X-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

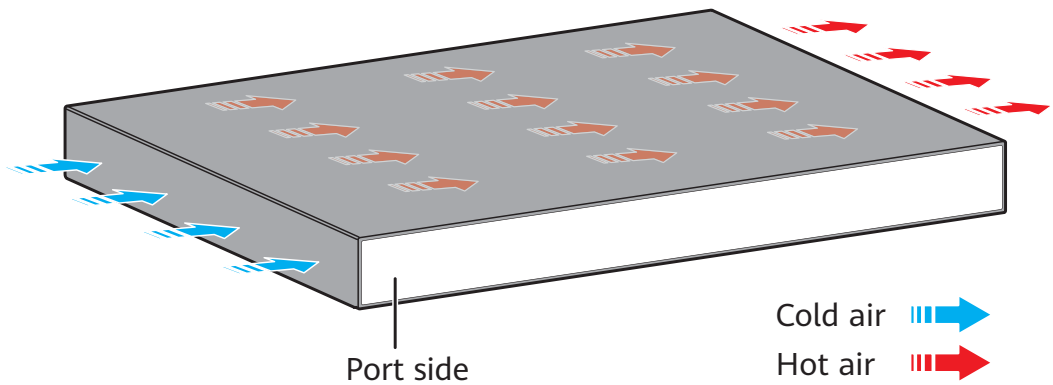
Figure 5-63 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-63 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700S-52X-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-163 lists technical specifications of the S5700S-52X-LI-AC.

Table 5-163 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	86.64 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	5 kg (11.02 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported

Item	Description
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	54.7 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	34.4 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 50.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350HED

5.6 S5700-LI-BAT

NOTE

The S5700-28P-LI-BAT and S5700-28P-LI-24S-BAT support internal batteries. For details about the two models, see the *S5700-LI-BAT Hardware Installation and Maintenance Guide*.

5.6.1 S5700-28P-LI-BAT

Version Mapping

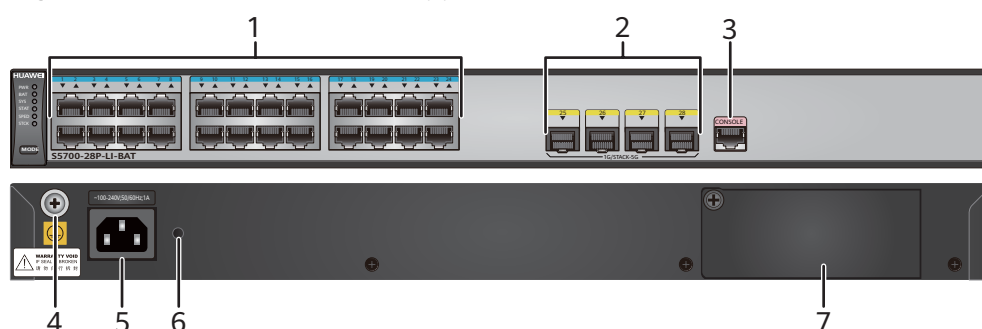
Table 5-164 lists the mapping between the S5700-28P-LI-BAT chassis and software versions.

Table 5-164 Version mapping

Series	Model	Software Version
S5700-LI-BAT	S5700-28P-LI-BAT	V200R003C02 to V200R012C00 versions NOTE This model does not match V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-64 S5700-28P-LI-BAT appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s)
3	One console port	4	Ground screw NOTE It is used with a ground cable .
5	AC socket NOTE It is used with an AC power cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
7	Battery slot NOTE Applicable battery modules or power modules: <ul style="list-style-type: none"> • BAT-4AHA rechargeable lithium ion battery module • BAT-8AHA rechargeable lithium ion battery module • PBB-12AHA lead-acid battery charger module (requiring external lead-acid batteries) • 150 W AC power module • 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-165** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-165 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-166](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-166 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-167](#).

Table 5-167 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

NOTE

In V200R007 and later versions, you can hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore to the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-65 Indicators on the S5700-28P-LI-BAT

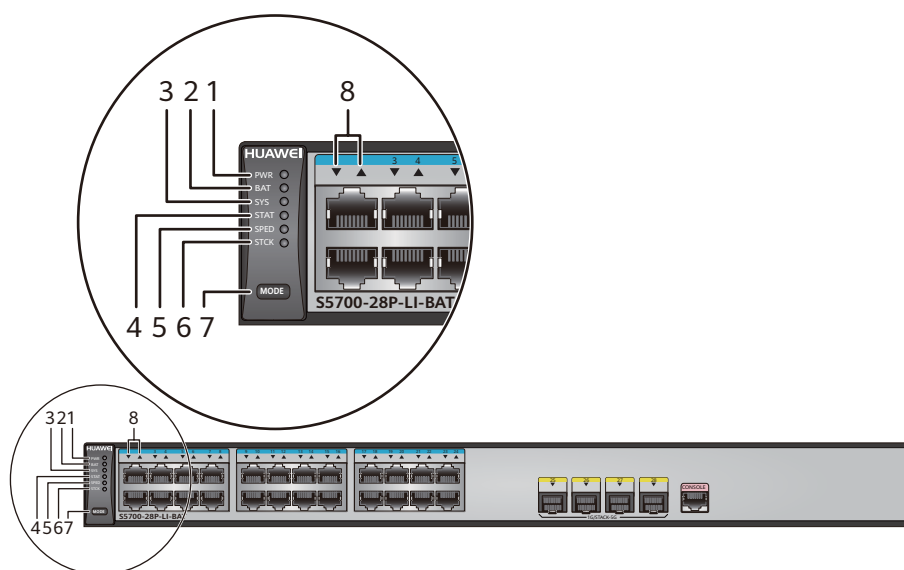


Table 5-168 Description of indicators on the S5700-28P-LI-BAT

No.	Indicator/ Button	Color	Description
1	PWR: power supply indicator	-	Off: The switch is not powered on.
		Green	Steady on: The switch is powered on.
		Yellow	Steady on: The built-in power supply has failed, and the switch is powered by a backup power supply.
2	BAT: battery indicator	-	Off: <ul style="list-style-type: none"> No lithium battery is working. No lead-acid battery charger module is working. No power module is working.
		Green	<ul style="list-style-type: none"> Steady on: The lithium battery, lead-acid battery, or power module is working normally. Fast blinking: The lithium battery is supplying power to the switch. Slow blinking: The switch is charging the lithium battery.
		Yellow	<p>Steady on:</p> <ul style="list-style-type: none"> The lithium battery does not work normally. The output of the lead-acid battery is abnormal. No lead-acid battery is connected to the lead-acid battery charger module. The power module does not work normally. <p>Blinking: The lithium battery software is upgrading. (This indicator state is available in V200R005C00 and later versions.)</p>
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> Fast blinking: The system is starting. Slow blinking: The system is running normally.

No.	Indicator/ Button	Color	Description
		Red	Steady on: The system is not running normally or has generated a temperature or fan alarm.
4	STAT: status indicator	Green	<ul style="list-style-type: none">Off: The status mode is not selected.Steady on: The service port indicators are in the status mode (default).
5	SPED: speed indicator	Green	<ul style="list-style-type: none">Off: The speed mode is not selected.Steady on: The service port indicators show the port speed. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK: stack indicator	-	Off NOTE The S5700-LI-BAT series switches do not support the stacking feature. This indicator is reserved for future use.
7	MODE: mode switch button	-	<ul style="list-style-type: none">When you press this button once, the SPED indicator turns green, and the service port indicators show the speed of each service port.When you press the button a second time, the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and STCK indicator are off.</p>

No.	Indicator/ Button	Color	Description
8	Service port indicator <ul style="list-style-type: none"> • GE electrical ports: The ports are numbered from bottom to top and left to right, starting with 1. • GE optical ports: Each optical port has a corresponding indicator above it. 		Meanings of service port indicators vary in different modes. For details, see Table 5-169 .

Table 5-169 Description of service port indicators in different modes

Mode	Color	Description
Status mode	Green	<ul style="list-style-type: none"> • Off: The port is not connected or has been shut down. • Steady on: The port is connected. • Blinking: The port is sending or receiving data.
Speed mode	Green	<ul style="list-style-type: none"> • Off: The port is not connected or has been shut down. • Steady on: The port is operating at 10/100 Mbit/s. • Blinking: The port is operating at 1000 Mbit/s.

Power Supply Configuration

The S5700-28P-LI-BAT switch has a built-in AC power supply unit and can use a pluggable power module or battery for power redundancy. Power modules and batteries for the S5700-28P-LI-BAT switch are hot swappable.

Battery module configuration

The battery installed on an S5700-28P-LI-BAT switch can automatically supply power to the switch in case of a mains power outage, ensuring uninterrupted services. When the AC power supply recovers, the battery turns to the charging state.

The S5700-28P-LI-BAT switch supports the following batteries and battery charger module:

- BAT-4AHA (chargeable lithium battery)
- BAT-8AHA (chargeable lithium battery)
- PBB-12AHA (12AH lead-acid battery charger module)

 **NOTE**

The PBB-12AHA module must connect to a lead-acid battery with 12AH of rated capacity.

The S5700-28P-LI-BAT switch can be configured with a battery to prevent service interruption caused by mains power outages. [Table 5-170](#) lists the power supply time of the batteries.

Table 5-170 Battery configuration

Battery	Power Supply Time
BAT-4AHA	<ul style="list-style-type: none">• The switch works with the maximum power consumption and the battery is fully charged: 2.4 hours• The switch has 70% of ports in Up state, each port transmits 10% of maximum traffic and has the EEE function enabled, and the battery is fully charged: 4.1 hours• The switch works with the minimum power consumption (no port is working) and the battery is fully charged: 5.6 hours
BAT-8AHA	<ul style="list-style-type: none">• The switch works with the maximum power consumption and the battery is fully charged: 4.8 hours• The switch has 70% of ports in Up state, each port transmits 10% of maximum traffic and has the EEE function enabled, and the battery is fully charged: 8.2 hours• The switch works with the minimum power consumption (no port is working) and the battery is fully charged: 11.2 hours

NOTE

The power supply time shortens when a battery has been used for a long time.

Battery module configuration

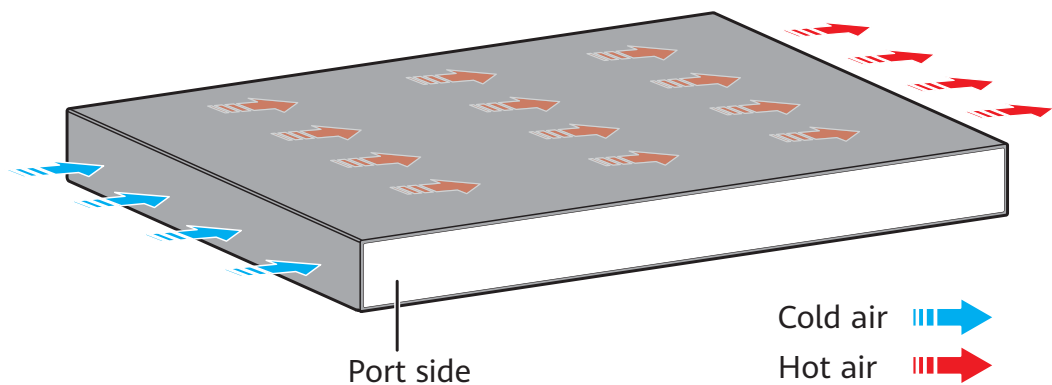
The S5700-28P-LI-BAT switch can be configured with a power module as a backup of the built-in power supply unit to improve power reliability.

The S5700-28P-LI-BAT switch supports the following power modules:

- 150 W AC power module
- 150 W DC power module

Heat Dissipation

The S5700-28P-LI-BAT has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-171 lists technical specifications of the S5700-28P-LI-BAT.

Table 5-171 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	57.9 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999

Item	Description
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Built-in AC or using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	3.4 kg (7.5 lb)
Stack ports	Not supported
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	23 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	22.7 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Storage temperature	<ul style="list-style-type: none"> Pluggable modules not configured: -40°C to +70°C (-40°F to +158°F) Power modules configured: -40°C to +70°C (-40°F to +158°F) Lithium battery modules configured: -20°C to +60°C (-4°F to +140°F) Lead-acid battery modules configured: The storage temperature is determined according to the storage environment of lead-acid batteries.
Noise under normal temperature (27°C, sound power)	< 43.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> DC power modules configured: 0-2000 m (0-6562 ft.) AC power modules or battery modules configured: 0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	98010509

5.6.2 S5700-28P-LI-24S-BAT

Version Mapping

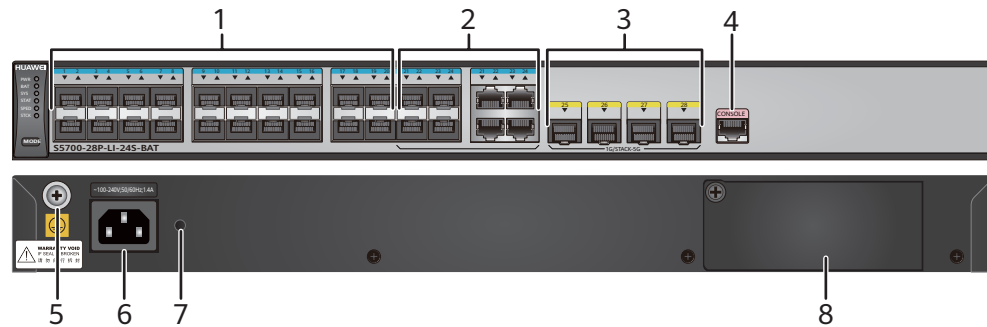
Table 5-172 lists the mapping between the S5700-28P-LI-24S-BAT chassis and software versions.

Table 5-172 Version mapping

Series	Model	Software Version
S5700-LI-BAT	S5700-28P-LI-24S-BAT	V200R003C02 to V200R012C00 versions NOTE This model does not match V200R003C10, V200R005C00SPC500, V200R005C01, V200R005C02, V200R005C03, or V200R007C10.

Appearance and Structure

Figure 5-66 S5700-28P-LI-24S-BAT appearance



1	<p>Twenty 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Four combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
3	<p>Four 1000BASE-X ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	4	<p>One console port</p>
5	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	6	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>

7	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	8	Battery slot NOTE Applicable battery modules or power modules: <ul style="list-style-type: none">• BAT-4AHA rechargeable lithium ion battery module• BAT-8AHA rechargeable lithium ion battery module• PBB-12AHA lead-acid battery charger module (requiring external lead-acid batteries)• 150 W AC power module• 150 W DC power module
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Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-173](#) describes the attributes of a 100/1000BASE-X port.

Table 5-173 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-174](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-174 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-175](#).

Table 5-175 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

The S5700-28P-LI-24S-BAT has the same types of indicators as the S5700-28P-LI-BAT. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-28P-LI-24S-BAT switch has a built-in AC power supply unit and can use a pluggable power module or battery for power redundancy. Power modules and batteries for the S5700-28P-LI-24S-BAT switch are hot swappable.

Battery module configuration

The battery installed on an S5700-28P-LI-24S-BAT switch can automatically supply power to the switch in case of a mains power outage, ensuring uninterrupted services. When the AC power supply recovers, the battery turns to the charging state.

The S5700-28P-LI-24S-BAT switch supports the following batteries and battery charger module:

- BAT-4AHA (chargeable lithium battery)
- BAT-8AHA (chargeable lithium battery)
- PBB-12AHA (12AH lead-acid battery charger module)

NOTE

The PBB-12AHA module must connect to a lead-acid battery with 12AH of rated capacity.

The S5700-28P-LI-24S-BAT switch can be configured with a battery to prevent service interruption caused by mains power outages. [Table 5-176](#) lists the power supply time of the batteries.

Table 5-176 Battery configuration

Battery	Power Supply Time
BAT-4AHA	<ul style="list-style-type: none">• The switch works with the maximum power consumption and the battery is fully charged: 1.2 hours• The switch has 70% of ports in Up state, each port transmits 10% of maximum traffic, and the battery is fully charged: 2.1 hours• The switch works with the minimum power consumption (no port is working) and the battery is fully charged: 4.1 hours
BAT-8AHA	<ul style="list-style-type: none">• The switch works with the maximum power consumption and the battery is fully charged: 2.3 hours• The switch has 70% of ports in Up state, each port transmits 10% of maximum traffic, and the battery is fully charged: 4.2 hours• The switch works with the minimum power consumption (no port is working) and the battery is fully charged: 8.3 hours

NOTE

The power supply time shortens when a battery has been used for a long time.

Battery module configuration

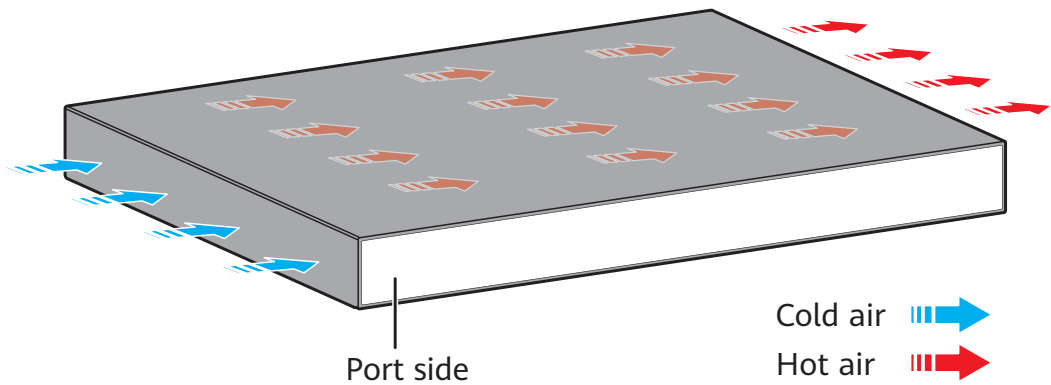
The S5700-28P-LI-24S-BAT switch can be configured with a power module as a backup of the built-in power supply unit to improve power reliability.

The S5700-28P-LI-24S-BAT switch supports the following power modules:

- 150 W AC power module
- 150 W DC power module

Heat Dissipation

The S5700-28P-LI-24S-BAT has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-177 lists technical specifications of the S5700-28P-LI-24S-BAT.

Table 5-177 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB
Mean time between failures (MTBF)	45
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Built-in AC or using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight (with packaging)	3.6 kg (7.94 lb)
Stack ports	Not supported
RTC	Not supported
RPS	Not supported

Item	Description
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	34.1 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	33.4 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	<ul style="list-style-type: none"> • Pluggable modules not configured: -40°C to +70°C (-40°F to +158°F) • Power modules configured: -40°C to +70°C (-40°F to +158°F) • Lithium battery modules configured: -20°C to +60°C (-4°F to +140°F) • Lead-acid battery modules configured: The storage temperature is determined according to the storage environment of lead-acid batteries.
Noise under normal temperature (27°C, sound power)	< 46.1 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	<ul style="list-style-type: none"> DC power modules configured: 0-2000 m (0-6562 ft.) AC power modules or battery modules configured: 0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	98010511

5.7 S5710-LI

5.7.1 S5710-28C-LI

Version Mapping

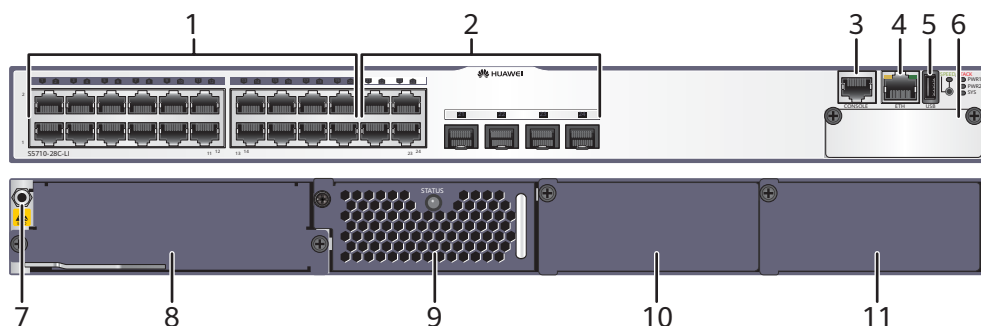
[Table 5-178](#) lists the mapping between the S5710-28C-LI chassis and software versions.

Table 5-178 Version mapping

Series		Model	Software Version
S5710-LI	S5710-C-LI	S5710-28C-LI	V200R001C00 only

Appearance and Structure

Figure 5-67 S5710-28C-LI appearance



1	Twenty 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T (PoE+) + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
3	One console port	4	One ETH management port
5	One USB port	6	Front card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.6 ES5D00G4SA01 (4-Port GE SFP Front Optical Interface Card) • 9.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) • 9.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card)
7	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.	8	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.27 ES5D00ETPC00 (Stack Rear Card) • 9.28 ES5D00ETPB00 (Extended Rear Card)
9	Fan slot NOTE Applicable fan module: CX7E1FANA fan module	10	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
11	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-179](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-179 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-180](#).

Table 5-180 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. **Table 5-181** describes the attributes of an ETH management port.

Table 5-181 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

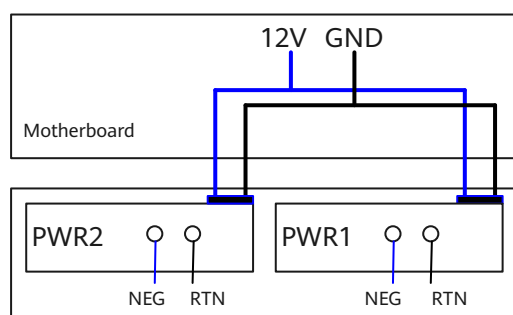
The S5710-28C-LI has the same types of indicators as the S5700-28C-SI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5710-28C-LI uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. The switch cannot use AC and DC power modules simultaneously.

Figure 5-68 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-68 Power supply connections of dual DC power modules



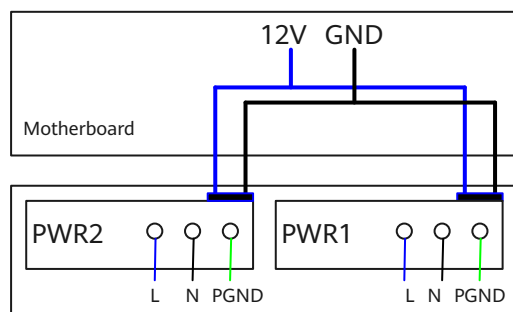
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 5-69 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-69 Power supply connections of dual AC power modules



L: Live wire

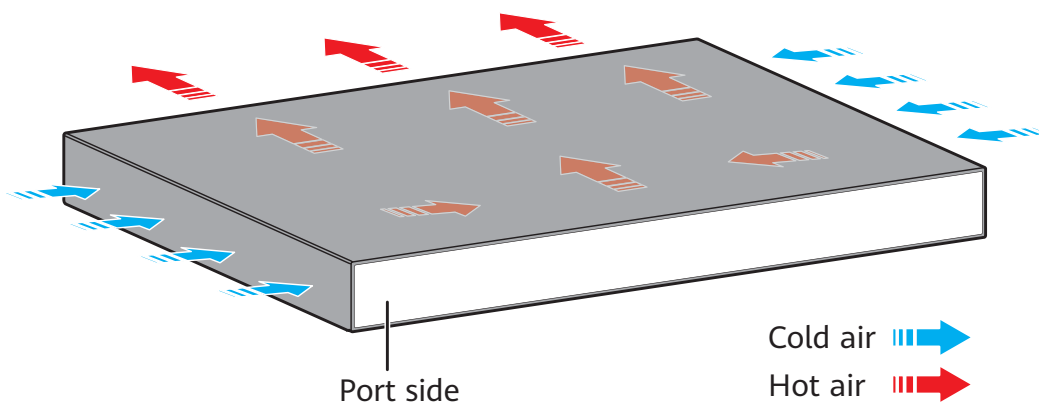
N: Neutral wire

PGND: Protection ground wire

GND: 12 V reference ground

Heat Dissipation

The S5710-28C-LI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-182](#) lists technical specifications of the S5710-28C-LI.

Table 5-182 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	53.7 years when a 2-port 10GE interface card is configured, 74.9 years when a 4-port GE front card is configured, 29.58 years when a 4-port 10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 2 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)

Item	Description
Weight	<ul style="list-style-type: none">• Empty: ≤ 5 kg (11.02 lb)• Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	56 W
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 41 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none">• AC power modules configured: 0-5000 m (0-16404 ft.)• DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02354139

5.7.2 S5710-28C-PWR-LI

Version Mapping

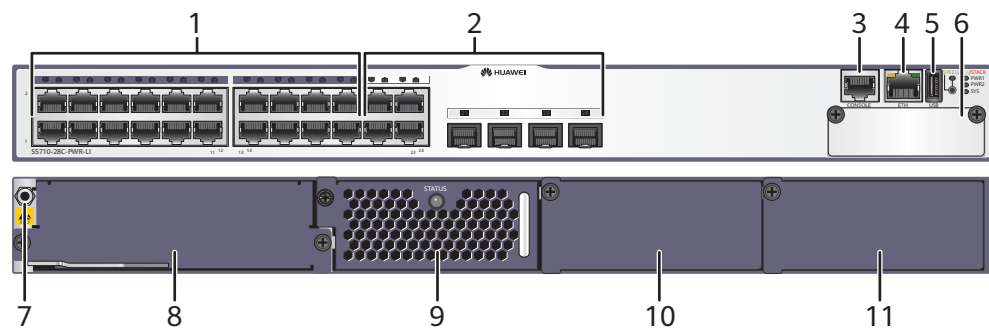
Table 5-183 lists the mapping between the S5710-28C-PWR-LI chassis and software versions.

Table 5-183 Version mapping

Series		Model	Software Version
S5710-LI	S5710-C-LI	S5710-28C-PWR-LI	V200R001C00 only

Appearance and Structure

Figure 5-70 S5710-28C-PWR-LI appearance



1	Twenty PoE+ 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T (PoE+) + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
3	One console port	4	One ETH management port
5	One USB port	6	Front card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.6 ES5D00G4SA01 (4-Port GE SFP Front Optical Interface Card) • 9.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) • 9.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card)

7	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.	8	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.27 ES5D00ETPC00 (Stack Rear Card) • 9.28 ES5D00ETPB00 (Extended Rear Card)
9	Fan slot NOTE Applicable fan module: CX7E1FANA fan module	10	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 250 W AC PoE power module • 500 W AC PoE power module
11	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 250 W AC PoE power module • 500 W AC PoE power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-184](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-184 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or

an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-185](#).

Table 5-185 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the

Configuration Guide - Basic Configurations. [Table 5-186](#) describes the attributes of an ETH management port.

Table 5-186 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5710-28C-PWR-LI has the same types of indicators as the S5700-28C-PWR-SI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5710-28C-PWR-LI is a PoE switch. It has two power module slots, each of which can have a 500 W or 250 W power module installed. A power module can provide 369.6 W or 123.2 W of PoE power for powered devices (PDs). [Table 5-187](#) lists its power supply configurations.

Table 5-187 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
250 W	-	123.2 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 8802.3at (30 W per port): 4

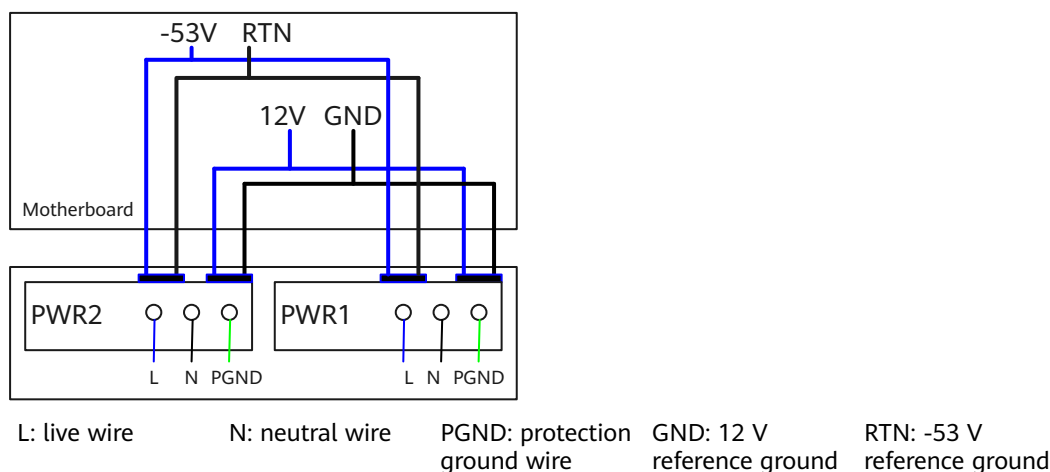
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W	–	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
250 W	250 W	246.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 16 802.3at (30 W per port): 8
500 W	500 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

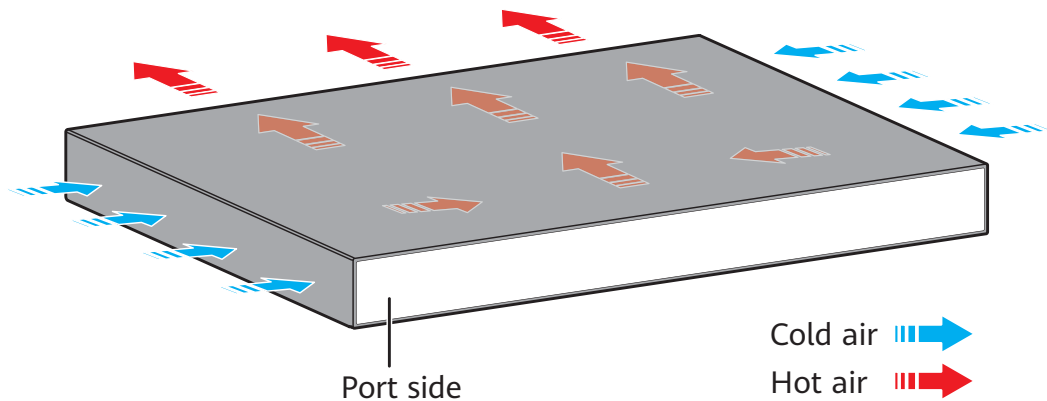
Figure 5-71 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 5-71 Power supply by dual AC PoE power modules



Heat Dissipation

The S5710-28C-PWR-LI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-188 lists technical specifications of the S5710-28C-PWR-LI.

Table 5-188 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	53.6 years when a 2-port 10GE interface card is configured, 74.6 years when a 4-port GE front card is configured, 25.68 years when a 4-port 10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 1 kV
Power supply surge protection	± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Supported

Item	Description
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	836 W (system power consumption: 96 W, PoE: 740 W)
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 45 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02354136

5.7.3 S5710-52C-LI

Version Mapping

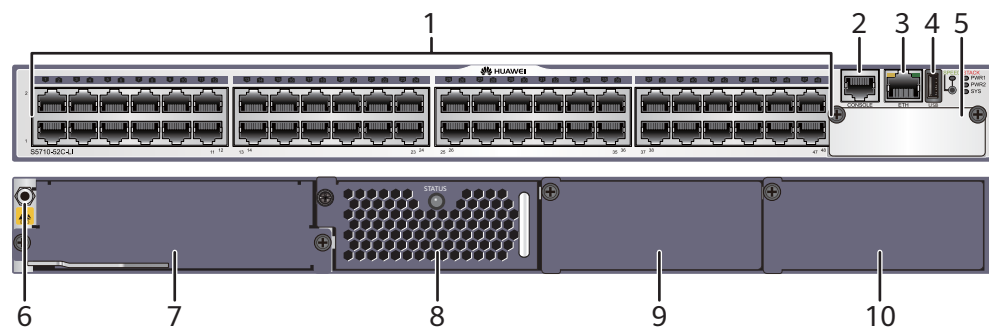
[Table 5-189](#) lists the mapping between the S5710-52C-LI chassis and software versions.

Table 5-189 Version mapping

Series		Model	Software Version
S5710-LI	S5710-C-LI	S5710-52C-LI	V200R001C00 only

Appearance and Structure

Figure 5-72 S5710-52C-LI appearance



1	Forty-eight 10/100/1000BASE-T ports	2	One console port
3	One ETH management port	4	One USB port
5	Front card slot NOTE Card supported: <ul style="list-style-type: none"> 9.6 ES5D00G4SA01 (4-Port GE SFP Front Optical Interface Card) 9.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) 9.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card) 	6	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.
7	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 9.27 ES5D00ETPC00 (Stack Rear Card) 9.28 ES5D00ETPB00 (Extended Rear Card) 	8	Fan slot NOTE Applicable fan module: CX7E1FANA fan module

<p>9 Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	<p>1 Power module slot 1</p> <p>0 NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-190](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-190 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-191](#).

Table 5-191 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 5-192](#) describes the attributes of an ETH management port.

Table 5-192 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5710-52C-LI has the same types of indicators as the S5700-28C-SI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5710-52C-LI uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. The switch cannot use AC and DC power modules simultaneously.

[Figure 5-73](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-73 Power supply connections of dual DC power modules

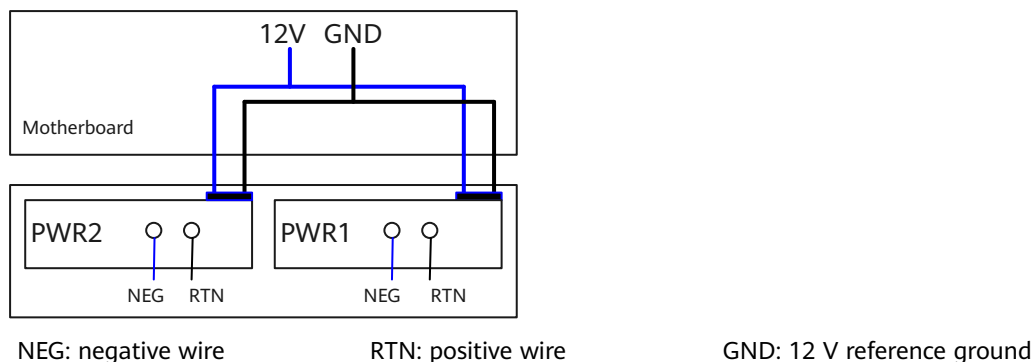
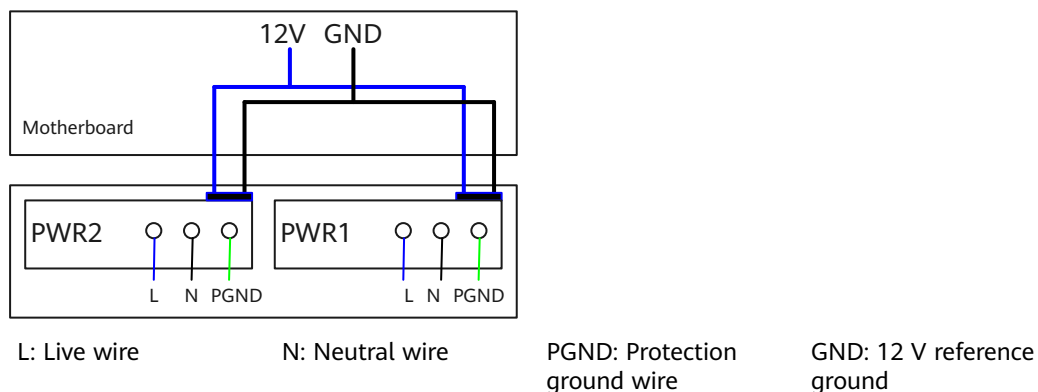


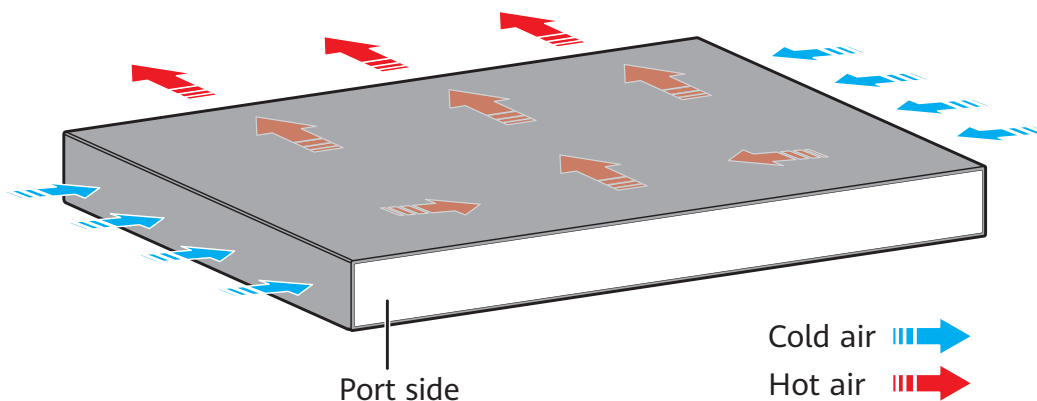
Figure 5-74 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-74 Power supply connections of dual AC power modules



Heat Dissipation

The S5710-52C-LI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-193 lists technical specifications of the S5710-52C-LI.

Table 5-193 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	51.3 years when a 2-port 10GE interface card is configured, 70.3 years when a 4-port GE front card is configured, 28.58 years when a 4-port 10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 2 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	78 W

Item	Description
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 41 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02354138

5.7.4 S5710-52C-PWR-LI

Version Mapping

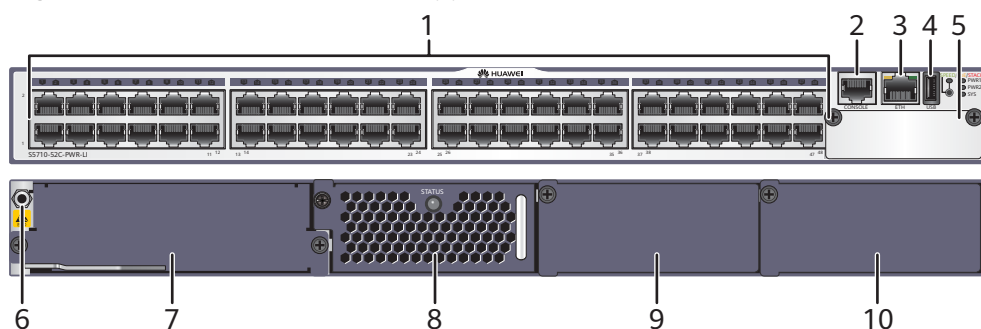
Table 5-194 lists the mapping between the S5710-52C-PWR-LI chassis and software versions.

Table 5-194 Version mapping

Series		Model	Software Version
S5710-LI	S5710-C-LI	S5710-52C-PWR-LI	V200R001C00 only

Appearance and Structure

Figure 5-75 S5710-52C-PWR-LI appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	One console port
3	One ETH management port	4	One USB port
5	Front card slot NOTE Card supported: <ul style="list-style-type: none"> 9.6 ES5D00G4SA01 (4-Port GE SFP Front Optical Interface Card) 9.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) 9.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card) 	6	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.
7	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 9.27 ES5D00ETPC00 (Stack Rear Card) 9.28 ES5D00ETPB00 (Extended Rear Card) 	8	Fan slot NOTE Applicable fan module: CX7E1FANA fan module
9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 250 W AC PoE power module 500 W AC PoE power module 	10	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 250 W AC PoE power module 500 W AC PoE power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-195](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-195 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-196](#).

Table 5-196 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 5-197](#) describes the attributes of an ETH management port.

Table 5-197 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5710-52C-PWR-LI has the same types of indicators as the S5700-28C-PWR-SI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5710-52C-PWR-LI is a PoE switch. It has two power module slots, each of which can have a 500 W or 250 W power module installed. A power module can provide 369.6 W or 123.2 W of PoE power for powered devices (PDs). [Table 5-198](#) lists its power supply configurations.

Table 5-198 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
250 W	–	123.2 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 8802.3at (30 W per port): 4
500 W	–	369.6 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 12
250 W	250 W	246.4 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 16802.3at (30 W per port): 8

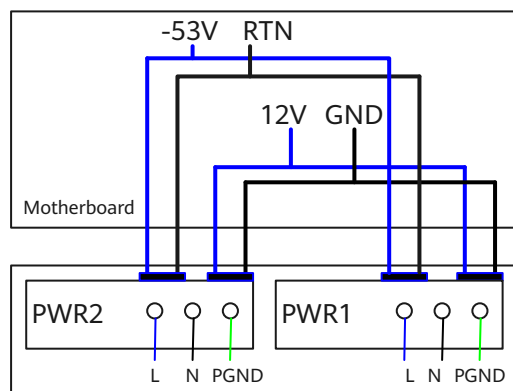
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W	500 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 5-76 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

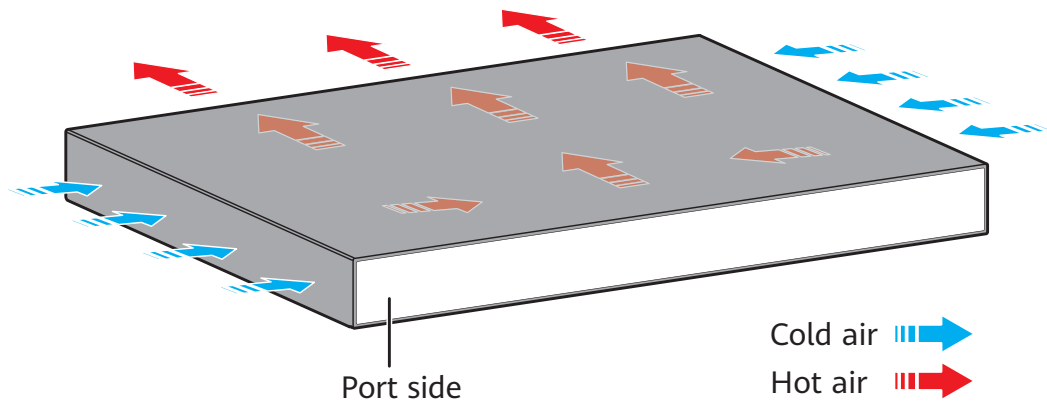
Figure 5-76 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5710-52C-PWR-LI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-199 lists technical specifications of the S5710-52C-PWR-LI.

Table 5-199 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	50.4 years when a 2-port 10GE interface card is configured, 68.6 years when a 4-port GE front card is configured, 35.58 years when a 4-port 10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 1 kV
Power supply surge protection	± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Supported

Item	Description
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	917 W (system power consumption: 177 W, PoE: 740 W)
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 45 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02354134

5.7.5 S5710-28X-LI-AC

Version Mapping

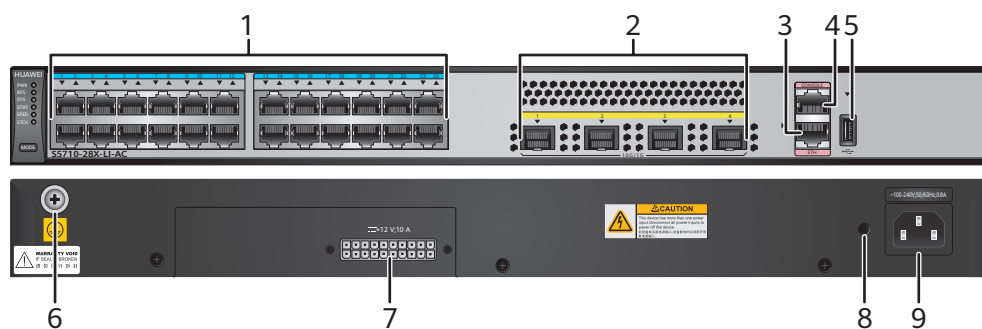
[Table 5-200](#) lists the mapping between the S5710-28X-LI-AC chassis and software versions.

Table 5-200 Version mapping

Series		Model	Software Version
S5710-LI	S5710-X-LI	S5710-28X-LI-AC	V200R008C00 to V200R012C00 versions

Appearance and Structure

Figure 5-77 S5710-28X-LI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (a maximum transmission distance of 10 km, OSXD22N00 not supported) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • GPON optical module (applicable in V200R012C00 version) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	One console port
5	One USB port	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>

9	AC socket	-	-
	NOTE It is used with an AC power cable .		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-201](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-201 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-202](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-202 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 5-203](#).

Table 5-203 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-204](#) describes the attributes of an ETH management port.

Table 5-204 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

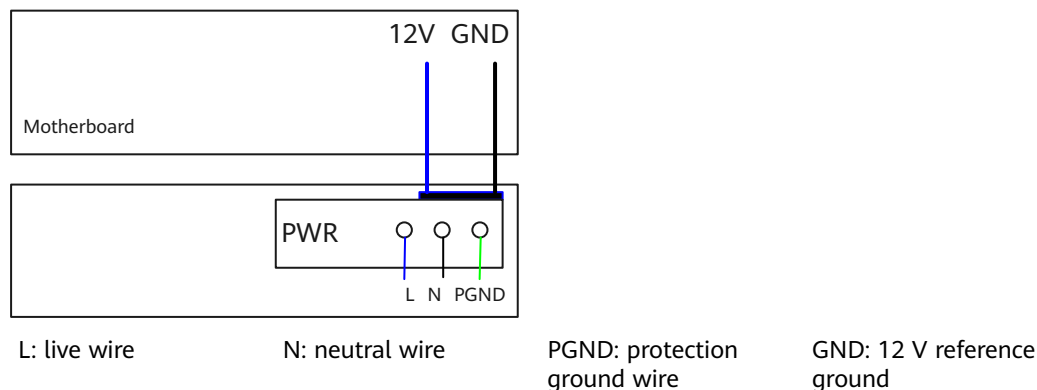
The S5710-28X-LI-AC has the same types of indicators as the S5700S-52X-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5710-28X-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

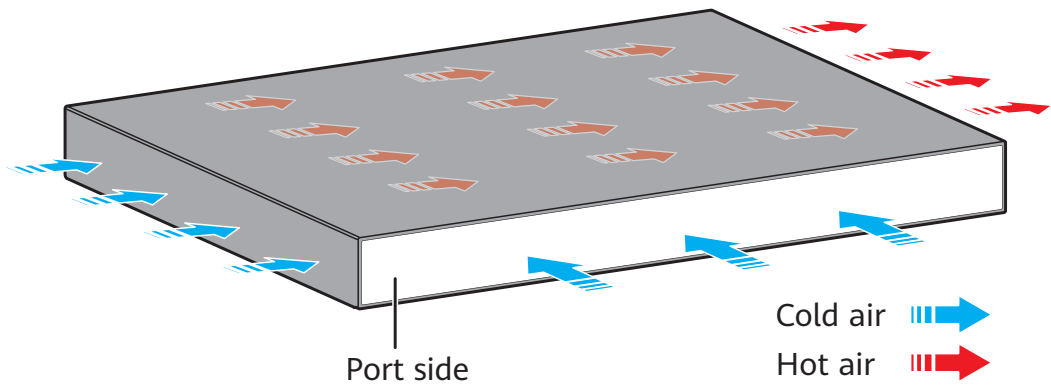
Figure 5-78 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-78 Power supply mode of a built-in AC power module



Heat Dissipation

The S5710-28X-LI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-205 lists technical specifications of the S5710-28X-LI-AC.

Table 5-205 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	100.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	4.8 kg (10.58 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported

Item	Description
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	32 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	22 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 50.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350GEM

5.7.6 S5710-52X-LI-AC

Version Mapping

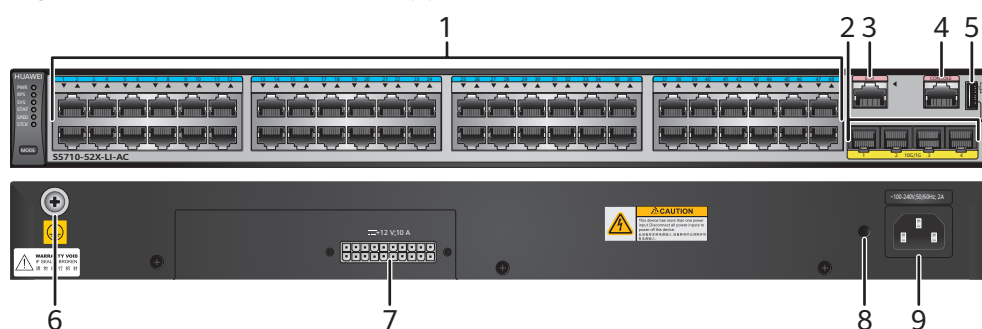
Table 5-206 lists the mapping between the S5710-52X-LI-AC chassis and software versions.

Table 5-206 Version mapping

Series		Model	Software Version
S5710-LI	S5710-X-LI	S5710-52X-LI-AC	V200R008C00 to V200R012C00 versions

Appearance and Structure

Figure 5-79 S5710-52X-LI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • GPON optical module (applicable in V200R012C00 version) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	One console port
5	One USB port	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>

9	AC socket	-	-
	NOTE It is used with an AC power cable .		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-207](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-207 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-208](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-208 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 5-209](#).

Table 5-209 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-210](#) describes the attributes of an ETH management port.

Table 5-210 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

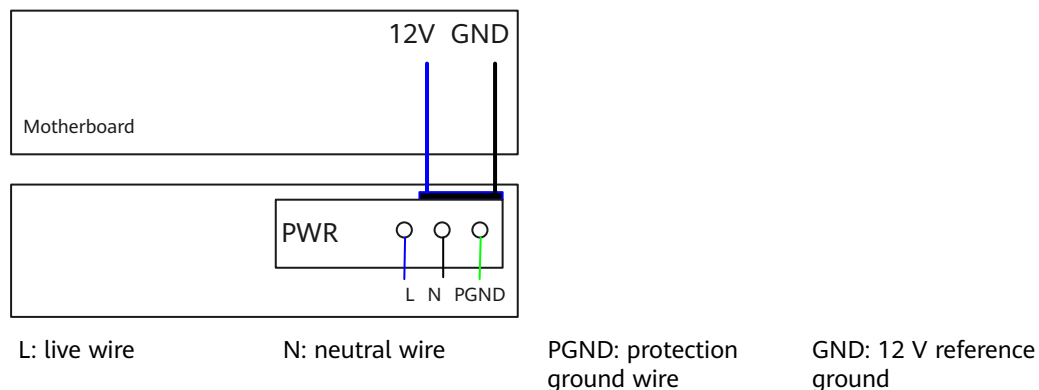
The S5710-52X-LI-AC has the same types of indicators as the S5700S-52X-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5710-52X-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

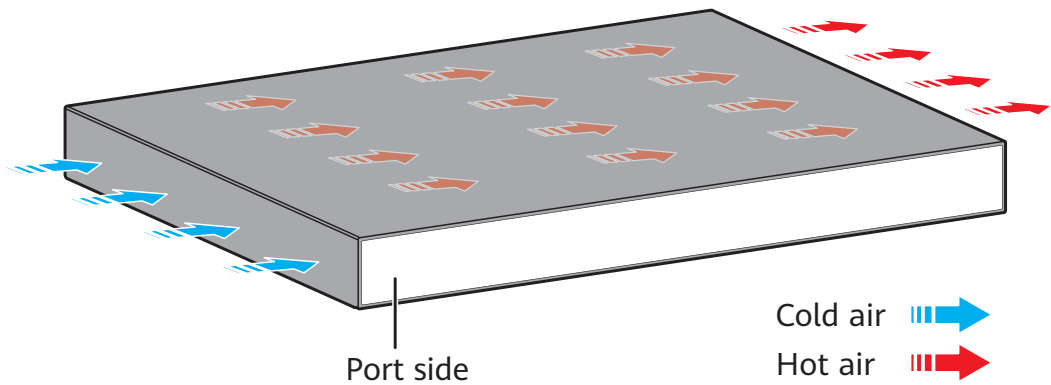
Figure 5-80 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-80 Power supply mode of a built-in AC power module



Heat Dissipation

The S5710-52X-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-211 lists technical specifications of the S5710-52X-LI-AC.

Table 5-211 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	86.64 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight (with packaging)	5 kg (11.02 lb)
Stack ports	Four uplink 10GE SFP+ ports
RTC	Supported
RPS	Supported

Item	Description
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	54.7 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	34.4 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 50.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02350GEN

5.8 S5720-LI

5.8.1 S5720-12TP-LI-AC

Version Mapping

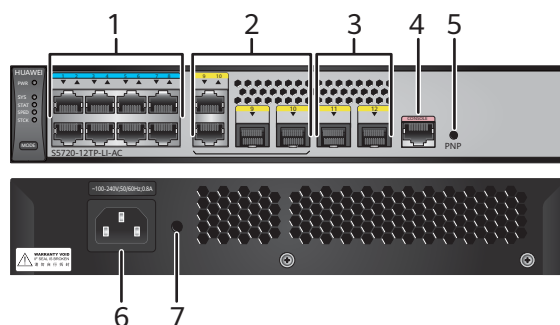
Table 5-212 lists the mapping between the S5720-12TP-LI-AC chassis and software versions.

Table 5-212 Version mapping

Series	Model	Software Version
S5720-LI	S5720-12TP-LI-AC	V200R010C00 and later versions

Appearance and Structure

Figure 5-81 S5720-12TP-LI-AC appearance



1	Eight 10/100/1000BASE-T ports	2	Two combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module (the maximum transmission distance cannot exceed 40 km)
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3	<p>Two 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module (the maximum transmission distance cannot exceed 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only applicable to stack ports) • 1 m, 3 m, 5 m, 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 3 m and 10 m AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>	4	One console port
5	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>AC socket</p> <p>NOTE</p> <p>It is used with an AC power cable.</p>
7	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-213](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-213 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission

speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-214](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-214 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-215](#).

Table 5-215 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-82 Indicators on the S5720-12TP-LI-AC

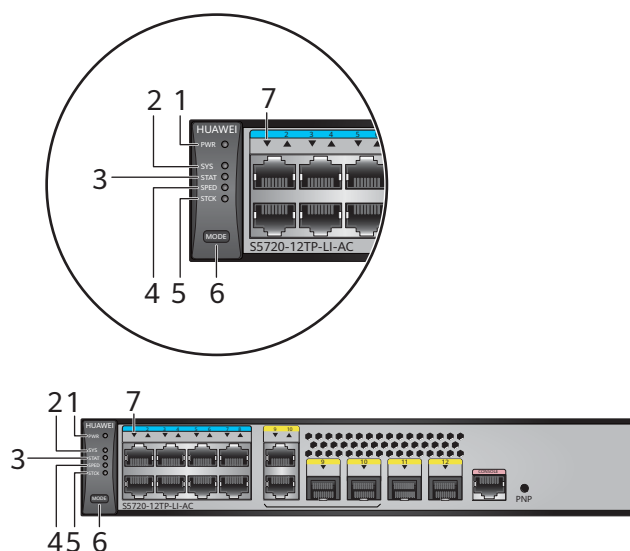


Table 5-216 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a temperature alarm has been generated.
3	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
5	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

No.	Indicator	Name	Color	Status	Description
6	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
7	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-217 .		

Table 5-217 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Description
Status	Green	<ul style="list-style-type: none"> Off: The port is not connected or has been shut down. Steady on: The port is connected. Blinking: The port is sending or receiving data.
Speed	Green	<ul style="list-style-type: none"> Off: The port is not connected or has been shut down. Steady on: 10M/100M/1000M port: The port is operating at 10/100 Mbit/s. Blinking: 10M/100M/1000M port: The port is operating at 1000 Mbit/s.

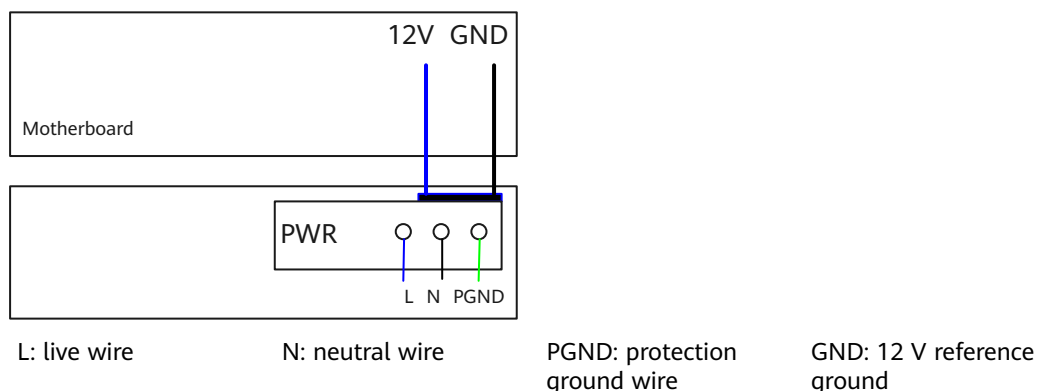
Display Mode	Color	Description
Stack	Green	<p>Off: Port indicators do not show the stack ID of the switch.</p> <p>If the indicator is steady on, the switch is not a master switch:</p> <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0. <p>If the indicator is blinking, the switch is a master switch:</p> <ul style="list-style-type: none"> • If the indicator of a port is blinking, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-12TP-LI-AC has a built-in power module and does not support pluggable power modules.

Figure 5-83 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-83 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-12TP-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

Table 5-218 lists technical specifications of the S5720-12TP-LI-AC.

Table 5-218 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	23.8 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 250.0 mm x 180.0 mm (1.72 in. x 9.8 in. x 7.1 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 250.0 mm x 186.7 mm (1.72 in. x 9.8 in. x 7.35 in.)
Weight (with packaging)	1.8 kg (3.97 lb)
Stack ports	Eight 10/100/1000BASE-T ports and two 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	12.85 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	10.39 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses GE SFP optical modules with 40 km transmission distance.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010567

5.8.2 S5720-12TP-PWR-LI-AC

Version Mapping

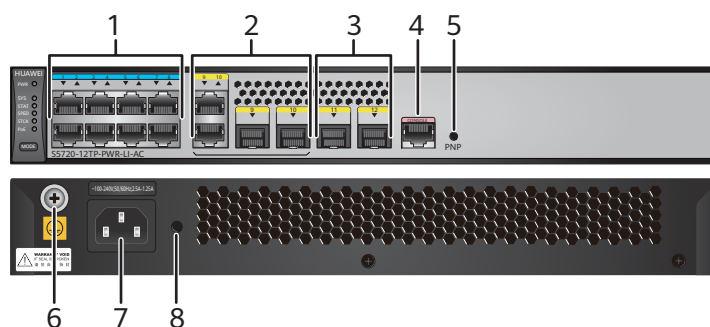
Table 5-219 lists the mapping between the S5720-12TP-PWR-LI-AC chassis and software versions.

Table 5-219 Version mapping

Series	Model	Software Version
S5720-LI	S5720-12TP-PWR-LI-AC	V200R010C00 and later versions

Appearance and Structure

Figure 5-84 S5720-12TP-PWR-LI-AC appearance



1	Eight PoE+ 10/100/1000BASE-T ports	2	Two combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module (the maximum transmission distance cannot exceed 40 km)
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3	<p>Two 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module (the maximum transmission distance cannot exceed 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only applicable to stack ports) • 1 m, 3 m, 5 m, 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 3 m and 10 m AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>	4	One console port
5	<p>One PNP button</p> <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-220](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-220 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission

speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-221](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-221 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-222](#).

Table 5-222 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-85 Indicators on the S5720-12TP-PWR-LI-AC

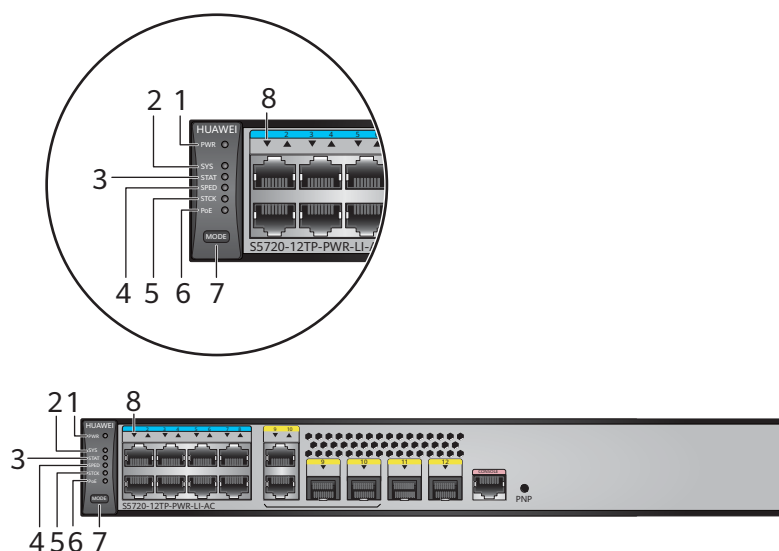


Table 5-223 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
			Yellow	Steady on	The built-in PoE power module has failed.
2	SYS	System status	-	Off	The system is not running.

No.	Indicator	Name	Color	Status	Description
		indicator	Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a temperature alarm has been generated.
3	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
5	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

No.	Indicator	Name	Color	Status	Description
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-224 .		

Table 5-224 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.

Display Mode	Color	Status	Description
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> • The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. • The total power consumption of PDs has reached the maximum power of the switch. • The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

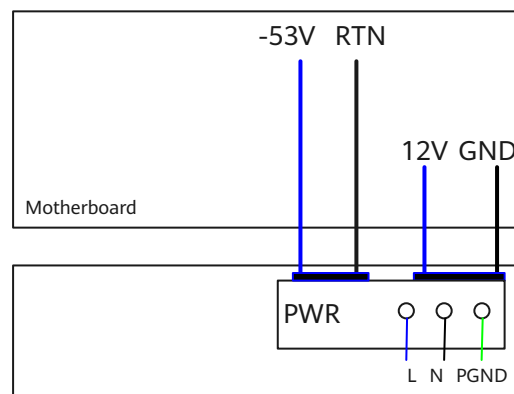
Display Mode	Color	Status	Description
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-12TP-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 124 W PoE power, which ensures full PoE power on 8 ports in compliance with 802.3af or on 4 ports in compliance with 802.3at. The switch cannot connect to an RPS power supply.

Figure 5-86 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 5-86 Power supply by a built-in AC PoE power module



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720-12TP-PWR-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

Table 5-225 lists technical specifications of the S5720-12TP-PWR-LI-AC.

Table 5-225 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	23.8 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 320.0 mm x 220.0 mm (1.72 in. x 12.6 in. x 8.7 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 320.0 mm x 231.5 mm (1.72 in. x 12.6 in. x 9.11 in.)
Weight (with packaging)	3 kg (6.62 lb)
Stack ports	Eight 10/100/1000BASE-T ports and two 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	<ul style="list-style-type: none">• Not providing the PoE function: 15.61 W• 100% PoE loads: 160.5 W (system power consumption: 37.3 W, PoE: 123.2 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	14.57 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses GE SFP optical modules with 40 km transmission distance.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010570

5.8.3 S5720-28TP-LI-AC

Version Mapping

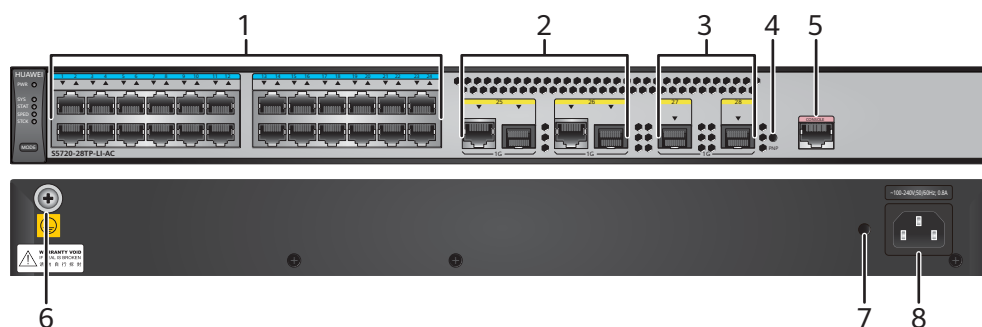
Table 5-226 lists the mapping between the S5720-28TP-LI-AC chassis and software versions.

Table 5-226 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28TP-LI-AC	V200R010C00 and later versions

Appearance and Structure

Figure 5-87 S5720-28TP-LI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Two combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module (maximum transmission distance ≤ 40 km)
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3	<p>Two 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module (maximum transmission distance ≤ 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>	<p>4 One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	<p>One console port</p>	<p>6 Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>	<p>8 AC socket</p> <p>NOTE It is used with an AC power cable.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 5-227](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-227 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-228](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-228 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-229](#).

Table 5-229 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

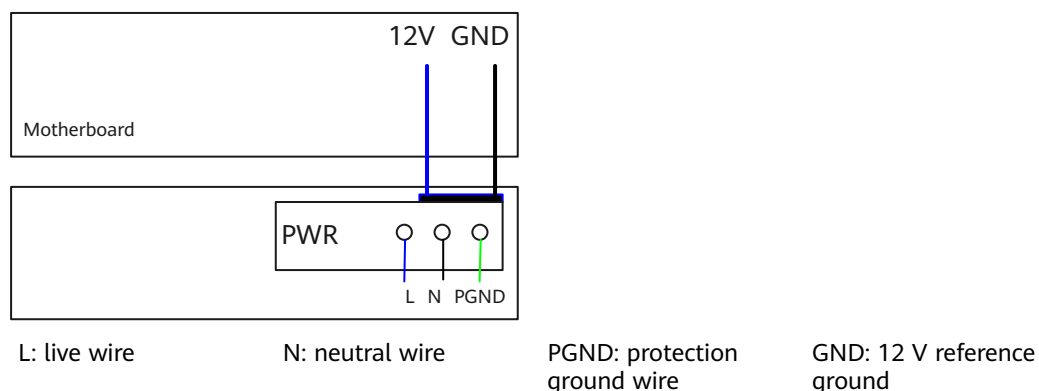
Indicator Description

The S5720-28TP-LI-AC has similar indicators to those of the S5720-28TP-PWR-LI-AC except that the S5720-28TP-LI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-28TP-LI-AC has a built-in power module and does not support pluggable power modules.

[Figure 5-88](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-88 Power supply mode of a built-in AC power module

Heat Dissipation

The S5720-28TP-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

[Table 5-230](#) lists technical specifications of the S5720-28TP-LI-AC.

Table 5-230 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	43 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4 kg (8.82 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and two 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	22.1 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	16.2 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses GE SFP optical modules with 40 km transmission distance.

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010639

5.8.4 S5720-28TP-PWR-LI-AC

Version Mapping

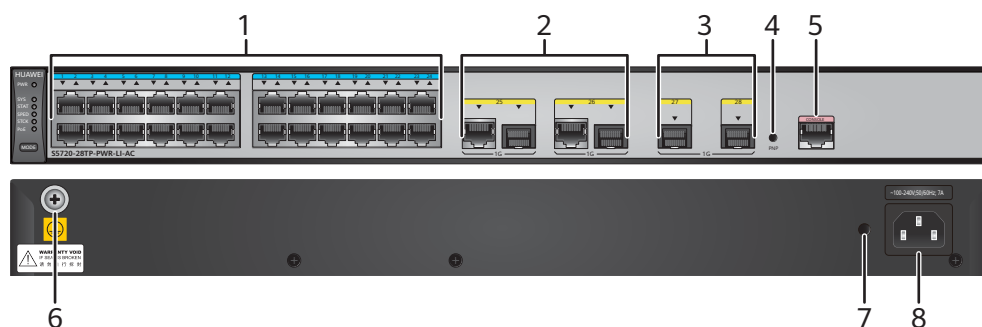
[Table 5-231](#) lists the mapping between the S5720-28TP-PWR-LI-AC chassis and software versions.

Table 5-231 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28TP-PWR-LI-AC	V200R010C00 and later versions

Appearance and Structure

Figure 5-89 S5720-28TP-PWR-LI-AC appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Two combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
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3	<p>Two 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>	4	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	One console port	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>	8	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 5-232](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-232 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-233](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-233 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-234](#).

Table 5-234 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

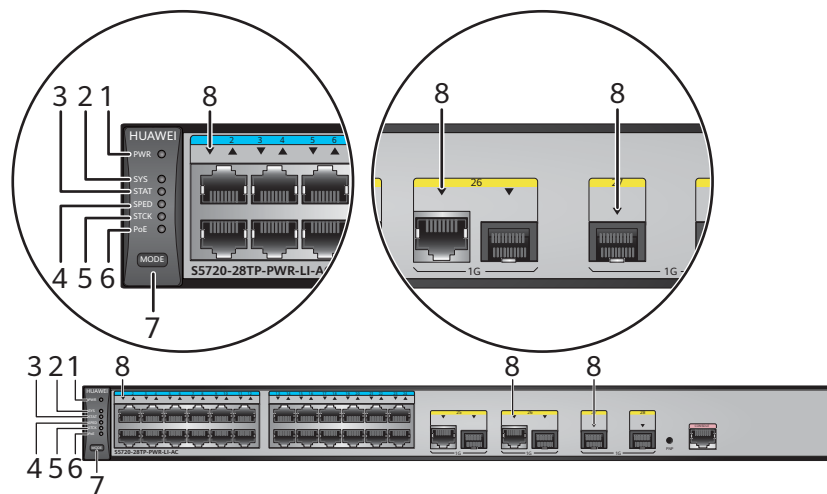
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-90 Indicators on the S5720-28TP-PWR-LI-AC



NOTE

The S5720-LI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators of a switch. If the switch fails, its SYS indicator and mode indicators can be configured to blink red fast so that field maintenance personnel can find this faulty switch.

Table 5-235 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
			Yellow	Steady on	The built-in PoE power module has failed.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
3	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
5	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-236 .		

Table 5-236 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> • The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. • The total power consumption of PDs has reached the maximum power of the switch. • The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

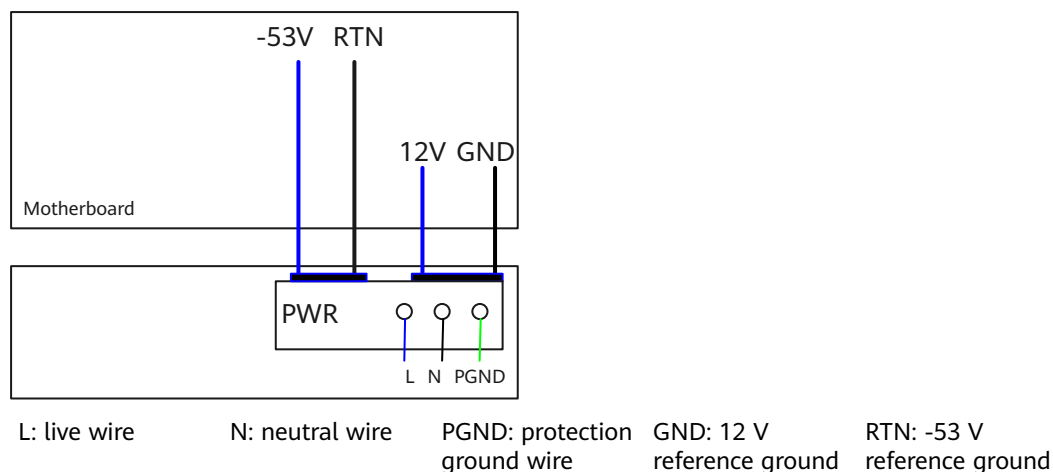
Display Mode	Color	Status	Description
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none">• If the indicator of a port is blinking, the number of this port is the stack ID of the switch.• If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-28TP-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 370 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at. The switch cannot connect to an RPS power supply.

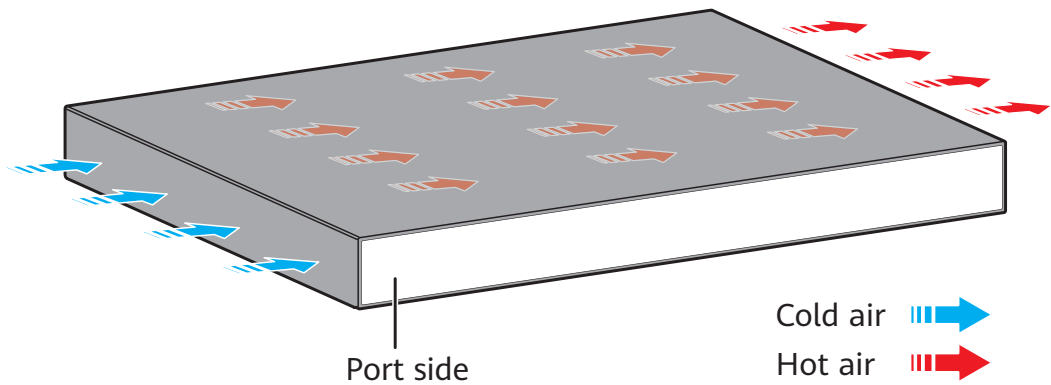
Figure 5-91 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 5-91 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5720-28TP-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-237 lists technical specifications of the S5720-28TP-PWR-LI-AC.

Table 5-237 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	40 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.8 mm (1.72 in. x 17.4 in. x 12.39 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.8 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	5.3 kg (11.69 lb)

Item	Description
Stack ports	Twenty-four 10/100/1000BASE-T ports and two 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">• Not providing the PoE function: 38.8 W• 100% PoE loads: 444.8 W (system power consumption: 75.2 W, PoE: 369.6 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	27.4 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 48.6 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010637

5.8.5 S5720-28TP-PWR-LI-ACL

Version Mapping

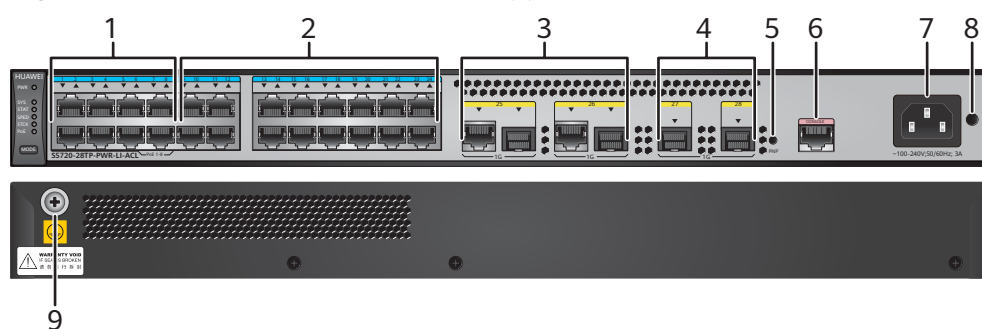
[Table 5-238](#) lists the mapping between the S5720-28TP-PWR-LI-ACL chassis and software versions.

Table 5-238 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28TP-PWR-LI-ACL	V200R010C00 and later versions

Appearance and Structure

Figure 5-92 S5720-28TP-PWR-LI-ACL appearance



1	Eight PoE+ 10/100/1000BASE-T ports	2	Sixteen 10/100/1000BASE-T ports
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3	<p>Two combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module (the maximum transmission distance cannot exceed 40 km) 	<p>4 Two 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module (the maximum transmission distance cannot exceed 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only applicable to stack ports) • 1 m, 3 m, 5 m, 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 3 m and 10 m AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
5	<p>One PNP button</p> <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	<p>6 One console port</p>
7	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	<p>8 Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>

9	Ground screw	-	-
	NOTE It is used with a ground cable .		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-239** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-239 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-240](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-240 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-241](#).

Table 5-241 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

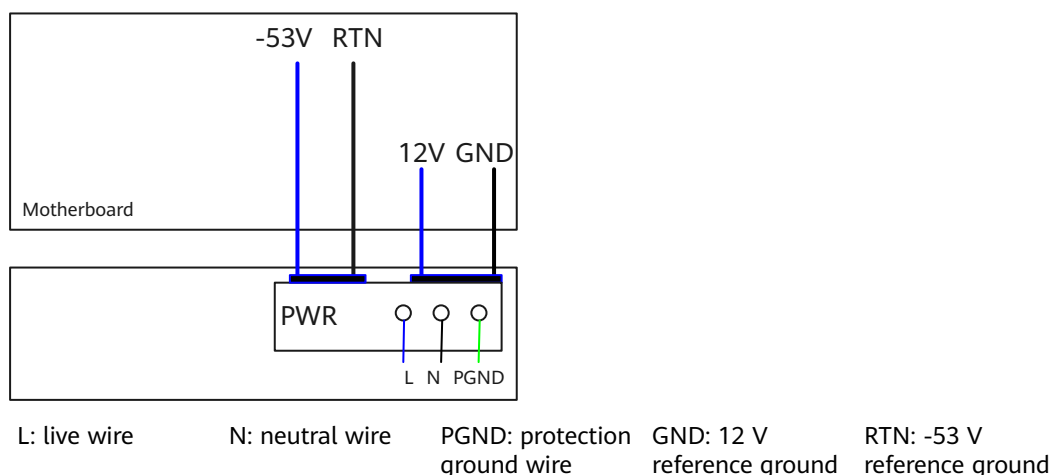
The S5720-28TP-PWR-LI-ACL has the same types of indicators as the S5720-28TP-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-28TP-PWR-LI-ACL has a built-in power module and does not support pluggable power modules. The built-in power module can provide 124 W PoE power, which ensures full PoE power on 8 ports in compliance with 802.3af or on 4 ports in compliance with 802.3at. The switch cannot connect to an RPS power supply.

Figure 5-93 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 5-93 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5720-28TP-PWR-LI-ACL has no fans and uses natural heat dissipation.

Technical Specifications

Table 5-242 lists technical specifications of the S5720-28TP-PWR-LI-ACL.

Table 5-242 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	42 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.5 kg (9.92 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and two 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz

Item	Description
Maximum power consumption (100% throughput)	<ul style="list-style-type: none"> • Not providing the PoE function: 24.4 W • 100% PoE loads: 165.6 W (system power consumption: 42.4 W, PoE: 123.2 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	19.4 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses GE SFP optical modules with 40 km transmission distance.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010634

5.8.6 S5720-28P-LI-AC

Version Mapping

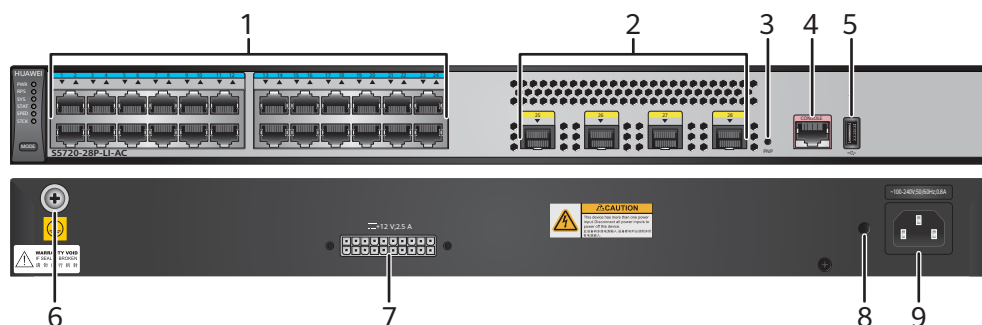
Table 5-243 lists the mapping between the S5720-28P-LI-AC chassis and software versions.

Table 5-243 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28P-LI-AC	V200R011C00 and later versions

Appearance and Structure

Figure 5-94 S5720-28P-LI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	<p>2</p> <p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>A license can be activated on the switch to increase the speed of the four optical ports to 10 Gbit/s.</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (maximum transmission distance of 10 km, OSXD22N00 not supported) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables
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			<p>(used for zero-configuration stacking, supported in V200R011C10 and later versions)</p> <ul style="list-style-type: none"> H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	One console port
5	One USB port	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>
9	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-244](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-244 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-245](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-245 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-246](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-246 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-247](#).

Table 5-247 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

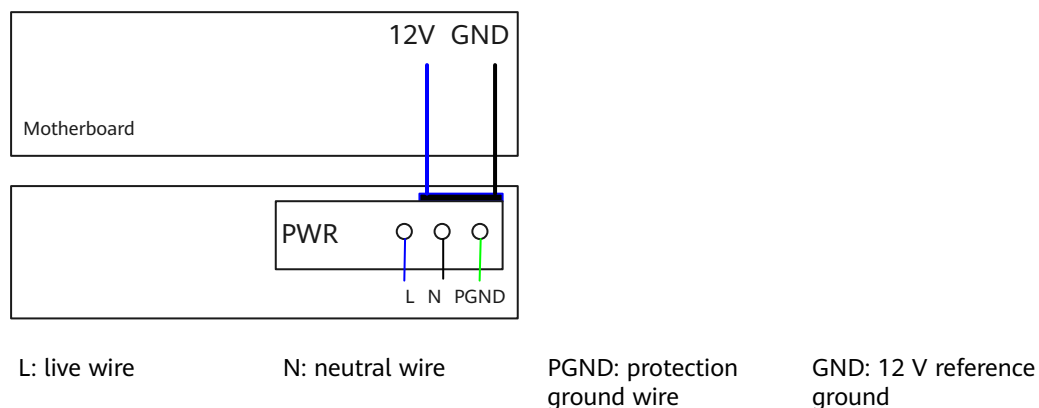
The S5720-28P-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC, except that the S5720-28P-LI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-28P-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

Figure 5-95 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-95 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-28P-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

Table 5-248 lists technical specifications of the S5720-28P-LI-AC.

Table 5-248 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	45 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	3.9 kg (8.6 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 1000BASE-X ports
RTC	Not supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	27.9 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	19.6 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses GE SFP optical modules with 40 km or longer transmission distances.

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010768

5.8.7 S5720-28P-PWR-LI-AC

Version Mapping

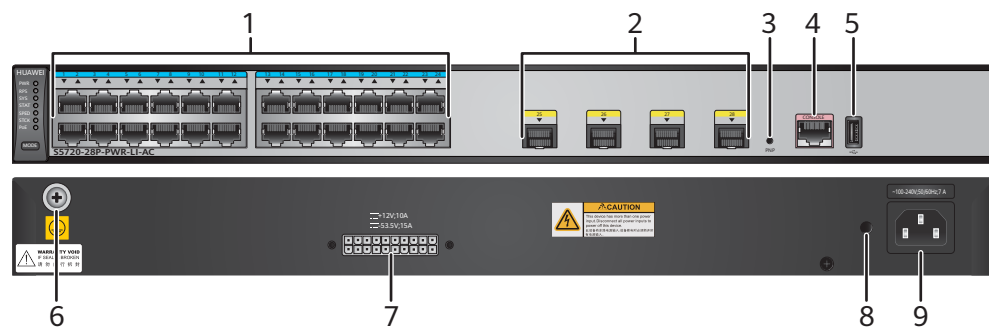
[Table 5-249](#) lists the mapping between the S5720-28P-PWR-LI-AC chassis and software versions.

Table 5-249 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28P-PWR-LI-AC	V200R011C00 and later versions

Appearance and Structure

Figure 5-96 S5720-28P-PWR-LI-AC appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	<p>2 Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>A license can be activated on the switch to increase the speed of the four optical ports to 10 Gbit/s.</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables
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			<p>(used for zero-configuration stacking, supported in V200R011C10 and later versions)</p> <ul style="list-style-type: none"> H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	One console port
5	One USB port	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>
9	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-250](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-250 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-251](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-251 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-252](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-252 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-253](#).

Table 5-253 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

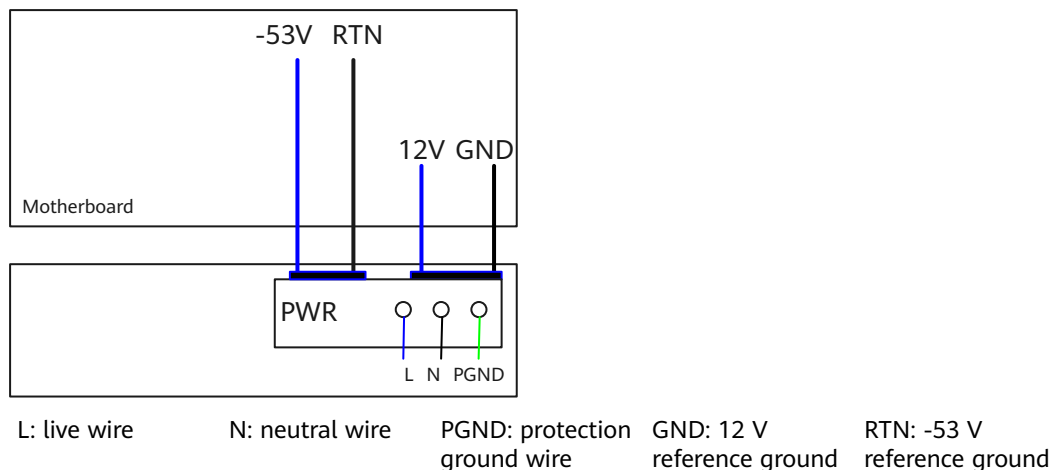
The S5720-28P-PWR-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-28P-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 370 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at. The switch can connect to an RPS1800 power supply. The RPS1800 only provides system power redundancy and does not increase the PoE capacity of the switch.

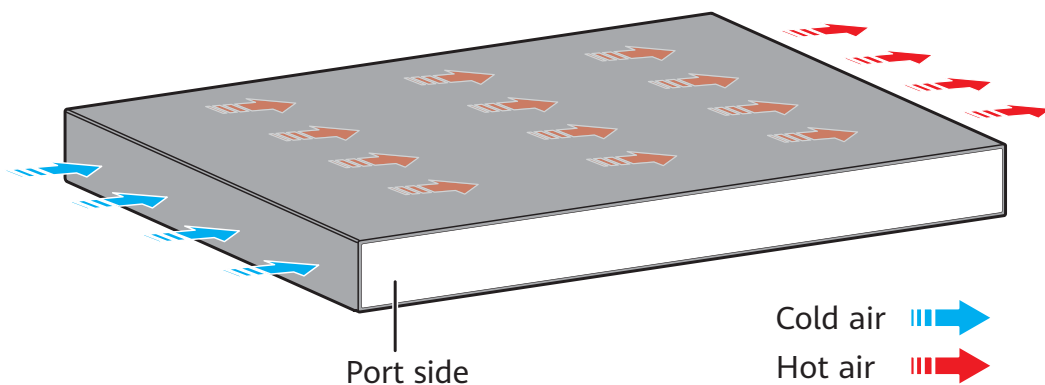
Figure 5-97 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 5-97 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5720-28P-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-254 lists technical specifications of the S5720-28P-PWR-LI-AC.

Table 5-254 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.8 mm (1.72 in. x 17.4 in. x 12.39 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.8 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	5.2 kg (11.45 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 1000BASE-X ports
RTC	Not supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">Not providing the PoE function: 42.7 W100% PoE loads: 448.5 W (system power consumption: 78.9 W, PoE: 369.6 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	29.5 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.1 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010769

5.8.8 S5720-52P-LI-AC

Version Mapping

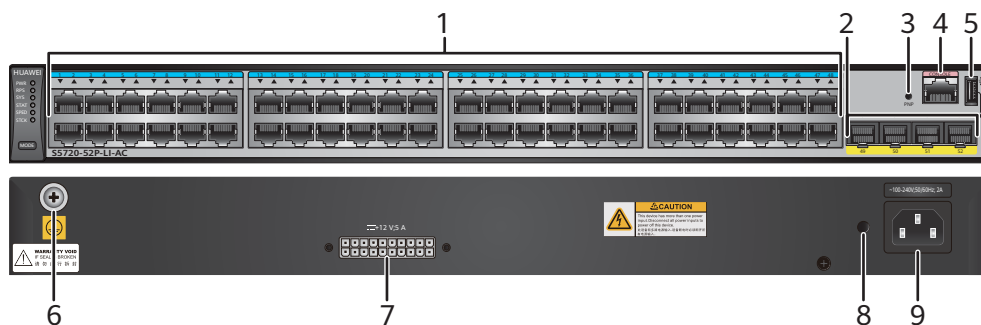
[Table 5-255](#) lists the mapping between the S5720-52P-LI-AC chassis and software versions.

Table 5-255 Version mapping

Series	Model	Software Version
S5720-LI	S5720-52P-LI-AC	V200R011C00 and later versions

Appearance and Structure

Figure 5-98 S5720-52P-LI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	<p>2</p> <p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>A license can be activated on the switch to increase the speed of the four optical ports to 10 Gbit/s.</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables
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			<p>(used for zero-configuration stacking, supported in V200R011C10 and later versions)</p> <ul style="list-style-type: none"> • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	One console port
5	One USB port	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>
9	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-256](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-256 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-257](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-257 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-258](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-258 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-259](#).

Table 5-259 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

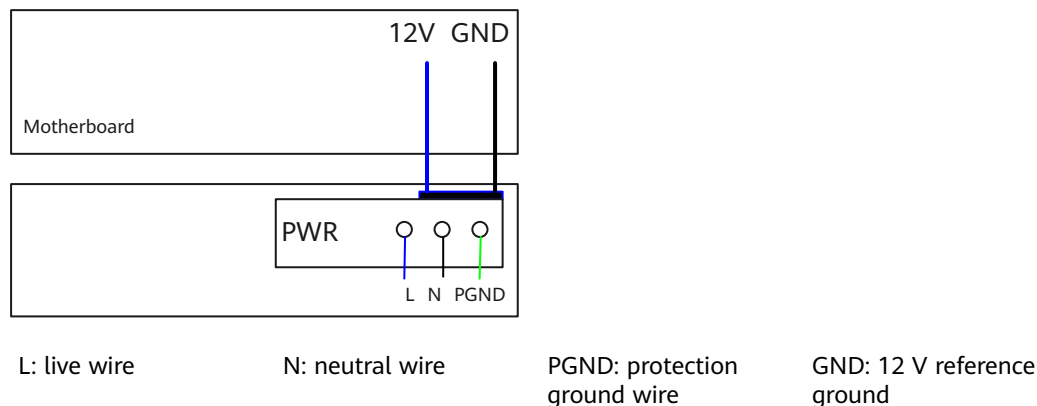
The S5720-52P-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC, except that the S5720-52P-LI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52P-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

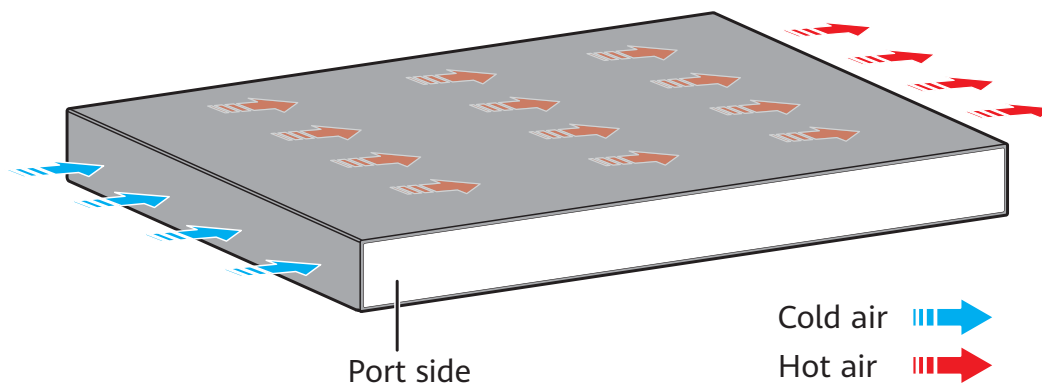
Figure 5-99 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-99 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-52P-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-260 lists technical specifications of the S5720-52P-LI-AC.

Table 5-260 Technical specifications

Item	Description
Memory (RAM)	512 MB

Item	Description
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.4 kg (9.7 lb)
Stack ports	Forty-eight 10/100/1000BASE-T ports and four 1000BASE-X ports
RTC	Not supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	50.3 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	31.6 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 44.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010774

5.8.9 S5720-52P-PWR-LI-AC

Version Mapping

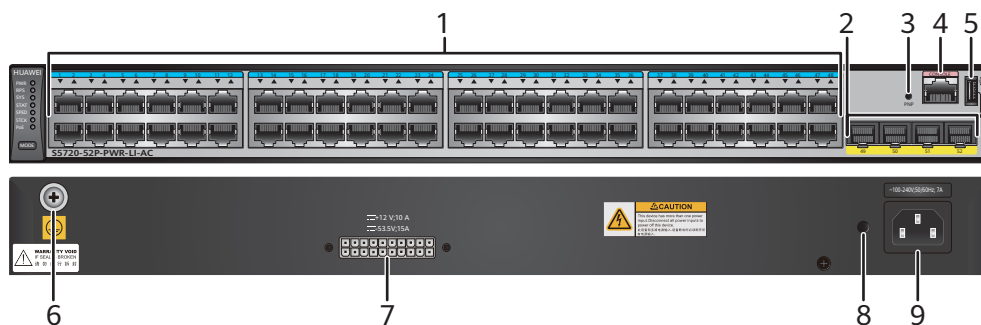
Table 5-261 lists the mapping between the S5720-52P-PWR-LI-AC chassis and software versions.

Table 5-261 Version mapping

Series	Model	Software Version
S5720-LI	S5720-52P-PWR-LI-AC	V200R011C00 and later versions

Appearance and Structure

Figure 5-100 S5720-52P-PWR-LI-AC appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	<p>2</p> <p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>A license can be activated on the switch to increase the speed of the four optical ports to 10 Gbit/s.</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables
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			<p>(used for zero-configuration stacking, supported in V200R011C10 and later versions)</p> <ul style="list-style-type: none"> H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	One console port
5	One USB port	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>
9	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-262](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-262 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-263](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-263 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-264](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-264 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-265](#).

Table 5-265 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

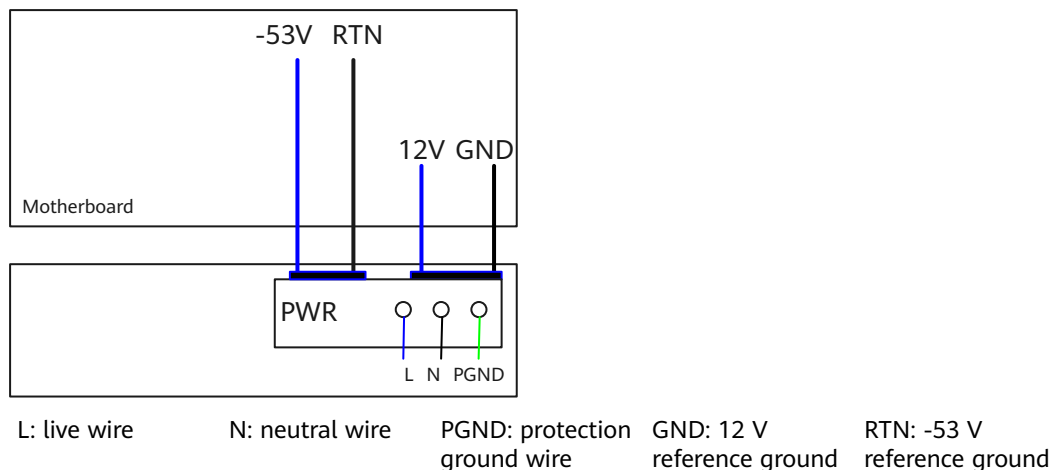
The S5720-52P-PWR-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52P-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 370 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at. The switch can connect to an RPS1800 power supply. The RPS1800 only provides system power redundancy and does not increase the PoE capacity of the switch.

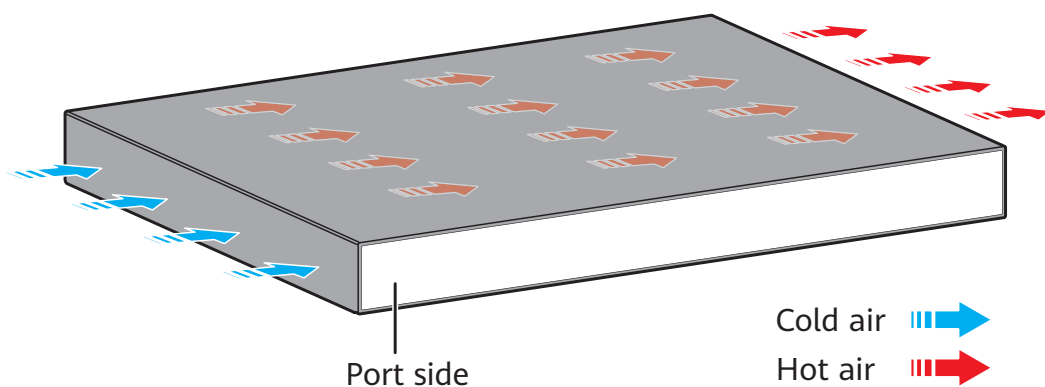
Figure 5-101 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 5-101 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5720-52P-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-266 lists technical specifications of the S5720-52P-PWR-LI-AC.

Table 5-266 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	38 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.8 mm (1.72 in. x 17.4 in. x 12.39 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.8 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	5.6 kg (12.35 lb)
Stack ports	Forty-eight 10/100/1000BASE-T ports and four 1000BASE-X ports
RTC	Not supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 63.5 W 100% PoE loads: 464.3 W (system power consumption: 94.7 W, PoE: 369.6 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	42.2 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 48.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010776

5.8.10 S5720-16X-PWH-LI-AC

Version Mapping

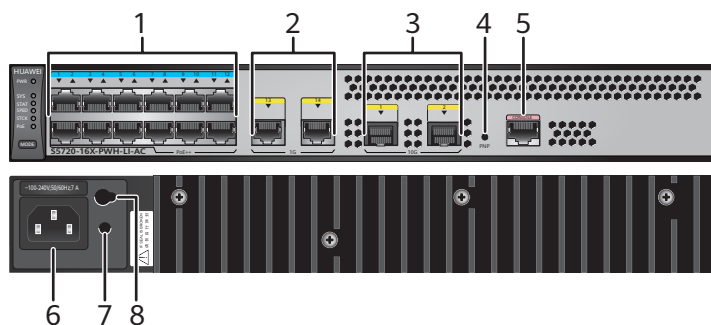
[Table 5-267](#) lists the mapping between the S5720-16X-PWH-LI-AC chassis and software versions.

Table 5-267 Version mapping

Series	Model	Software Version
S5720-LI	S5720-16X-PWH-LI-AC	V200R010C00 and later versions

Appearance and Structure

Figure 5-102 S5720-16X-PWH-LI-AC appearance



1	Twelve PoE++ 10/100/1000BASE-T ports	2	Two 10/100/1000BASE-T ports
---	--------------------------------------	---	-----------------------------

3	<p>Two 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • 11.17 Industrial Optical Modules • GE copper module (only 1000 Mbit/s supported) • 1 m, 3 m, 5 m SFP+ high-speed copper cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTICE</p> <p>The switch cannot enter the standby mode if it has optical modules installed on its optical ports.</p> <p>If the switch is in the standby mode, installing optical modules on its optical interface will cause the switch to exit from the standby mode.</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	One console port	6	<p>AC socket</p> <p>NOTE</p> <p>It is used with an AC power cable.</p>
7	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>	8	Jack for a connection box adapter plate

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-268** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-268 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-269](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-269 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-270](#).

Table 5-270 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

The S5720-16X-PWH-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC, except that the S5720-16X-PWH-LI-AC does not have an RPS or USB indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-16X-PWH-LI-AC has a built-in power module and does not support pluggable power modules. The S5720-16X-PWH-LI-AC is a PoE switch and its built-in power module is a PoE power module.

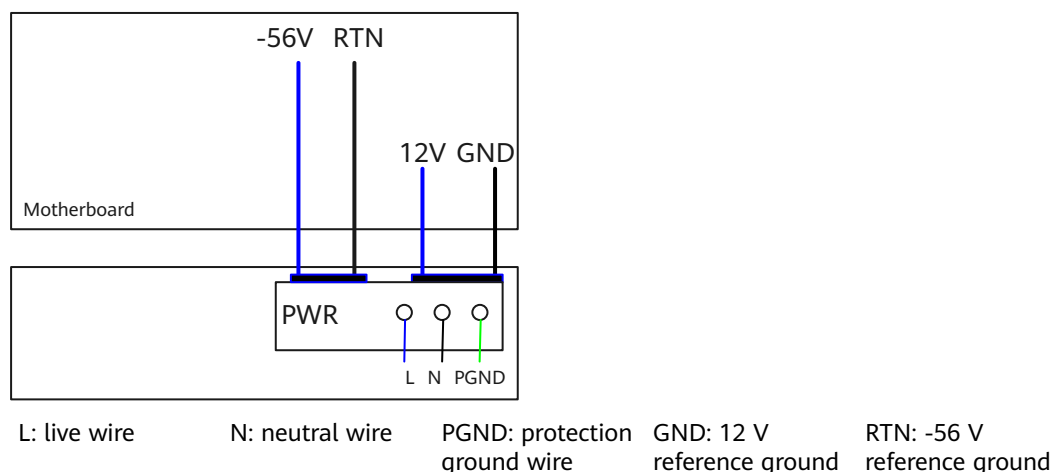
Table 5-271 PoE power supply capacity of the built-in power module

Available PoE Power	Maximum Number of Ports (Fully Loaded)
360 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 12802.3at (30 W per port): 12802.3bt (60 W per port): 6

The S5720-16X-PWH-LI-AC supports the standby mode. In this mode, the switch does not provide PoE power supply and works in low-power state. All ports of the switch, except GE0/0/13 and GE0/0/14, are shut down in the standby mode.

[Figure 5-103](#) shows the power supply mode of the power module in the S5720-16X-PWH-LI-AC switch. The power module receives AC power from an external power source and provides two outputs: 12 V and -56 V. By default, the -56 V output voltage is provided to the switch and powered devices (PDs) connected to the switch. After the switch enters the standby mode, only the 12 V output voltage is provided for power supply of the switch.

Figure 5-103 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5720-16X-PWH-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

[Table 5-272](#) lists technical specifications of the S5720-16X-PWH-LI-AC.

Table 5-272 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	9.3 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 320.0 mm x 263.0 mm (1.72 in. x 12.6 in. x 10.35 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 324.8 mm x 272.4 mm (1.72 in. x 12.79 in. x 10.72 in.)
Weight (with packaging)	4.7 kg (10.36 lb)
Stack ports	All electrical ports and optical ports
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	<ul style="list-style-type: none"> Not providing the PoE function: 31.5 W 100% PoE loads: 437.5 W (system power consumption: 77.5 W, PoE: 360 W)
Typical power consumption (30% of traffic load)	30.9 W
	<ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption
Operating temperature	<p>0°C to 55°C (32°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature range for the switch is 0°C to 45°C (32°F to 113°F) if the switch uses optical modules.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010657

5.8.11 S5720-28X-LI-AC

Version Mapping

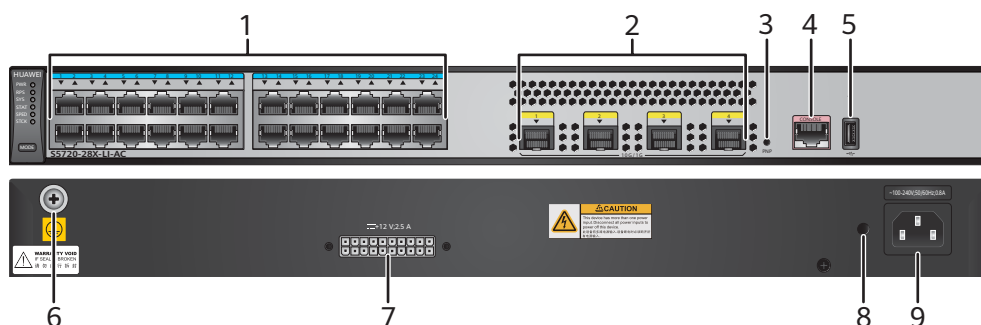
Table 5-273 lists the mapping between the S5720-28X-LI-AC chassis and software versions.

Table 5-273 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28X-LI-AC	V200R010C00 and later versions

Appearance and Structure

Figure 5-104 S5720-28X-LI-AC appearance



1	<p>Twenty-four 10/100/1000BASE-T ports</p>	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>A switch can use a maximum of two 10GE optical modules with 40 km or longer transmission distances.</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>One USB port</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-274** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-274 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. **Table 5-275** describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-275 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-276](#).

Table 5-276 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

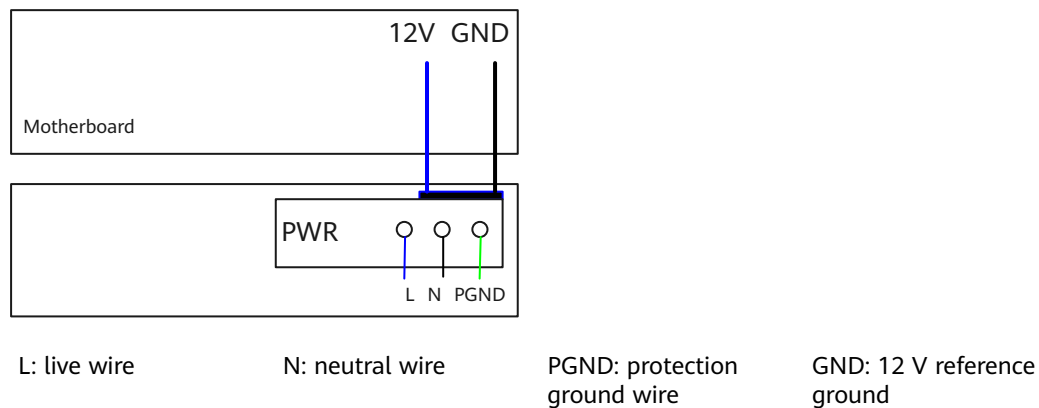
The S5720-28X-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC, except that the S5720-28X-LI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-28X-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

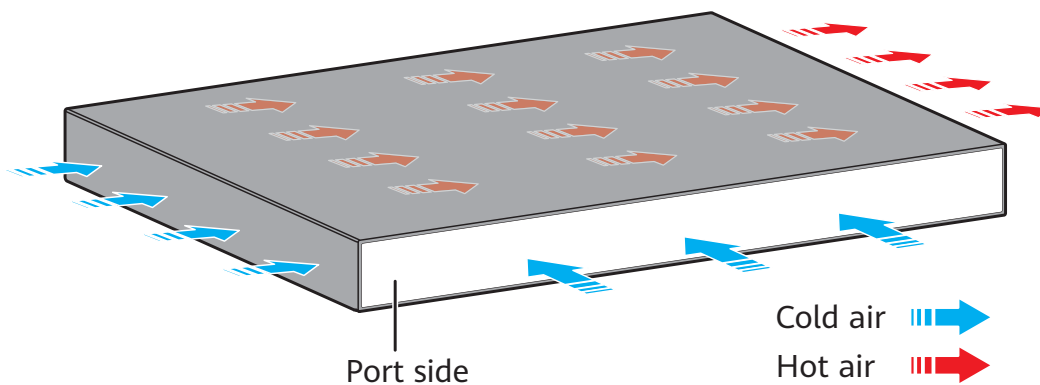
Figure 5-105 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-105 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-28X-LI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-277 lists technical specifications of the S5720-28X-LI-AC.

Table 5-277 Technical specifications

Item	Description
Memory (RAM)	512 MB

Item	Description
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	45 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	3.9 kg (8.6 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	29.5 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	21.4 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 47 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010581

5.8.12 S5720-28X-LI-DC

Version Mapping

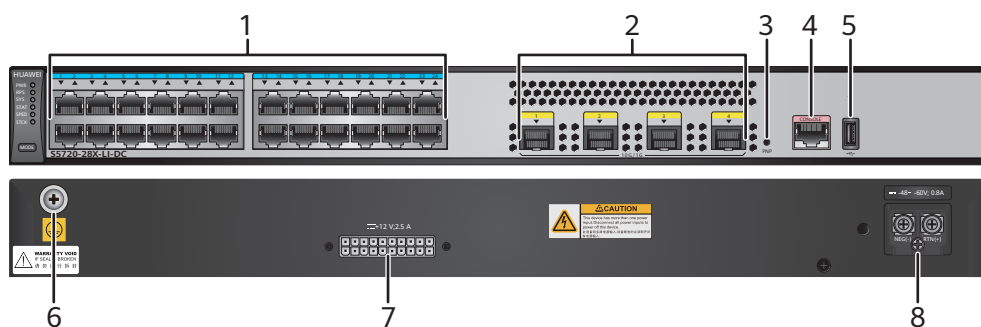
Table 5-278 lists the mapping between the S5720-28X-LI-DC chassis and software versions.

Table 5-278 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28X-LI-DC	V200R010C00 and later versions

Appearance and Structure

Figure 5-106 S5720-28X-LI-DC appearance



1	<p>Twenty-four 10/100/1000BASE-T ports</p>	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>A switch can use a maximum of two 10GE optical modules with 40 km or longer transmission distances.</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>One USB port</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	DC power terminal NOTE It is used together with a DC Power Cable .
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-279](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-279 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-280](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-280 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 5-281](#).

Table 5-281 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

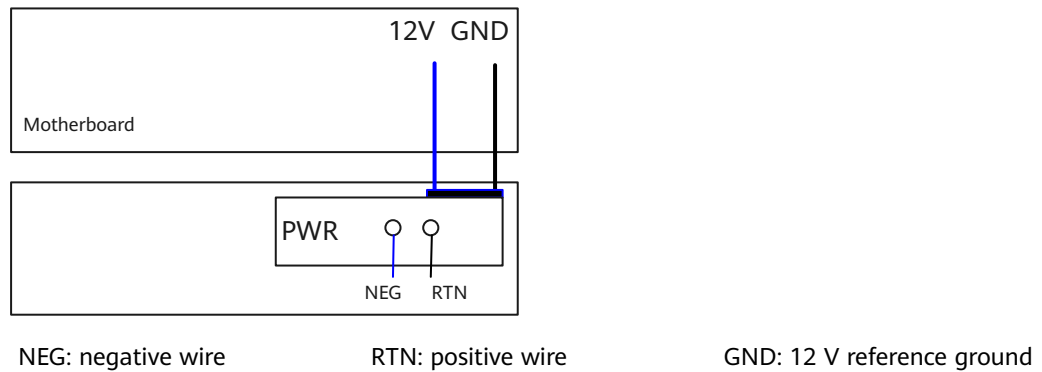
The S5720-28X-LI-DC has similar indicators to those of the S5720-28X-PWR-LI-AC, except that the S5720-28X-LI-DC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-28X-LI-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

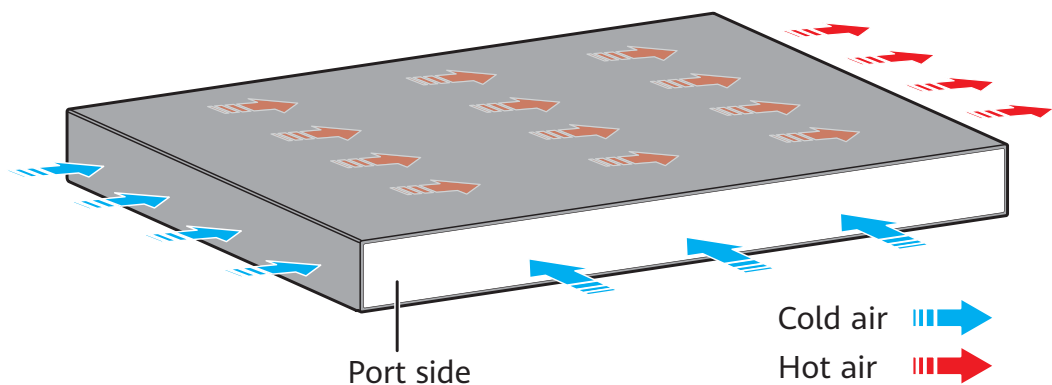
[Figure 5-107](#) shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 5-107 Power supply by a single DC power module



Heat Dissipation

The S5720-28X-LI-DC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-282 lists technical specifications of the S5720-28X-LI-DC.

Table 5-282 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	45 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4 kg (8.82 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	31 W
Typical power consumption (30% of traffic load)	19.8 W
	<ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 47 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-3000 m (0-9483 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010582

5.8.13 S5720-28X-LI-24S-AC

Version Mapping

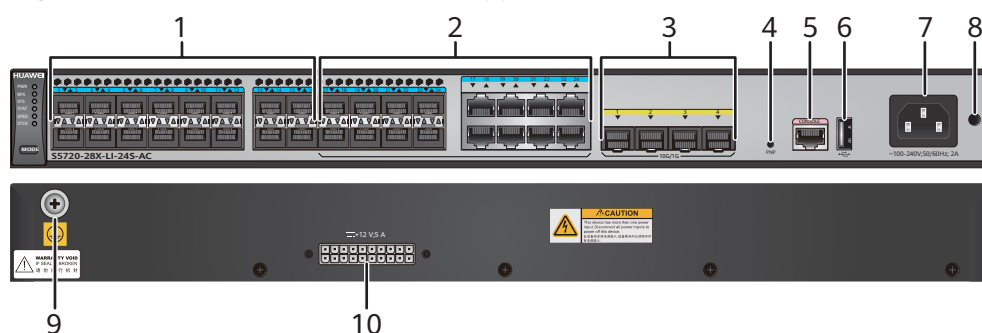
Table 5-283 lists the mapping between the S5720-28X-LI-24S-AC chassis and software versions.

Table 5-283 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28X-LI-24S-AC	V200R010C00 and later versions

Appearance and Structure

Figure 5-108 S5720-28X-LI-24S-AC appearance



1	<p>Sixteen 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Eight combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	<p>One PNP button</p> <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	One console port	6	One USB port
7	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>
9	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	10	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-284](#) describes the attributes of a 100/1000BASE-X port.

Table 5-284 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-285](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-285 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-286](#).

Table 5-286 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

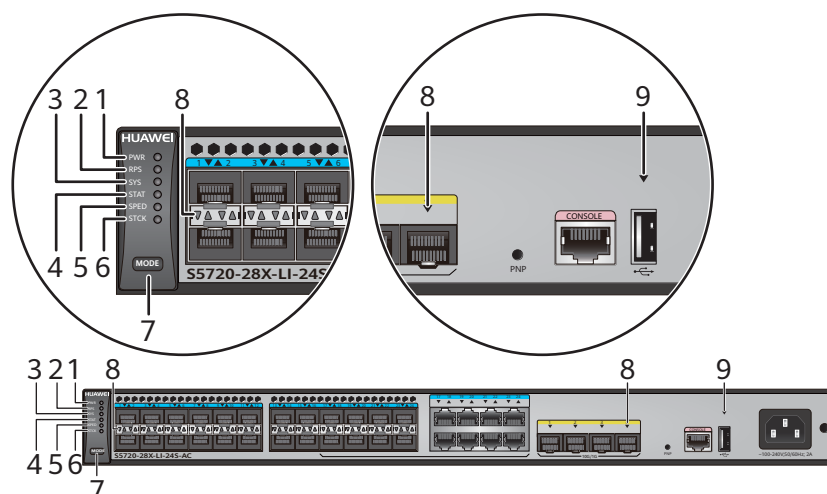
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-109 Indicators on the S5720-28X-LI-24S-AC



NOTE

The S5720-LI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators of a switch. If the switch fails, its SYS indicator and mode indicators can be configured to blink red fast so that field maintenance personnel can find this faulty switch.

Table 5-287 Description of indicators on the switch

No.	Indicator/ Button	Name	Color	Status	Description
1	PWR	Power module	-	Off	The switch is powered off.

No.	Indicator/ Button	Name	Color	Status	Description
		indicator	Green	Steady on	The system power supply is normal.
			Yellow	Steady on	The built-in power module has failed, and the switch is receiving power from a redundant power supply (RPS).
2	RPS	RPS indicator	-	Off	The switch is not connected to an RPS.
			Green	Steady on	The RPS is in cold standby state.
			Green	Blinking	The RPS is supplying power to another switch.
			Yellow	Blinking	The RPS is supplying power to the local switch, and the built-in power module of the switch has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.

No.	Indicator/ Button	Name	Color	Status	Description
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>

No.	Indicator/ Button	Name	Color	Status	Description
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-288 and Table 5-289 .		
9	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-288 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Table 5-289 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.

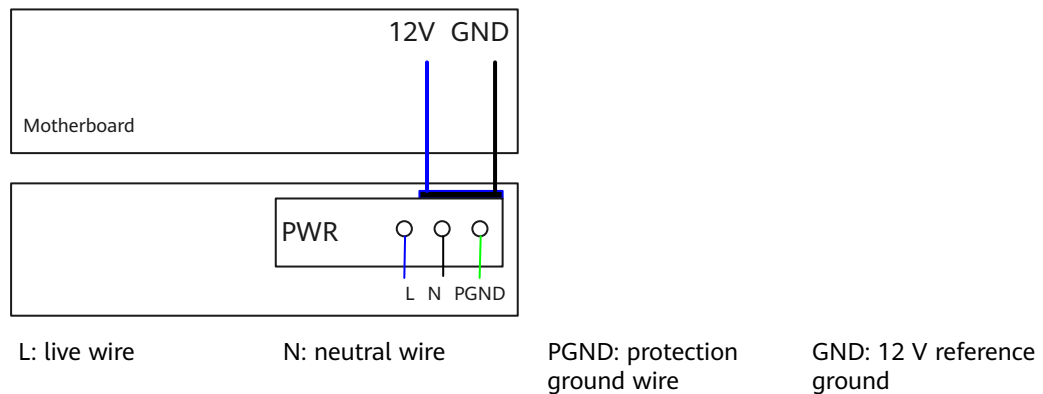
Display Mode	Color	Status	Description
	Green and yellow	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 100M/1000M port: The port is operating at 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green and yellow	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green and yellow	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none">• If the indicator of a port is steady on, the number of this port is the stack ID of the switch.• If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none">• If the indicator of a port is blinking, the number of this port is the stack ID of the switch.• If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-28X-LI-24S-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

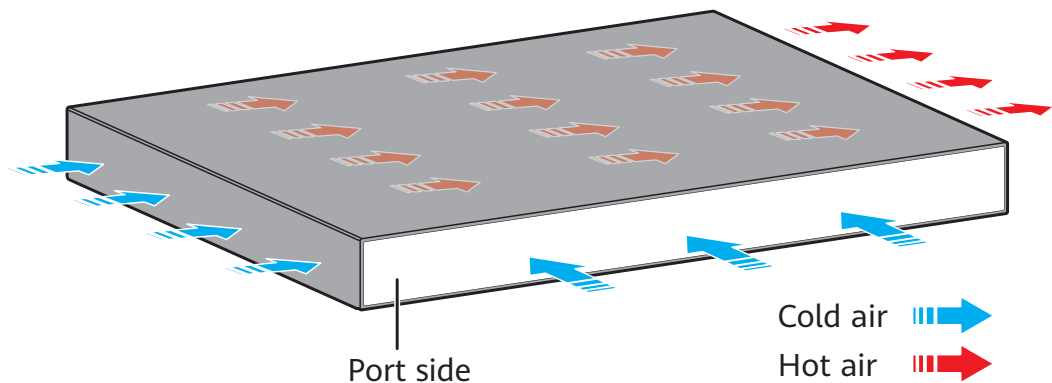
Figure 5-110 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-110 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-28X-LI-24S-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-290 lists technical specifications of the S5720-28X-LI-24S-AC.

Table 5-290 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.1 kg (9.04 lb)
Stack ports	GE SFP optical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Not supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	41.7 W
Typical power consumption (30% of traffic load)	28.9 W
	<ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 43 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010629

5.8.14 S5720-28X-LI-24S-DC

Version Mapping

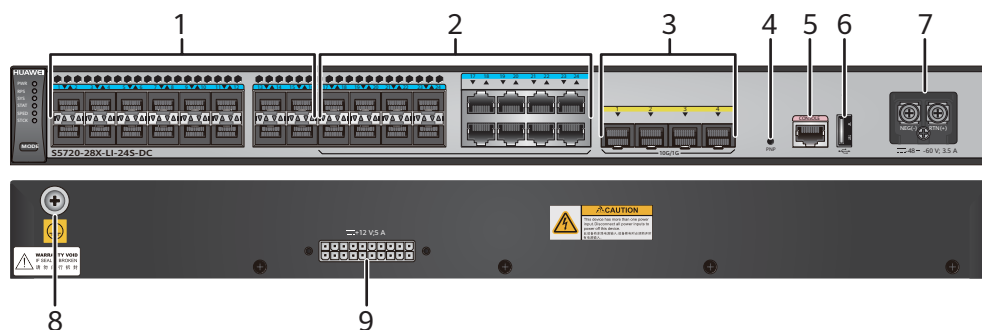
Table 5-291 lists the mapping between the S5720-28X-LI-24S-DC chassis and software versions.

Table 5-291 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28X-LI-24S-DC	V200R010C00 and later versions

Appearance and Structure

Figure 5-111 S5720-28X-LI-24S-DC appearance



1	<p>Sixteen 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Eight combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	One console port	6	One USB port
7	<p>DC power terminal</p> <p>NOTE</p> <p>It is used together with a DC Power Cable.</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
9	<p>RPS socket</p> <p>NOTE</p> <p>It is used with an RPS cable, which is not hot swappable.</p>	-	-

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-292](#) describes the attributes of a 100/1000BASE-X port.

Table 5-292 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-293](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-293 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-294](#).

Table 5-294 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

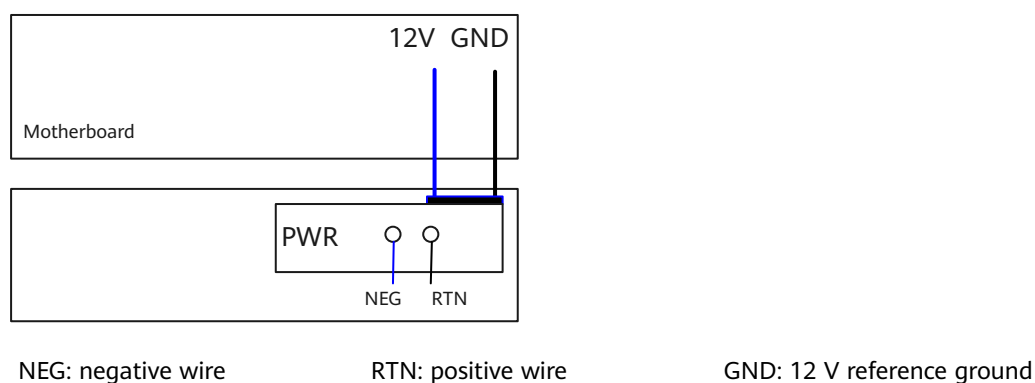
The S5720-28X-LI-24S-DC has the same types of indicators as the S5720-28X-LI-24S-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-28X-LI-24S-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

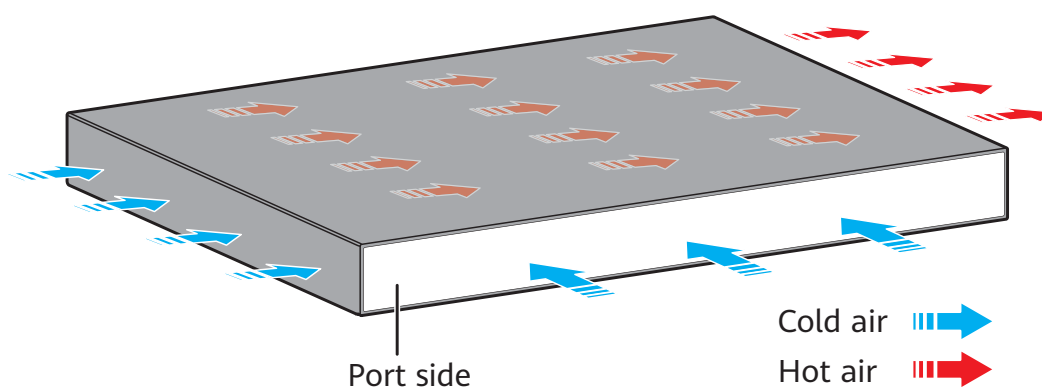
Figure 5-112 shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 5-112 Power supply by a single DC power module



Heat Dissipation

The S5720-28X-LI-24S-DC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-295 lists technical specifications of the S5720-28X-LI-24S-DC.

Table 5-295 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.1 kg (9.04 lb)
Stack ports	GE SFP optical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Not supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	42.7 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	30.3 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 43 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010631

5.8.15 S5720-28X-PWR-LI-AC

Version Mapping

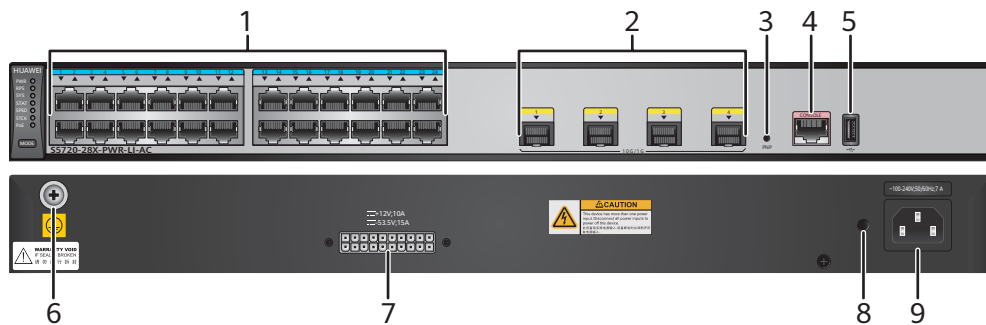
Table 5-296 lists the mapping between the S5720-28X-PWR-LI-AC chassis and software versions.

Table 5-296 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28X-PWR-LI-AC	V200R010C00 and later versions

Appearance and Structure

Figure 5-113 S5720-28X-PWR-LI-AC appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One PNP button NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	4	One console port
5	One USB port	6	Ground screw NOTE It is used with a ground cable .

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 5-297](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-297 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-298](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-298 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-299](#).

Table 5-299 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

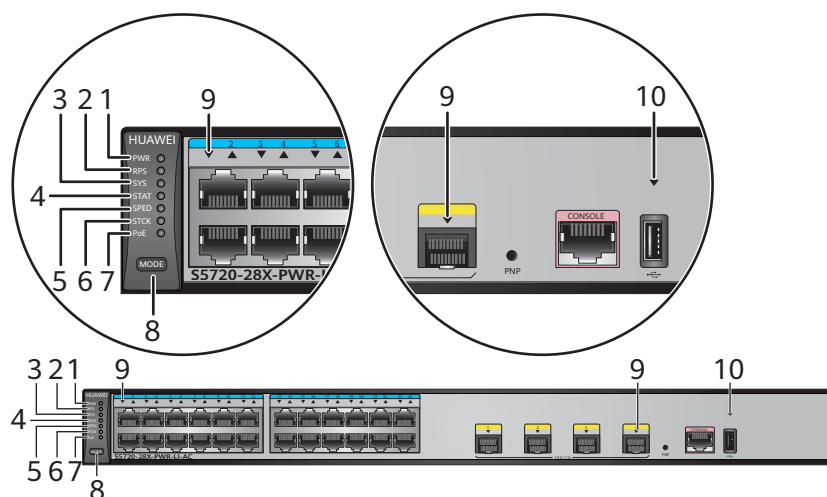
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-114 Indicators on the S5720-28X-PWR-LI-AC



NOTE

The S5720-LI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators of a switch. If the switch fails, its SYS indicator and mode indicators can be configured to blink red fast so that field maintenance personnel can find this faulty switch.

Table 5-300 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.

No.	Indicator	Name	Color	Status	Description
			Yellow	Steady on	<ul style="list-style-type: none"> The built-in power module has failed, and the switch is receiving power from a redundant power supply (RPS). The built-in PoE power module has failed.
2	RPS	RPS indicator	-	Off	The switch is not connected to an RPS.
			Green	Steady on	The RPS is in cold standby state.
			Green	Blinking	The RPS is supplying power to another switch.
			Yellow	Blinking	The RPS is supplying power to the local switch, and the built-in power module of the switch has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.
8	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>

No.	Indicator	Name	Color	Status	Description
9	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-301 .		
10	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-301 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> • The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. • The total power consumption of PDs has reached the maximum power of the switch. • The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

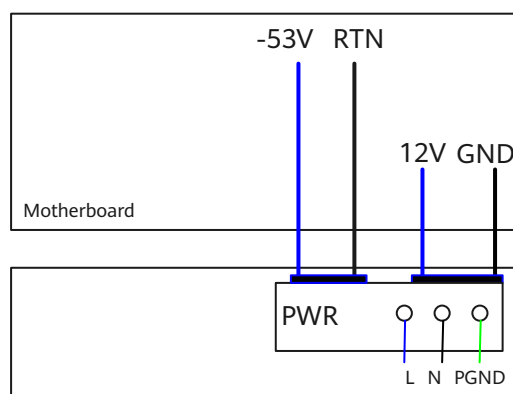
Display Mode	Color	Status	Description
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none">• If the indicator of a port is blinking, the number of this port is the stack ID of the switch.• If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-28X-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 370 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at. The switch can connect to an RPS1800 power supply. The RPS1800 only provides system power redundancy and does not increase the PoE capacity of the switch.

Figure 5-115 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 5-115 Power supply by a built-in AC PoE power module



L: live wire

N: neutral wire

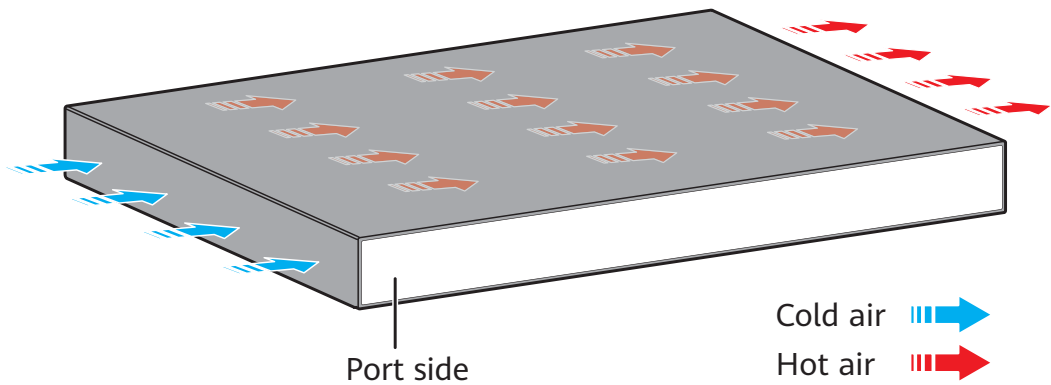
PGND: protection
ground wire

GND: 12 V
reference ground

RTN: -53 V
reference ground

Heat Dissipation

The S5720-28X-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-302 lists technical specifications of the S5720-28X-PWR-LI-AC.

Table 5-302 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.8 mm (1.72 in. x 17.4 in. x 12.39 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.8 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	5.2 kg (11.45 lb)

Item	Description
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Not providing the PoE function: 42.7 W • 100% PoE loads: 448.5 W (system power consumption: 78.9 W, PoE: 369.6 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	29.5 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.1 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010593

5.8.16 S5720-28X-PWR-LI-ACF

Version Mapping

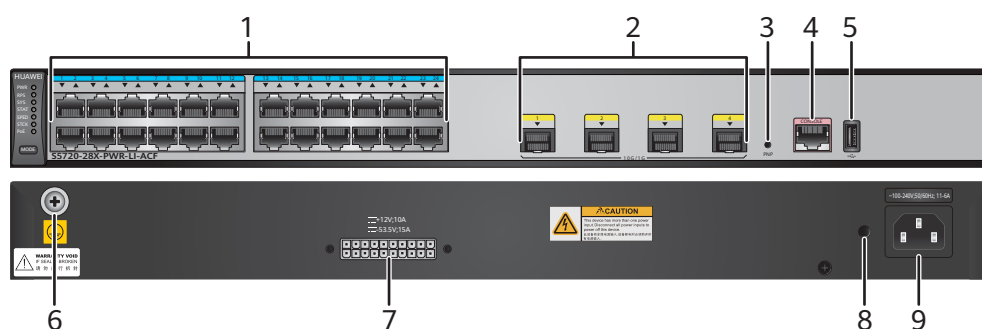
Table 5-303 lists the mapping between the S5720-28X-PWR-LI-ACF chassis and software versions.

Table 5-303 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28X-PWR-LI-ACF	V200R013C00 and later versions

Appearance and Structure

Figure 5-116 S5720-28X-PWR-LI-ACF appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking) • H87MMA5671A2 GPON optical module <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
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3	<p>One PNP button</p> <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>One USB port</p>	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>
9	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-304](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-304 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-305](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-305 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-306](#).

Table 5-306 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

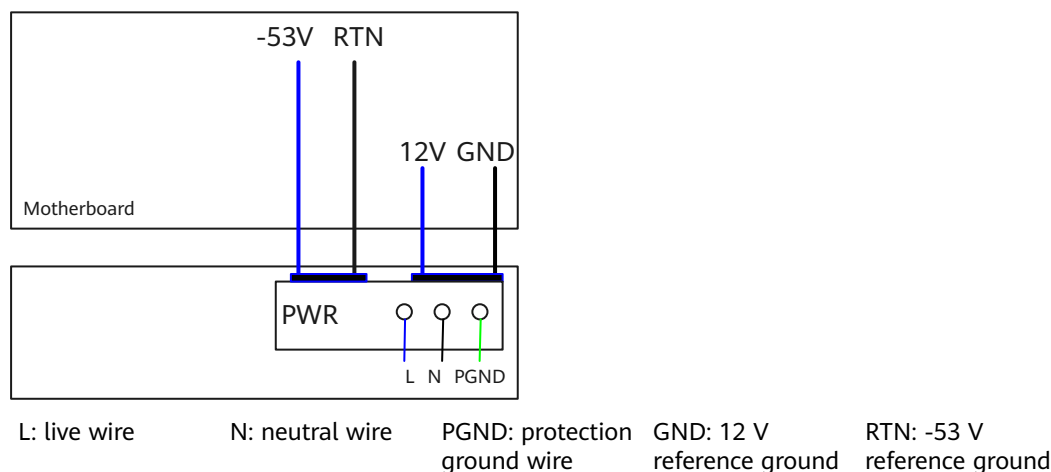
The S5720-28X-PWR-LI-ACF has the same types of indicators as the S5720-28X-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-28X-PWR-LI-ACF has a built-in power module and does not support pluggable power modules. The built-in power module can provide 740 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or 802.3at. The switch can connect to an RPS1800 power supply. The RPS1800 only provides system power redundancy and does not increase the PoE capacity of the switch.

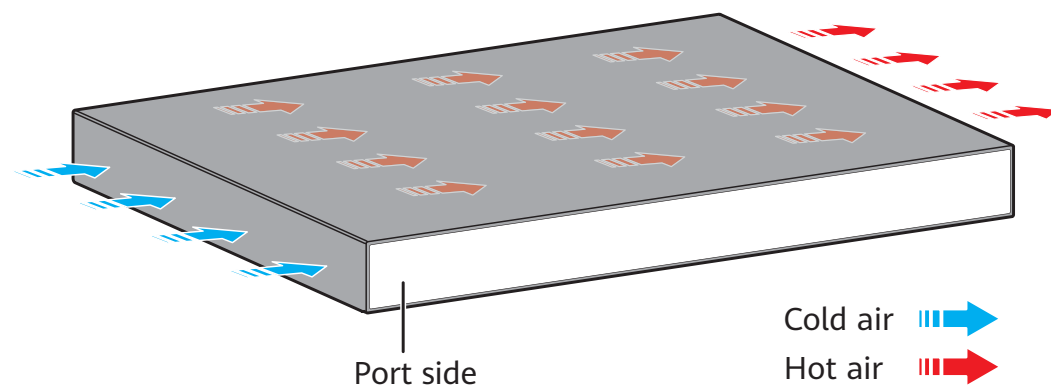
Figure 5-117 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 5-117 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5720-28X-PWR-LI-ACF has two built-in fans for forced air cooling. The airflow direction is left-to-right.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-307 lists technical specifications of the S5720-28X-PWR-LI-ACF.

Table 5-307 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.8 mm (1.72 in. x 17.4 in. x 12.39 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.8 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	5.9 kg (13.01 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">• Not providing the PoE function: 45 W• 100% PoE loads: 984 W (PoE: 739.2 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	33 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 59.1 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010595

5.8.17 S5720-28X-PWH-LI-AC

Version Mapping

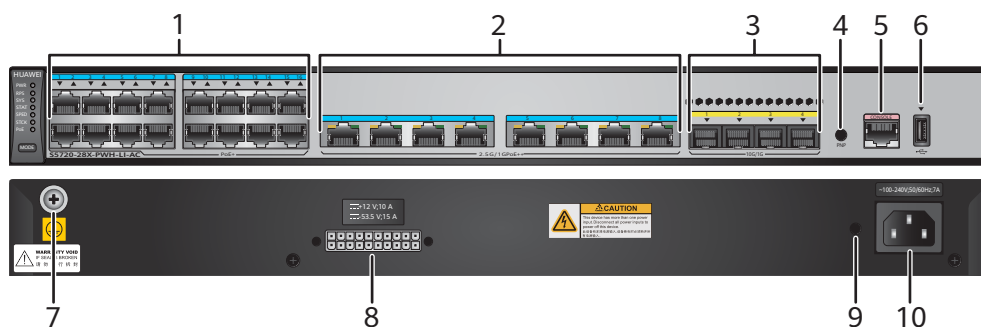
Table 5-308 lists the mapping between the S5720-28X-PWH-LI-AC chassis and software versions.

Table 5-308 Version mapping

Series	Model	Software Version
S5720-LI	S5720-28X-PWH-LI-AC	V200R011C00 and later versions

Appearance and Structure

Figure 5-118 S5720-28X-PWH-LI-AC appearance



1	Sixteen PoE+ 10/100/1000BASE-T ports	2	Eight PoE++ 100M/1000M/2.5G BASE-T ports (MultiGE port)
3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	<p>One PNP button</p> <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	One console port	6	One USB port
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>
9	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>	10	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 5-309](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-309 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

100M/1000M/2.5G BASE-T port

A 100M/1000M/2.5G BASE-T port (MultiGE port) sends and receives service data at 100 Mbit/s, 1 Gbit/s, or 2.5 Gbit/s, and must use an **Ethernet cable**. If the 2.5 Gbit/s speed is required, the port must use an Ethernet cable of Cat5e or higher category. [Table 5-310](#) describes the attributes of a 100M/1000M/2.5G BASE-T port.

Table 5-310 Attributes of a 100M/1000M/2.5G BASE-T port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3u, IEEE802.3ab, IEEE802.3bz, mgbase-t
Working Mode	100/1000/2500 Mbit/s auto-sensing

A 100M/1000M/2.5G BASE-T port supports the connection with the following devices:

- All switches providing FE electrical interfaces or GE electrical interfaces
- All devices providing MultiGE interfaces defined by the NBASE-T Alliance
- All devices providing MultiGE interfaces that comply with the 802.3bz standard

[Table 5-311](#) lists the maximum transmission distances of different cables on MultiGE ports.

Table 5-311 Maximum transmission distances of different cables on MultiGE ports

Cable Type (6-a-1 Bundle)	MultiGE Port (Different Rates)	
	100M/1000M	2.5GE
Category 5e unshielded twisted pair (Cat5e UTP)	100 m	100 m
Category 5e shielded twisted pair (Cat5e STP)	100 m	200 m Only the APs listed below are supported if the transmission distance is longer than 100 m: <ul style="list-style-type: none"> • AP7052DN/ AP7152DN • AP6052DN • AP8082DN/ AP8182DN • AP7052DE • AP7060DN
Category 6 unshielded twisted pair (Cat6 UTP)	100 m	100 m
Category 6 shielded twisted pair (Cat6 STP)	100 m	200 m Only the APs listed below are supported if the transmission distance is longer than 100 m: <ul style="list-style-type: none"> • AP7052DN/ AP7152DN • AP6052DN • AP8082DN/ AP8182DN • AP7052DE • AP7060DN
Category 6A unshielded twisted pair (Cat6A U/UTP)	100 m	100 m

Cable Type (6-a-1 Bundle)	MultiGE Port (Different Rates)	
	100M/1000M	2.5GE
Category 6A foiled/unshielded twisted pair (Cat6A F/UTP)	100 m	200 m Only the APs listed below are supported if the transmission distance is longer than 100 m: <ul style="list-style-type: none"> • AP7052DN/ AP7152DN • AP6052DN • AP8082DN/ AP8182DN • AP7052DE • AP7060DN
Category 6A shielded twisted pair (Cat6A STP)	100 m	200 m Only the APs listed below are supported if the transmission distance is longer than 100 m: <ul style="list-style-type: none"> • AP7052DN/ AP7152DN • AP6052DN • AP8082DN/ AP8182DN • AP7052DE • AP7060DN
Category 7 shielded twisted pair (Cat7)	100 m	200 m Only the APs listed below are supported if the transmission distance is longer than 100 m: <ul style="list-style-type: none"> • AP7052DN/ AP7152DN • AP6052DN • AP8082DN/ AP8182DN • AP7052DE • AP7060DN

 **NOTE**

6-a-1 stands for the six-around-one cable bundle mode, with one cable in the center and six cables bundled evenly around it.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-312](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-312 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-313](#).

Table 5-313 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-28X-PWH-LI-AC has the same types of indicators as the S5720-28X-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

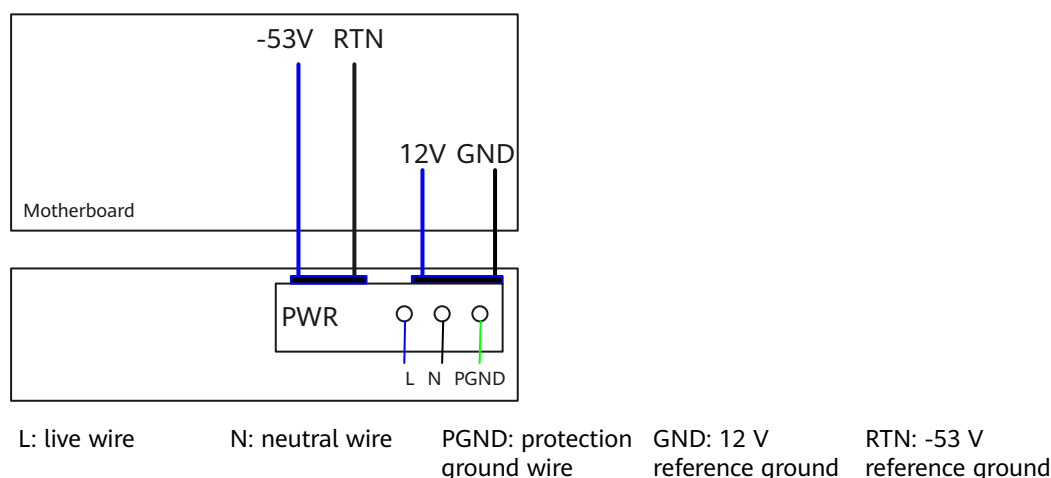
The S5720-28X-PWH-LI-AC has a built-in power module and does not support pluggable power modules. It is a PoE switch. In addition to the built-in PoE power module, the switch can also connect to an RPS1800 for power redundancy.

Table 5-314 PoE power supply capacity of the built-in power module

Available PoE Power	Maximum Number of Ports (Fully Loaded)
360 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 23 802.3at (30 W per port): 12 802.3bt (60 W per port): 6 (only PoE++ ports)

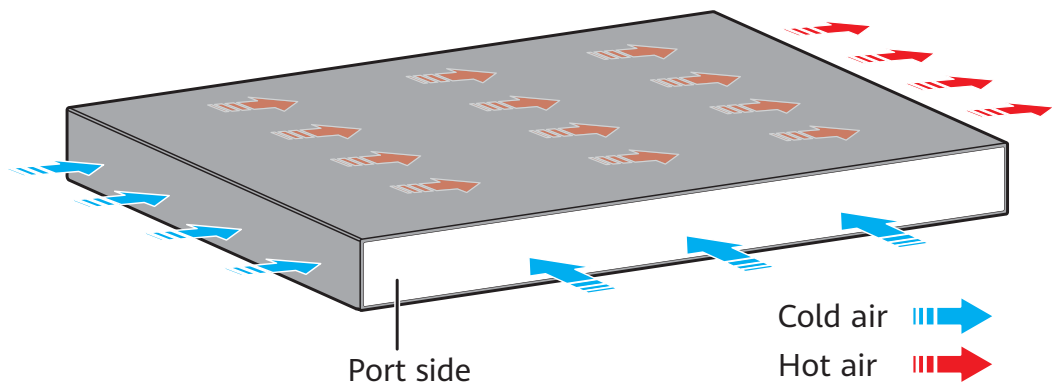
Figure 5-119 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 5-119 Power supply by a built-in AC PoE power module



Heat dissipation

The S5720-28X-PWH-LI-AC has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-315](#) lists technical specifications of the S5720-28X-PWH-LI-AC.

Table 5-315 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	50.6 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.9 mm (1.72 in. x 17.4 in. x 12.39 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.9 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	5.9 kg (13.01 lb)
Stack ports	Sixteen 10/100/1000BASE-T ports and four 10GE SFP+ ports
RTC	Not supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	<ul style="list-style-type: none"> • Not providing the PoE function: 67.3 W • 100% PoE loads: 473 W (system power consumption: 113 W, PoE: 360 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	51.6 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 55.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010659

5.8.18 S5720-52X-LI-AC

Version Mapping

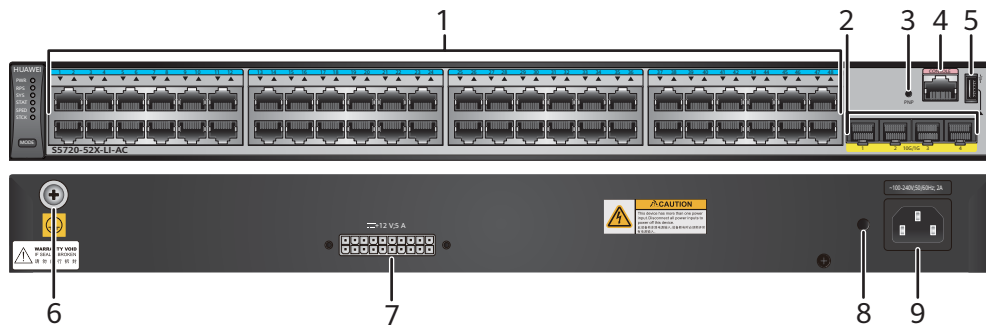
[Table 5-316](#) lists the mapping between the S5720-52X-LI-AC chassis and software versions.

Table 5-316 Version mapping

Series	Model	Software Version
S5720-LI	S5720-52X-LI-AC	V200R010C00 and later versions

Appearance and Structure

Figure 5-120 S5720-52X-LI-AC appearance



1	<p>Forty-eight 10/100/1000BASE-T ports</p>	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>One USB port</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-317** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-317 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. **Table 5-318** describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-318 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-319](#).

Table 5-319 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

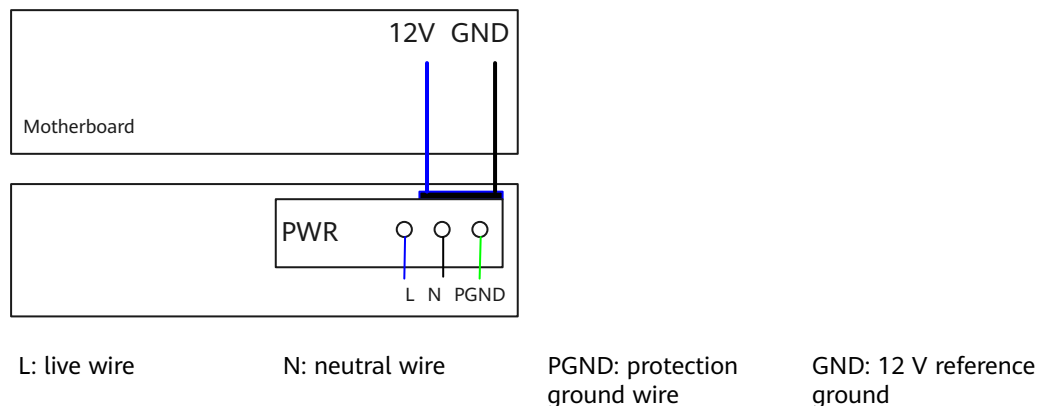
The S5720-52X-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC, except that the S5720-52X-LI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52X-LI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

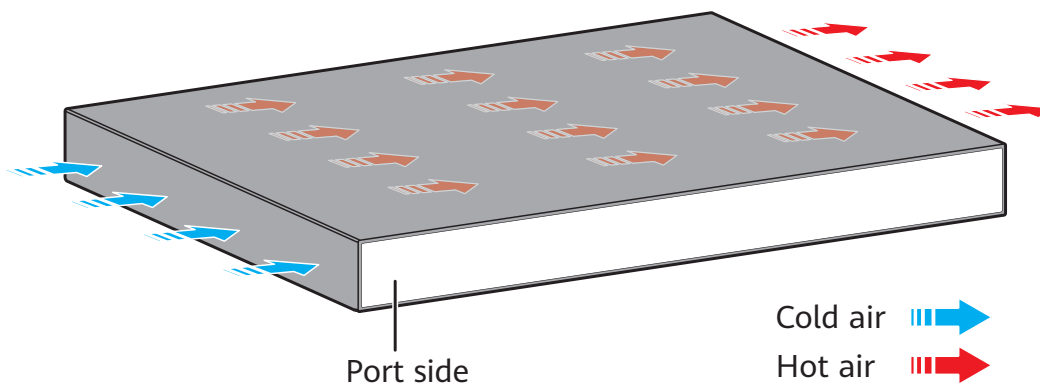
Figure 5-121 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-121 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-52X-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-320 lists technical specifications of the S5720-52X-LI-AC.

Table 5-320 Technical specifications

Item	Description
Memory (RAM)	512 MB

Item	Description
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.4 kg (9.7 lb)
Stack ports	Forty-eight 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	50.3 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	31.6 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 44.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010606

5.8.19 S5720-52X-LI-DC

Version Mapping

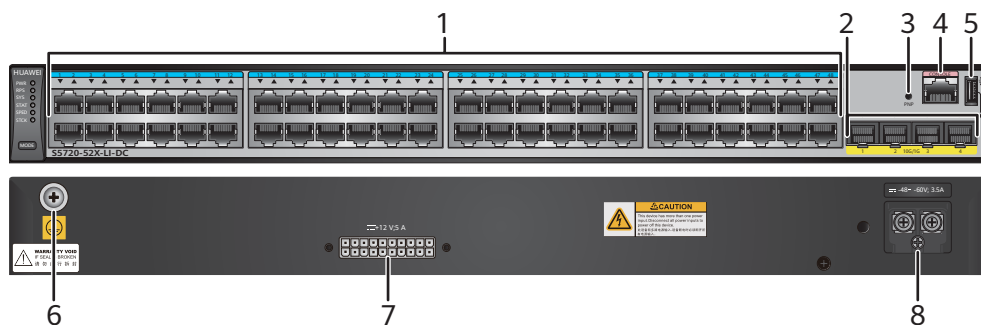
Table 5-321 lists the mapping between the S5720-52X-LI-DC chassis and software versions.

Table 5-321 Version mapping

Series	Model	Software Version
S5720-LI	S5720-52X-LI-DC	V200R010C00 and later versions

Appearance and Structure

Figure 5-122 S5720-52X-LI-DC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	One console port
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	DC power terminal NOTE It is used together with a DC Power Cable .
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-322](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-322 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-323](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-323 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 5-324](#).

Table 5-324 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

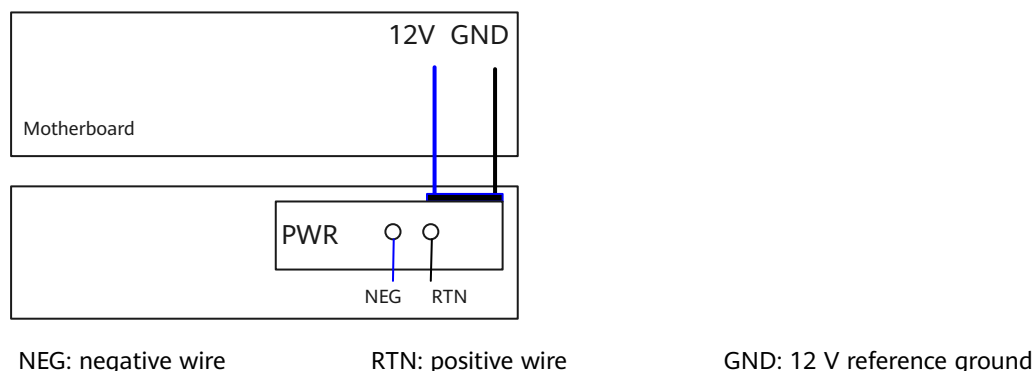
The S5720-52X-LI-DC has similar indicators to those of the S5720-28X-PWR-LI-AC, except that the S5720-52X-LI-DC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52X-LI-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

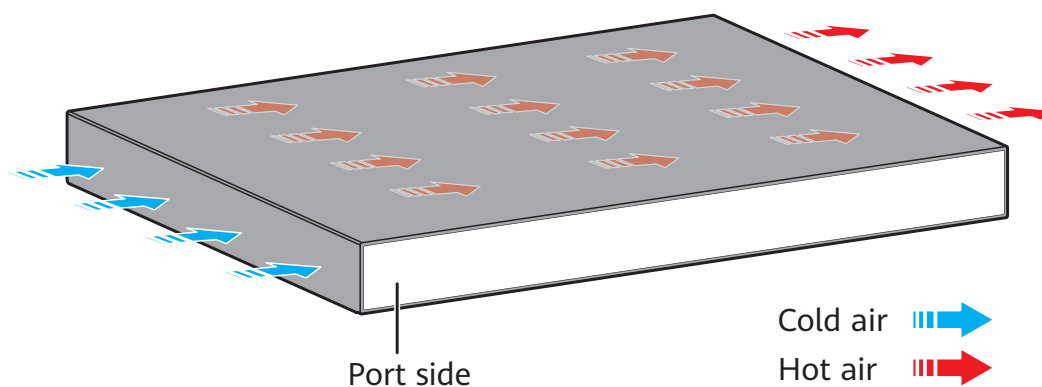
[Figure 5-123](#) shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 5-123 Power supply by a single DC power module



Heat Dissipation

The S5720-52X-LI-DC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-325 lists technical specifications of the S5720-52X-LI-DC.

Table 5-325 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.4 kg (9.7 lb)
Stack ports	Forty-eight 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	51.6 W
Typical power consumption (30% of traffic load)	33.1 W
	<ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 44.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010607

5.8.20 S5720-52X-PWR-LI-AC

Version Mapping

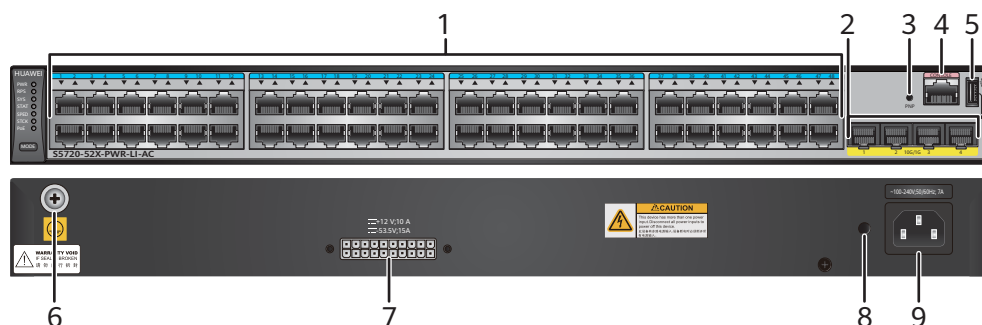
Table 5-326 lists the mapping between the S5720-52X-PWR-LI-AC chassis and software versions.

Table 5-326 Version mapping

Series	Model	Software Version
S5720-LI	S5720-52X-PWR-LI-AC	V200R010C00 and later versions

Appearance and Structure

Figure 5-124 S5720-52X-PWR-LI-AC appearance



1	<p>Forty-eight PoE+ 10/100/1000BASE-T ports</p>	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>One USB port</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-327** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-327 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. **Table 5-328** describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-328 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-329](#).

Table 5-329 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

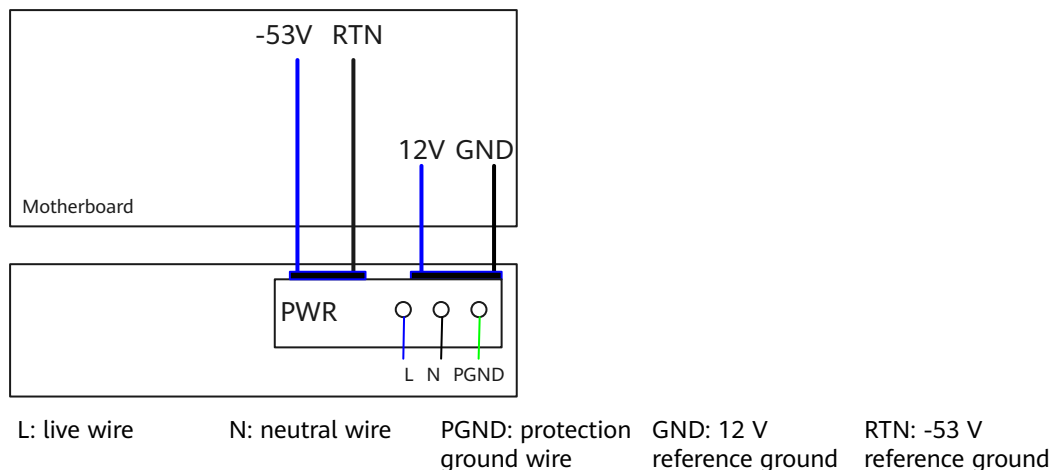
The S5720-52X-PWR-LI-AC has the same types of indicators as the S5720-28X-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52X-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 370 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at. The switch can connect to an RPS1800 power supply. The RPS1800 only provides system power redundancy and does not increase the PoE capacity of the switch.

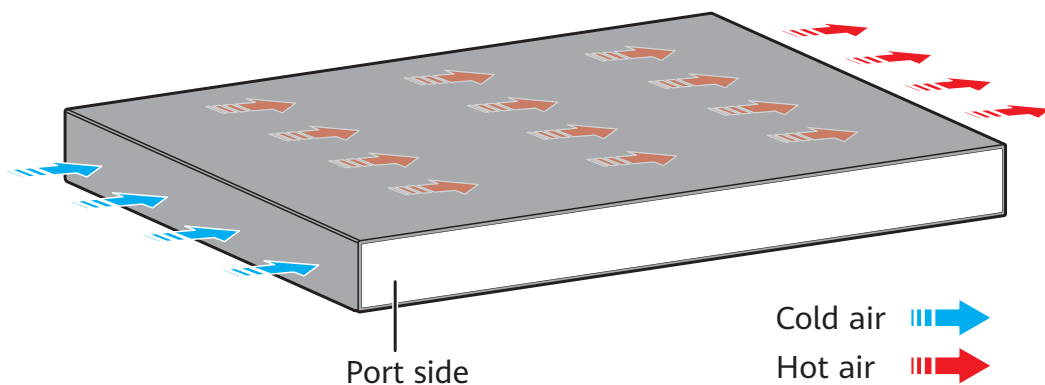
Figure 5-125 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 5-125 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5720-52X-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-330 lists technical specifications of the S5720-52X-PWR-LI-AC.

Table 5-330 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	38 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.8 mm (1.72 in. x 17.4 in. x 12.39 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.8 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	5.6 kg (12.35 lb)
Stack ports	Forty-eight 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">Not providing the PoE function: 63.5 W100% PoE loads: 464.3 W (system power consumption: 94.7 W, PoE: 369.6 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	42.2 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 48.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010619

5.8.21 S5720-52X-PWR-LI-ACF

Version Mapping

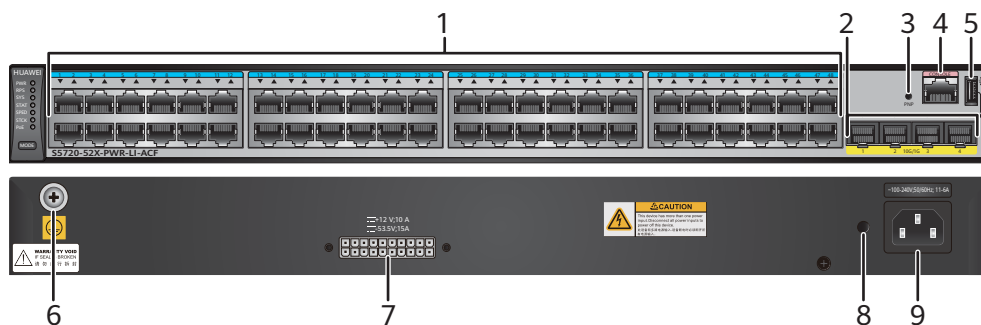
Table 5-331 lists the mapping between the S5720-52X-PWR-LI-ACF chassis and software versions.

Table 5-331 Version mapping

Series	Model	Software Version
S5720-LI	S5720-52X-PWR-LI-ACF	V200R011C10 and later versions

Appearance and Structure

Figure 5-126 S5720-52X-PWR-LI-ACF appearance



1	<p>Forty-eight PoE+ 10/100/1000BASE-T ports</p>	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>One USB port</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Interface Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-332** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-332 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. **Table 5-333** describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-333 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-334](#).

Table 5-334 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

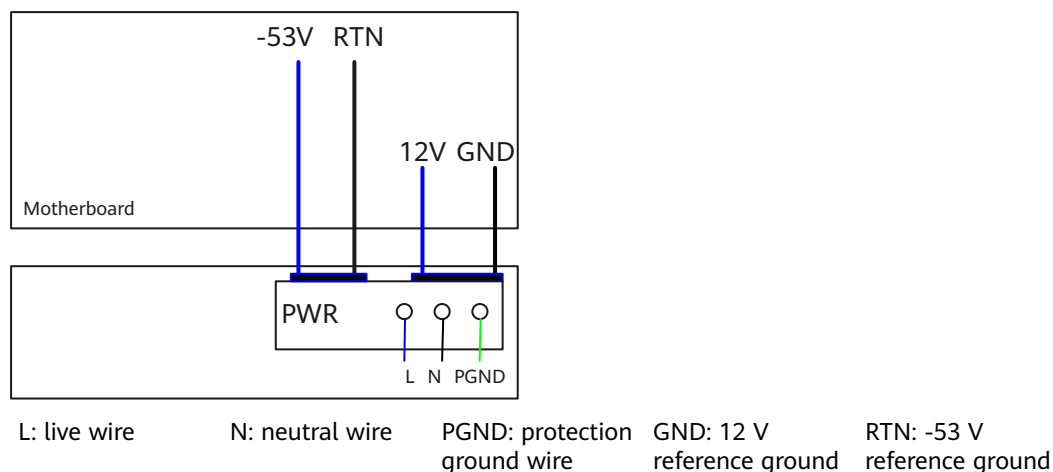
The S5720-52X-PWR-LI-ACF has the same types of indicators as the S5720-28X-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52X-PWR-LI-ACF has a built-in power module and does not support pluggable power modules. The built-in power module can provide 740 W PoE power, which ensures full PoE power on 48 ports in compliance with 802.3af or on 24 ports in compliance with 802.3at. The switch can connect to an RPS1800 power supply. The RPS1800 only provides system power redundancy and does not increase the PoE capacity of the switch.

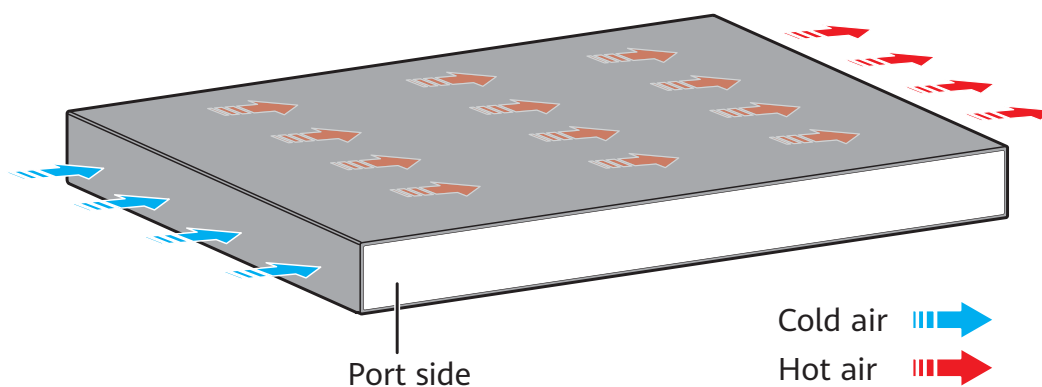
Figure 5-127 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 5-127 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5720-52X-PWR-LI-ACF have two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-335 lists technical specifications of the S5720-52X-PWR-LI-ACF.

Table 5-335 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	45 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.8 mm (1.72 in. x 17.4 in. x 12.39 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.8 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	6.6 kg (14.55 lb)
Stack ports	Forty-eight 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">Not providing the PoE function: 52.1 W100% PoE loads: 977 W (system power consumption: 237.8 W, PoE: 739.2 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	42.9 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 53.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010621

5.8.22 S5720-52X-LI-48S-AC

Version Mapping

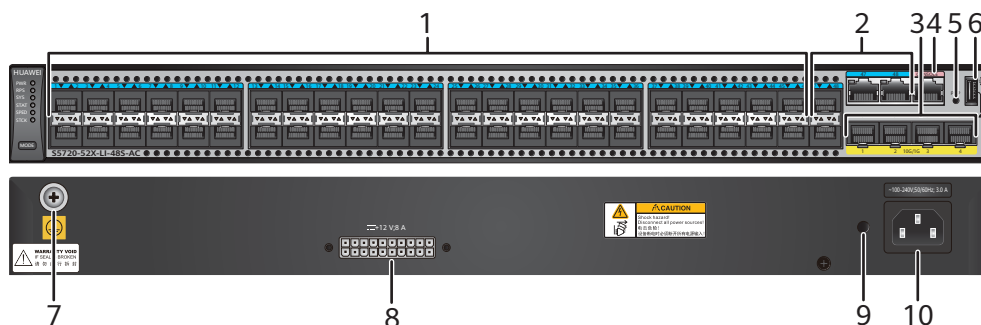
Table 5-336 lists the mapping between the S5720-52X-LI-48S-AC chassis and software versions.

Table 5-336 Version mapping

Series	Model	Software Version
S5720-LI	S5720-52X-LI-48S-AC	V200R013C00 and later versions

Appearance and Structure

Figure 5-128 S5720-52X-LI-48S-AC appearance



1	<p>Forty-six 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (for OADM scenarios only) • GE-DWDM optical module • GE copper module (10M/100M/1000M auto-sensing) 	2	<p>Two combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario)
3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ stack cables (only applicable to zero-configuration stacking) • H87MMA5671A2 GPON optical module <p>NOTE</p> <p>If one port uses a GPON optical module, other ports cannot be used.</p>	4	<p>One console port</p>
5	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>One USB port</p>

7	Ground screw NOTE It is used with a ground cable .	8	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.
9	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	10	AC socket NOTE It is used with an AC power cable .

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-337](#) describes the attributes of a 100/1000BASE-X port.

Table 5-337 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-338](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-338 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-339](#).

Table 5-339 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

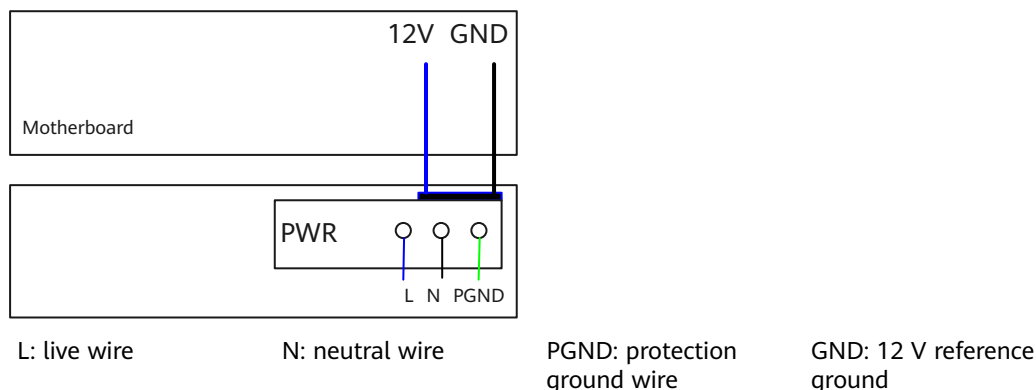
The S5720-52X-LI-48S-AC has the same types of indicators as the S5720-28X-LI-24S-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52X-LI-48S-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

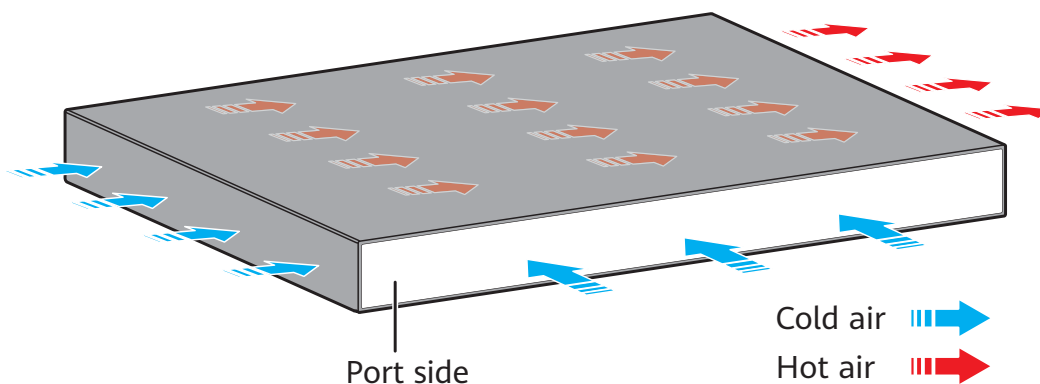
Figure 5-129 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-129 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-52X-LI-48S-AC has three built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-340](#) lists technical specifications of the S5720-52X-LI-48S-AC.

Table 5-340 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	34.91 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.9 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	5.25 kg (11.57 lb)
Stack ports	GE optical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Not supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	83 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	68 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010813

5.8.23 S5720-52X-LI-24S-AC1

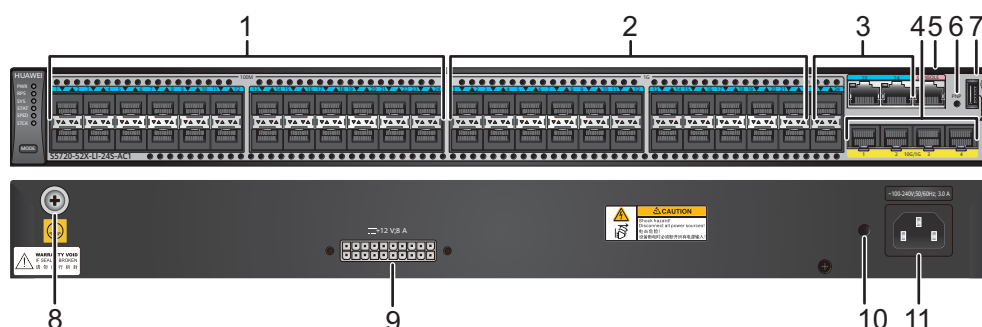
Overview

Table 5-341 Basic information about the S5720-52X-LI-24S-AC1

Item	Details
Description	S5720-52X-LI-24S-AC1 (24*FE SFP ports, 24*GE SFP ports, 2 of which are 10/100/1000BASE-T + SFP combo ports, 4*10GE SFP+ ports, AC power supply)
First supported version	V200R020C00
Part Number	98011053
Model	S5720-52X-LI-24S-AC1

Components

Figure 5-130 S5720-52X-LI-24S-AC1 appearance



1	Twenty-four 100BASE-X ports	2	Twenty-two 100/1000BASE-X ports
3	Two combo ports (10/100/1000BASE-T + 100/1000BASE-X)	4	Four 10GE SFP+ optical ports
5	One console port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	One USB port	8	Ground screw NOTE It is used with a ground cable .
9	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	10	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
11	AC socket NOTE It is used with an AC power cable .	-	-

Ports

Table 5-342 Ports on the S5720-52X-LI-24S-AC1

Port	Connector Type	Description	Available Components
100BASE-X port	SFP	A 100BASE-X port can send and receive data at 100 Mbit/s.	FE SFP/eSFP optical modules
100/1000BASE-X port	SFP	A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s.	FE SFP/eSFP optical modules GE eSFP optical modules GE-CWDM eSFP optical modules GE-CWDM eSFP optical modules (used only in the OADM scenario) GE-DWDM eSFP optical modules GE SFP copper module

Port	Connector Type	Description	Available Components
Combo port	SFP and RJ45	A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.	The electrical ports: Ethernet cable The optical ports: FE SFP/eSFP optical modules GE eSFP optical modules GE-CWDM eSFP optical modules GE-CWDM eSFP optical modules (used only in the OADM scenario) GE-DWDM eSFP optical modules

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<p>GE eSFP optical modules</p> <p>GE-CWDM eSFP optical modules</p> <p>GE-DWDM eSFP optical modules</p> <p>GE SFP copper module</p> <p>10GE SFP+ optical modules (OSXD22N00 not supported)</p> <p>10GE-CWDM SFP + optical modules</p> <p>10GE-DWDM SFP + optical modules</p> <p>1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables</p> <p>3 m and 10 m SFP+ AOC cables</p> <p>0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)</p> <p>H87MMA5671A2 GPON optical module</p>
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

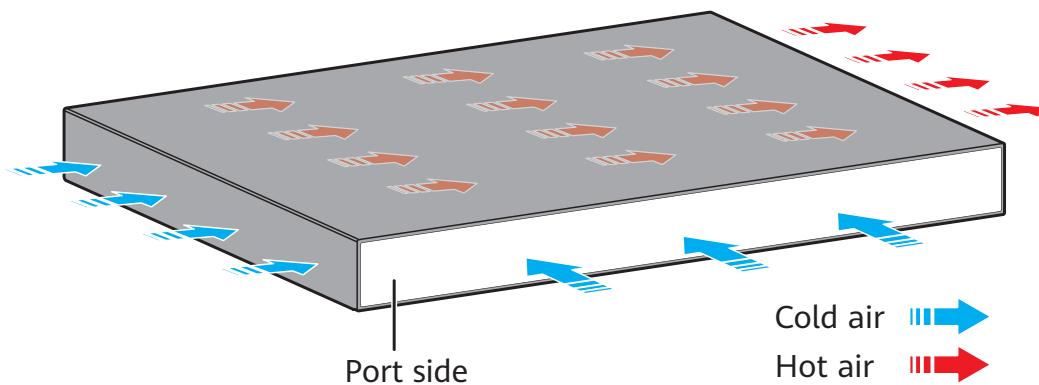
The S5720-52X-LI-24S-AC1 has the same types of indicators as the S5720-28X-LI-24S-AC. For details, see the S5720-28X-LI-24S-AC.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

Heat Dissipation System

The switch has three built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-343 Technical specifications of the S5720-52X-LI-24S-AC1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.9 mm (1.72 in. x 17.4 in. x 9.21 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90 mm x 550 mm x 380 mm (3.54 in. x 21.65 in. x 14.96 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.55 kg (7.83 lb)
Weight with packaging [kg(lb)]	4.4 kg (9.7 lb)
Typical power consumption [W]	68 W
Typical heat dissipation [BTU/hour]	232.02 BTU/hour
Maximum power consumption [W]	87 W
Maximum heat dissipation [BTU/hour]	296.85 BTU/hour
MTBF [year]	31.2 year
MTTR [hour]	2 hour
Availability	>0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	49.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans	3
Maximum number of 10GE ports	4
Maximum number of GE ports	24
Maximum number of FE ports	48
Redundant power supply	It can connect to an RPS1800 power supply for power redundancy.
Long-term operating temperature [°C(°F)]	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum input current [A]	3.0 A
Memory	512 MB
Flash memory	512 MB in total. To view the available flash memory size, run the display version command.

Item	Specification
RTC	Not supported
RPS	Supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Maximum PoE power consumption [W]	-
PoE+ power interfaces	-
PoE++ power interfaces	-
Full load PoE power consumption 15.4W (802.3af)	-
Full load PoE power consumption 30W (802.3at)	-
Full load PoE++ power consumption 60W (802.3bt)	-
Full load PoE++ power consumption 90W (802.3bt)	-
Certification	EMC certification Safety certification Manufacturing certification

5.8.24 S5720-52X-LI-48S-AC1

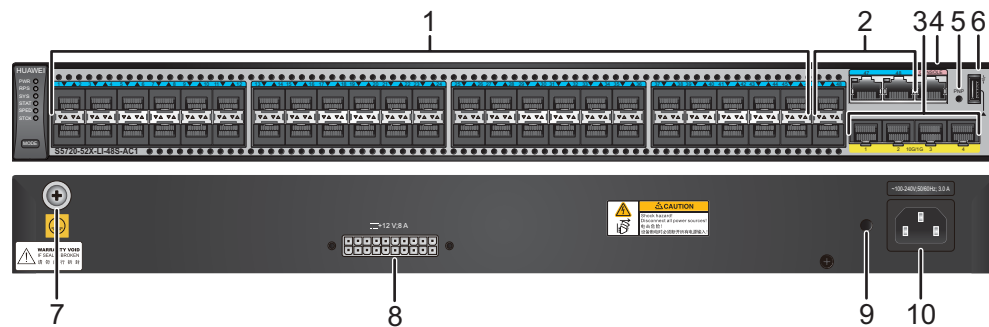
Overview

Table 5-344 Basic information about the S5720-52X-LI-48S-AC1

Item	Details
Description	S5720-52X-LI-48S-AC1 (48*GE SFP ports, 2 of which are 10/100/1000BASE-T + SFP combo ports, 4*10GE SFP+ ports, AC power supply)
First supported version	V200R020C00
Part Number	98011051
Model	S5720-52X-LI-48S-AC1

Components

Figure 5-131 S5720-52X-LI-48S-AC1 appearance



1	Forty-six 100/1000BASE-X ports	2	Two combo ports (10/100/1000BASE-T + 100/1000BASE-X)
3	Four 10GE SFP+ optical ports	4	One console port
5	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	6	One USB port

7	Ground screw NOTE It is used with a ground cable .	8	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.
9	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	10	AC socket NOTE It is used with an AC power cable .

Ports

Table 5-345 Ports on the S5720-52X-LI-48S-AC1

Port	Connector Type	Description	Available Components
100/1000BASE-X port	SFP	A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s.	FE SFP/eSFP optical modules GE eSFP optical modules GE-CWDM eSFP optical modules GE-CWDM eSFP optical modules (used only in the OADM scenario) GE-DWDM eSFP optical modules GE SFP copper module

Port	Connector Type	Description	Available Components
Combo port	SFP and RJ45	A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.	The electrical ports: Ethernet cable The optical ports: FE SFP/eSFP optical modules GE eSFP optical modules GE-CWDM eSFP optical modules GE-CWDM eSFP optical modules (used only in the OADM scenario) GE-DWDM eSFP optical modules

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<p>GE eSFP optical modules</p> <p>GE-CWDM eSFP optical modules</p> <p>GE-DWDM eSFP optical modules</p> <p>GE SFP copper module</p> <p>10GE SFP+ optical modules (OSXD22N00 not supported)</p> <p>10GE-CWDM SFP + optical modules</p> <p>10GE-DWDM SFP + optical modules</p> <p>1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables</p> <p>3 m and 10 m SFP+ AOC cables</p> <p>0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)</p> <p>H87MMA5671A2 GPON optical module</p>
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

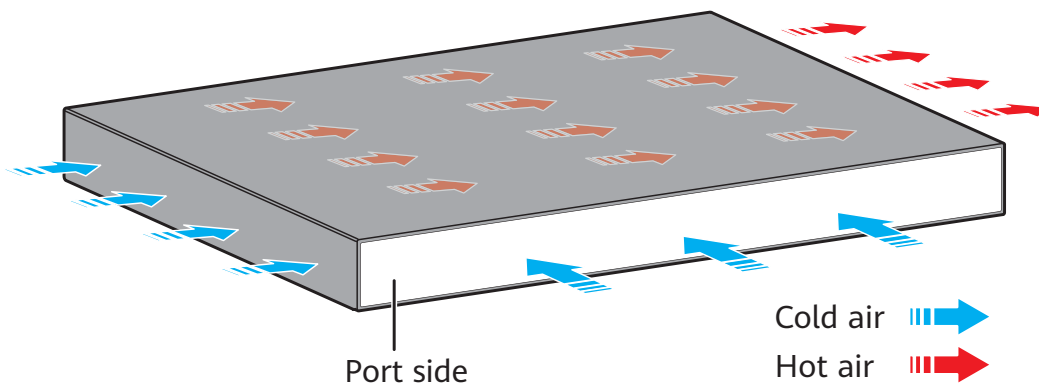
The S5720-52X-LI-48S-AC1 has the same types of indicators as the S5720-28X-LI-24S-AC. For details, see the S5720-28X-LI-24S-AC.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

Heat Dissipation System

The switch has three built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-346 Technical specifications of the S5720-52X-LI-48S-AC1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.9 mm (1.72 in. x 17.4 in. x 9.21 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90 mm x 550 mm x 380 mm (3.54 in. x 21.65 in. x 14.96 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.55 kg (7.83 lb)
Weight with packaging [kg(lb)]	4.4 kg (9.7 lb)
Typical power consumption [W]	68 W
Typical heat dissipation [BTU/hour]	232.02 BTU/hour
Maximum power consumption [W]	87 W
Maximum heat dissipation [BTU/hour]	296.85 BTU/hour
MTBF [year]	31.2 year
MTTR [hour]	2 hour
Availability	>0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	49.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans	3
Maximum number of 10GE ports	4
Maximum number of GE ports	48
Maximum number of FE ports	48
Redundant power supply	It can connect to an RPS1800 power supply for power redundancy.
Long-term operating temperature [°C(°F)]	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum input current [A]	3.0 A
Memory	512 MB
Flash memory	512 MB in total. To view the available flash memory size, run the display version command.

Item	Specification
RTC	Not supported
RPS	Supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Maximum PoE power consumption [W]	-
PoE+ power interfaces	-
PoE++ power interfaces	-
Full load PoE power consumption 15.4W (802.3af)	-
Full load PoE power consumption 30W (802.3at)	-
Full load PoE++ power consumption 60W (802.3bt)	-
Full load PoE++ power consumption 90W (802.3bt)	-
Certification	EMC certification Safety certification Manufacturing certification

5.8.25 S5720-52X-LI-48S-DC1

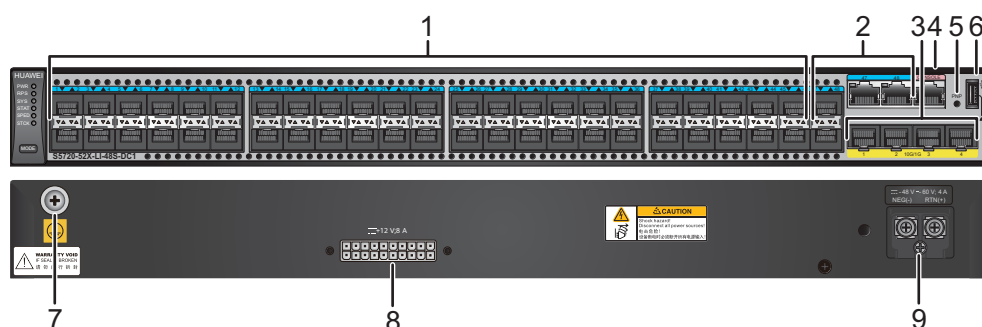
Overview

Table 5-347 Basic information about the S5720-52X-LI-48S-DC1

Item	Details
Description	S5720-52X-LI-48S-DC1 (48*GE SFP ports, 2 of which are 10/100/1000BASE-T + SFP combo ports, 4*10GE SFP+ ports, DC power supply)
First supported version	V200R020C00
Part Number	98011052
Model	S5720-52X-LI-48S-DC1

Components

Figure 5-132 S5720-52X-LI-48S-DC1 appearance



1	Forty-six 100/1000BASE-X ports	2	Two combo ports (10/100/1000BASE-T + 100/1000BASE-X)
3	Four 10GE SFP+ optical ports	4	One console port
5	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	6	One USB port

7	Ground screw NOTE It is used with a ground cable .	8	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.
9	DC power terminal NOTE It is used with DC Power Cable .	-	-

Ports

Table 5-348 Ports on the S5720-52X-LI-48S-DC1

Port	Connector Type	Description	Available Components
100/1000BASE-X port	SFP	A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s.	FE SFP/eSFP optical modules GE eSFP optical modules GE-CWDM eSFP optical modules GE-CWDM eSFP optical modules (used only in the OADM scenario) GE-DWDM eSFP optical modules GE SFP copper module

Port	Connector Type	Description	Available Components
Combo port	SFP and RJ45	A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.	The electrical ports: Ethernet cable The optical ports: FE SFP/eSFP optical modules GE eSFP optical modules GE-CWDM eSFP optical modules GE-CWDM eSFP optical modules (used only in the OADM scenario) GE-DWDM eSFP optical modules

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<p>GE eSFP optical modules</p> <p>GE-CWDM eSFP optical modules</p> <p>GE-DWDM eSFP optical modules</p> <p>GE SFP copper module</p> <p>10GE SFP+ optical modules (OSXD22N00 not supported)</p> <p>10GE-CWDM SFP + optical modules</p> <p>10GE-DWDM SFP + optical modules</p> <p>1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables</p> <p>3 m and 10 m SFP+ AOC cables</p> <p>0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)</p> <p>H87MMA5671A2 GPON optical module</p>
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

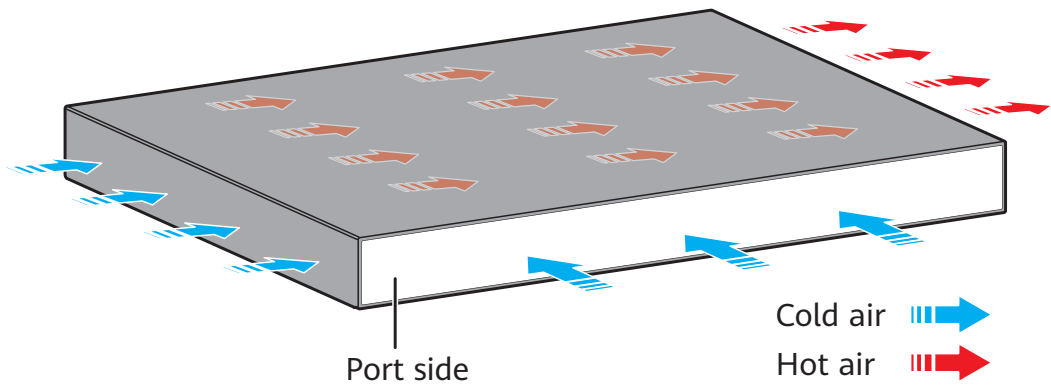
The S5720-52X-LI-48S-DC1 has the same types of indicators as the S5720-28X-LI-24S-AC. For details, see the S5720-28X-LI-24S-AC.

Power Supply System

The switch has a built-in DC power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

Heat Dissipation System

The switch has three built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-349 Technical specifications of the S5720-52X-LI-48S-DC1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 238.7 mm (1.72 in. x 17.4 in. x 9.4 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90 mm x 550 mm x 380 mm (3.54 in. x 21.65 in. x 14.96 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.35 kg (7.39 lb)
Weight with packaging [kg(lb)]	4.2 kg (9.26 lb)
Typical power consumption [W]	69 W
Typical heat dissipation [BTU/hour]	235.43 BTU/hour
Maximum power consumption [W]	81 W
Maximum heat dissipation [BTU/hour]	276.38 BTU/hour
MTBF [year]	42.03 year
MTTR [hour]	2 hour
Availability	>0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	49.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans	3
Maximum number of 10GE ports	4
Maximum number of GE ports	48
Maximum number of FE ports	48
Redundant power supply	It can connect to an RPS1800 power supply for power redundancy.
Long-term operating temperature [°C(°F)]	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	DC built-in
Rated input voltage [V]	-48 V DC to -60 V DC
Input voltage range [V]	-38.4 V DC to -72 V DC
Maximum input current [A]	4.0 A
Memory	512 MB
Flash memory	512 MB in total. To view the available flash memory size, run the display version command.

Item	Specification
RTC	Not supported
RPS	Supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 1 kV in differential mode, ± 2 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Maximum PoE power consumption [W]	-
PoE+ power interfaces	-
PoE++ power interfaces	-
Full load PoE power consumption 15.4W (802.3af)	-
Full load PoE power consumption 30W (802.3at)	-
Full load PoE++ power consumption 60W (802.3bt)	-
Full load PoE++ power consumption 90W (802.3bt)	-
Certification	EMC certification Safety certification Manufacturing certification

5.9 S5720S-LI

5.9.1 S5720S-12TP-LI-AC

Version Mapping

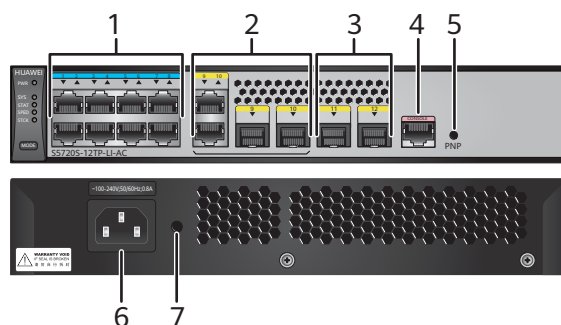
Table 5-350 lists the mapping between the S5720S-12TP-LI-AC chassis and software versions.

Table 5-350 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-12TP-LI-AC	V200R010C00 and later versions

Appearance and Structure

Figure 5-133 S5720S-12TP-LI-AC appearance



1	Eight 10/100/1000BASE-T ports	2	Two combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module (the maximum transmission distance cannot exceed 40 km)
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3	<p>Two 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module (the maximum transmission distance cannot exceed 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only applicable to stack ports) • 1 m, 3 m, 5 m, 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 3 m and 10 m AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>	4	One console port
5	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>AC socket</p> <p>NOTE</p> <p>It is used with an AC power cable.</p>
7	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-351](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-351 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission

speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-352](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-352 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-353](#).

Table 5-353 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

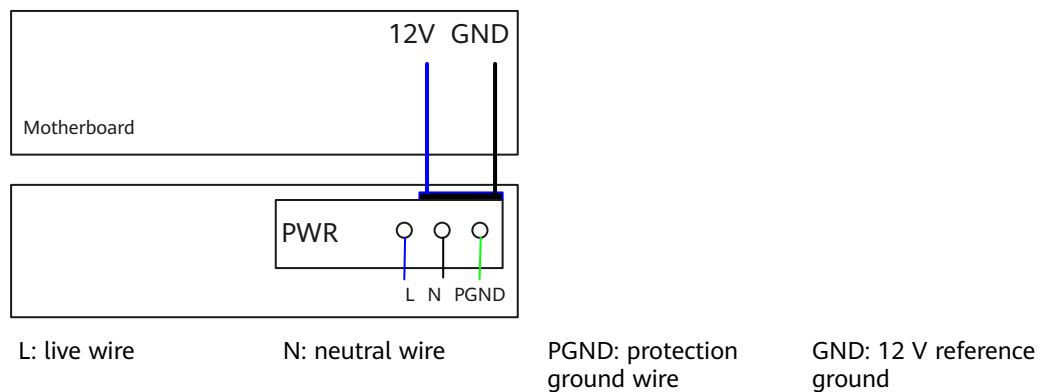
The S5720S-12TP-LI-AC has the same types of indicators as the S5720-12TP-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-12TP-LI-AC has a built-in power module and does not support pluggable power modules.

[Figure 5-134](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-134 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720S-12TP-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

[Table 5-354](#) lists technical specifications of the S5720S-12TP-LI-AC.

Table 5-354 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	23.8 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 250.0 mm x 180.0 mm (1.72 in. x 9.8 in. x 7.1 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 250.0 mm x 186.7 mm (1.72 in. x 9.8 in. x 7.35 in.)
Weight (with packaging)	1.8 kg (3.97 lb)
Stack ports	Eight 10/100/1000BASE-T ports and two 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	12.85 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	10.39 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses GE SFP optical modules with 40 km transmission distance.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010568

5.9.2 S5720S-12TP-PWR-LI-AC

Version Mapping

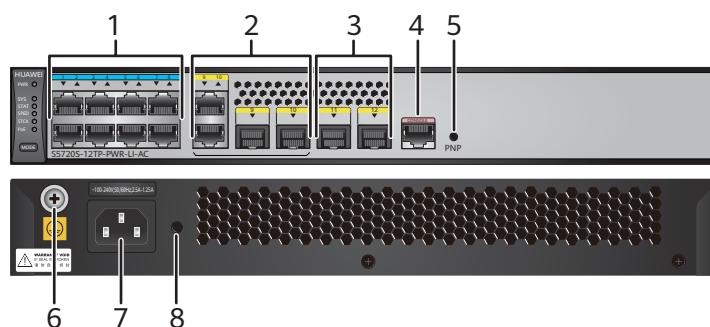
Table 5-355 lists the mapping between the S5720S-12TP-PWR-LI-AC chassis and software versions.

Table 5-355 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-12TP-PWR-LI-AC	V200R010C00 and later versions

Appearance and Structure

Figure 5-135 S5720S-12TP-PWR-LI-AC appearance



1	Eight PoE+ 10/100/1000BASE-T ports	2	<p>Two combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module (the maximum transmission distance cannot exceed 40 km)
3	<p>Two 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module (the maximum transmission distance cannot exceed 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only applicable to stack ports) • 1 m, 3 m, 5 m, 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 3 m and 10 m AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>	4	One console port

5	One PNP button NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	6	Ground screw NOTE It is used with a ground cable .
7	AC socket NOTE It is used with an AC power cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-356](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-356 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-357](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-357 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-358](#).

Table 5-358 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

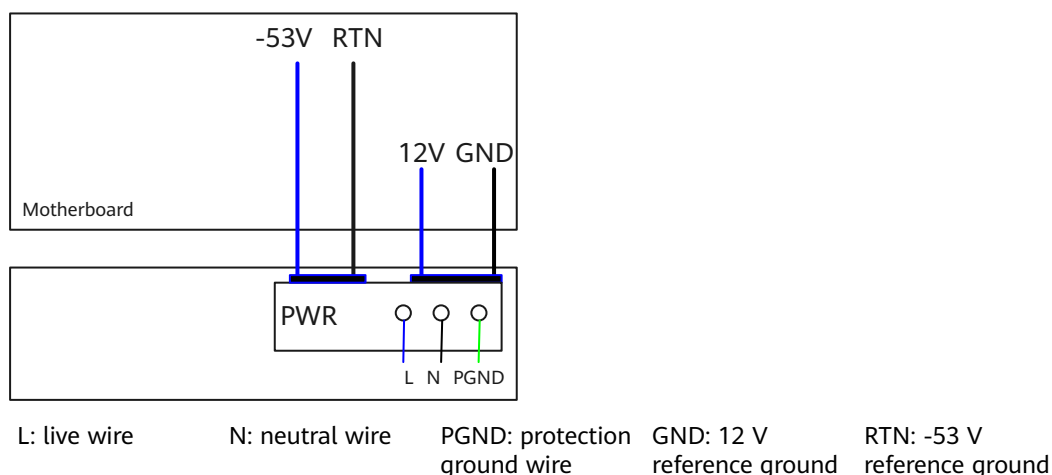
The S5720S-12TP-PWR-LI-AC has the same types of indicators as the S5720-12TP-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-12TP-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 124 W PoE power, which ensures full PoE power on 8 ports in compliance with 802.3af or on 4 ports in compliance with 802.3at. The switch cannot connect to an RPS power supply.

Figure 5-136 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 5-136 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5720S-12TP-PWR-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

Table 5-359 lists technical specifications of the S5720S-12TP-PWR-LI-AC.

Table 5-359 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	23.8 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 320.0 mm x 220.0 mm (1.72 in. x 12.6 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 320.0 mm x 231.5 mm (1.72 in. x 12.6 in. x 9.11 in.)
Weight (with packaging)	3 kg (6.62 lb)
Stack ports	Eight 10/100/1000BASE-T ports and two 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	<ul style="list-style-type: none"> Not providing the PoE function: 15.61 W 100% PoE loads: 160.5 W (system power consumption: 37.3 W, PoE: 123.2 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	14.57 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010571

5.9.3 S5720S-28TP-PWR-LI-ACL

Version Mapping

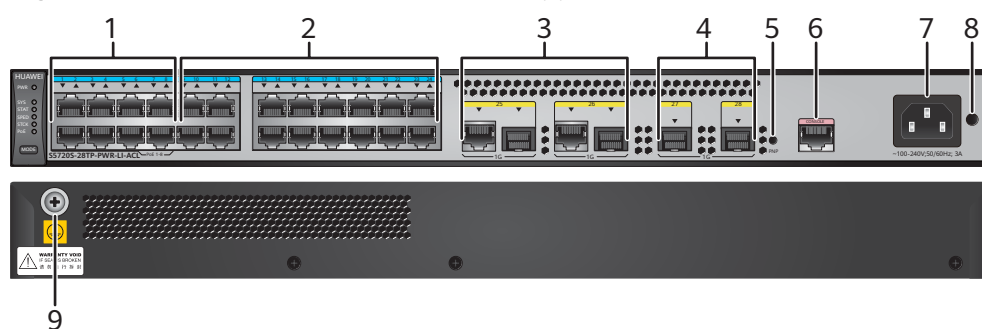
Table 5-360 lists the mapping between the S5720S-28TP-PWR-LI-ACL chassis and software versions.

Table 5-360 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-28TP-PWR-LI-ACL	V200R010C00 and later versions

Appearance and Structure

Figure 5-137 S5720S-28TP-PWR-LI-ACL appearance



1	Eight PoE+ 10/100/1000BASE-T ports	2	Sixteen 10/100/1000BASE-T ports
---	------------------------------------	---	---------------------------------

3	<p>Two combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module (the maximum transmission distance cannot exceed 40 km) 	<p>4 Two 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module (the maximum transmission distance cannot exceed 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only applicable to stack ports) • 1 m, 3 m, 5 m, 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 3 m and 10 m AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
5	<p>One PNP button</p> <p>NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	<p>6 One console port</p>
7	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	<p>8 Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>

9	Ground screw	-	-
	NOTE It is used with a ground cable .		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-361** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-361 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-362](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-362 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-363](#).

Table 5-363 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

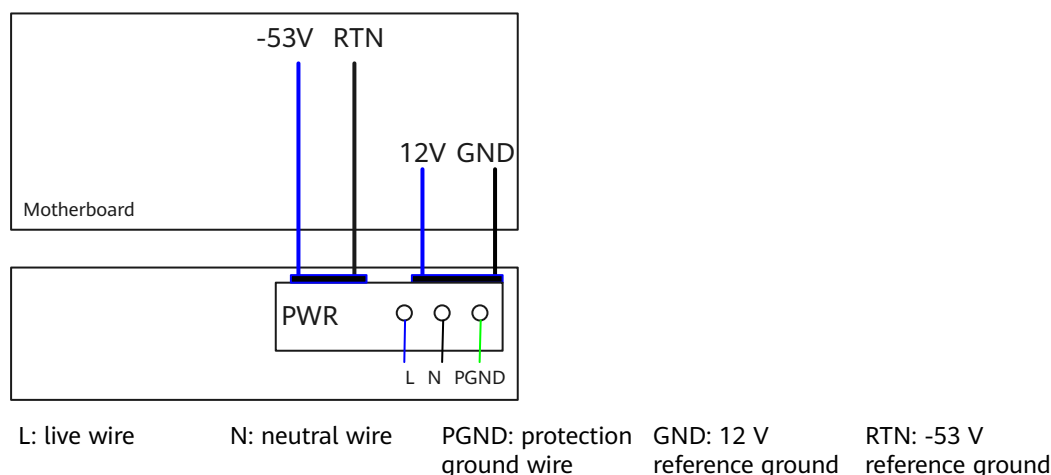
The S5720S-28TP-PWR-LI-ACL has the same types of indicators as the S5720-28TP-PWR-LI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-28TP-PWR-LI-ACL has a built-in power module and does not support pluggable power modules. The built-in power module can provide 124 W PoE power, which ensures full PoE power on 8 ports in compliance with 802.3af or on 4 ports in compliance with 802.3at. The switch cannot connect to an RPS power supply.

Figure 5-138 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 5-138 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5720S-28TP-PWR-LI-ACL has no fans and uses natural heat dissipation.

Technical Specifications

Table 5-364 lists technical specifications of the S5720S-28TP-PWR-LI-ACL.

Table 5-364 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	42 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.5 kg (9.92 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and two 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz

Item	Description
Maximum power consumption (100% throughput)	<ul style="list-style-type: none"> Not providing the PoE function: 24.4 W 100% PoE loads: 165.6 W (system power consumption: 42.4 W, PoE: 123.2 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	19.4 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses GE SFP optical modules with 40 km transmission distance.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	98010635

5.9.4 S5720S-28P-LI-AC

Version Mapping

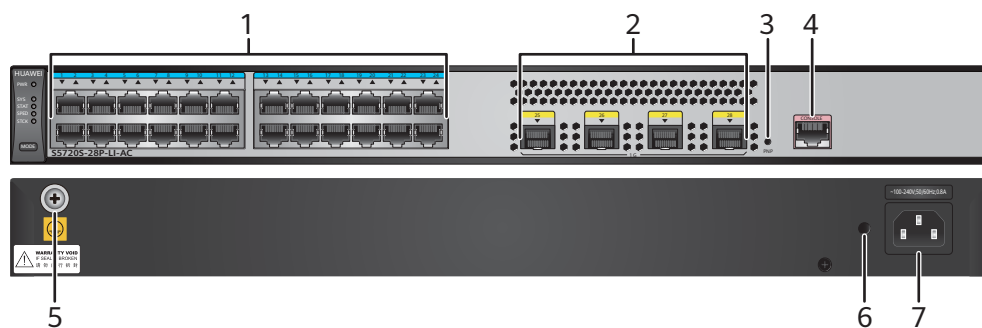
Table 5-365 lists the mapping between the S5720S-28P-LI-AC chassis and software versions.

Table 5-365 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-28P-LI-AC	V200R010C00 and later versions

Appearance and Structure

Figure 5-139 S5720S-28P-LI-AC appearance



1	<p>Twenty-four 10/100/1000BASE-T ports</p>	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>

5	Ground screw NOTE It is used with a ground cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
7	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-366](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-366 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-367](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-367 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-368](#).

Table 5-368 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

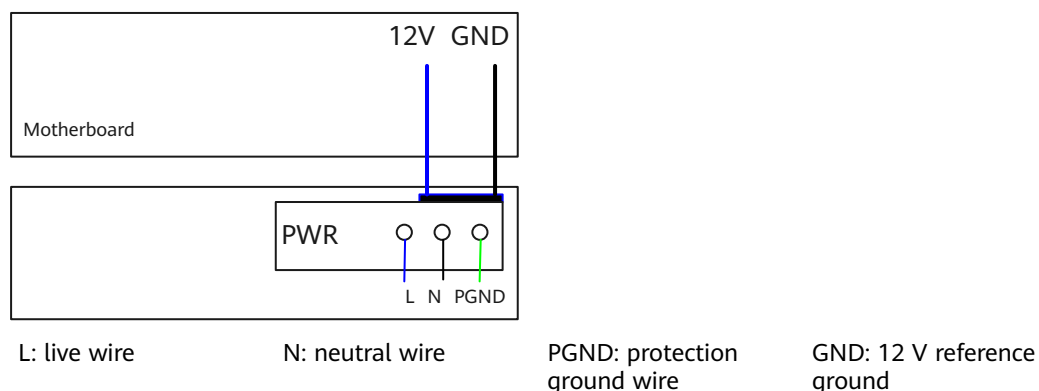
The S5720S-28P-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC except that the S5720S-28P-LI-AC does not have an RPS, USB, or PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-28P-LI-AC has a built-in power module and does not support pluggable power modules.

[Figure 5-140](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-140 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720S-28P-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

Table 5-369 lists technical specifications of the S5720S-28P-LI-AC.

Table 5-369 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	45 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	3.9 kg (8.6 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	20.2 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	16.1 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses GE SFP optical modules with 40 km or longer transmission distances.

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010578

5.9.5 S5720SV2-28P-LI-AC

Version Mapping

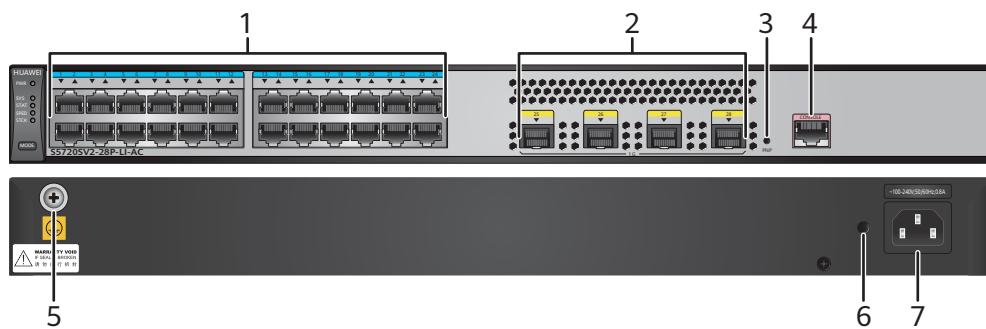
Table 5-370 lists the mapping between the S5720SV2-28P-LI-AC chassis and software versions.

Table 5-370 Version mapping

Series	Model	Software Version
S5720S-LI	S5720SV2-28P-LI-AC	V200R012C20 and later versions

Appearance and Structure

Figure 5-141 S5720SV2-28P-LI-AC appearance



1	<p>Twenty-four 10/100/1000BASE-T ports</p>	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking) • H87MMA5671A2 GPON optical module <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	6	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>
7	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-371](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-371 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-372](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-372 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-373](#).

Table 5-373 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

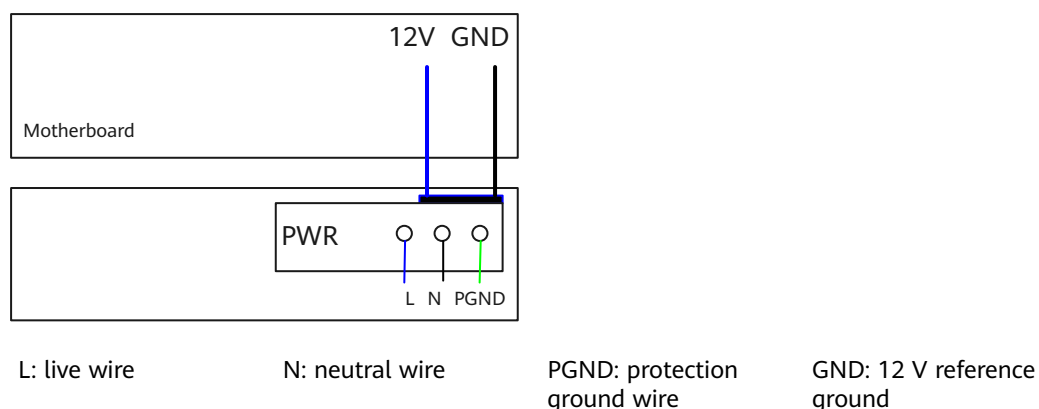
Indicator Description

The S5720SV2-28P-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC except that the S5720SV2-28P-LI-AC does not have an RPS, USB, or PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720SV2-28P-LI-AC has a built-in power module and does not support pluggable power modules.

[Figure 5-142](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-142 Power supply mode of a built-in AC power module

Heat Dissipation

The S5720SV2-28P-LI-AC has no fans and uses natural heat dissipation.

Technical Specifications

Table 5-374 lists technical specifications of the S5720SV2-28P-LI-AC.

Table 5-374 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	45 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	3.9 kg (8.6 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz

Item	Description
Maximum power consumption (100% throughput)	20.2 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	16.1 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses GE SFP optical modules with 40 km or longer transmission distances.
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010852

5.9.6 S5720S-28P-PWR-LI-AC

Version Mapping

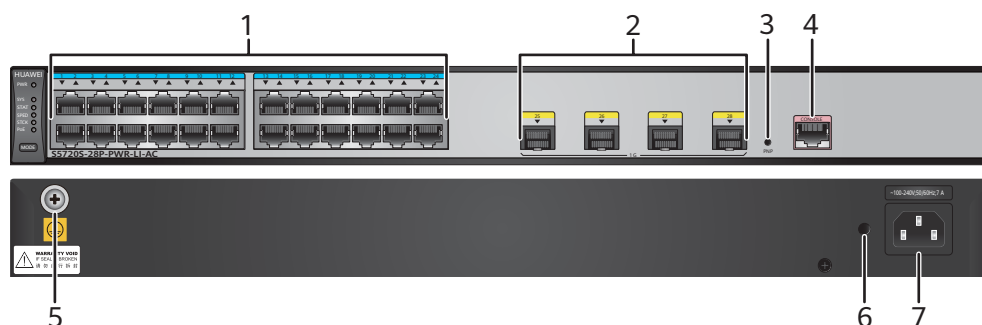
Table 5-375 lists the mapping between the S5720S-28P-PWR-LI-AC chassis and software versions.

Table 5-375 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-28P-PWR-LI-AC	V200R010C00 and later versions

Appearance and Structure

Figure 5-143 S5720S-28P-PWR-LI-AC appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	One PNP button NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	4	One console port

5	Ground screw NOTE It is used with a ground cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
7	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-376](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-376 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-377](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-377 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-378](#).

Table 5-378 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

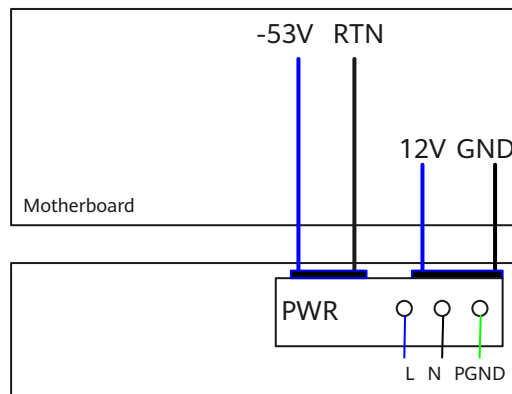
The S5720S-28P-PWR-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC, except that the S5720S-28P-PWR-LI-AC does not have an RPS or USB indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-28P-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 370 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at. The switch cannot connect to an RPS power supply.

[Figure 5-144](#) shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

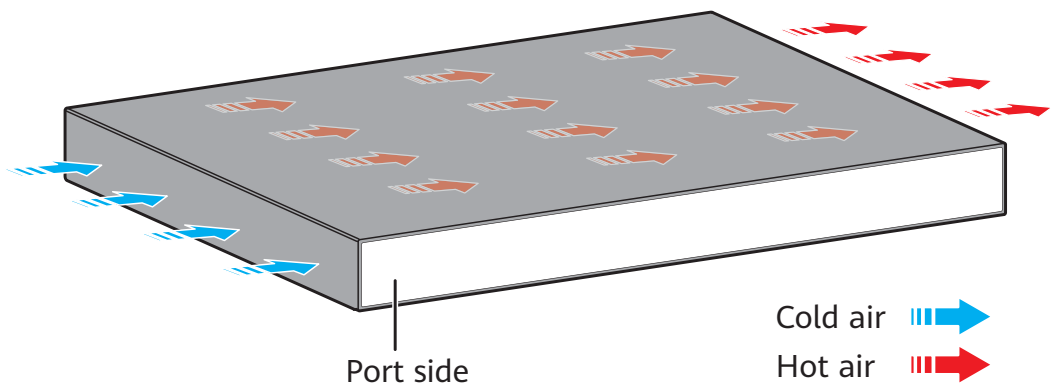
Figure 5-144 Power supply by a built-in AC PoE power module



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720S-28P-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-379 lists technical specifications of the S5720S-28P-PWR-LI-AC.

Table 5-379 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.8 mm (1.72 in. x 17.4 in. x 12.39 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.8 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	5.2 kg (11.45 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 40.4 W 100% PoE loads: 446.7 W (system power consumption: 77.1 W, PoE: 369.6 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	26 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.1 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010589

5.9.7 S5720S-52P-LI-AC

Version Mapping

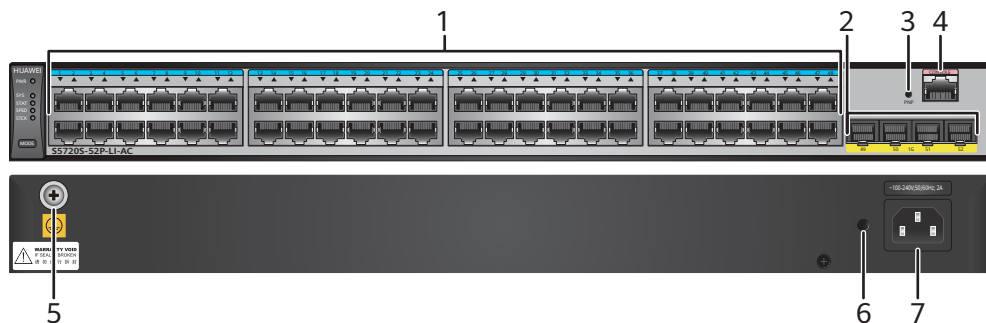
Table 5-380 lists the mapping between the S5720S-52P-LI-AC chassis and software versions.

Table 5-380 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-52P-LI-AC	V200R010C00 and later versions

Appearance and Structure

Figure 5-145 S5720S-52P-LI-AC appearance



1	<p>Forty-eight 10/100/1000BASE-T ports</p>	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>

5	Ground screw NOTE It is used with a ground cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
7	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-381](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-381 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-382](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-382 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-383](#).

Table 5-383 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

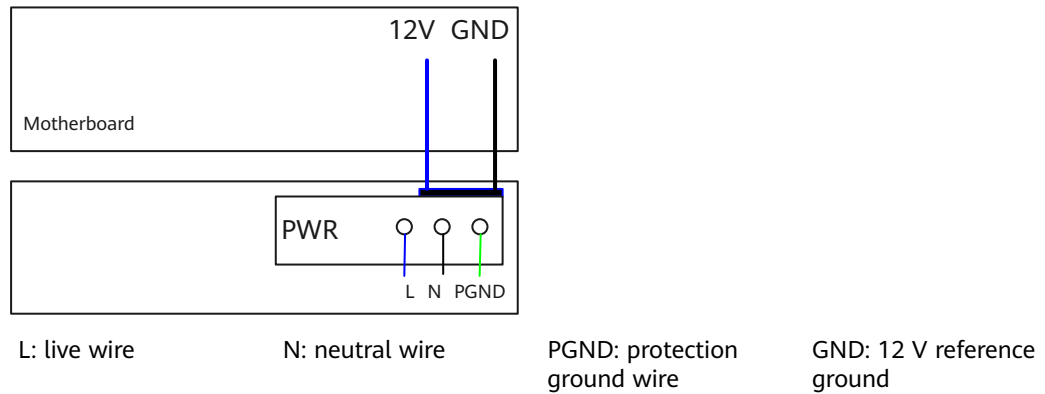
The S5720S-52P-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC except that the S5720S-52P-LI-AC does not have an RPS, USB, or PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-52P-LI-AC has a built-in power module and does not support pluggable power modules.

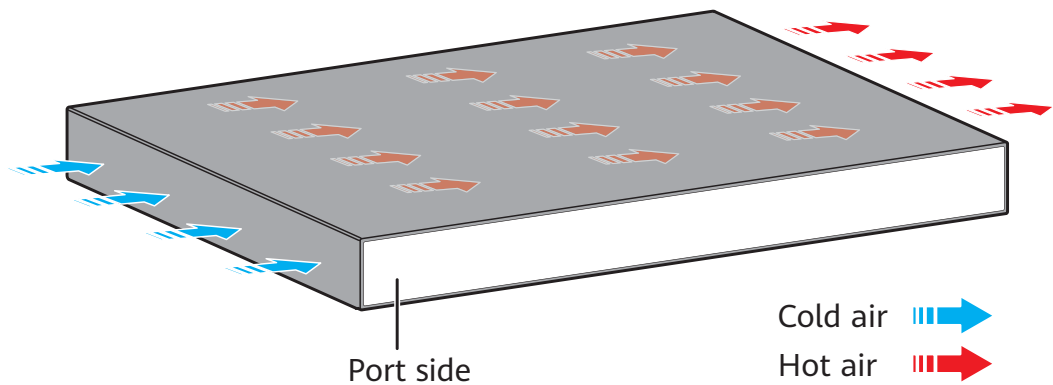
[Figure 5-146](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-146 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720S-52P-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-384 lists technical specifications of the S5720S-52P-LI-AC.

Table 5-384 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.4 kg (9.7 lb)
Stack ports	Forty-eight 10/100/1000BASE-T ports and four 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	47.3 W
Typical power consumption (30% of traffic load)	29.9 W
	<ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	<p>0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 44.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010601

5.9.8 S5720SV2-52P-LI-AC

Version Mapping

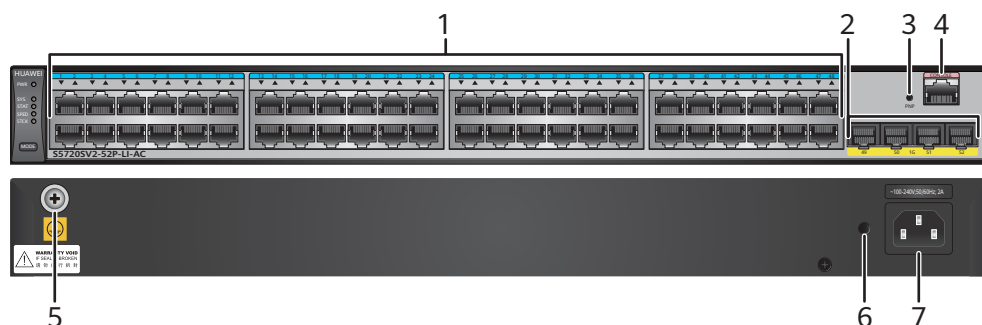
Table 5-385 lists the mapping between the S5720SV2-52P-LI-AC chassis and software versions.

Table 5-385 Version mapping

Series	Model	Software Version
S5720S-LI	S5720SV2-52P-LI-AC	V200R012C20 and later versions

Appearance and Structure

Figure 5-147 S5720SV2-52P-LI-AC appearance



1	<p>Forty-eight 10/100/1000BASE-T ports</p>	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking) • H87MMA5671A2 GPON optical module <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	6	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>
7	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-386](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-386 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-387](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-387 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-388](#).

Table 5-388 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

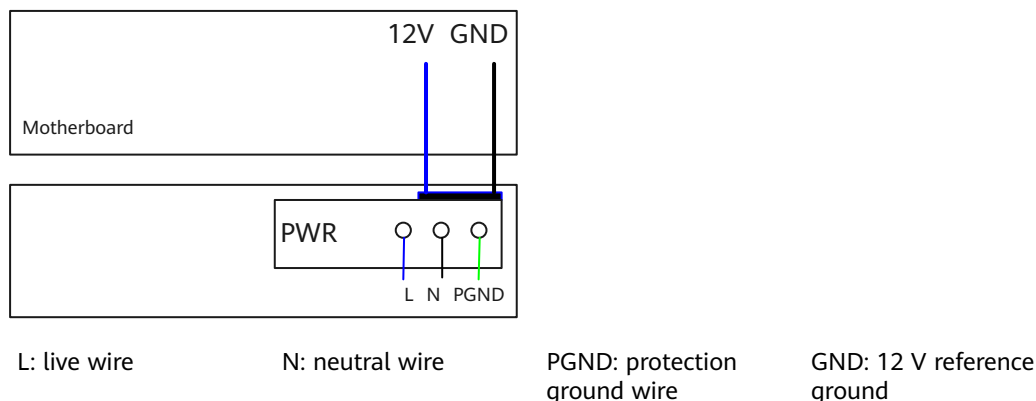
The S5720SV2-52P-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC except that the S5720SV2-52P-LI-AC does not have an RPS, USB, or PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720SV2-52P-LI-AC has a built-in power module and does not support pluggable power modules.

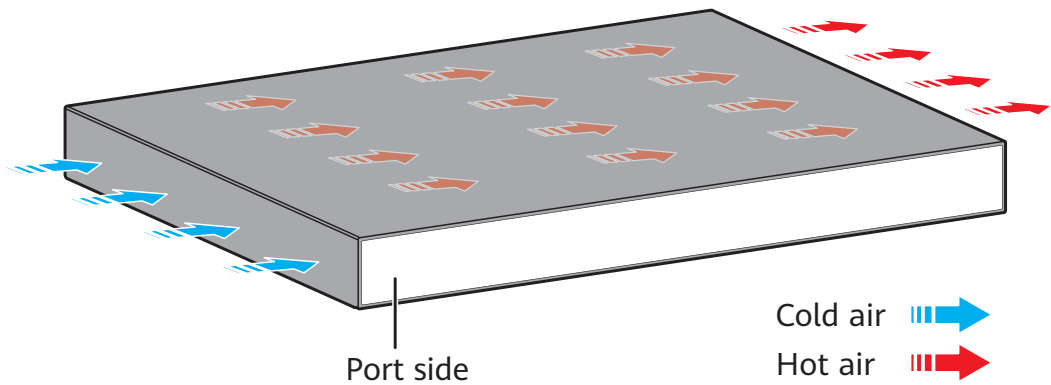
[Figure 5-148](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-148 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720SV2-52P-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-389 lists technical specifications of the S5720SV2-52P-LI-AC.

Table 5-389 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.4 kg (9.7 lb)

Item	Description
Stack ports	Forty-eight 10/100/1000BASE-T ports and four 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	47.3 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	29.9 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 44.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010853

5.9.9 S5720S-52P-PWR-LI-AC

Version Mapping

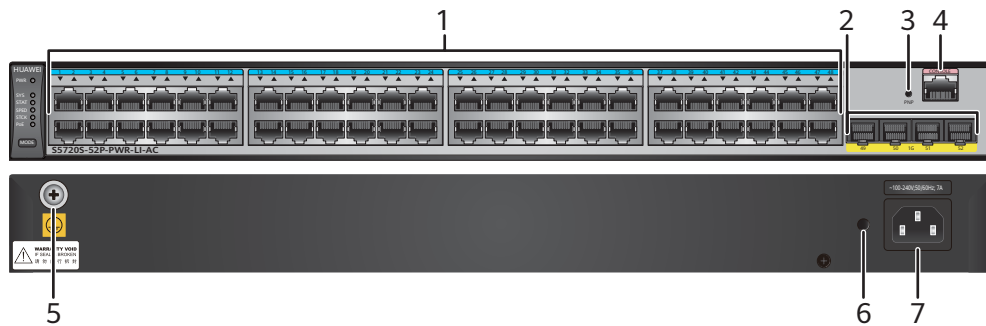
[Table 5-390](#) lists the mapping between the S5720S-52P-PWR-LI-AC chassis and software versions.

Table 5-390 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-52P-PWR-LI-AC	V200R010C00 and later versions

Appearance and Structure

Figure 5-149 S5720S-52P-PWR-LI-AC appearance



1	<p>Forty-eight PoE+ 10/100/1000BASE-T ports</p>	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • Stack optical module (only used for stack connection) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only used for stack connection) • 3 m and 10 m AOC cables (only used for stack connection) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>

5	Ground screw NOTE It is used with a ground cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
7	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-391](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-391 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-392](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-392 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-393](#).

Table 5-393 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

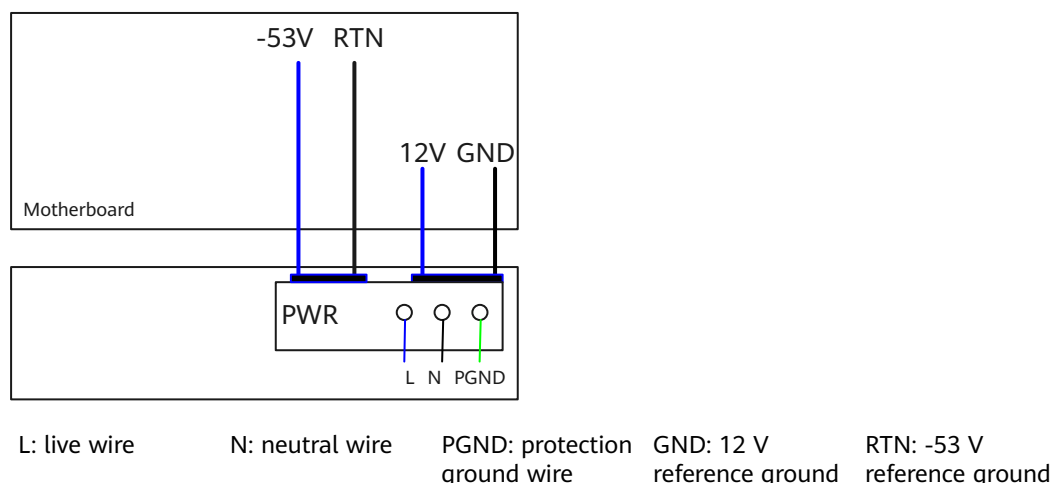
The S5720S-52P-PWR-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC, except that the S5720S-52P-PWR-LI-AC does not have an RPS or USB indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-52P-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 370 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at. The switch cannot connect to an RPS power supply.

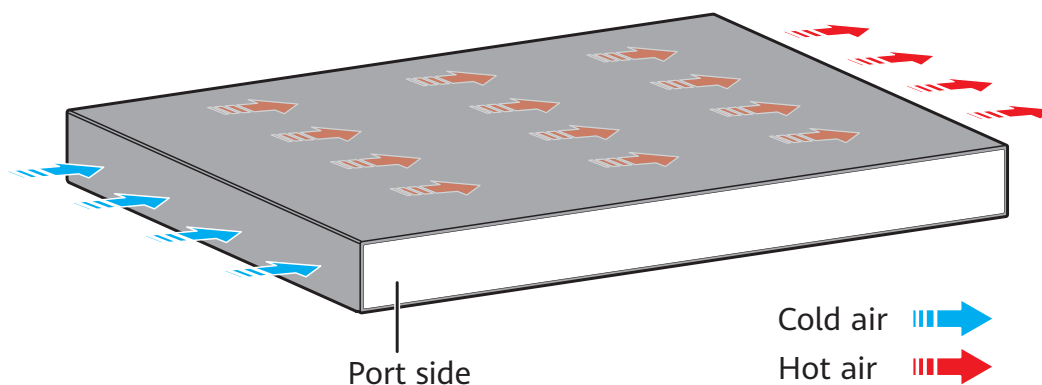
[Figure 5-150](#) shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 5-150 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5720S-52P-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-394](#) lists technical specifications of the S5720S-52P-PWR-LI-AC.

Table 5-394 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	38 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.8 mm (1.72 in. x 17.4 in. x 12.39 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.8 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	5.6 kg (12.35 lb)
Stack ports	Forty-eight 10/100/1000BASE-T ports and four 1000BASE-X ports
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 61.7 W 100% PoE loads: 461.8 W (system power consumption: 92.2 W, PoE: 369.6 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	42 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 48.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010613

5.9.10 S5720S-28X-LI-AC

Version Mapping

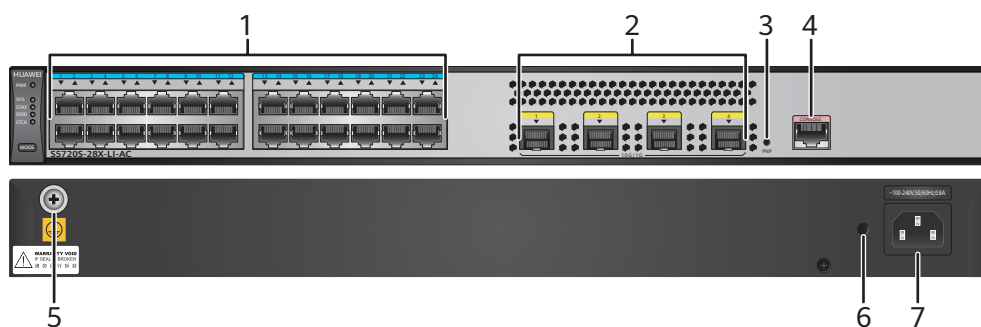
Table 5-395 lists the mapping between the S5720S-28X-LI-AC chassis and software versions.

Table 5-395 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-28X-LI-AC	V200R010C00 and later versions

Appearance and Structure

Figure 5-151 S5720S-28X-LI-AC appearance



1	<p>Twenty-four 10/100/1000BASE-T ports</p>	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>A switch can use a maximum of two 10GE optical modules with 40 km or longer transmission distances.</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>

5	Ground screw NOTE It is used with a ground cable .	6	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
7	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-396](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-396 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-397](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-397 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-398](#).

Table 5-398 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

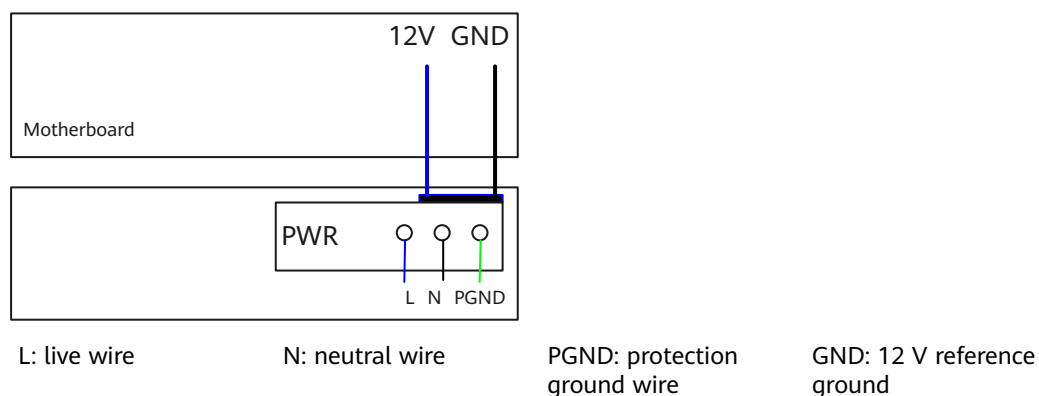
The S5720S-28X-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC except that the S5720S-28X-LI-AC does not have an RPS, USB, or PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-28X-LI-AC has a built-in power module and does not support pluggable power modules.

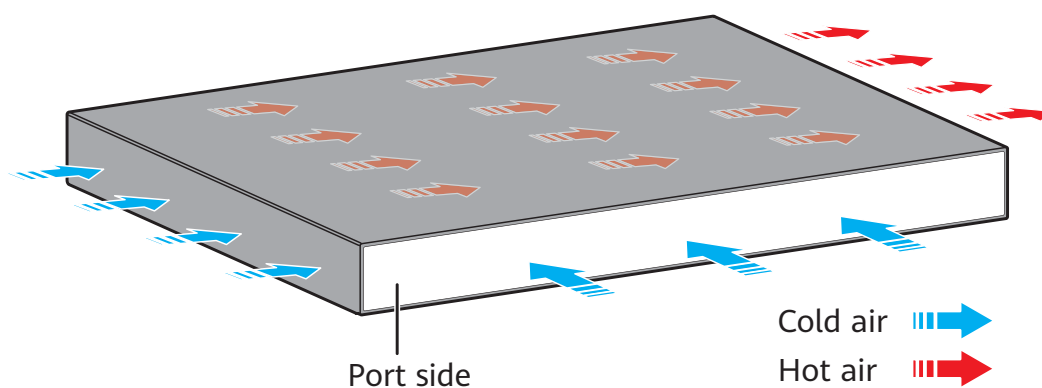
[Figure 5-152](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-152 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720S-28X-LI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-399 lists technical specifications of the S5720S-28X-LI-AC.

Table 5-399 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	45 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	3.9 kg (8.6 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	29.5 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	21.4 W

Item	Description
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 47 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010585

5.9.11 S5720S-28X-LI-24S-AC

Version Mapping

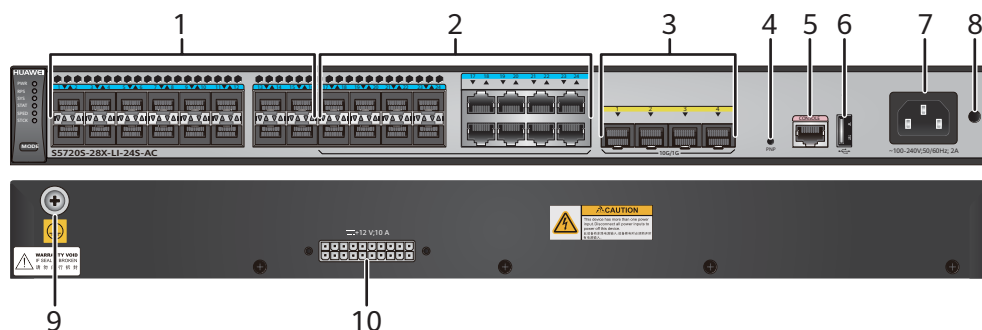
Table 5-400 lists the mapping between the S5720S-28X-LI-24S-AC chassis and software versions.

Table 5-400 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-28X-LI-24S-AC	V200R010C00 and later versions

Appearance and Structure

Figure 5-153 S5720S-28X-LI-24S-AC appearance



1	<p>Sixteen 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Eight combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	One console port	6	One USB port
7	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>
9	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	10	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-401](#) describes the attributes of a 100/1000BASE-X port.

Table 5-401 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-402](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-402 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-403](#).

Table 5-403 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

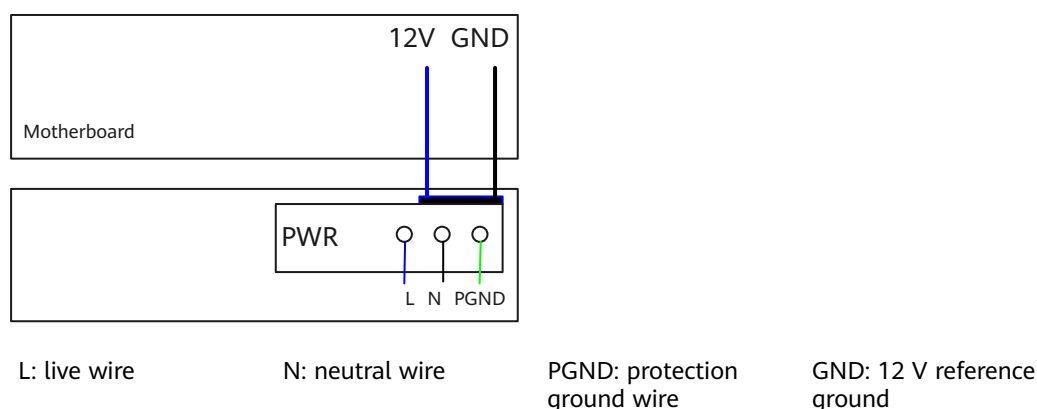
The S5720S-28X-LI-24S-AC has the same types of indicators as the S5720-28X-LI-24S-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-28X-LI-24S-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

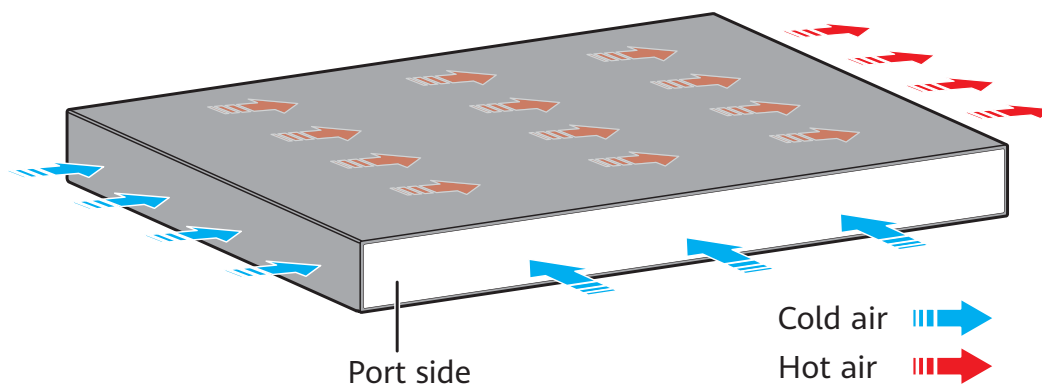
Figure 5-154 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-154 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720S-28X-LI-24S-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-404 lists technical specifications of the S5720S-28X-LI-24S-AC.

Table 5-404 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.1 kg (9.04 lb)
Stack ports	GE SFP optical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Not supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	41.7 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	28.9 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 43 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010630

5.9.12 S5720S-28X-PWR-LI-AC

Version Mapping

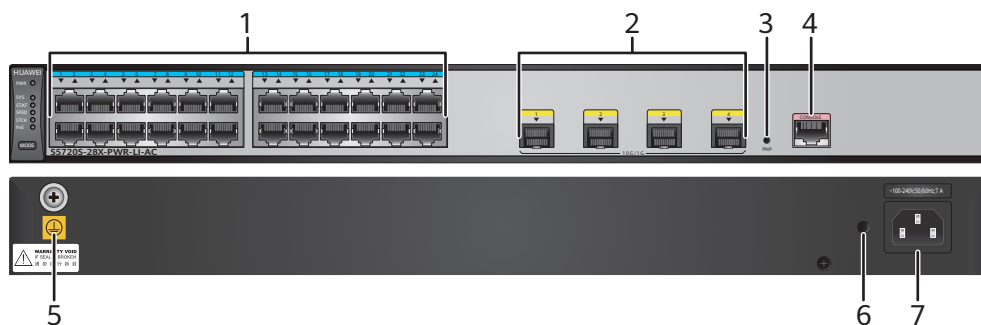
[Table 5-405](#) lists the mapping between the S5720S-28X-PWR-LI-AC chassis and software versions.

Table 5-405 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-28X-PWR-LI-AC	V200R010C00 and later versions

Appearance and Structure

Figure 5-155 S5720S-28X-PWR-LI-AC appearance



1	<p>Twenty-four PoE + 10/100/1000BASE-T ports</p>	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>	6	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>

7	AC socket	-	-
	NOTE It is used with an AC power cable .		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-406](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-406 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-407](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-407 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 5-408](#).

Table 5-408 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

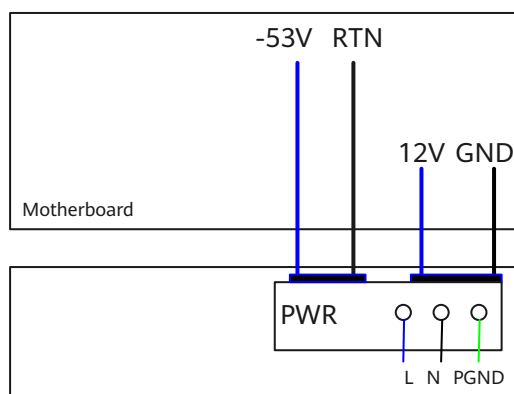
The S5720S-28X-PWR-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC, except that the S5720S-28X-PWR-LI-AC does not have an RPS or USB indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-28X-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 370 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at. The switch cannot connect to an RPS power supply.

[Figure 5-156](#) shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

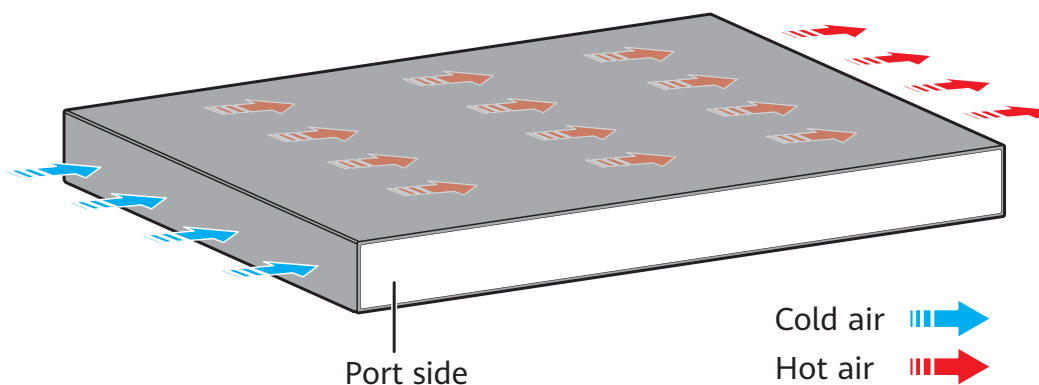
Figure 5-156 Power supply by a built-in AC PoE power module



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720S-28X-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-409 lists technical specifications of the S5720S-28X-PWR-LI-AC.

Table 5-409 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.8 mm (1.72 in. x 17.4 in. x 12.39 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.8 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	5.2 kg (11.45 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">• Not providing the PoE function: 42.7 W• 100% PoE loads: 448.5 W (system power consumption: 78.9 W, PoE: 369.6 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	29.5 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.1 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010597

5.9.13 S5720S-52X-LI-AC

Version Mapping

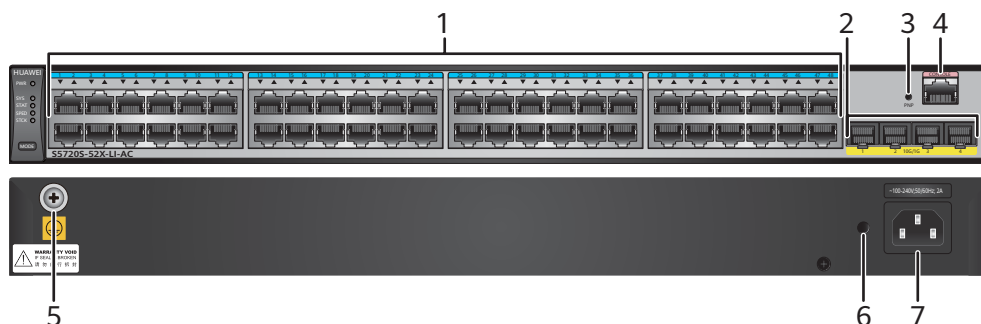
Table 5-410 lists the mapping between the S5720S-52X-LI-AC chassis and software versions.

Table 5-410 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-52X-LI-AC	V200R010C00 and later versions

Appearance and Structure

Figure 5-157 S5720S-52X-LI-AC appearance



1	<p>Forty-eight 10/100/1000BASE-T ports</p>	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>	6	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>

7	AC socket	-	-
	NOTE It is used with an AC power cable .		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-411](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-411 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-412](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-412 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 5-413](#).

Table 5-413 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

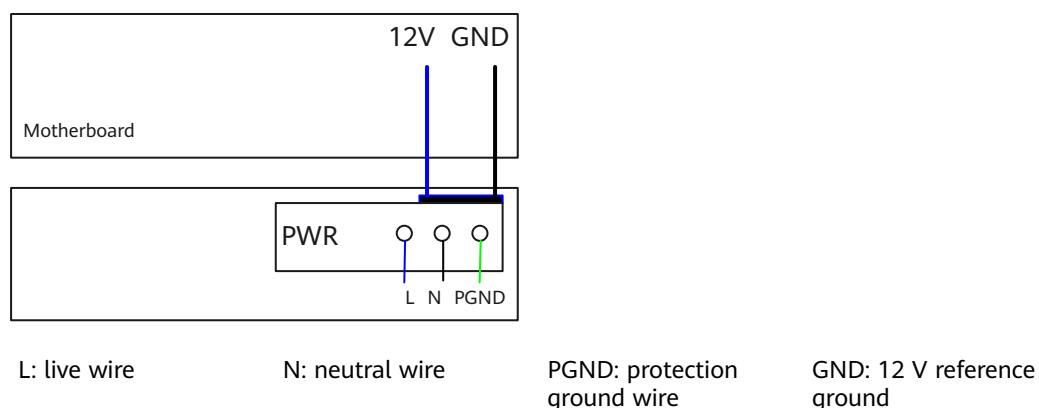
The S5720S-52X-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC except that the S5720S-52X-LI-AC does not have an RPS, USB, or PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-52X-LI-AC has a built-in power module and does not support pluggable power modules.

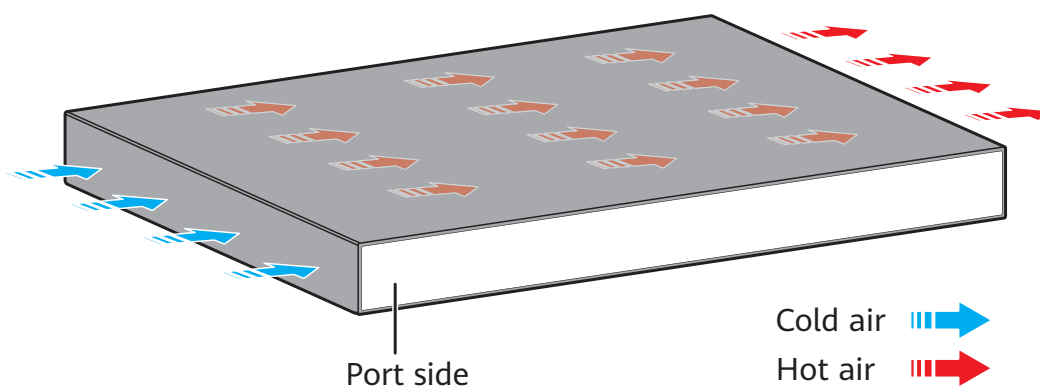
[Figure 5-158](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-158 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720S-52X-LI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-414](#) lists technical specifications of the S5720S-52X-LI-AC.

Table 5-414 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.4 kg (9.7 lb)
Stack ports	Forty-eight 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	50.3 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	31.6 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 44.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010604

5.9.14 S5720S-52X-PWR-LI-AC

Version Mapping

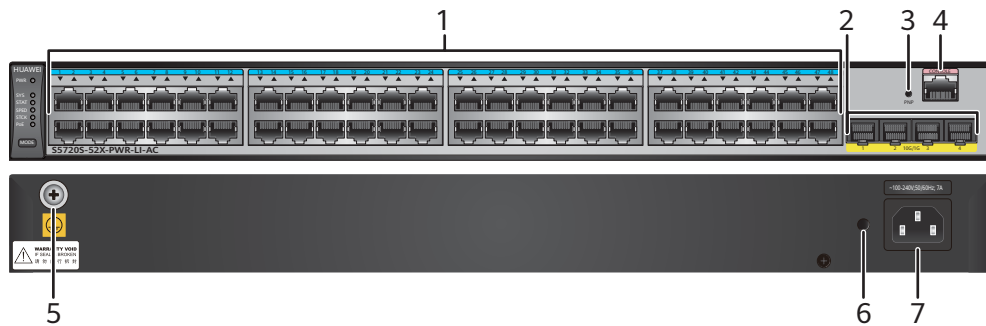
Table 5-415 lists the mapping between the S5720S-52X-PWR-LI-AC chassis and software versions.

Table 5-415 Version mapping

Series	Model	Software Version
S5720S-LI	S5720S-52X-PWR-LI-AC	V200R010C00 and later versions

Appearance and Structure

Figure 5-159 S5720S-52X-PWR-LI-AC appearance



1	<p>Forty-eight PoE+ 10/100/1000BASE-T ports</p>	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p>
5	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>	6	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>

7	AC socket	-	-
	NOTE It is used with an AC power cable .		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-416](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-416 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-417](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-417 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 5-418](#).

Table 5-418 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Indicator Description

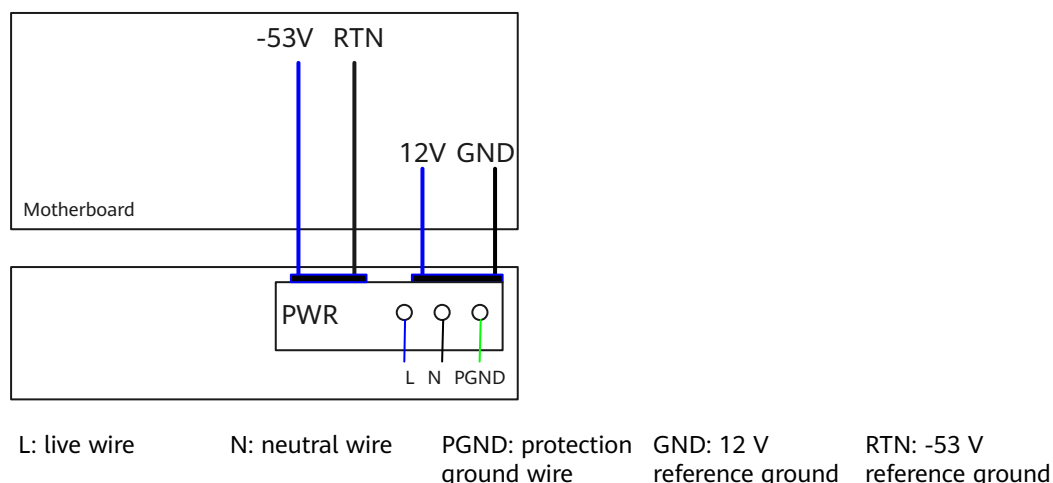
The S5720S-52X-PWR-LI-AC has similar indicators to those of the S5720-28X-PWR-LI-AC, except that the S5720S-52X-PWR-LI-AC does not have an RPS or USB indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-52X-PWR-LI-AC has a built-in power module and does not support pluggable power modules. The built-in power module can provide 370 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at. The switch cannot connect to an RPS power supply.

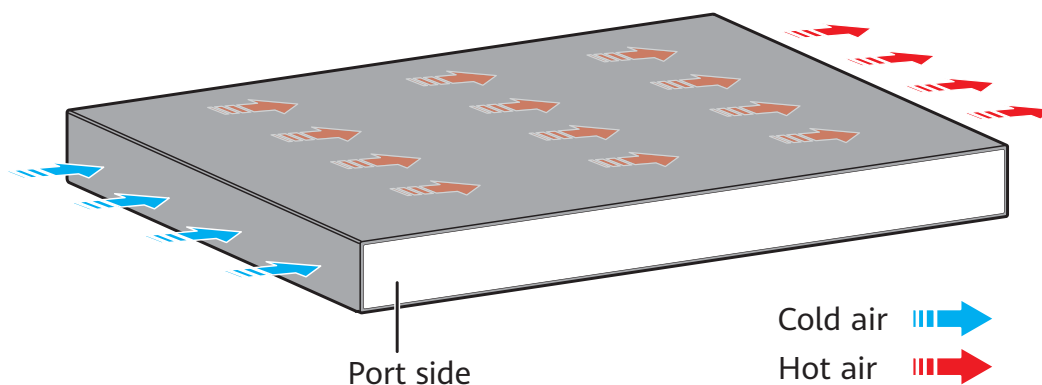
[Figure 5-160](#) shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

Figure 5-160 Power supply by a built-in AC PoE power module



Heat Dissipation

The S5720S-52X-PWR-LI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-419 lists technical specifications of the S5720S-52X-PWR-LI-AC.

Table 5-419 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	38 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 314.8 mm (1.72 in. x 17.4 in. x 12.39 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 323.8 mm (1.72 in. x 17.4 in. x 12.75 in.)
Weight (with packaging)	5.6 kg (12.35 lb)
Stack ports	Forty-eight 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 63.5 W 100% PoE loads: 464.3 W (system power consumption: 94.7 W, PoE: 369.6 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	42.2 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 48.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010617

5.9.15 S5720S-52X-LI-24S-AC1

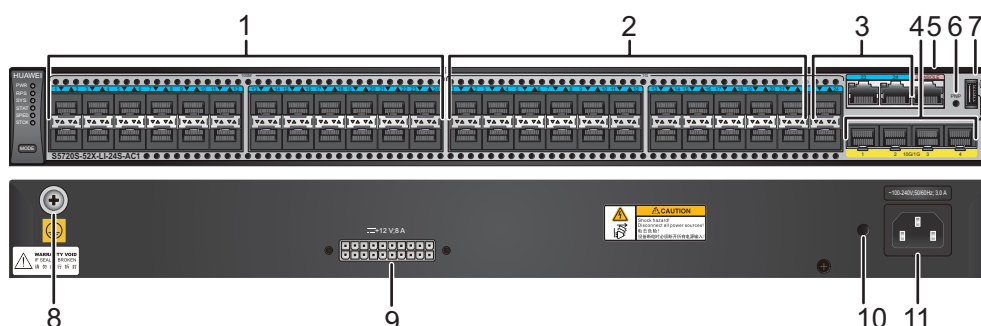
Overview

Table 5-420 Basic information about the S5720S-52X-LI-24S-AC1

Item	Details
Description	S5720S-52X-LI-24S-AC1 (24*FE SFP ports, 24*GE SFP ports, 2 of which are 10/100/1000BASE-T + SFP combo ports, 4*10GE SFP+ ports, AC power supply)
First supported version	V200R020C00
Part Number	98011054
Model	S5720S-52X-LI-24S-AC1

Components

Figure 5-161 S5720S-52X-LI-24S-AC1 appearance



1	Twenty-four 100BASE-X ports	2	Twenty-two 100/1000BASE-X ports
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3	Two combo ports (10/100/1000BASE-T + 100/1000BASE-X)	4	Four 10GE SFP+ optical ports
5	One console port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	One USB port	8	Ground screw NOTE It is used with a ground cable .
9	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	10	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
11	AC socket NOTE It is used with an AC power cable .	-	-

Ports

Table 5-421 Ports on the S5720S-52X-LI-24S-AC1

Port	Connector Type	Description	Available Components
100BASE-X port	SFP	A 100BASE-X port can send and receive data at 100 Mbit/s.	FE SFP/eSFP optical modules

Port	Connector Type	Description	Available Components
100/1000BASE-X port	SFP	A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s.	<p>FE SFP/eSFP optical modules</p> <p>GE eSFP optical modules</p> <p>GE-CWDM eSFP optical modules</p> <p>GE-CWDM eSFP optical modules (used only in the OADM scenario)</p> <p>GE-DWDM eSFP optical modules</p> <p>GE SFP copper module</p>
Combo port	SFP and RJ45	A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.	<p>The electrical ports:</p> <p>Ethernet cable</p> <p>The optical ports:</p> <p>FE SFP/eSFP optical modules</p> <p>GE eSFP optical modules</p> <p>GE-CWDM eSFP optical modules</p> <p>GE-CWDM eSFP optical modules (used only in the OADM scenario)</p> <p>GE-DWDM eSFP optical modules</p>

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<p>GE eSFP optical modules</p> <p>GE-CWDM eSFP optical modules</p> <p>GE-DWDM eSFP optical modules</p> <p>GE SFP copper module</p> <p>10GE SFP+ optical modules (OSXD22N00 not supported)</p> <p>10GE-CWDM SFP + optical modules</p> <p>10GE-DWDM SFP + optical modules</p> <p>1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables</p> <p>3 m and 10 m SFP+ AOC cables</p> <p>0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)</p> <p>H87MMA5671A2 GPON optical module</p>
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

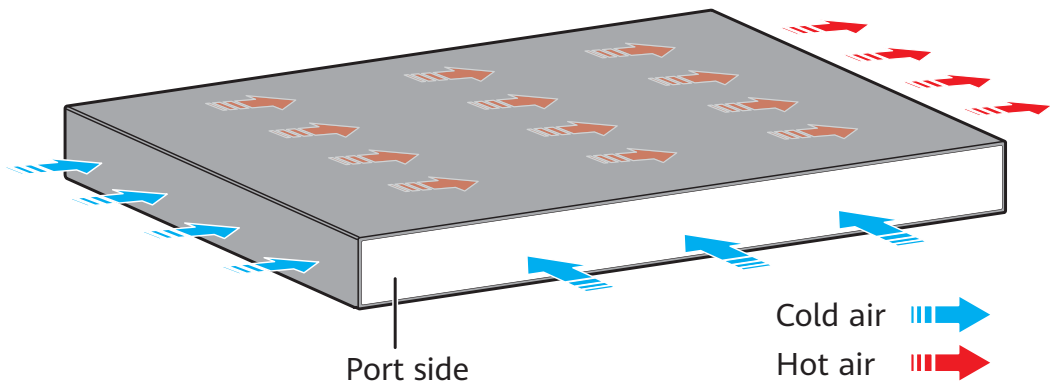
The S5720S-52X-LI-24S-AC1 has the same types of indicators as the S5720-28X-LI-24S-AC. For details, see the S5720-28X-LI-24S-AC.

Power Supply System

The switch has a built-in AC power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

Heat Dissipation System

The switch has three built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-422 Technical specifications of the S5720S-52X-LI-24S-AC1

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.9 mm (1.72 in. x 17.4 in. x 9.21 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	90 mm x 550 mm x 380 mm (3.54 in. x 21.65 in. x 14.96 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	3.55 kg (7.83 lb)
Weight with packaging [kg(lb)]	4.4 kg (9.7 lb)
Typical power consumption [W]	68 W
Typical heat dissipation [BTU/hour]	232.02 BTU/hour
Maximum power consumption [W]	87 W
Maximum heat dissipation [BTU/hour]	296.85 BTU/hour
MTBF [year]	31.2 year
MTTR [hour]	2 hour
Availability	>0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	49.2 dB(A)
Number of card slots	0
Number of power slots	0
Number of fans	3
Maximum number of 10GE ports	4
Maximum number of GE ports	24
Maximum number of FE ports	48
Redundant power supply	It can connect to an RPS1800 power supply for power redundancy.
Long-term operating temperature [°C(°F)]	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	AC built-in
Rated input voltage [V]	100 V AC to 240 V AC, 50/60 Hz
Input voltage range [V]	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum input current [A]	3.0 A
Memory	512 MB
Flash memory	512 MB in total. To view the available flash memory size, run the display version command.

Item	Specification
RTC	Not supported
RPS	Supported
Service port surge protection [kV]	Common mode: ± 7 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Built-in
Heat dissipation	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left and front, air exhaustion from right
PoE	Not supported
Maximum PoE power consumption [W]	-
PoE+ power interfaces	-
PoE++ power interfaces	-
Full load PoE power consumption 15.4W (802.3af)	-
Full load PoE power consumption 30W (802.3at)	-
Full load PoE++ power consumption 60W (802.3bt)	-
Full load PoE++ power consumption 90W (802.3bt)	-
Certification	EMC certification Safety certification Manufacturing certification

5.10 S5700-SI

5.10.1 S5700-24TP-SI-AC

Version Mapping

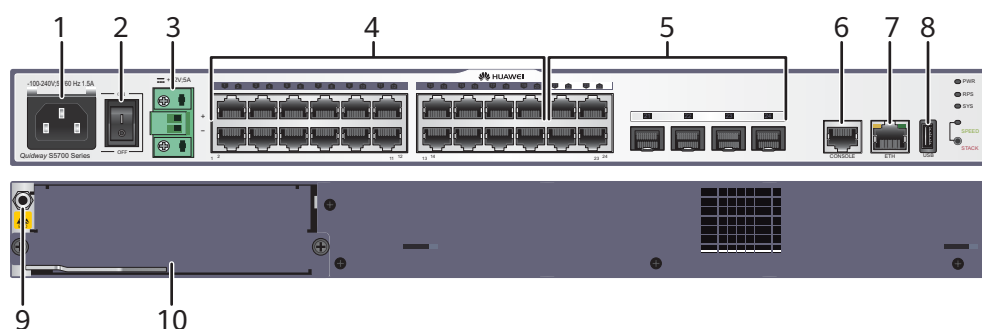
Table 5-423 lists the mapping between the S5700-24TP-SI-AC chassis and software versions.

Table 5-423 Version mapping

Series	Model	Software Version
S5700-SI	S5700-24TP-SI-AC	V100R005C01 to V200R005C02 NOTE This model does not match V100R006C01, V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 5-162 S5700-24TP-SI-AC appearance



1	AC socket NOTE It is used with an AC power cable .	2	Power switch
3	Backup power socket NOTE This socket can be connected to a backup power supply unit. The backup power supply unit must provide 12 V DC output voltage (ranging from 11 V to 13 V) and a minimum power of 100 W.	4	Twenty 10/100/1000BASE-T ports

5	Four combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module 	6	One console port
7	One ETH management port	8	One USB port
9	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.	10	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.27 ES5D00ETPC00 (Stack Rear Card)

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-424](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-424 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-425](#).

Table 5-425 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 5-426](#) describes the attributes of an ETH management port.

Table 5-426 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 5-163 Indicators on the S5700-24TP-SI-AC

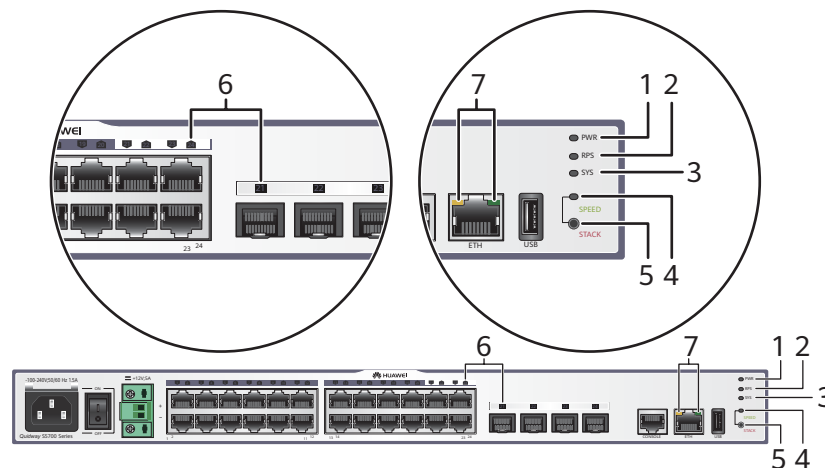


Table 5-427 Description of indicators on the switch

Number	Indicator/ Button	Color	Description
1	PWR: power supply indicator	-	Off: The switch is powered off.
		Green	Steady on: The switch is powered on.
		Yellow	Steady on: The built-in power module is faulty, and the switch is powered by the backup power.
2	RPS: backup power supply indicator	Green	<ul style="list-style-type: none"> Off: No backup power is connected to the switch or the backup power is faulty. Steady on: The backup power is connected to the switch.
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> Steady on: The system is not operating properly or is starting. Slow blinking: The system is running normally. Fast blinking: The system is copying the system software and configuration file from a USB flash drive.
		Yellow	<ul style="list-style-type: none"> Steady on: The system is performing self-check during startup. Blinking: The system has been successfully upgraded using a USB flash drive and the switch has restarted. You can remove the USB flash drive from the switch.
		Red	<ul style="list-style-type: none"> Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated. Blinking: The system cannot be upgraded after a USB flash drive is inserted. The USB-based upgrade failed.

Number	Indicator/ Button	Color	Description
4	Mode indicator	-	Off: The service port indicators are in the status mode (default). In the status mode, the service port indicator shows the port link or activity state.
		Green	Steady on: The service port indicators show the port speed. After 45 seconds, the service port indicators automatically restore to the status mode.
		Red	Steady on: The service port indicators show the stack ID of the switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	Mode switch button	-	<ul style="list-style-type: none"> When you press this button once, the mode indicator turns green and the service port indicators show the speed of each service port. When you press this button a second time, the mode indicator turns red and the service port indicators show the stack status. When you press this button a third time, the mode indicator turns off. <p>If you do not press the button within 45 seconds, the mode indicator restores to status mode.</p>
6	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-428 .	
7	ETH indicator	-	Off: No link is established on the port.
		Green	Steady on: The port is connected.
		Yellow	Blinking: The port is sending or receiving data.

Table 5-428 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5700-24TP-SI-AC has a built-in power module and can connect to an external DC power supply for power redundancy.

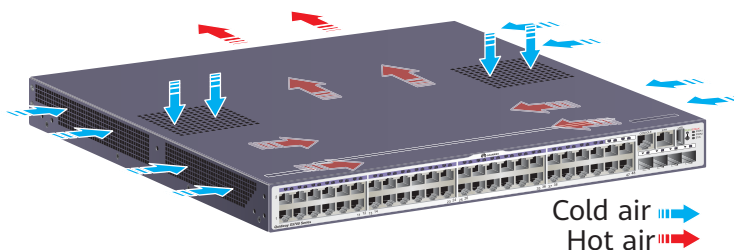
Heat Dissipation

NOTE

The fans can work in the intelligent mode or forcible mode:

- In the intelligent mode, the fans start to operate only when the ambient temperature goes higher than a specified value. In V200R003C00 and later versions, you can run the **display fan speed-adjust threshold minus** command on the switches that use the intelligent heat dissipation mode to view the temperature thresholds for the fans to start and stop running. The **set fan speed-adjust threshold minus** command can be used to lower these temperature thresholds.
- In the forcible mode, the fans operate immediately when the switch starts. You can run the **display fan speed-adjust threshold minus** on the switches that support intelligent fan speed adjustment to view the temperature thresholds for the fans to increase and decrease rotating speeds. The **set fan speed-adjust threshold minus** command can lower these temperature thresholds.

The S5700-24TP-SI-AC has a built-in fan for intelligent air cooling. Air flows in from the left, right, and top sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-429](#) lists technical specifications of the S5700-24TP-SI-AC.

Table 5-429 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	37 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±2 kV in common mode

Item	Description
Power supply surge protection	±6 kV in differential mode, ±6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight	<ul style="list-style-type: none"> • Empty: ≤ 5 kg (11.02 lb) • Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	40 W
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Silent
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352360

5.10.2 S5700-24TP-SI-DC

Version Mapping

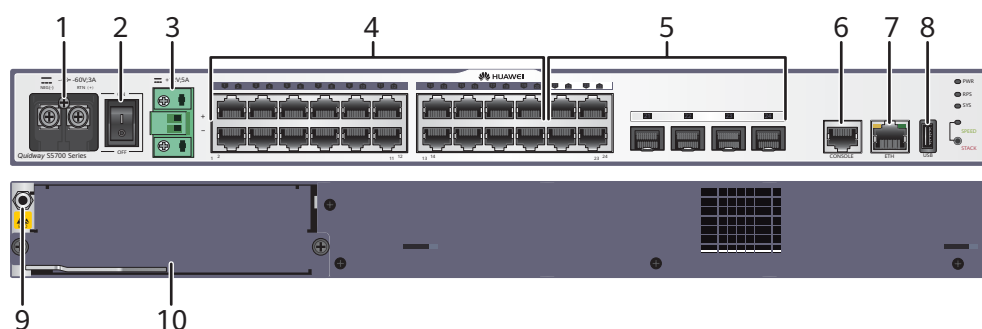
Table 5-430 lists the mapping between the S5700-24TP-SI-DC chassis and software versions.

Table 5-430 Version mapping

Series	Model	Software Version
S5700-SI	S5700-24TP-SI-DC	V100R005C01 to V200R005C02 NOTE This model does not match V100R006C01, V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 5-164 S5700-24TP-SI-DC appearance



1	DC power terminal NOTE It is used together with a DC Power Cable .	2	Power switch
3	Backup power socket NOTE This socket can be connected to a backup power supply unit. The backup power supply unit must provide 12 V DC output voltage (ranging from 11 V to 13 V) and a minimum power of 100 W.	4	Twenty 10/100/1000BASE-T ports

5	Four combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module 	6	One console port
7	One ETH management port	8	One USB port
9	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.	10	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.27 ES5D00ETPC00 (Stack Rear Card)

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-431](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-431 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-432](#).

Table 5-432 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 5-433](#) describes the attributes of an ETH management port.

Table 5-433 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5700-24TP-SI-DC has the same types of indicators as the S5700-24TP-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-24TP-SI-DC has a built-in power module and can connect to an external DC power supply for power redundancy.

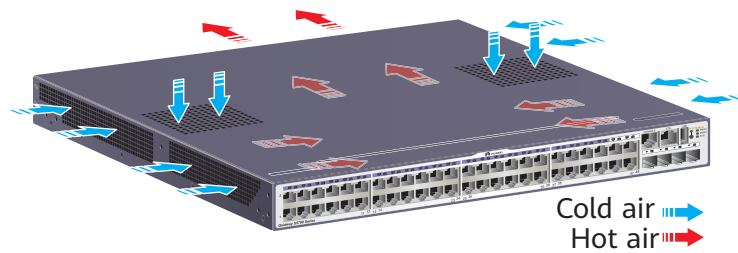
Heat Dissipation

NOTE

The fans can work in the intelligent mode or forcible mode:

- In the intelligent mode, the fans start to operate only when the ambient temperature goes higher than a specified value. In V200R003C00 and later versions, you can run the **display fan speed-adjust threshold minus** command on the switches that use the intelligent heat dissipation mode to view the temperature thresholds for the fans to start and stop running. The **set fan speed-adjust threshold minus** command can be used to lower these temperature thresholds.
- In the forcible mode, the fans operate immediately when the switch starts. You can run the **display fan speed-adjust threshold minus** on the switches that support intelligent fan speed adjustment to view the temperature thresholds for the fans to increase and decrease rotating speeds. The **set fan speed-adjust threshold minus** command can lower these temperature thresholds.

The S5700-24TP-SI-DC has a built-in fan for intelligent air cooling. Air flows in from the left, right, and top sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-434 lists technical specifications of the S5700-24TP-SI-DC.

Table 5-434 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	37 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±2 kV in common mode
Power supply surge protection	±1 kV in differential mode, ±2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	40 W
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Silent
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352343

5.10.3 S5700-24TP-PWR-SI

Version Mapping

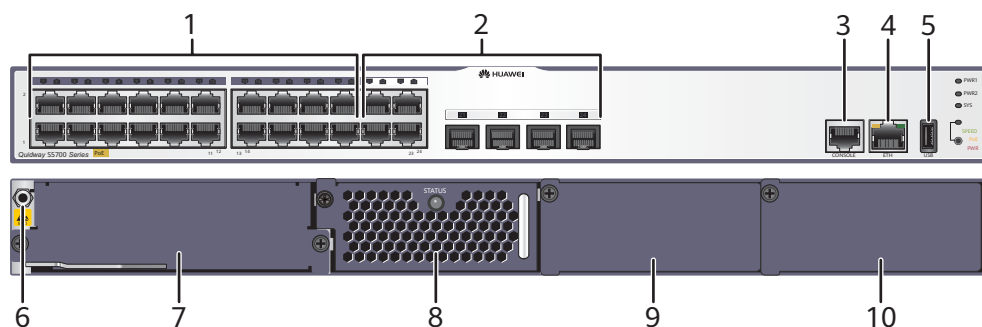
Table 5-435 lists the mapping between the S5700-24TP-PWR-SI chassis and software versions.

Table 5-435 Version mapping

Series	Model	Software Version
S5700-SI	S5700-24TP-PWR-SI	V100R005C01 to V200R005C02 NOTE This model does not match V100R006C01, V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 5-165 S5700-24TP-PWR-SI appearance



1	Twenty PoE+ 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T (PoE+) + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
3	One console port	4	One ETH management port
5	One USB port	6	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.
7	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.27 ES5D00ETPC00 (Stack Rear Card) 	8	Fan slot NOTE Applicable fan module: <ul style="list-style-type: none"> • CX7E1FANA fan module
9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 250 W AC PoE power module • 500 W AC PoE power module 	10	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 250 W AC PoE power module • 500 W AC PoE power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-436](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-436 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-437](#).

Table 5-437 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. **Table 5-438** describes the attributes of an ETH management port.

Table 5-438 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5700-24TP-PWR-SI has the same types of indicators as the S5700-28C-PWR-SI. For details, see [Indicator Description](#).

Power Supply Configuration

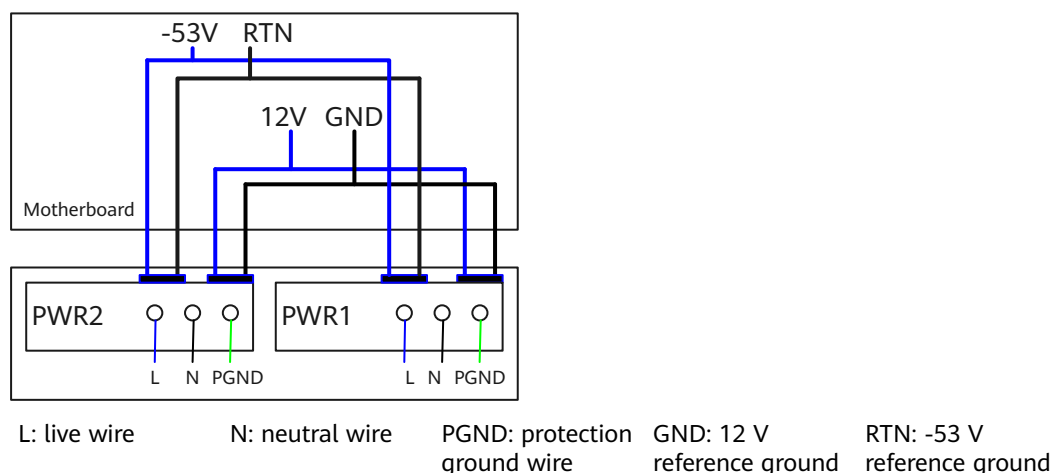
The S5700-24TP-PWR-SI has two power module slots, each of which can have a 500 W or 250 W power module installed. A power module can provide 369.6 W or 123.2 W of PoE power for powered devices (PDs). [Table 5-439](#) lists its power supply configurations.

Table 5-439 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
250 W	-	123.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 8 802.3at (30 W per port): 4
500 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
250 W	250 W	246.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 16 802.3at (30 W per port): 8
500 W	500 W	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12

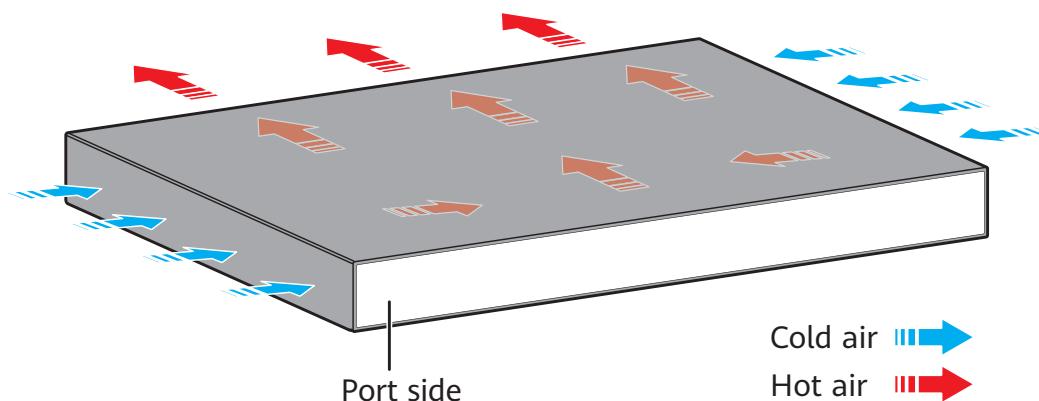
[Figure 5-166](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 5-166 Power supply by dual AC PoE power modules



Heat Dissipation

The S5700-24TP-PWR-SI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-440](#) lists technical specifications of the S5700-24TP-PWR-SI.

Table 5-440 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	84.3 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±1 kV in common mode
Power supply surge protection	±2 kV in differential mode, ±4 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none">• Empty: ≤ 5 kg (11.02 lb)• Fully configured: ≤ 8.5 kg (18.74 lb)

Item	Description
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	455 W (system power consumption: 85 W, PoE: 370 W)
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02352369

5.10.4 S5700-48TP-SI-AC

Version Mapping

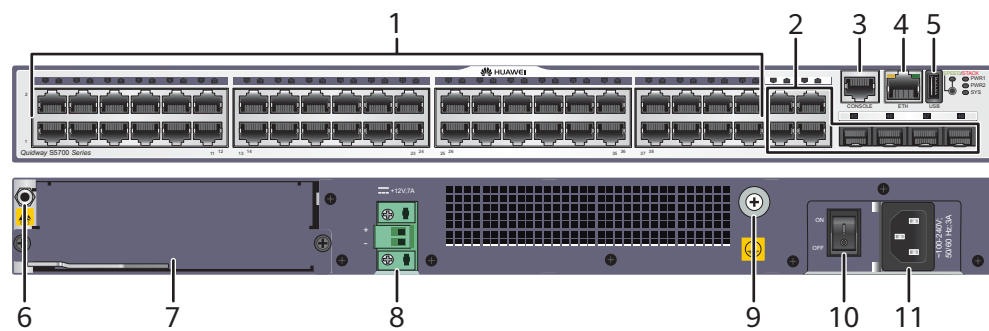
Table 5-441 lists the mapping between the S5700-48TP-SI-AC chassis and software versions.

Table 5-441 Version mapping

Series	Model	Software Version
S5700-SI	S5700-48TP-SI-AC	V100R005C01 to V200R005C02 NOTE This model does not match V100R006C01, V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 5-167 S5700-48TP-SI-AC appearance



1	Forty-four 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
3	One console port	4	One ETH management port
5	One USB port	6	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.
7	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.27 ES5D00ETPC00 (Stack Rear Card) 	8	Backup power socket NOTE This socket can be connected to a backup power supply unit. The backup power supply unit must provide 12 V DC output voltage (ranging from 11 V to 13 V) and a minimum power of 100 W.

9	Ground screw NOTE It is used with a ground cable .	1 0	Power switch
1 1	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 5-442](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-442 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-443](#).

Table 5-443 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 5-444](#) describes the attributes of an ETH management port.

Table 5-444 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5700-48TP-SI-AC has the same types of indicators as the S5700-24TP-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-48TP-SI-AC has a built-in power module and can connect to an external DC power supply for power redundancy.

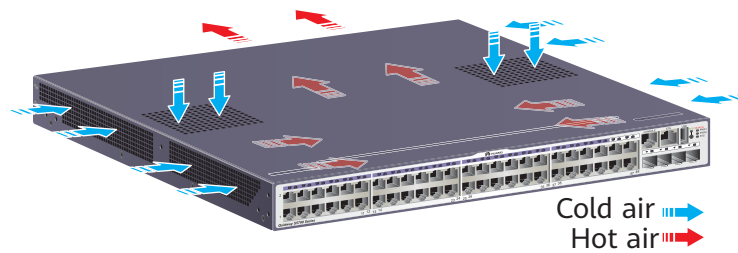
Heat Dissipation

NOTE

The fans can work in the intelligent mode or forcible mode:

- In the intelligent mode, the fans start to operate only when the ambient temperature goes higher than a specified value. In V200R003C00 and later versions, you can run the **display fan speed-adjust threshold minus** command on the switches that use the intelligent heat dissipation mode to view the temperature thresholds for the fans to start and stop running. The **set fan speed-adjust threshold minus** command can be used to lower these temperature thresholds.
- In the forcible mode, the fans operate immediately when the switch starts. You can run the **display fan speed-adjust threshold minus** on the switches that support intelligent fan speed adjustment to view the temperature thresholds for the fans to increase and decrease rotating speeds. The **set fan speed-adjust threshold minus** command can lower these temperature thresholds.

The S5700-48TP-SI-AC has two built-in fans for intelligent air cooling. Air flows in from the left, right, and top sides, and exhausts from the rear panel.



Technical Specifications

Table 5-445 lists technical specifications of the S5700-48TP-SI-AC.

Table 5-445 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	34 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 2 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	64 W
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Silent
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352353

5.10.5 S5700-48TP-SI-DC

Version Mapping

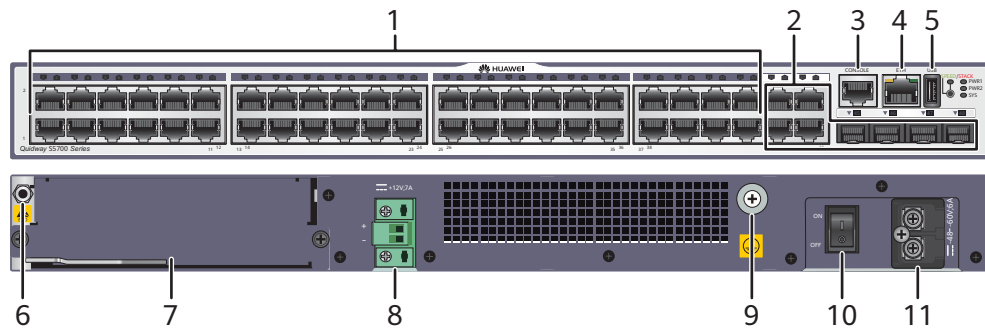
Table 5-446 lists the mapping between the S5700-48TP-SI-DC chassis and software versions.

Table 5-446 Version mapping

Series	Model	Software Version
S5700-SI	S5700-48TP-SI-DC	V100R005C01 to V200R005C02 NOTE This model does not match V100R006C01, V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 5-168 S5700-48TP-SI-DC appearance



1	Forty-four 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
3	One console port	4	One ETH management port
5	One USB port	6	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.
7	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.27 ES5D00ETPC00 (Stack Rear Card) 	8	Backup power socket NOTE This socket can be connected to a backup power supply unit. The backup power supply unit must provide 12 V DC output voltage (ranging from 11 V to 13 V) and a minimum power of 100 W.
9	Ground screw NOTE It is used with a ground cable .	10	Power switch
11	DC power terminal NOTE It is used together with a DC Power Cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-447](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-447 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-448](#).

Table 5-448 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. **Table 5-449** describes the attributes of an ETH management port.

Table 5-449 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5700-48TP-SI-DC has the same types of indicators as the S5700-24TP-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-48TP-SI-DC has a built-in power module and can connect to an external DC power supply for power redundancy.

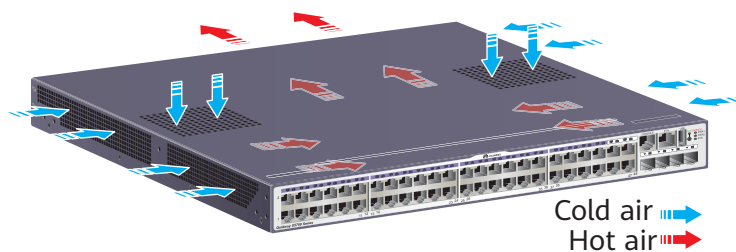
Heat Dissipation

NOTE

The fans can work in the intelligent mode or forcible mode:

- In the intelligent mode, the fans start to operate only when the ambient temperature goes higher than a specified value. In V200R003C00 and later versions, you can run the **display fan speed-adjust threshold minus** command on the switches that use the intelligent heat dissipation mode to view the temperature thresholds for the fans to start and stop running. The **set fan speed-adjust threshold minus** command can be used to lower these temperature thresholds.
- In the forcible mode, the fans operate immediately when the switch starts. You can run the **display fan speed-adjust threshold minus** on the switches that support intelligent fan speed adjustment to view the temperature thresholds for the fans to increase and decrease rotating speeds. The **set fan speed-adjust threshold minus** command can lower these temperature thresholds.

The S5700-48TP-SI-DC has two built-in fans for intelligent air cooling. Air flows in from the left, right, and top sides, and exhausts from the rear panel.



Technical Specifications

[Table 5-450](#) lists technical specifications of the S5700-48TP-SI-DC.

Table 5-450 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	34 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 2 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none">• Empty: ≤ 5 kg (11.02 lb)• Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	64 W
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Silent
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification

Item	Description
Part number	02352357

5.10.6 S5700-48TP-PWR-SI

Version Mapping

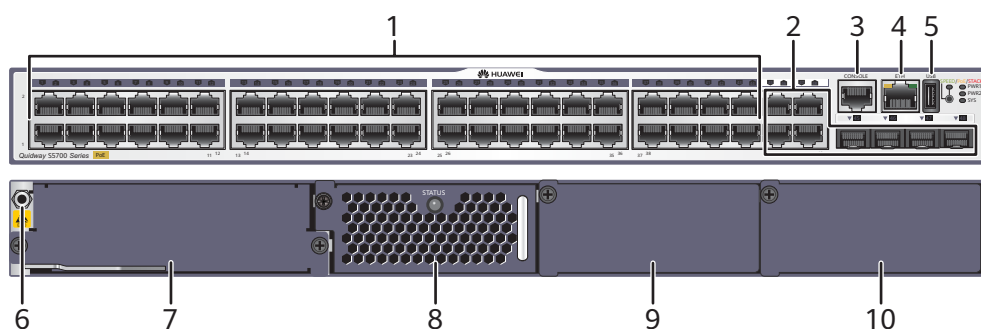
Table 5-451 lists the mapping between the S5700-48TP-PWR-SI chassis and software versions.

Table 5-451 Version mapping

Series	Model	Software Version
S5700-SI	S5700-48TP-PWR-SI	V100R005C01 to V200R005C02 NOTE This model does not match V100R006C01, V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 5-169 S5700-48TP-PWR-SI appearance



1	Forty-four PoE+ 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T (PoE+) + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
---	---	---	---

3	One console port	4	One ETH management port
5	One USB port	6	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.
7	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 9.27 ES5D00ETPC00 (Stack Rear Card) 	8	Fan slot NOTE Applicable fan module: CX7E1FANA fan module
9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 250 W AC PoE power module 500 W AC PoE power module 	10	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 250 W AC PoE power module 500 W AC PoE power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-452** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-452 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or

an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-453](#).

Table 5-453 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the

Configuration Guide - Basic Configurations. [Table 5-454](#) describes the attributes of an ETH management port.

Table 5-454 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5700-48TP-PWR-SI has the same types of indicators as the S5700-28C-PWR-SI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-48TP-PWR-SI has two power module slots, each of which can have a 500 W or 250 W power module installed. A power module can provide 369.6 W or 123.2 W of PoE power for powered devices (PDs). [Table 5-455](#) lists its power supply configurations.

Table 5-455 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
250 W	-	123.2 W	<ul style="list-style-type: none">● 802.3af (15.4 W per port): 8● 802.3at (30 W per port): 4
500 W	-	369.6 W	<ul style="list-style-type: none">● 802.3af (15.4 W per port): 24● 802.3at (30 W per port): 12

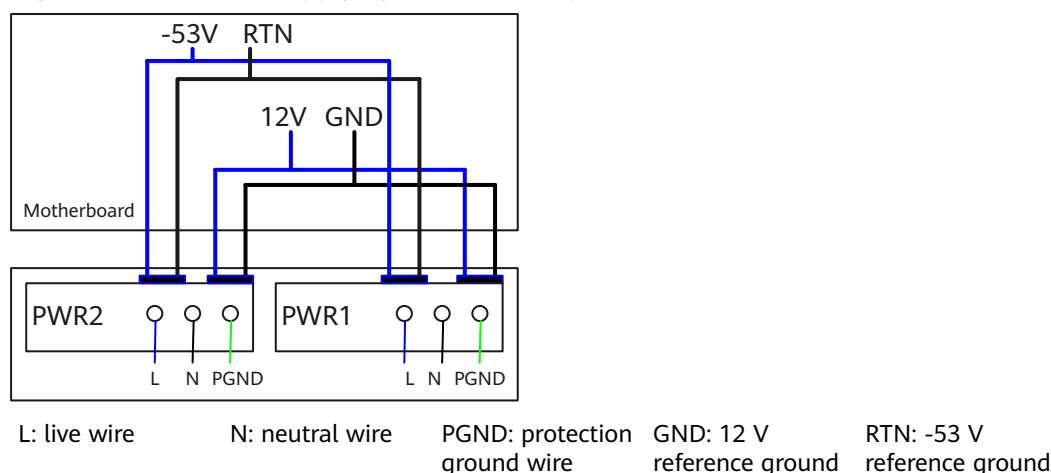
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
250 W	250 W	246.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 16 802.3at (30 W per port): 8
500 W	500 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

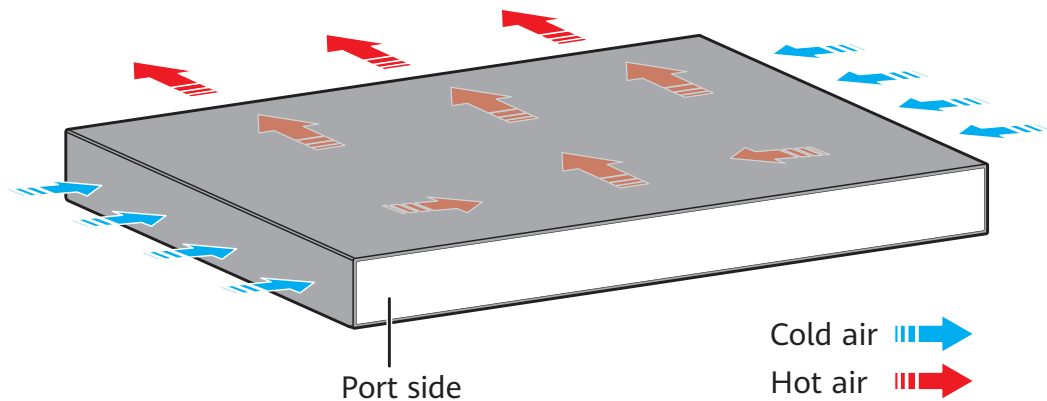
Figure 5-170 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 5-170 Power supply by dual AC PoE power modules



Heat Dissipation

The S5700-48TP-PWR-SI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-456 lists technical specifications of the S5700-48TP-PWR-SI.

Table 5-456 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	71.7 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 1 kV
Power supply surge protection	± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Supported

Item	Description
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	907 W (system power consumption: 167 W, PoE: 740 W)
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352371

5.10.7 S5700-26X-SI-12S-AC

Version Mapping

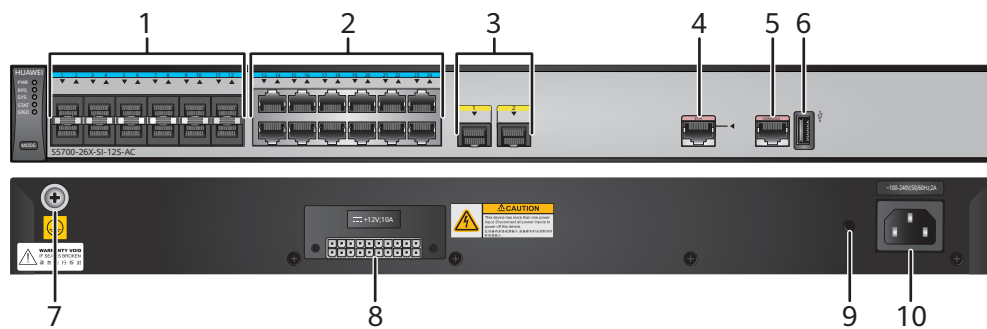
[Table 5-457](#) lists the mapping between the S5700-26X-SI-12S-AC chassis and software versions.

Table 5-457 Version mapping

Series	Model	Software Version
S5700-SI	S5700-26X-SI-12S-AC	V200R002C00 to V200R005C02 NOTE This model does not match V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 5-171 S5700-26X-SI-12S-AC appearance



1	<p>Twelve 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Twelve 10/100/1000BASE-T ports</p>
---	---	---	---------------------------------------

3	Two 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions) 	4	One ETH management port
5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.
9	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	10	AC socket NOTE It is used with an AC power cable .

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-458](#) describes the attributes of a 100/1000BASE-X port.

Table 5-458 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z

Attribute	Description
Working mode	100/1000 Mbit/s auto-sensing

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-459](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-459 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-460](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-460 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-461](#).

Table 5-461 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. **Table 5-462** describes the attributes of an ETH management port.

Table 5-462 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 5-172 Indicators on the S5700-26X-SI-12S-AC

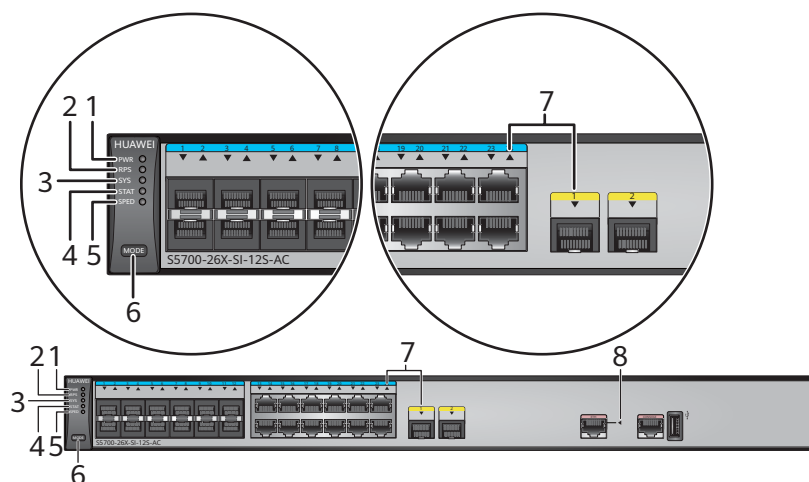


Table 5-463 Description of indicators on the switch

Number	Indicator/ Button	Color	Description
1	PWR: power supply indicator	-	Off: The switch is powered off.
		Green	Steady on: The switch is powered on.
		Yellow	Steady on: The built-in power module is faulty, and the switch is powered by the RPS system.
2	RPS: RPS power supply indicator	-	Off: No RPS is connected to the switch.
		Green	<ul style="list-style-type: none"> Steady on: The RPS is in cold backup state. Blinking: The RPS is providing power for another device and cannot provide power for the current switch.
		Yellow	Blinking: The RPS is providing power for the switch and the built-in power module of the switch is faulty.
3	SYS: system status indicator	-	Off: The system is not running.

Number	Indicator/ Button	Color	Description
		Green	<ul style="list-style-type: none">• Fast blinking: The system is starting or is copying the system software and configuration file from a USB flash drive.• Slow blinking: The system is running normally.
		Yellow	Blinking: The system has been successfully upgraded using a USB flash drive and the switch has restarted. You can remove the USB flash drive from the switch.
		Red	<ul style="list-style-type: none">• Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated.• Blinking: The system cannot be upgraded after a USB flash drive is inserted. The USB-based upgrade failed.
4	STAT: status indicator	Green	<ul style="list-style-type: none">• Off: The status mode is not selected.• Steady on: The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPED: speed indicator	Green	<ul style="list-style-type: none">• Off: The speed mode is not selected.• Steady on: The speed mode is selected. If the speed mode is selected, the service port indicator shows the port speed state. After 45 seconds, the service port indicators automatically restore to the status mode.

Number	Indicator/ Button	Color	Description
6	MODE: mode switch button	-	<ul style="list-style-type: none">When you press this button once, the SPED indicator turns green and the service port indicators show the speed of each service port.When you press this button a second time, the STAT indicator turns green. <p>If you do not press the button within 45 seconds, the indicators restore to the default status. That is, the STAT indicator turns green, and the SPED indicator is off.</p>
7	Service port indicator <ul style="list-style-type: none">GE electrical/optical ports: The ports are numbered from bottom to top and left to right, starting with 1.10GE optical ports: Each port has an indicator above it.	Meanings of service port indicators vary in different modes. For details, see Table 5-464 .	
8	ETH indicator	Green	<ul style="list-style-type: none">Off: No link is established on the port.Steady on: The port is connected.Blinking: The port is sending or receiving data.

Table 5-464 Description of service port indicators in different modes (one indicator for each port)

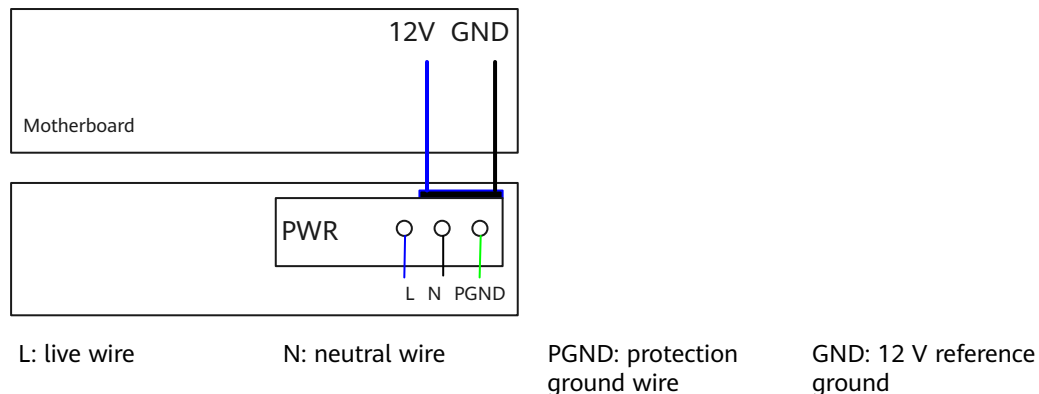
Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is blinking, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5700-26X-SI-12S-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

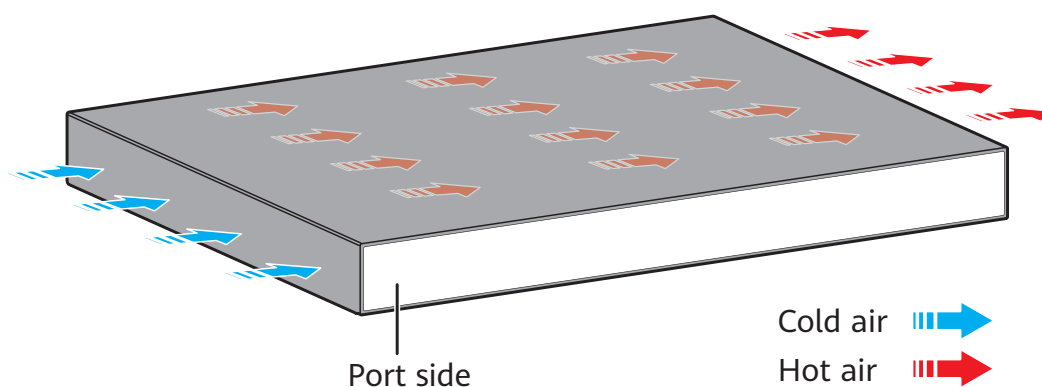
Figure 5-173 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-173 Power supply mode of a built-in AC power module



Heat Dissipation

The S5700-26X-SI-12S-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-465 lists technical specifications of the S5700-26X-SI-12S-AC.

Table 5-465 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	200 MB

Item	Description
Mean time between failures (MTBF)	91.74 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)
Weight	≤ 5 kg (11.02 lb)
Stack ports	Not supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	42.3 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 56.3 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02354039

5.10.8 S5700-28C-SI

Version Mapping

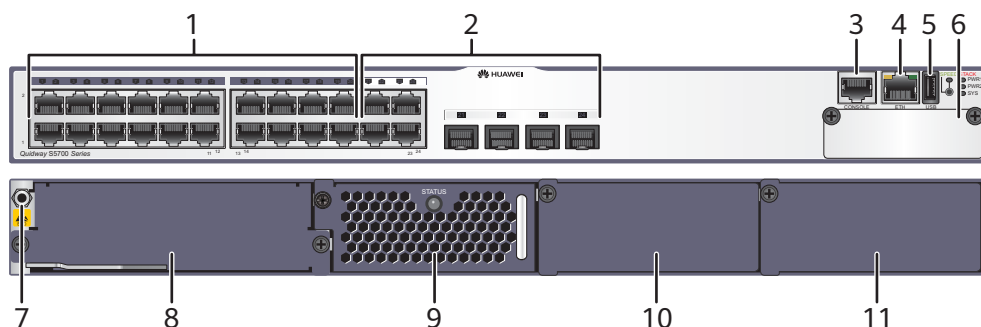
[Table 5-466](#) lists the mapping between the S5700-28C-SI and software versions.

Table 5-466 Version mapping

Series	Model	Software Version
S5700-SI	S5700-28C-SI	V100R005C01 to V200R005C02 NOTE This model does not match V100R006C01, V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 5-174 S5700-28C-SI appearance



1	Twenty 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
3	One console port	4	One ETH management port
5	One USB port	6	Front card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.6 ES5D00G4SA01 (4-Port GE SFP Front Optical Interface Card) • 9.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) • 9.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card)
7	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.	8	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.27 ES5D00ETPC00 (Stack Rear Card) • 9.28 ES5D00ETPB00 (Extended Rear Card)
9	Fan slot NOTE Applicable fan module: CX7E1FANA fan module	10	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
11	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-467](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-467 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-468](#).

Table 5-468 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. **Table 5-469** describes the attributes of an ETH management port.

Table 5-469 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 5-175 Indicators on the S5700-28C-SI

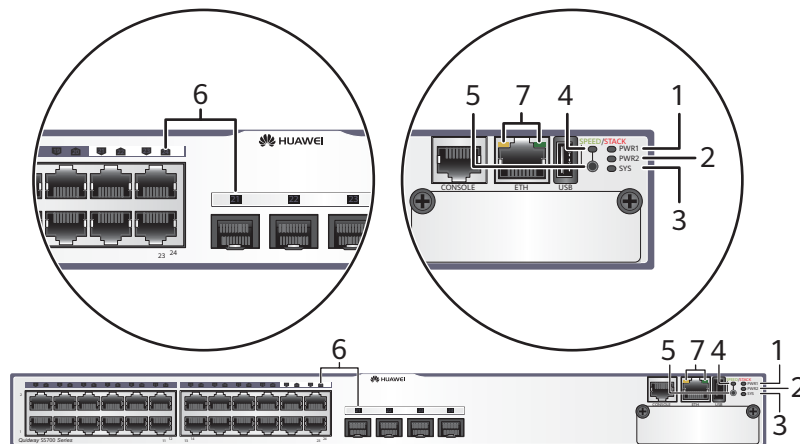


Table 5-470 Description of indicators on the switch

Number	Indicator/Button	Color	Description
1	PWR1: power supply indicator	-	Off: No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 1 and is working normally.
		Red	Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> The power module in power module slot 1 is available but its power switch is not switched on. The power module in power module slot 1 is available but is not connected to a power source. The power module in power module slot 1 fails.

Number	Indicator/Button	Color	Description
2	PWR2: power supply indicator	-	Off: No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 2 and is working normally.
		Red	Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • The power module in power module slot 2 is available but its power switch is not switched on. • A power module is available in this slot but it is not connected to a power source. • The power module in power module slot 2 fails.
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> • Steady on: The system is not operating properly or is starting. • Slow blinking: The system is running normally. • Fast blinking: The system is copying the system software and configuration file from a USB flash drive.
		Yellow	<ul style="list-style-type: none"> • Steady on: The system is performing self-check during startup. • Blinking: The system has been successfully upgraded using a USB flash drive and the switch has restarted. You can remove the USB flash drive from the switch.

Number	Indicator/ Button	Color	Description
		Red	<ul style="list-style-type: none"> Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated. Blinking: The system cannot be upgraded after a USB flash drive is inserted. The USB-based upgrade failed.
4	MODE: mode indicator	-	Off: The service port indicators are in the status mode (default). In the status mode, the service port indicator shows the port link or activity state.
		Green	Steady on: The service port indicators show the port speed. After 45 seconds, the service port indicators automatically restore to the status mode.
		Red	Steady on: The service port indicators show the stack ID of the switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	Mode switch button	-	<ul style="list-style-type: none"> When you press this button once, the mode indicator turns green and the service port indicators show the speed of each service port. When you press this button a second time, the mode indicator turns red and the service port indicators show the stack status. When you press this button a third time, the mode indicator turns off. <p>If you do not press the button within 45 seconds, the mode indicator restores to status mode.</p>
6	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-471 .	
7	ETH indicator	-	Off: No link is established on the port.
		Green	Steady on: The port is connected.

Number	Indicator/Button	Color	Description
		Yellow	Blinking: The port is sending or receiving data.

Table 5-471 Description of service port indicators in different modes (one indicator for each port)

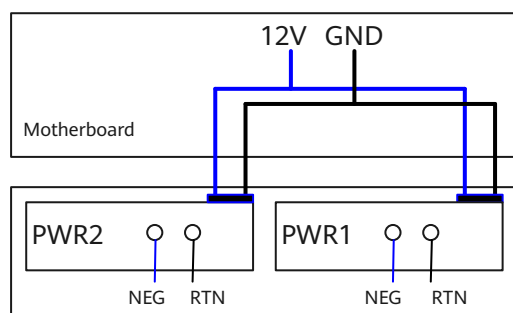
Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5700-28C-SI can use a single power module or double power modules for 1+1 power redundancy. In versions prior to V200R005C00, the AC and DC power modules cannot be configured on the same device, while in V200R005C00 and later versions, they can be configured on the same device.

Figure 5-176 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-176 Power supply connections of dual DC power modules



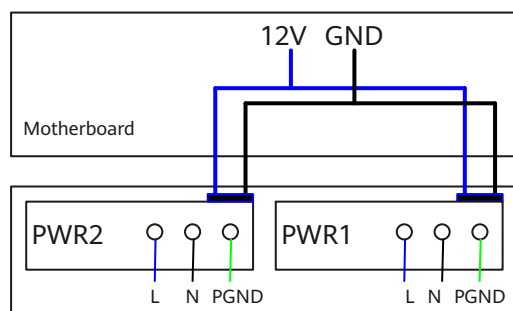
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 5-177 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-177 Power supply connections of dual AC power modules



L: Live wire

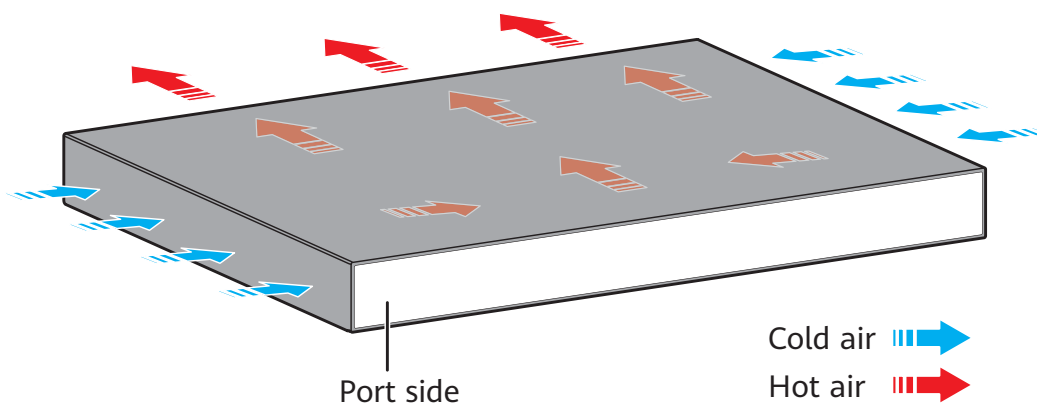
N: Neutral wire

PGND: Protection
ground wire

GND: 12 V reference
ground

Heat Dissipation

The S5700-28C-SI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-472 lists technical specifications of the S5700-28C-SI.

Table 5-472 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	53.7 years when a 2-port 10GE interface card is configured, 74.9 years when a 4-port GE front card is configured, 29.58 years when a 4-port 10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ±6 kV in differential mode, ±6 kV in common mode Using DC power modules: ±1 kV in differential mode, ±2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported

Item	Description
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	56 W
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 41 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02352341

5.10.9 S5700-28C-PWR-SI

Version Mapping

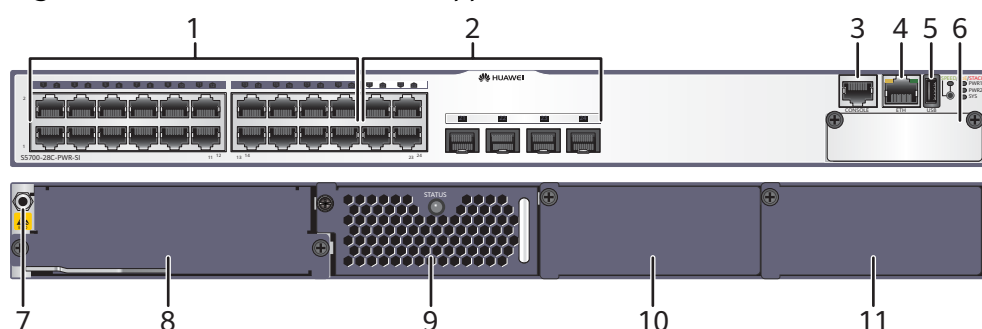
[Table 5-473](#) lists the mapping between the S5700-28C-PWR-SI and software versions.

Table 5-473 Version mapping

Series	Model	Software Version
S5700-SI	S5700-28C-PWR-SI	V200R001C00 to V200R005C02 NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 5-178 S5700-28C-PWR-SI appearance



1	Twenty PoE+ 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T (PoE+) + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
3	One console port	4	One ETH management port
5	One USB port	6	Front card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.6 ES5D00G4SA01 (4-Port GE SFP Front Optical Interface Card) • 9.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) • 9.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card)

7	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.	8	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.27 ES5D00ETPC00 (Stack Rear Card) • 9.28 ES5D00ETPB00 (Extended Rear Card)
9	Fan slot NOTE Applicable fan module: CX7E1FANA fan module	10	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 250 W AC PoE power module • 500 W AC PoE power module
11	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 250 W AC PoE power module • 500 W AC PoE power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-474](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-474 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or

an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-475](#).

Table 5-475 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the

Configuration Guide - Basic Configurations. **Table 5-476** describes the attributes of an ETH management port.

Table 5-476 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 5-179 Indicators on the S5700-28C-PWR-SI

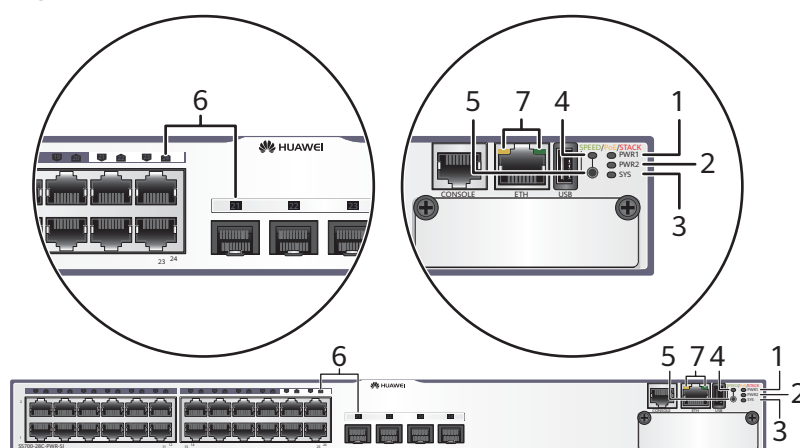


Table 5-477 Description of indicators on the switch

Number	Indicator/ Button	Color	Description
1	PWR1: power supply indicator	-	Off: No power module is available in power module slot 1, or the power module is faulty when a single power module is configured.
		Green	Steady on: The power module in power module slot 1 is working properly.
		Red	Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> • A power module is available in this slot but its power switch is in the OFF position. • The power module in power module slot 1 is available but is not connected to a power source. • The system power and PoE power are faulty.
		Yellow	Steady on: If a single power module is installed, the PoE power is out of range. If dual power modules are installed, the system power or PoE power is out of range.
2	PWR2: power supply indicator	-	Off: No power module is available in power module slot 2, or the power module is faulty when a single power module is configured.
		Green	Steady on: The power module in power module slot 2 is working properly.

Number	Indicator/ Button	Color	Description
		Red	<p>Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 2:</p> <ul style="list-style-type: none"> • A power module is available in this slot but its power switch is in the OFF position. • A power module is available in this slot but it is not connected to a power source. • The system power and PoE power are faulty.
		Yellow	<p>Steady on: If a single power module is installed, the PoE power is out of range. If dual power modules are installed, the system power or PoE power is out of range.</p>
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> • Steady on: The system is not operating properly or is starting. • Slow blinking: The system is running normally. • Fast blinking: The system is copying the system software and configuration file from a USB flash drive.
		Yellow	<ul style="list-style-type: none"> • Steady on: The system is performing self-check during startup. • Blinking: The system has been successfully upgraded using a USB flash drive and the switch has restarted. You can remove the USB flash drive from the switch.
		Red	<ul style="list-style-type: none"> • Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated. • Blinking: The system cannot be upgraded after a USB flash drive is inserted. The USB-based upgrade failed.

Number	Indicator/Button	Color	Description
4	Mode indicator	-	Off: The service port indicators are in the status mode (default). In the status mode, the service port indicator shows the port link or activity state.
		Green	Steady on: The service port indicators show the port speed. After 45 seconds, the service port indicators automatically restore to the status mode.
		Red	Steady on: The service port indicators show the stack ID of the switch. After 45 seconds, the service port indicators automatically restore to the status mode.
		Yellow	Steady on: The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.
5	Mode switch button	-	<ul style="list-style-type: none"> When you press this button once, the mode indicator turns green and the service port indicators show the speed of each service port. When you press this button a second time, the mode indicator turns red and the service port indicators show the stack status. When you press this button a third time, the mode indicator turns yellow and the service port indicators show the PoE status. When you press this button a fourth time, the mode indicator turns off. <p>If you do not press the button within 45 seconds, the mode indicator restores to status mode.</p>
6	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-478 .	
7	ETH indicator	-	Off: No link is established on the port.

Number	Indicator/ Button	Color	Description
		Green	Steady on: The port is connected.
		Yellow	Blinking: The port is sending or receiving data.

Table 5-478 Description of service port indicators in different modes

Display Mode	Color	Description
Status	Green	<ul style="list-style-type: none">• Off: The port is not connected or has been shut down.• Steady on: The port is connected.• Blinking: The port is sending or receiving data.
Speed	Green	<ul style="list-style-type: none">• Off: The port is not connected or has been shut down.• Steady on:<ul style="list-style-type: none">10M/100M/1000M port: The port is operating at 10/100 Mbit/s.1000M/10GE port: The port is operating at 1000 Mbit/s.• Blinking:<ul style="list-style-type: none">10M/100M/1000M port: The port is operating at 1000 Mbit/s.1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	Green	<ul style="list-style-type: none">• Off: The port does not provide PoE power.• Steady on: The port is providing PoE power.• Blinking: The PD connected to the port is not a standard PD or its power exceeds the maximum power or power threshold of the port.

Display Mode	Color	Description
Stack	Green	<ul style="list-style-type: none"> • Off: The STCK mode is not selected. • If the indicator is steady on, the switch is not a master switch: <ul style="list-style-type: none"> - If the indicator of a port is steady on, the number of this port is the stack ID of the switch. - If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0. • If the indicator is blinking, the switch is a master switch: <ul style="list-style-type: none"> - If the indicator of a port is blinking, the number of this port is the stack ID of the switch. - If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5700-28C-PWR-SI is a PoE switch. It has two power module slots, each of which can have a 500 W or 250 W power module installed. A power module can provide 369.6 W or 123.2 W of PoE power for powered devices (PDs). [Table 5-479](#) lists its power supply configurations.

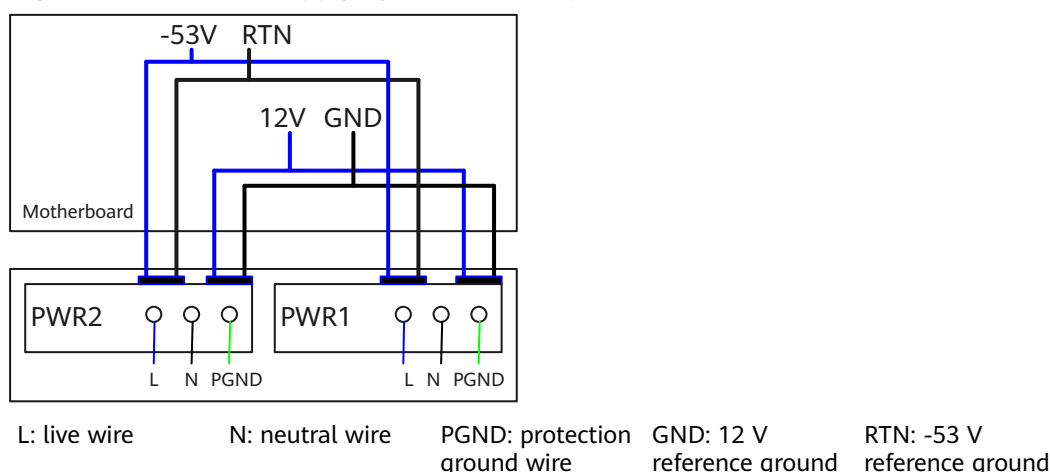
Table 5-479 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
250 W	-	123.2 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 8 • 802.3at (30 W per port): 4
500 W	-	369.6 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 12

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
250 W	250 W	246.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 16 802.3at (30 W per port): 8
500 W	500 W	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12

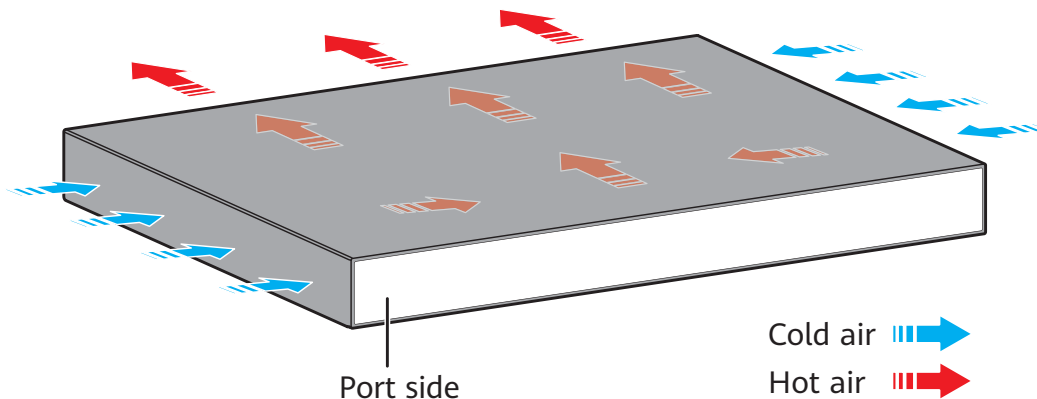
Figure 5-180 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 5-180 Power supply by dual AC PoE power modules



Heat Dissipation

The S5700-28C-PWR-SI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-480 lists technical specifications of the S5700-28C-PWR-SI.

Table 5-480 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	53.6 years when a 2-port 10GE interface card is configured, 74.6 years when a 4-port GE front card is configured, 25.68 years when a 4-port 10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±1 kV in common mode
Power supply surge protection	±2 kV in differential mode, ±4 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Supported

Item	Description
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	466 W (system power consumption: 96 W, PoE: 370 W)
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 45 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02354137

5.10.10 S5700-52C-SI

Version Mapping

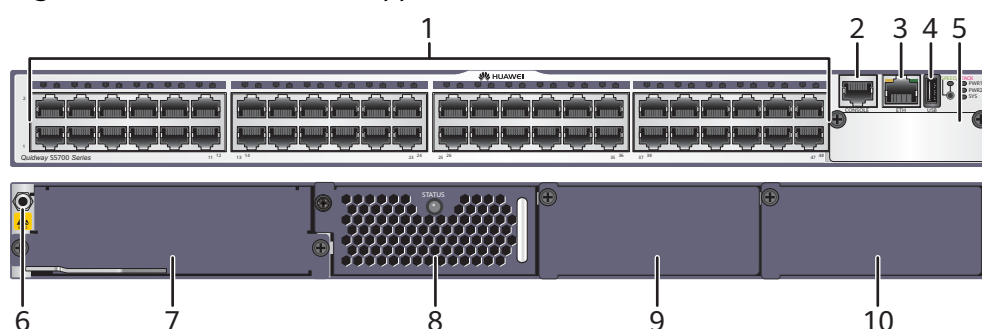
[Table 5-481](#) lists the mapping between the S5700-52C-SI and software versions.

Table 5-481 Version mapping

Series	Model	Software Version
S5700-SI	S5700-52C-SI	V100R005C01 to V200R005C02 NOTE This model does not match V100R006C01, V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 5-181 S5700-52C-SI appearance



1	Forty-eight 10/100/1000BASE-T ports	2	One console port
3	One ETH management port	4	One USB port
5	Front card slot NOTE Card supported: <ul style="list-style-type: none"> 9.6 ES5D00G4SA01 (4-Port GE SFP Front Optical Interface Card) 9.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) 9.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card) 	6	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.
7	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 9.27 ES5D00ETPC00 (Stack Rear Card) 9.28 ES5D00ETPB00 (Extended Rear Card) 	8	Fan slot NOTE Applicable fan module: CX7E1FANA fan module

9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	1 0	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-482](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-482 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-483](#).

Table 5-483 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. **Table 5-484** describes the attributes of an ETH management port.

Table 5-484 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

 **NOTE**

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5700-52C-SI has the same types of indicators as the S5700-28C-SI. For details, see **Indicator Description**.

Power Supply Configuration

The S5700-52C-SI can use a single power module or double power modules for 1+1 power redundancy. In versions prior to V200R005C00, the switch cannot use pluggable AC and DC power modules simultaneously. In V200R005C00 and later versions, the switch supports mixing of pluggable AC and DC power modules.

Figure 5-182 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-182 Power supply connections of dual DC power modules

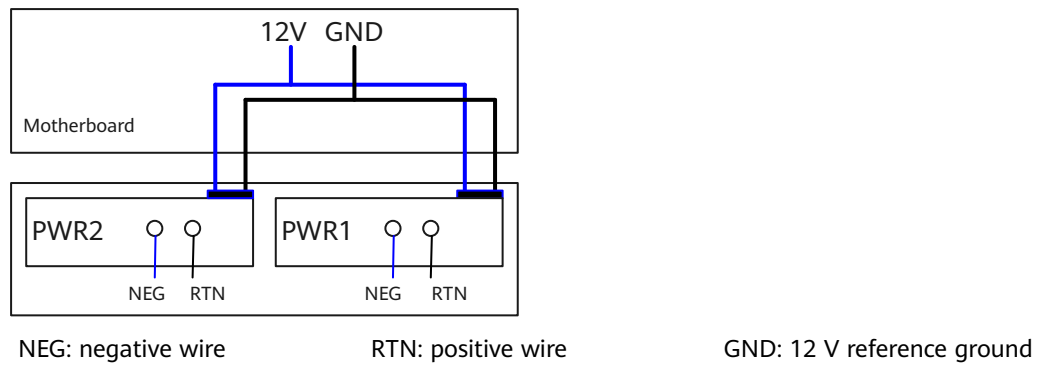
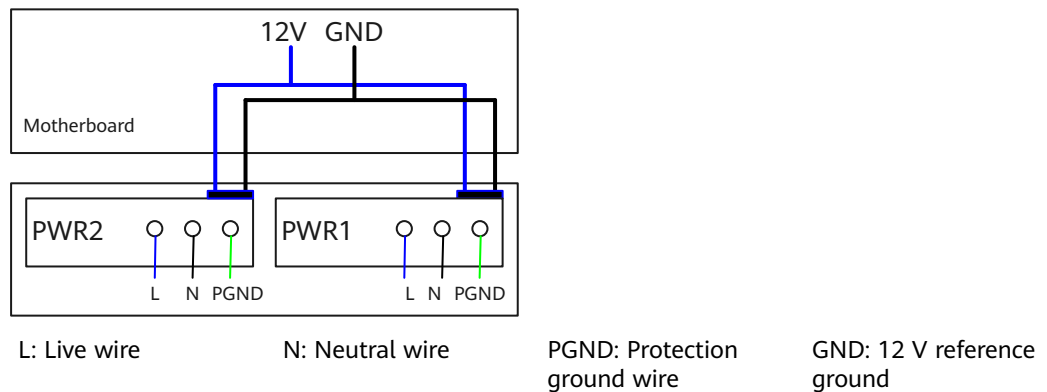


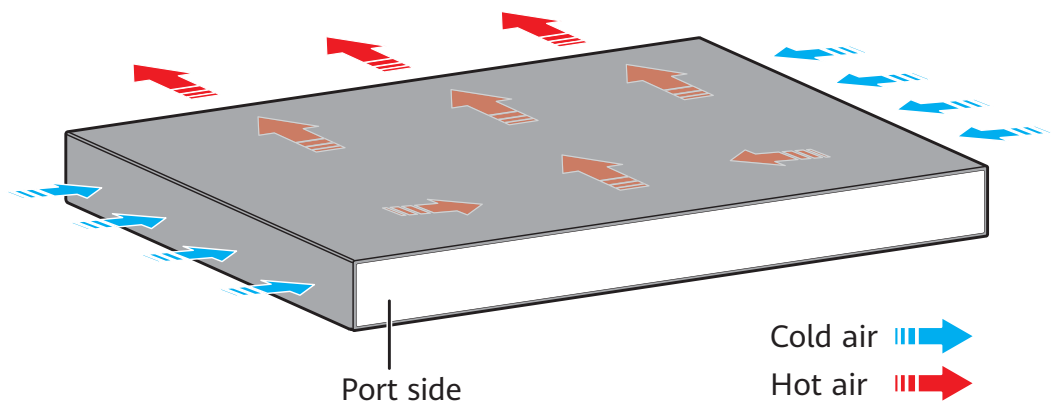
Figure 5-183 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-183 Power supply connections of dual AC power modules



Heat Dissipation

The S5700-52C-SI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-485](#) lists technical specifications of the S5700-52C-SI.

Table 5-485 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	51.3 years when a 2-port 10GE interface card is configured, 70.3 years when a 4-port GE front card is configured, 28.58 years when a 4x10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 2 kV
Power supply surge protection	<ul style="list-style-type: none">Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common modeUsing DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none">Empty: ≤ 5 kg (11.02 lb)Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	78 W

Item	Description
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 41 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352356

5.10.11 S5700-52C-PWR-SI

Version Mapping

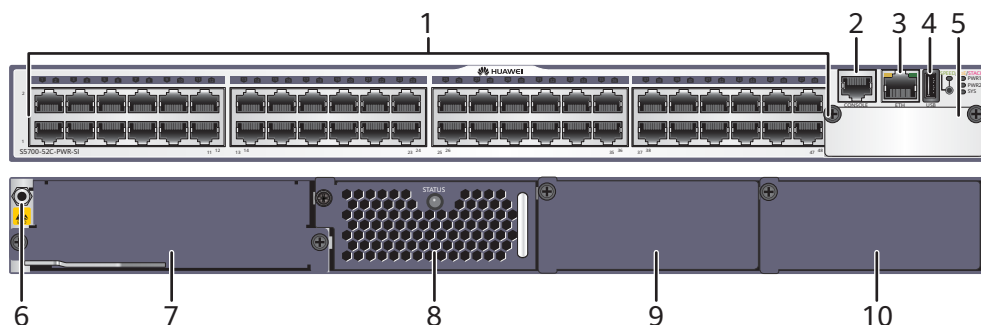
[Table 5-486](#) lists the mapping between the S5700-52C-PWR-SI and software versions.

Table 5-486 Version mapping

Series	Model	Software Version
S5700-SI	S5700-52C-PWR-SI	V200R001C00 to V200R005C02 NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 5-184 S5700-52C-PWR-SI appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	One console port
3	One ETH management port	4	One USB port
5	Front card slot NOTE Card supported: <ul style="list-style-type: none"> 9.6 ES5D00G4SA01 (4-Port GE SFP Front Optical Interface Card) 9.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) 9.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card) 	6	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.
7	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 9.27 ES5D00ETPC00 (Stack Rear Card) 9.28 ES5D00ETPB00 (Extended Rear Card) 	8	Fan slot NOTE Applicable fan module: CX7E1FANA fan module
9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 250 W AC PoE power module 500 W AC PoE power module 	10	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 250 W AC PoE power module 500 W AC PoE power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-487](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-487 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-488](#).

Table 5-488 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 5-489](#) describes the attributes of an ETH management port.

Table 5-489 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB flash drive used on a switch must comply with USB 1.1.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5700-52C-PWR-SI has the same types of indicators as the S5700-28C-PWR-SI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-52C-PWR-SI is a PoE switch. It has two power module slots, each of which can have a 500 W or 250 W power module installed. A power module can provide 369.6 W or 123.2 W of PoE power for powered devices (PDs). [Table 5-490](#) lists its power supply configurations.

Table 5-490 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
250 W	–	123.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 8 802.3at (30 W per port): 4
500 W	–	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12

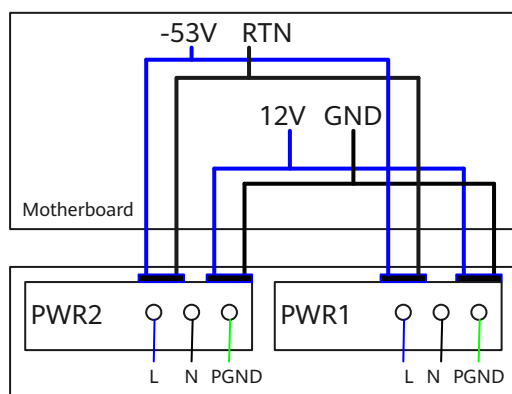
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
250 W	250 W	246.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 16 802.3at (30 W per port): 8
500 W	500 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 5-185 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

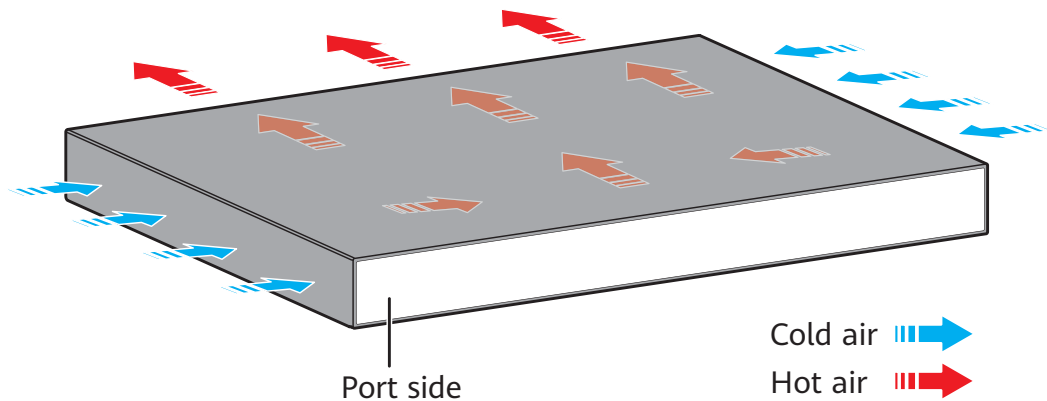
Figure 5-185 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5700-52C-PWR-SI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-491 lists technical specifications of the S5700-52C-PWR-SI.

Table 5-491 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	50.4 years when a 2-port 10GE interface card is configured, 68.6 years when a 4-port GE front card is configured, 35.58 years when a 4x10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 1 kV
Power supply surge protection	± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 8.5 kg (18.74 lb)
Stack port	Two stack ports available on each stack card
RPS	Not supported
PoE	Supported

Item	Description
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	917 W (system power consumption: 177 W, PoE: 740 W)
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 45 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02354135

5.11 S5720-SI

5.11.1 S5720-14X-PWH-SI-AC

Version Mapping

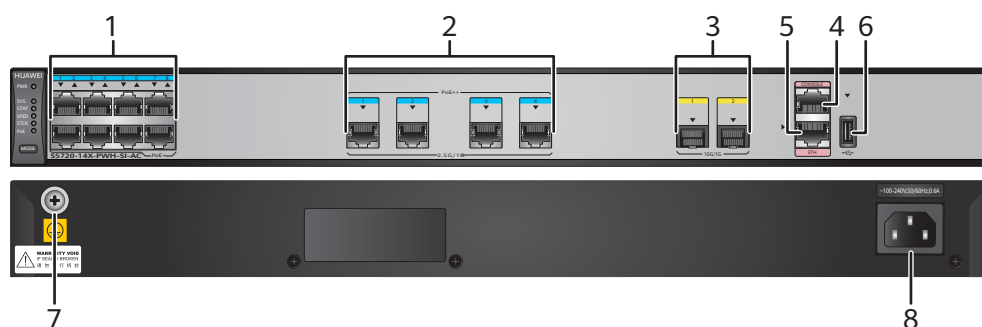
[Table 5-492](#) lists the mapping between the S5720-14X-PWH-SI-AC chassis and software versions.

Table 5-492 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-14X-PWH-SI-AC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 5-186 S5720-14X-PWH-SI-AC appearance



1	Eight PoE+ 10/100/1000BASE-T ports	2	Four PoE++ 100M/1000M/2.5GE BASE-T ports (MultiGE port)
3	Two 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) 	4	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.

5	One ETH management port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	AC socket NOTE It is used with an AC power cable .

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-493](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-493 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

100M/1000M/2.5G BASE-T port

A 100M/1000M/2.5G BASE-T port (MultiGE port) sends and receives service data at 100 Mbit/s, 1000 Mbit/s, or 2.5 Gbit/s, and must use an [Ethernet cable](#). If the 2.5 Gbit/s speed is required, the port must use an Ethernet cable of Cat5e or higher category. [Table 5-494](#) describes the attributes of a 100M/1000M/2.5G BASE-T port.

Table 5-494 Attributes of a 100M/1000M/2.5G BASE-T port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3u, IEEE802.3ab, IEEE802.3bz, mgbase-t
Working mode	100/1000/2500 Mbit/s auto-sensing
Maximum transmission distance	100 m

A 100M/1000M/2.5G BASE-T Ethernet port can connect to the following devices:

- All switches providing FE electrical interfaces, GE electrical interfaces or MultiGE electrical interfaces
- AP: AP7050DN-E (with 2.5G uplink interfaces) running V200R007C00 and AP5030DN-S (with GE uplink interfaces)
- Pico: BTS3911B running V100R010C10SPC092T

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-495](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-495 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-496](#).

Table 5-496 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or

remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. **Table 5-497** describes the attributes of an ETH management port.

Table 5-497 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

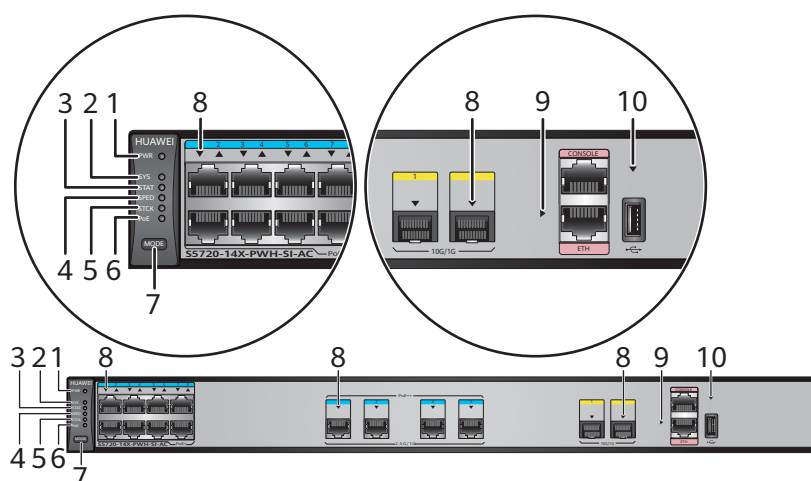
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-187 Indicators on the S5720-14X-PWH-SI-AC



NOTE

The S5720-SI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators. When an S5720-SI switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 5-498 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.

No.	Indicator	Name	Color	Status	Description
			Yellow	Steady on	The built-in PoE power module has failed.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
3	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
5	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.

No.	Indicator	Name	Color	Status	Description
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-499 .		

No.	Indicator	Name	Color	Status	Description
9	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
10	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-499 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> • The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. • The total power consumption of PDs has reached the maximum power of the switch. • The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

Display Mode	Color	Status	Description
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is blinking, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

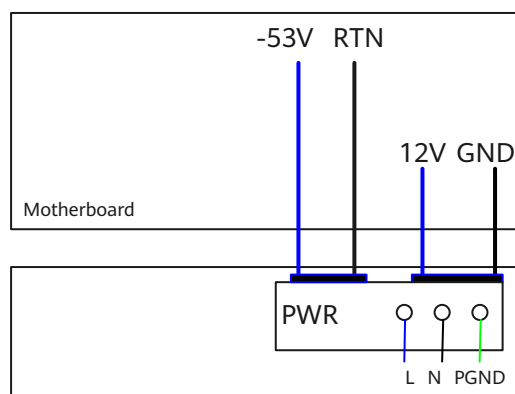
The S5720-14X-PWH-SI-AC has a built-in power module and does not support pluggable power modules. The S5720-14X-PWH-SI-AC is a PoE switch and has a built-in PoE power module.

Table 5-500 Power supply configurations (built-in power module)

Available PoE Power	Maximum Number of Ports (Fully Loaded)
369.6 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 12 • 802.3at (30 W per port): 12 • Non-standard (90 W per port): 4 (only PoE++ ports) <p>NOTE A PoE++ port is a non-standard port and can only provide 90 W power for the attached PD.</p>

Figure 5-188 shows the power supply mode of a built-in AC PoE power module (PWR). The PWR module receives AC power from an external power source and provides two outputs: 12 V and -53 V. The 12 V output is provided for the chassis, and the -53 V output is provided for PDs.

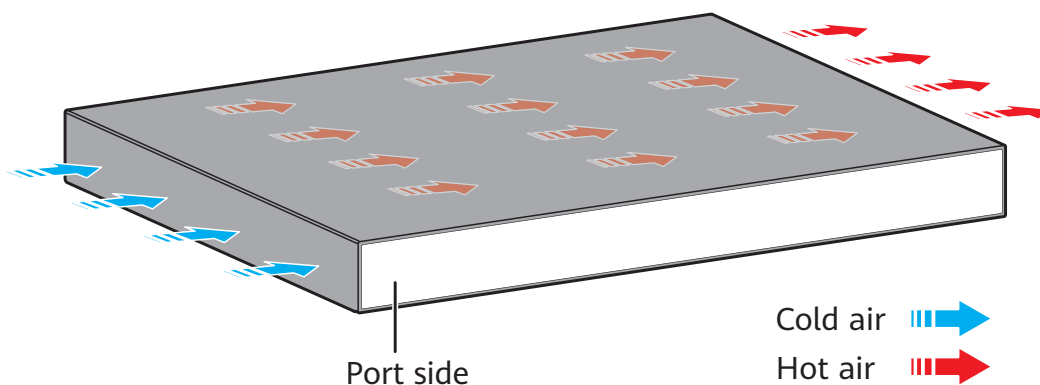
Figure 5-188 Power supply by a built-in AC PoE power module



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720-14X-PWH-SI-AC has three built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-501 lists technical specifications of the S5720-14X-PWH-SI-AC.

Table 5-501 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	86.55 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 315.0 mm (1.72 in. x 17.4 in. x 12.4 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 324.0 mm (1.72 in. x 17.4 in. x 12.76 in.)
Weight (with packaging)	5.9 kg (13.01 lb)
Stack ports	First eight GE electrical ports 10GE SFP+ ports (V200R010C00 and later versions)
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">Not providing the PoE function: 52 W100% PoE loads: 422 W (system power consumption: 52 W, PoE: 370 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	44.94 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 52.8 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350MTV

5.11.2 S5720-28P-SI-AC

Version Mapping

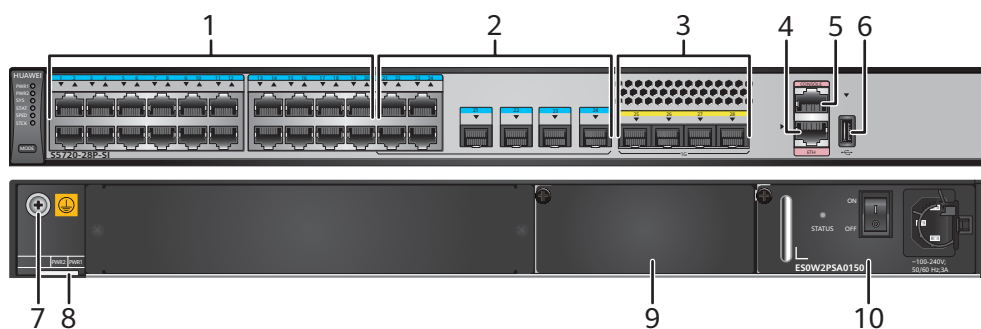
Table 5-502 lists the mapping between the S5720-28P-SI-AC chassis and software versions.

Table 5-502 Version mapping

Series		Model	Software Version
S5720-SI	S5720-P-SI	S5720-28P-SI-AC	V200R008C00 to V200R019C10 versions

Appearance and Structure

Figure 5-189 S5720-28P-SI-AC appearance



1	Twenty 10/100/1000BASE-T ports	2	<p>Four combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
3	<p>Four 1000BASE-X ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only applicable to stack ports, a maximum transmission distance of 10 km, OSXD22N00 not supported) • 1 m, 3 m, 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 5 m SFP+ high-speed copper cable (only for stack ports and applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>	4	One ETH management port

5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module 	10	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-503](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-503 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. When a 1000BASE-X port uses a 10GE optical module, SFP+ high-speed copper cable, or active optical cable (AOC), the port can only be used for stack connection. [Table 5-504](#) describes the attributes of a 1000BASE-X port.

Table 5-504 Attributes of a 1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-505](#).

Table 5-505 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-506](#) describes the attributes of an ETH management port.

Table 5-506 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-28P-SI-AC has similar indicators to those on the S5720-52X-PWR-SI-AC, except that the S5720-28P-SI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

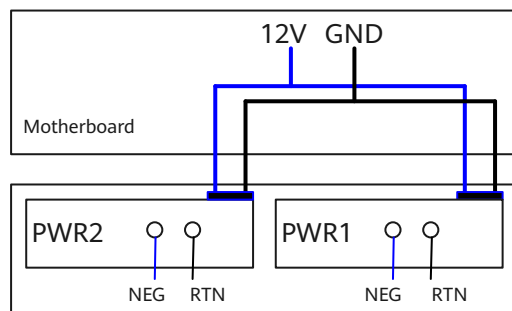
The S5720-28P-SI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

 NOTE

If a 60 W power module and a 150 W power module is used in the same switch, the maximum output power of the 150 W power module is 60 W.

[Figure 5-190](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-190 Power supply connections of dual DC power modules



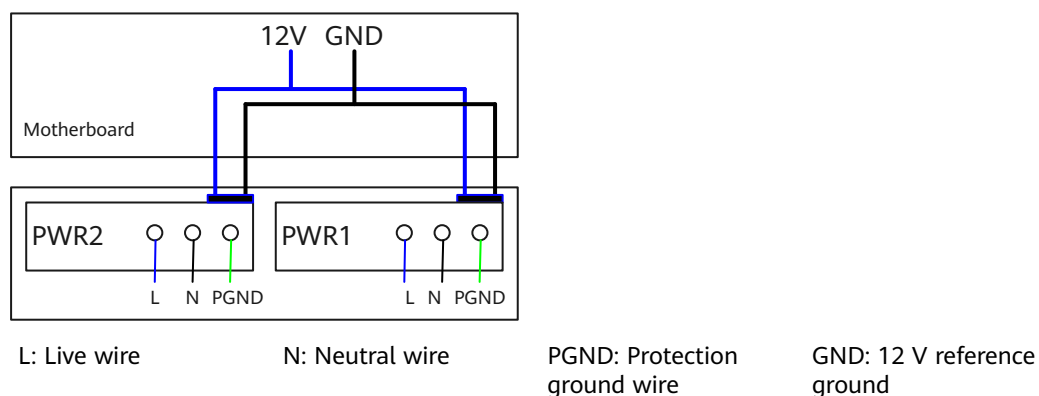
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

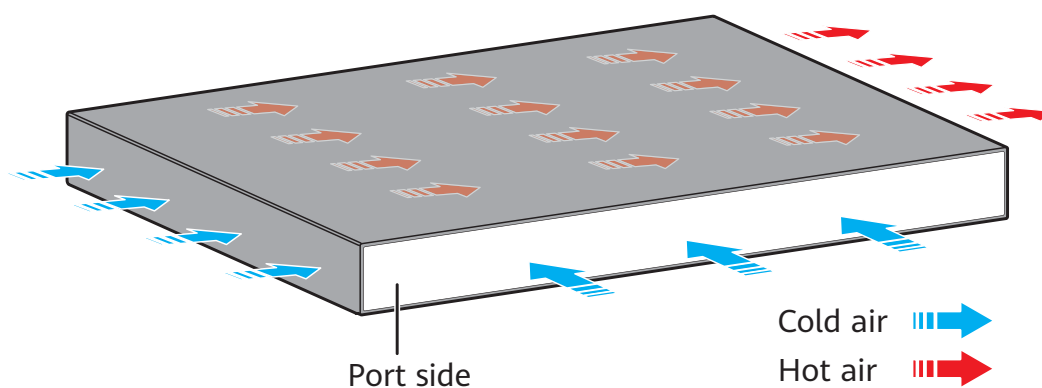
[Figure 5-191](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-191 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-28P-SI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-507 lists technical specifications of the S5720-28P-SI-AC.

Table 5-507 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	85.48 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none">Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common modeUsing DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.1 kg (20.06 lb)
Stack ports	GE electrical ports and GE SFP optical ports except combo ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	34.6 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	21.2 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 52 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350DLS

5.11.3 S5720-52P-SI-AC

Version Mapping

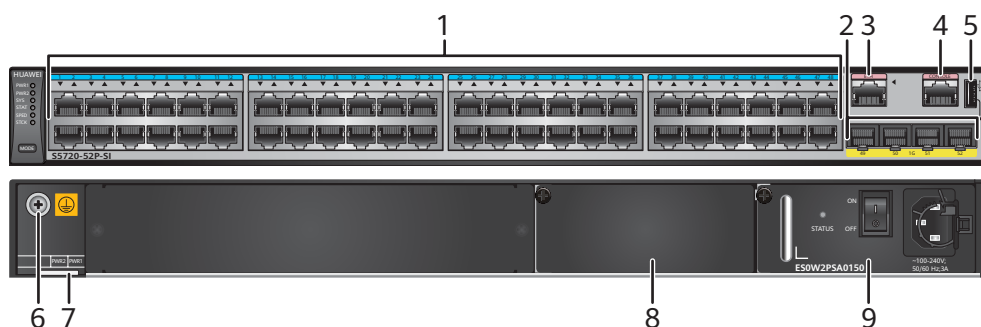
Table 5-508 lists the mapping between the S5720-52P-SI-AC chassis and software versions.

Table 5-508 Version mapping

Series		Model	Software Version
S5720-SI	S5720-P-SI	S5720-52P-SI-AC	V200R008C00 to V200R019C10 versions

Appearance and Structure

Figure 5-192 S5720-52P-SI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only applicable to stack ports, a maximum transmission distance of 10 km, OSXD22N00 not supported) • 1 m, 3 m, 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 5 m SFP+ high-speed copper cable (only for stack ports and applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>

7	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.	8	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module
9	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 5-509](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-509 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. When a 1000BASE-X port uses a 10GE optical module, SFP+ high-speed copper cable, or active optical cable (AOC), the port can only be used for stack connection. [Table 5-510](#) describes the attributes of a 1000BASE-X port.

Table 5-510 Attributes of a 1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-511](#).

Table 5-511 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-512](#) describes the attributes of an ETH management port.

Table 5-512 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3

Attribute	Description
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-52P-SI-AC has similar indicators to those on the S5720-52X-PWR-SI-AC, except that the S5720-52P-SI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52P-SI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

NOTE

If a 60 W power module and a 150 W power module is used in the same switch, the maximum output power of the 150 W power module is 60 W.

Figure 5-193 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-193 Power supply connections of dual DC power modules

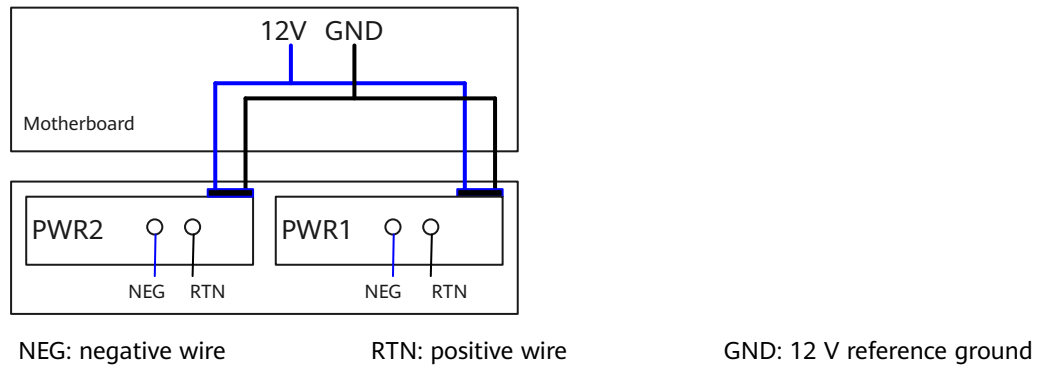
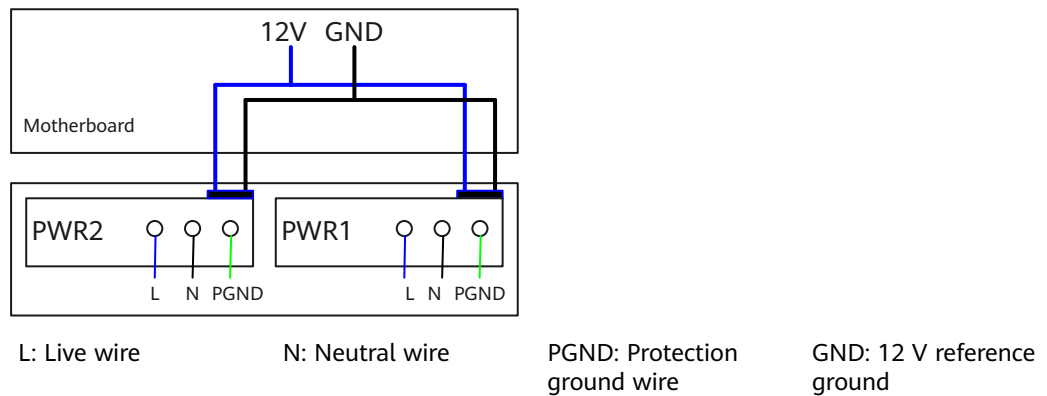


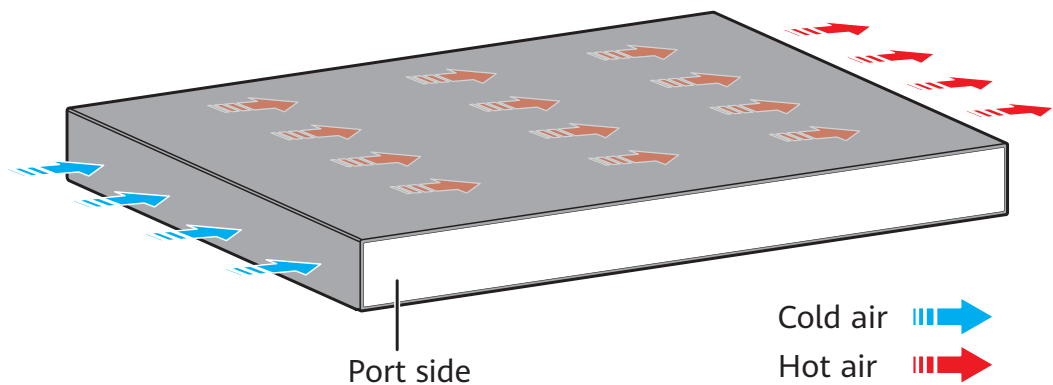
Figure 5-194 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-194 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-52P-SI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-513 lists technical specifications of the S5720-52P-SI-AC.

Table 5-513 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	75.66 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.5 kg (20.95 lb)
Stack ports	GE electrical ports and GE SFP optical ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC

Item	Description
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	53.6 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	32.2 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 52 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02350DLU

5.11.4 S5720-28X-SI-AC

Version Mapping

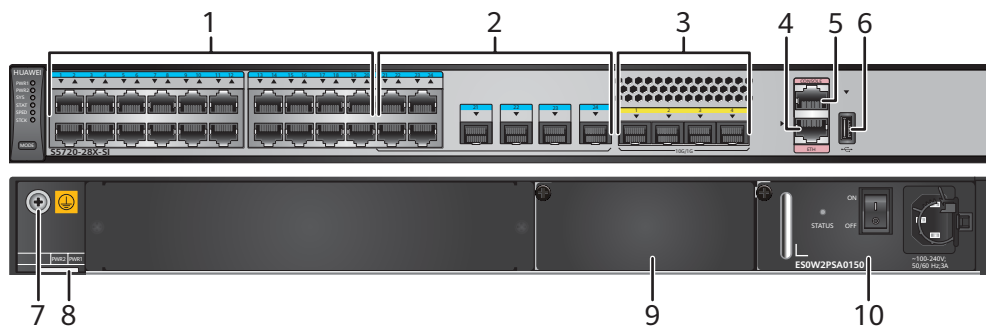
Table 5-514 lists the mapping between the S5720-28X-SI-AC chassis and software versions.

Table 5-514 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-28X-SI-AC	V200R008C00 to V200R019C10 versions

Appearance and Structure

Figure 5-195 S5720-28X-SI-AC appearance



1	Twenty 10/100/1000BASE-T ports	2	<p>Four combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	One ETH management port

5	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	<p>One USB port</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>
9	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module 	10	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-515](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-515 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-516](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-516 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-517](#).

Table 5-517 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-518](#) describes the attributes of an ETH management port.

Table 5-518 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-28X-SI-AC has similar indicators as those on the S5720-52X-PWR-SI-AC, except that the S5720-28X-SI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

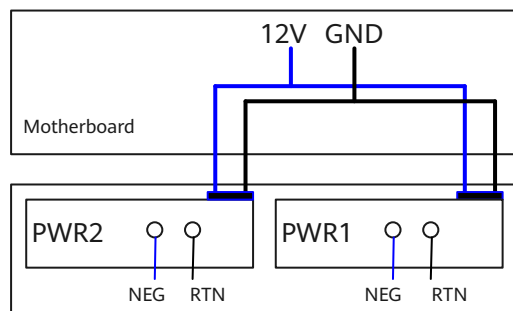
The S5720-28X-SI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

NOTE

If a 60 W power module and a 150 W power module is used in the same switch, the maximum output power of the 150 W power module is 60 W.

[Figure 5-196](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-196 Power supply connections of dual DC power modules



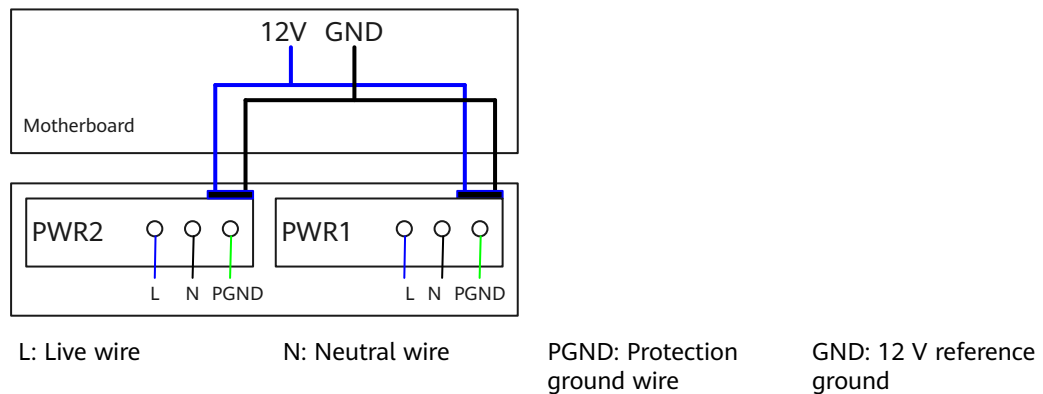
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

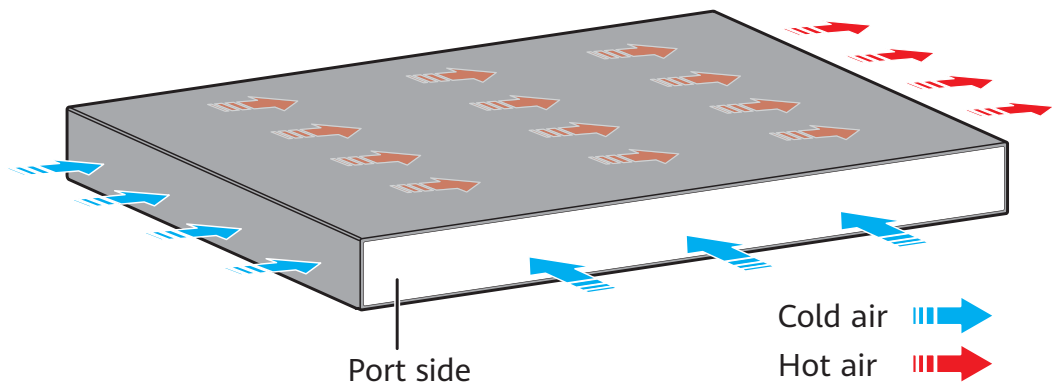
[Figure 5-197](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-197 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-28X-SI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-519 lists technical specifications of the S5720-28X-SI-AC.

Table 5-519 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	82.4 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.1 kg (20.06 lb)
Stack ports	GE electrical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	37.5 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	22.3 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 52 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350DLT

5.11.5 S5720-28X-SI-DC

Version Mapping

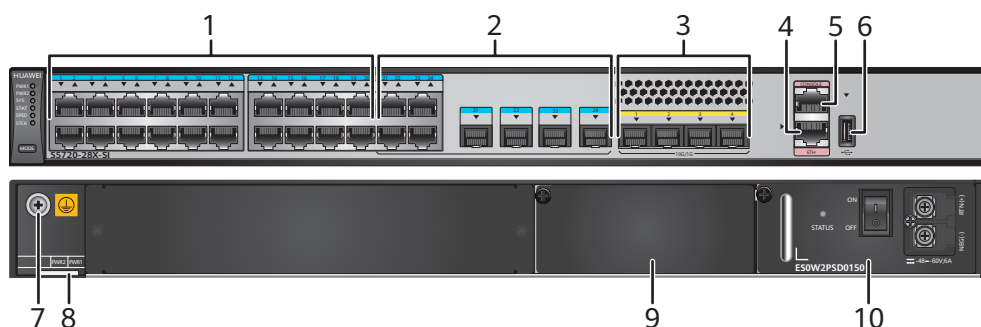
Table 5-520 lists the mapping between the S5720-28X-SI-DC chassis and software versions.

Table 5-520 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-28X-SI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 5-198 S5720-28X-SI-DC appearance



1	Twenty 10/100/1000BASE-T ports	2	<p>Four combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	One ETH management port

5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module 	10	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-521](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-521 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-522](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-522 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-523](#).

Table 5-523 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-524](#) describes the attributes of an ETH management port.

Table 5-524 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-28X-SI-DC has similar indicators to those on the S5720-52X-PWR-SI-AC, except that the S5720-28X-SI-DC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

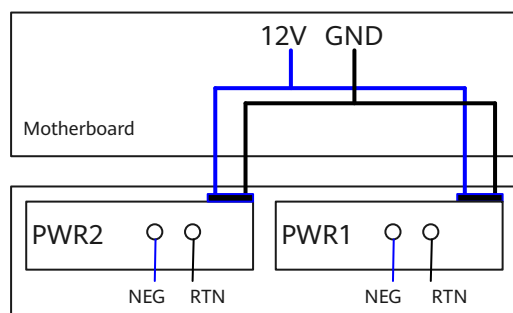
The S5720-28X-SI-DC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

NOTE

If a 60 W power module and a 150 W power module is used in the same switch, the maximum output power of the 150 W power module is 60 W.

[Figure 5-199](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-199 Power supply connections of dual DC power modules



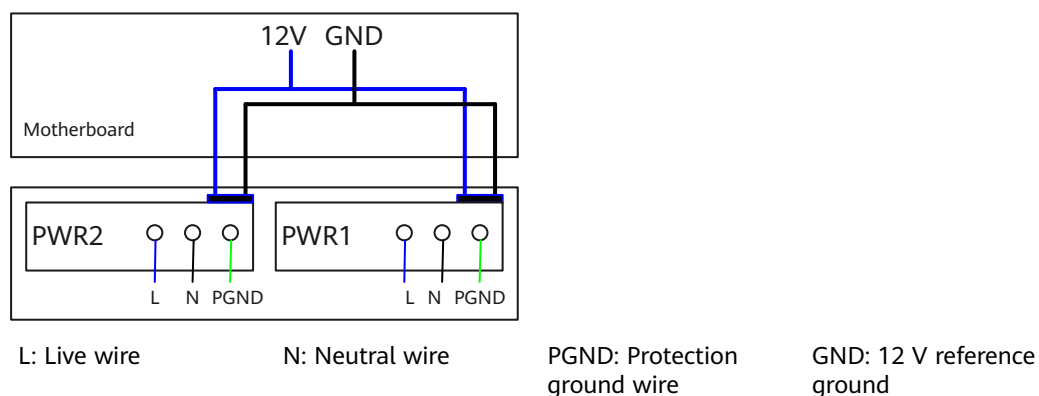
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

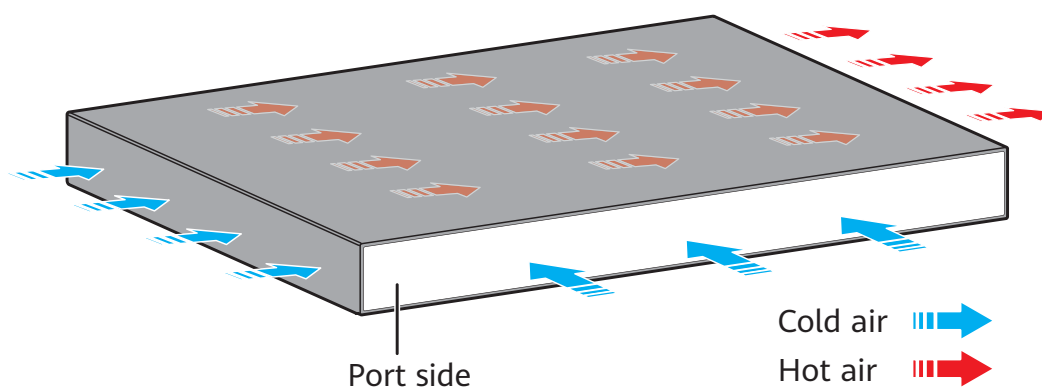
[Figure 5-200](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-200 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-28X-SI-DC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-525 lists technical specifications of the S5720-28X-SI-DC.

Table 5-525 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	82.4 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.1 kg (20.06 lb)
Stack ports	GE electrical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	36.9 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	22.5 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 52 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none">• AC power modules configured: 0-5000 m (0-16404 ft.)• DC power modules configured: 0-2000 m (0-6562 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NGU

5.11.6 S5720-28X-PWR-SI-AC

Version Mapping

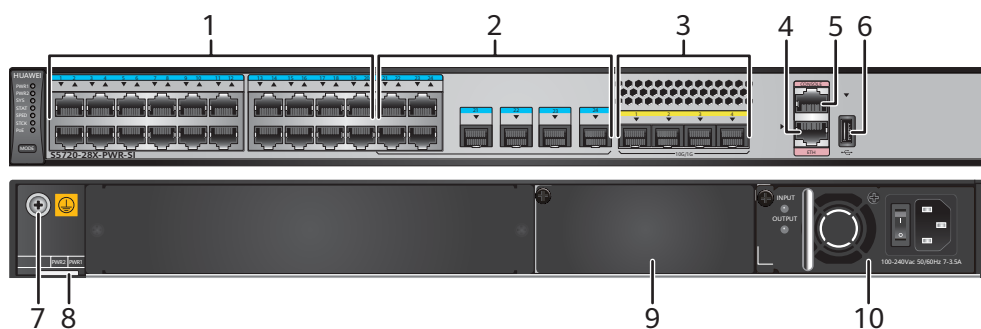
Table 5-526 lists the mapping between the S5720-28X-PWR-SI-AC chassis and software versions.

Table 5-526 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-28X-PWR-SI-AC	V200R008C00 to V200R019C10 versions

Appearance and Structure

Figure 5-201 S5720-28X-PWR-SI-AC appearance



1	<p>Twenty PoE+ 10/100/1000BASE-T ports</p>	2	<p>Four combo ports (10/100/1000BASE-T (PoE+) + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	<p>One ETH management port</p>

5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module 	10	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-527](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-527 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-528](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-528 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-529](#).

Table 5-529 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-530](#) describes the attributes of an ETH management port.

Table 5-530 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-28X-PWR-SI-AC has the same types of indicators as the S5720-52X-PWR-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-28X-PWR-SI-AC is a PoE switch. It has two power module slots, each of which can have a 500 W or 650 W power module installed. A power module can provide 369.6 W of PoE power for powered devices (PDs). A 500 W AC power module and a 650 W DC power module can be used together in the switch. [Table 5-531](#) lists its power supply configurations.

Table 5-531 Power supply configurations

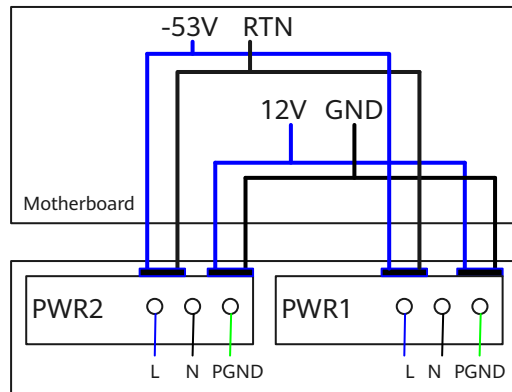
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 24

 NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 5-202](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

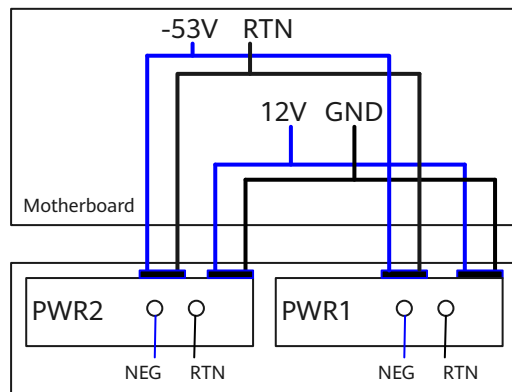
Figure 5-202 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 5-203 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

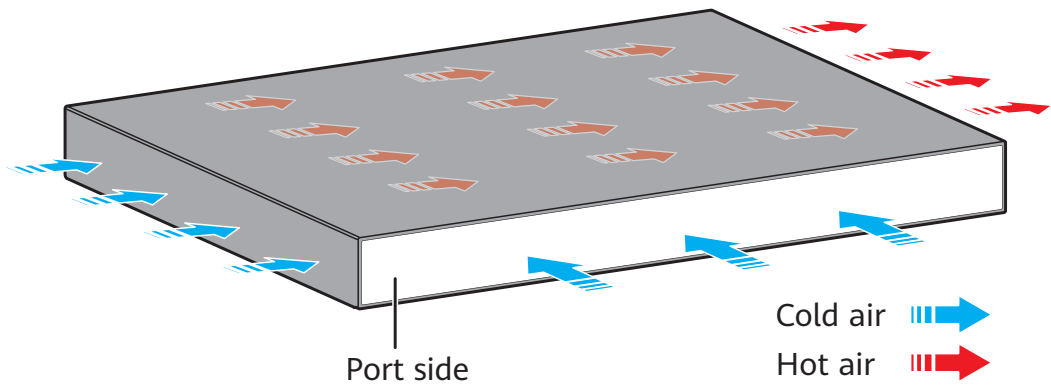
Figure 5-203 Power supply connections of dual DC PoE power modules



NEG: negative wire RTN: positive wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720-28X-PWR-SI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-532 lists technical specifications of the S5720-28X-PWR-SI-AC.

Table 5-532 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	66.78 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)

Item	Description
Weight (with packaging)	9.3 kg (20.51 lb)
Stack ports	GE electrical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">• Not providing the PoE function: 56.1 W• 100% PoE loads: 913 W (system power consumption: 173 W, PoE: 740 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	31.8 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 56.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350DLW

5.11.7 S5720-28X-PWR-SI-DC

Version Mapping

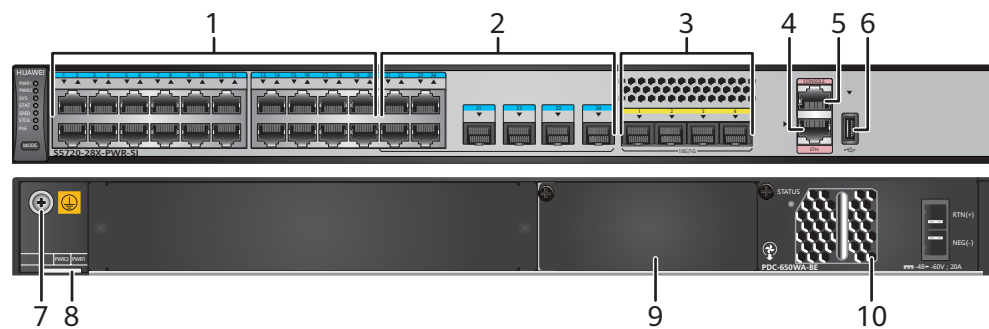
Table 5-533 lists the mapping between the S5720-28X-PWR-SI-DC chassis and software versions.

Table 5-533 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-28X-PWR-SI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 5-204 S5720-28X-PWR-SI-DC appearance



1	Twenty PoE+ 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T (PoE+) + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> ● FE optical module ● GE optical module ● GE-CWDM optical module ● GE-DWDM optical module
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	One ETH management port
5	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	One USB port
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>

9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module 	1 0	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-534](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-534 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-535](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-535 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-536](#).

Table 5-536 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-537](#) describes the attributes of an ETH management port.

Table 5-537 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-28X-PWR-SI-DC has the same types of indicators as the S5720-52X-PWR-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-28X-PWR-SI-DC is a PoE switch. It has two power module slots, each of which can have a 500 W or 650 W power module installed. A power module can provide 369.6 W of PoE power for powered devices (PDs). A 500 W AC power module and a 650 W DC power module can be used together in the switch. [Table 5-538](#) lists its power supply configurations.

Table 5-538 Power supply configurations

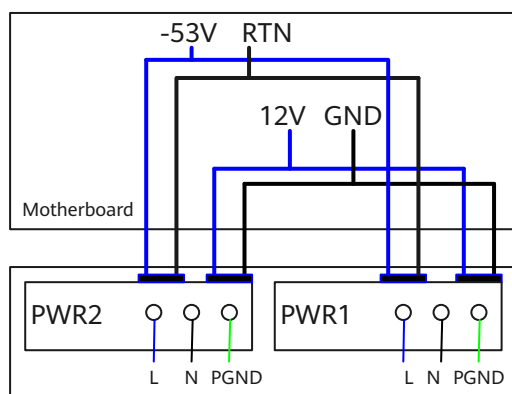
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 24

 NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 5-205](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

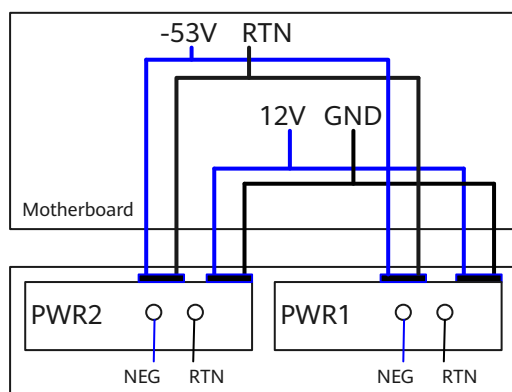
Figure 5-205 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 5-206 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

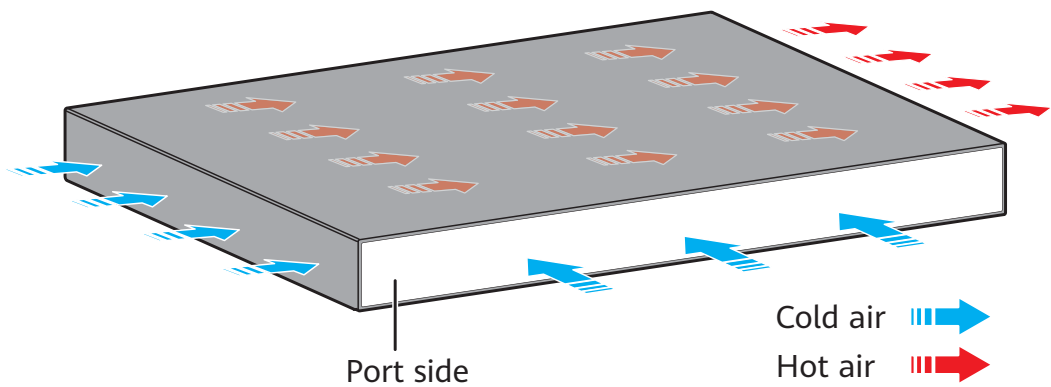
Figure 5-206 Power supply connections of dual DC PoE power modules



NEG: negative wire RTN: positive wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720-28X-PWR-SI-DC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-539 lists technical specifications of the S5720-28X-PWR-SI-DC.

Table 5-539 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	66.78 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)

Item	Description
Weight (with packaging)	9.3 kg (20.51 lb)
Stack ports	GE electrical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">• Not providing the PoE function: 56.3 W• 100% PoE loads: 887 W (system power consumption: 147 W, PoE: 740 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	32.6 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 56.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02350NGW

5.11.8 S5720-28X-SI-24S-AC

Version Mapping

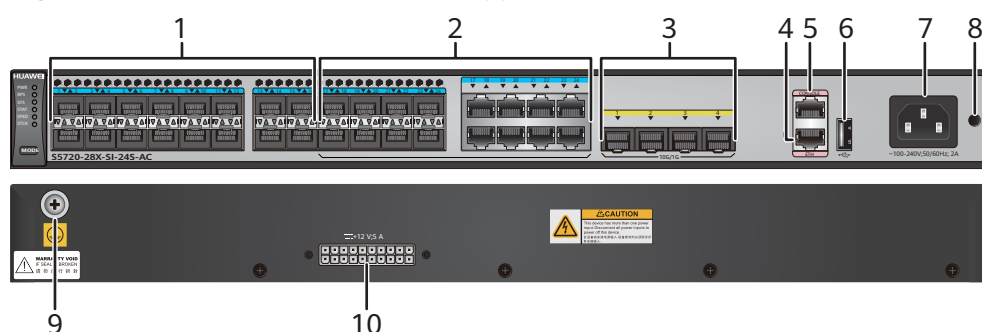
[Table 5-540](#) lists the mapping between the S5720-28X-SI-24S-AC chassis and software versions.

Table 5-540 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-28X-SI-24S-AC	V200R010C00 to V200R019C10 versions

Appearance and Structure

Figure 5-207 S5720-28X-SI-24S-AC appearance



1	<p>Sixteen 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Eight combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	One ETH management port
5	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	One USB port
7	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>
9	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	10	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-541](#) describes the attributes of a 100/1000BASE-X port.

Table 5-541 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-542](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-542 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-543](#).

Table 5-543 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-544](#) describes the attributes of an ETH management port.

Table 5-544 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

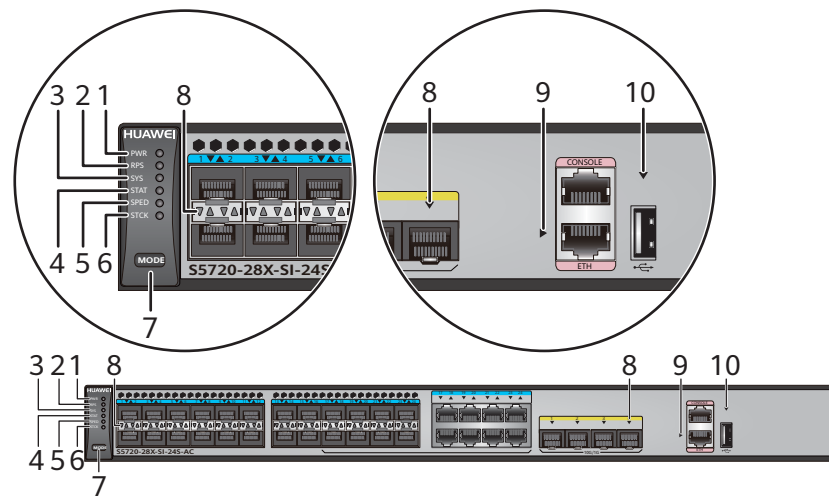
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-208 Indicators on the S5720-28X-SI-24S-AC



NOTE

The S5720-SI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, and STCK) are used as fault indicators of a switch. If the switch fails, its SYS indicator and mode indicators can be configured to blink red fast so that field maintenance personnel can find this faulty switch.

Table 5-545 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
			Yellow	Steady on	The built-in power module has failed, and the switch is receiving power from a redundant power supply (RPS).
2	RPS	RPS indicator	-	Off	The switch is not connected to an RPS.
			Green	Steady on	The RPS is in cold standby state.
			Green	Blinking	The RPS is supplying power to another switch.
			Yellow	Blinking	The RPS is supplying power to the local switch, and the built-in power module of the switch has failed.

No.	Indicator	Name	Color	Status	Description
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-546 and Table 5-547 .		
9	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
10	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.

No.	Indicator	Name	Color	Status	Description
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-546 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

Display Mode	Color	Status	Description
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Table 5-547 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green and yellow	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 100M/1000M port: The port is operating at 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green and yellow	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.

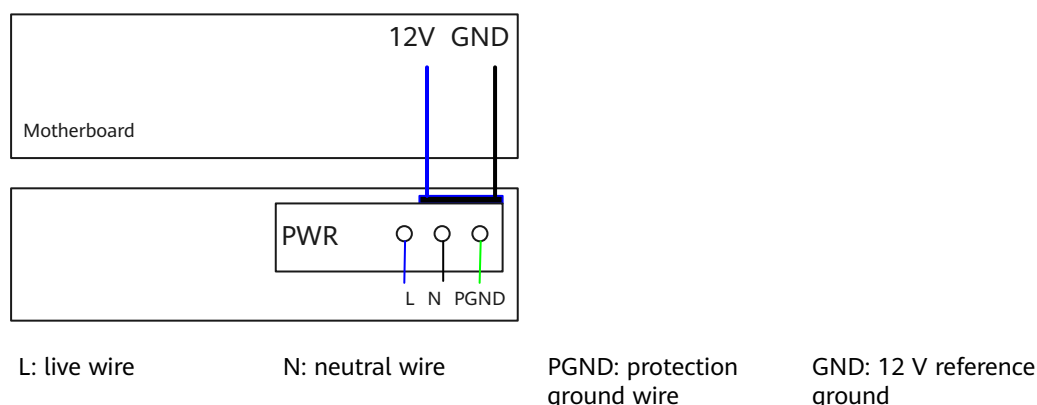
Display Mode	Color	Status	Description
	Green and yellow	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none">If the indicator of a port is steady on, the number of this port is the stack ID of the switch.If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none">If the indicator of a port is blinking, the number of this port is the stack ID of the switch.If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-28X-SI-24S-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

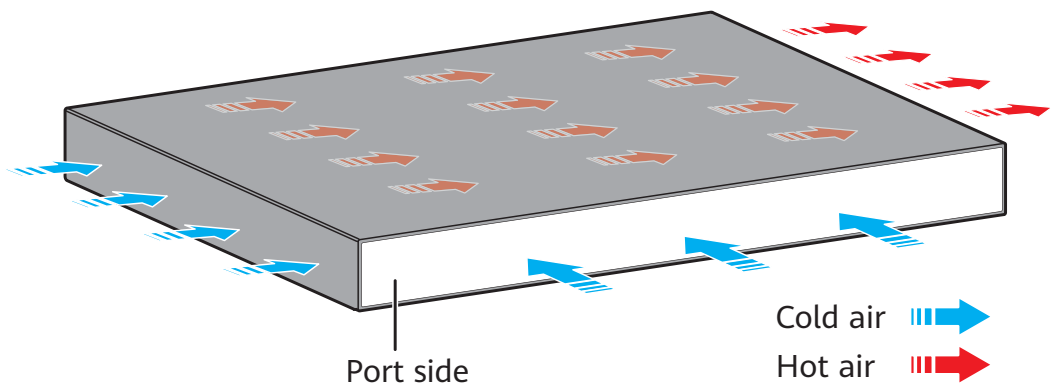
Figure 5-209 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-209 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-28X-SI-24S-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-548 lists technical specifications of the S5720-28X-SI-24S-AC.

Table 5-548 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.1 kg (9.04 lb)

Item	Description
Stack ports	GE SFP optical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	41.7 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	28.9 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 43 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010625

5.11.9 S5720-28X-SI-24S-DC

Version Mapping

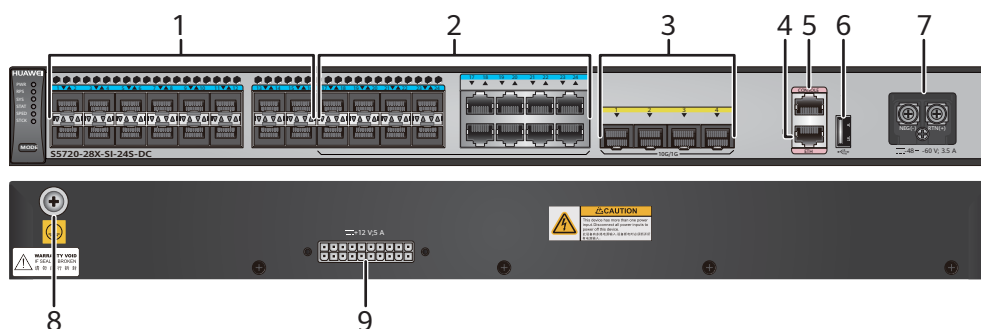
[Table 5-549](#) lists the mapping between the S5720-28X-SI-24S-DC chassis and software versions.

Table 5-549 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-28X-SI-24S-DC	V200R010C00 to V200R019C10 versions

Appearance and Structure

Figure 5-210 S5720-28X-SI-24S-DC appearance



1	<p>Sixteen 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Eight combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	One ETH management port
5	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	One USB port
7	<p>DC power terminal</p> <p>NOTE</p> <p>It is used together with a DC Power Cable.</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
9	<p>RPS socket</p> <p>NOTE</p> <p>It is used with an RPS cable, which is not hot swappable.</p>	-	-

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-550](#) describes the attributes of a 100/1000BASE-X port.

Table 5-550 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-551](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-551 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-552](#).

Table 5-552 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-553](#) describes the attributes of an ETH management port.

Table 5-553 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

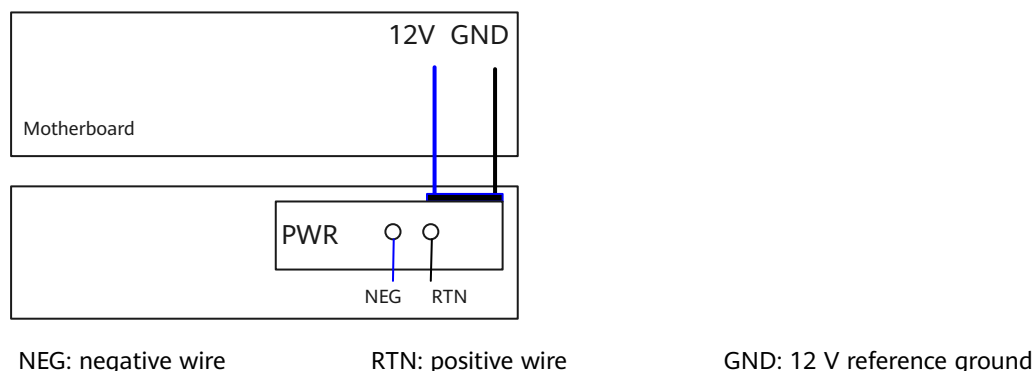
The S5720-28X-SI-24S-DC has the same types of indicators as the S5720-28X-SI-24S-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-28X-SI-24S-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

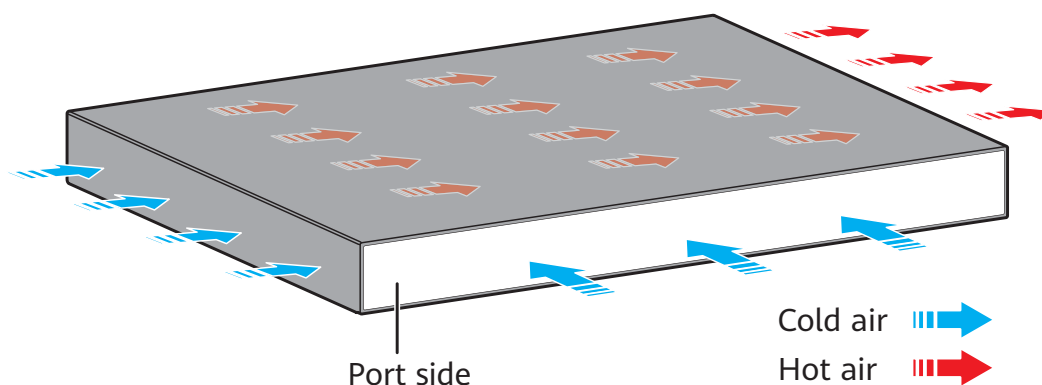
Figure 5-211 shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 5-211 Power supply by a single DC power module



Heat Dissipation

The S5720-28X-SI-24S-DC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-554 lists technical specifications of the S5720-28X-SI-24S-DC.

Table 5-554 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.8 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 233.8 mm (1.72 in. x 17.4 in. x 9.21 in.)
Weight (with packaging)	4.1 kg (9.04 lb)
Stack ports	GE SFP optical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	42.7 W
Typical power consumption (30% of traffic load)	30.3 W
	<ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 43 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010626

5.11.10 S5721-28X-SI-24S-AC

Version Mapping

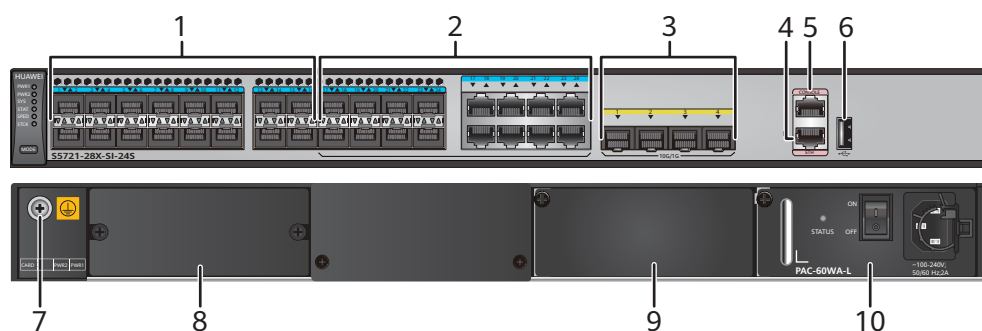
Table 5-555 lists the mapping between the S5721-28X-SI-24S-AC chassis and software versions.

Table 5-555 Version mapping

Series		Switch Model	Software Version
S5720-SI	S5720-X-SI	S5721-28X-SI-24S-AC	V200R011C10 to V200R019C10 versions

Appearance and Structure

Figure 5-212 S5721-28X-SI-24S-AC appearance



1	<p>Sixteen 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Eight combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE-DWDM optical module
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>	4	One ETH management port
5	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	One USB port
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Rear card slot</p> <p>NOTE This slot is reserved for future use.</p>
9	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 60 W AC power module • 150 W DC power module 	10	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 60 W AC power module • 150 W DC power module

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-556](#) describes the attributes of a 100/1000BASE-X port.

Table 5-556 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-557](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-557 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-558](#).

Table 5-558 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-559](#) describes the attributes of an ETH management port.

Table 5-559 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

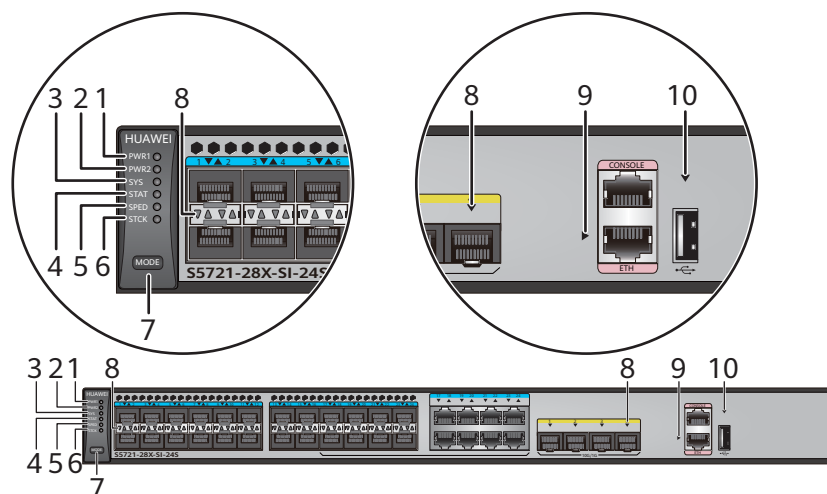
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-213 Indicators on the S5721-28X-SI-24S-AC



NOTE

The S5720-SI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, and STCK) are used as fault indicators of a switch. If the switch fails, its SYS indicator and mode indicators can be configured to blink red fast so that field maintenance personnel can find this faulty switch.

Table 5-560 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.

No.	Indicator	Name	Color	Status	Description
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.

No.	Indicator	Name	Color	Status	Description
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-561 and Table 5-562 .		

No.	Indicator	Name	Color	Status	Description
9	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
10	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-561 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Table 5-562 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green and yellow	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 100M/1000M port: The port is operating at 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green and yellow	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green and yellow	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5721-28X-SI-24S-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

NOTE

If a 60 W AC power module and a 150 W DC power module is used in the same switch, the maximum output power of the 150 W DC power module is 60 W.

Figure 5-214 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-214 Power supply connections of dual DC power modules

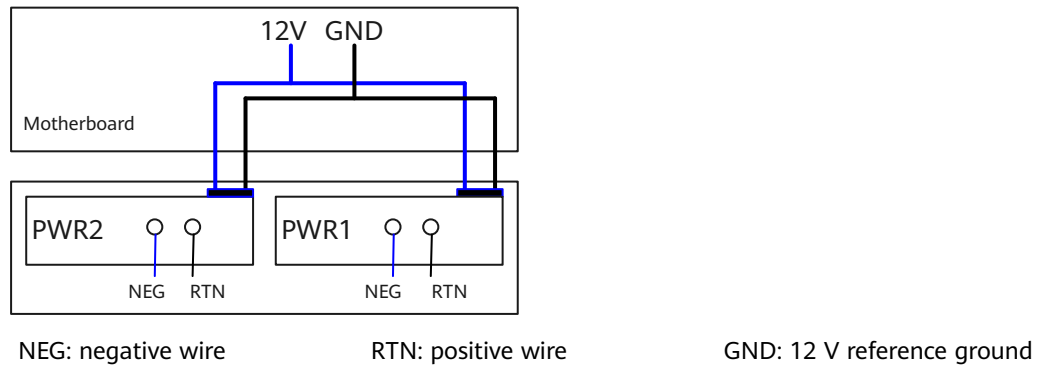
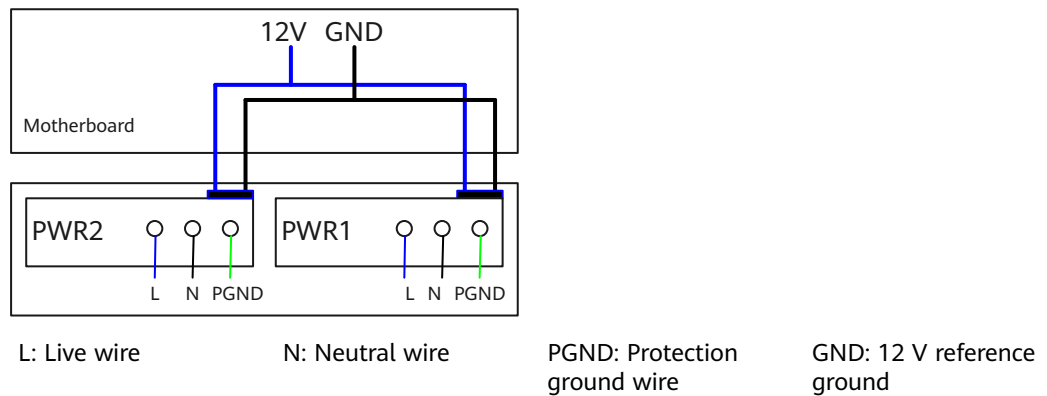


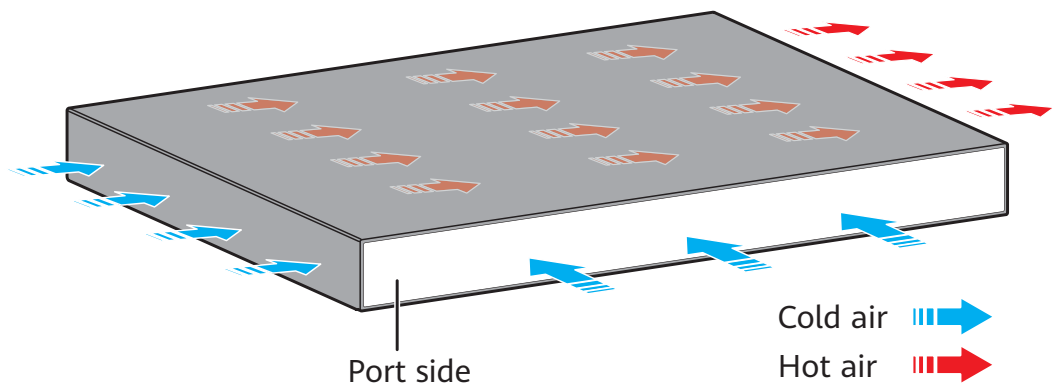
Figure 5-215 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-215 Power supply connections of dual AC power modules



Heat Dissipation

The S5721-28X-SI-24S-AC has one built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-563 lists technical specifications of the S5721-28X-SI-24S-AC.

Table 5-563 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	36 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 425.0 mm (1.75 in. x 17.4 in. x 16.73 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.3 mm (1.75 in. x 17.4 in. x 17.77 in.)
Weight (including package)	8.6 kg (18.96 lb)
Stack ports	GE optical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported

Item	Description
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	41 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	34.5 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.

Item	Description
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 50.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	98010661

5.11.11 S5720-52X-SI-AC

Version Mapping

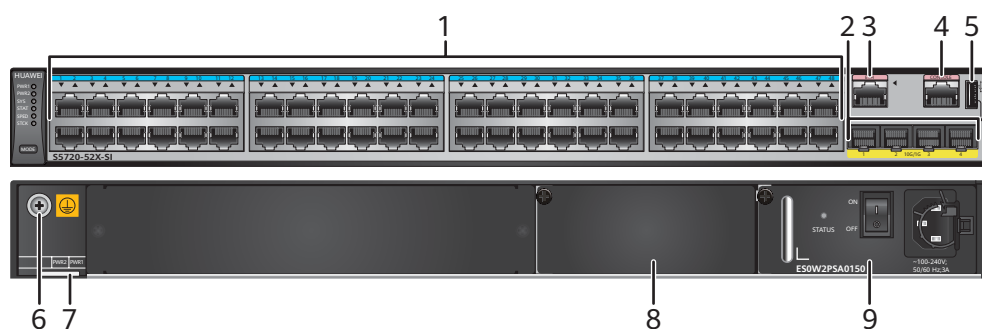
Table 5-564 lists the mapping between the S5720-52X-SI-AC chassis and software versions.

Table 5-564 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-52X-SI-AC	V200R008C00 to V200R019C10 versions

Appearance and Structure

Figure 5-216 S5720-52X-SI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.	8	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module
9	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-565](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-565 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-566](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-566 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-567](#).

Table 5-567 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-568](#) describes the attributes of an ETH management port.

Table 5-568 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-52X-SI-AC has similar indicators to those on the S5720-52X-PWR-SI-AC, except that the S5720-52X-SI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52X-SI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

NOTE

If a 60 W power module and a 150 W power module is used in the same switch, the maximum output power of the 150 W power module is 60 W.

Figure 5-217 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-217 Power supply connections of dual DC power modules

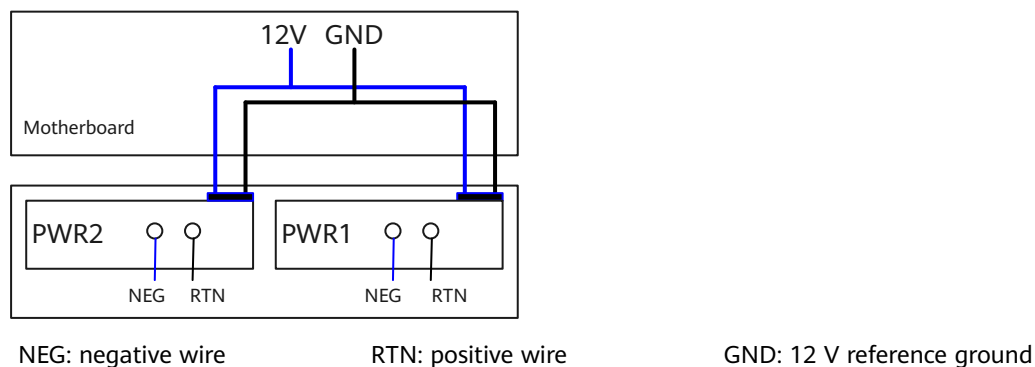
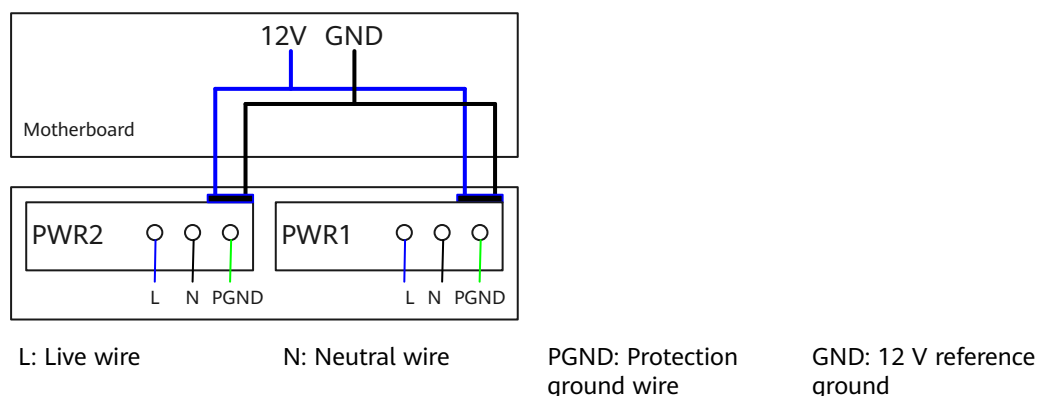


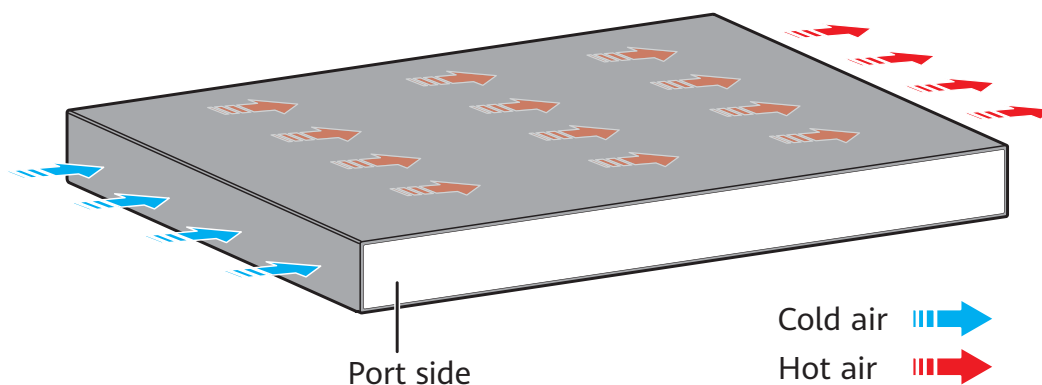
Figure 5-218 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-218 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-52X-SI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-569 lists technical specifications of the S5720-52X-SI-AC.

Table 5-569 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	73.23 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.5 kg (20.95 lb)
Stack ports	GE electrical ports and 10GE SFP+ optical ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC

Item	Description
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	56.8 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	33.8 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 52 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02350DLV

5.11.12 S5720-52X-SI-DC

Version Mapping

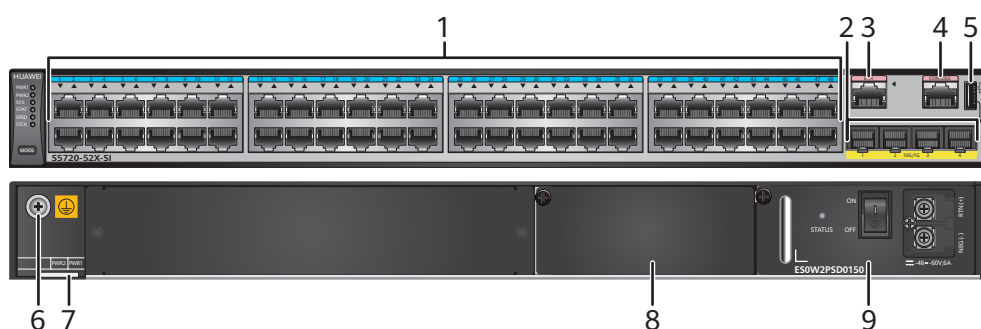
Table 5-570 lists the mapping between the S5720-52X-SI-DC chassis and software versions.

Table 5-570 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-52X-SI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 5-219 S5720-52X-SI-DC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>	8	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module
9	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 60 W AC power module (supported in V200R011C10 and later versions) • 150 W AC power module • 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-571](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-571 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-572](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-572 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-573](#).

Table 5-573 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-574](#) describes the attributes of an ETH management port.

Table 5-574 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-52X-SI-DC has similar indicators to those on the S5720-52X-PWR-SI-AC, except that the S5720-52X-SI-DC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52X-SI-DC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

NOTE

If a 60 W power module and a 150 W power module is used in the same switch, the maximum output power of the 150 W power module is 60 W.

[Figure 5-220](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-220 Power supply connections of dual DC power modules

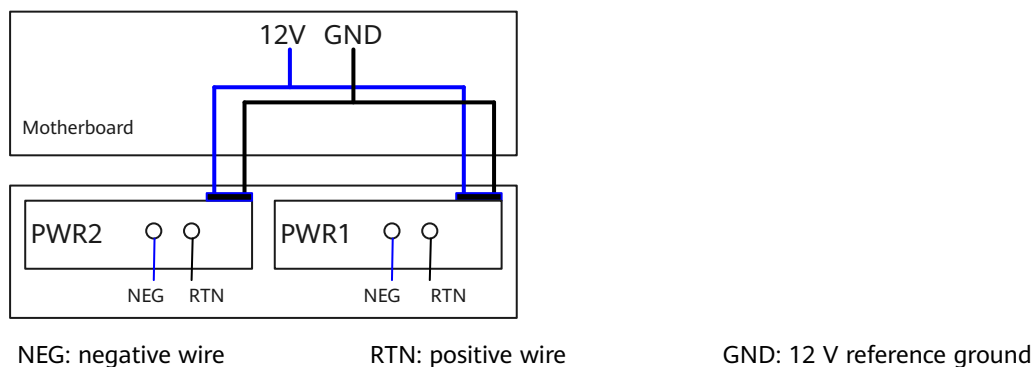
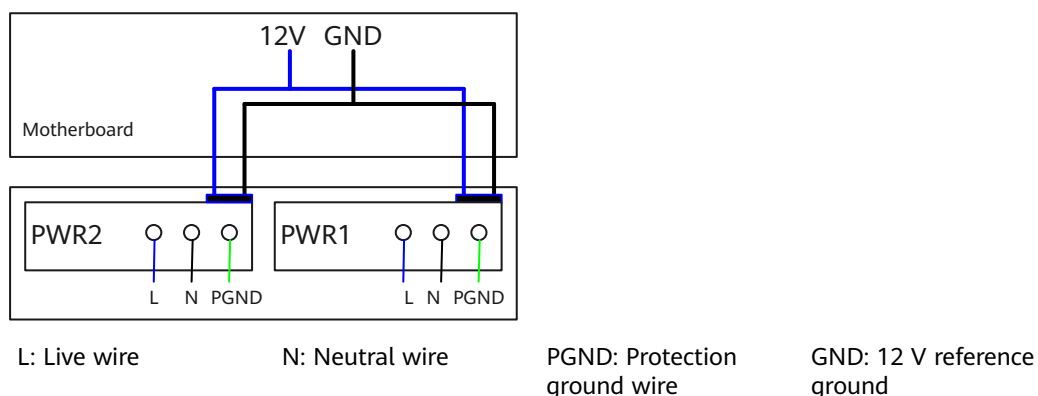


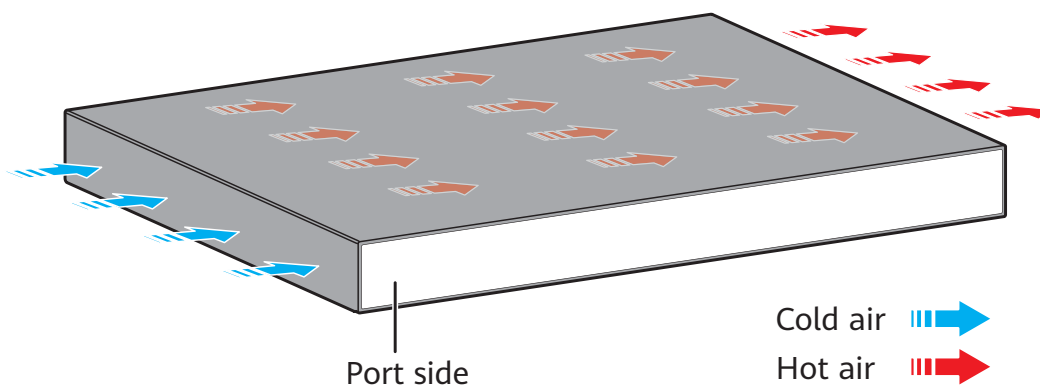
Figure 5-221 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-221 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-52X-SI-DC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-575 lists technical specifications of the S5720-52X-SI-DC.

Table 5-575 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	73.23 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.5 kg (20.95 lb)
Stack ports	GE electrical ports and 10GE SFP+ optical ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC

Item	Description
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	57.9 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	34 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 52 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02350NGV

5.11.13 S5720-52X-PWR-SI-AC

Version Mapping

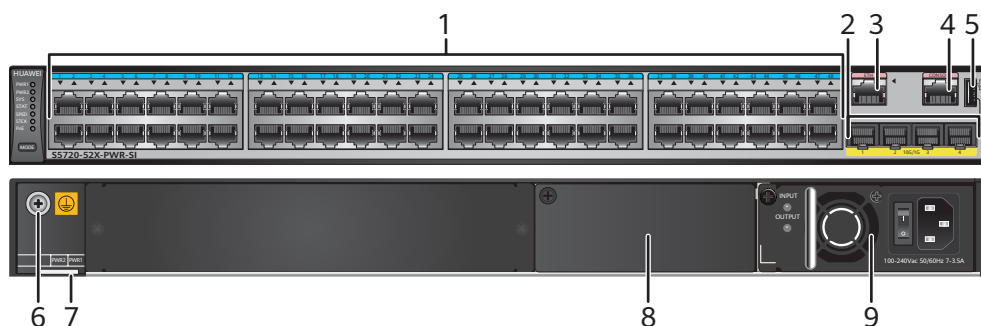
Table 5-576 lists the mapping between the S5720-52X-PWR-SI-AC chassis and software versions.

Table 5-576 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-52X-PWR-SI-AC	V200R008C00 to V200R019C10 versions

Appearance and Structure

Figure 5-222 S5720-52X-PWR-SI-AC appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>	8	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module
9	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-577](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-577 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-578](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-578 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-579](#).

Table 5-579 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-580](#) describes the attributes of an ETH management port.

Table 5-580 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

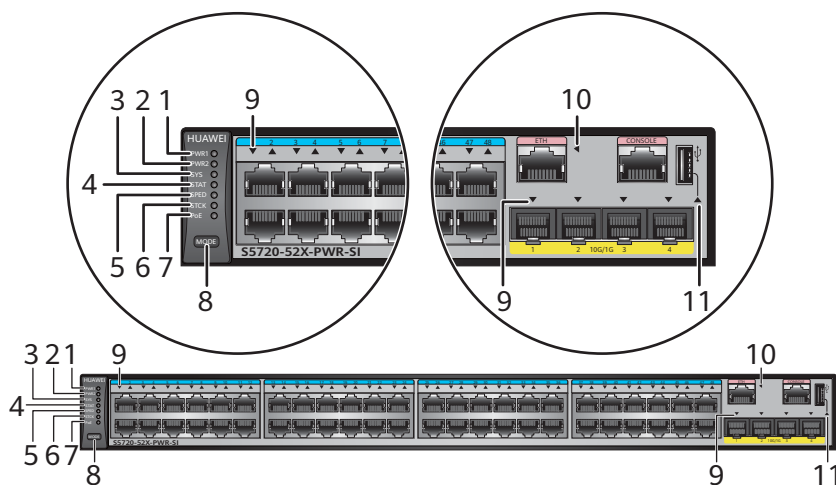
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-223 Indicators on the S5720-52X-PWR-SI-AC



NOTE

The S5720-SI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators. When an S5720-SI switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 5-581 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.

No.	Indicator	Name	Color	Status	Description
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Yellow	Blinking	The system is in the sleep state. NOTE The system can wake from the sleeping state if you press the MODE button. Only non-PoE model supports sleep state.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.

No.	Indicator	Name	Color	Status	Description
8	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
9	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-582 .		
10	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
11	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-582 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.

Display Mode	Color	Status	Description
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. The total power consumption of PDs has reached the maximum power of the switch. The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-52X-PWR-SI-AC is a PoE switch. It has two power module slots, each of which can have a 500 W or 650 W power module installed. A power module can provide 369.6 W of PoE power for powered devices (PDs). A 500 W AC power module and a 650 W DC power module can be used together in the switch. [Table 5-583](#) lists its power supply configurations.

Table 5-583 Power supply configurations

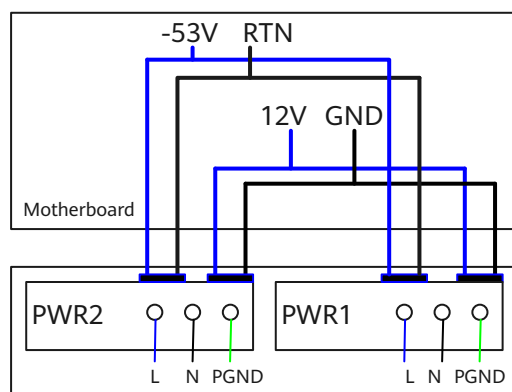
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 5-224 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

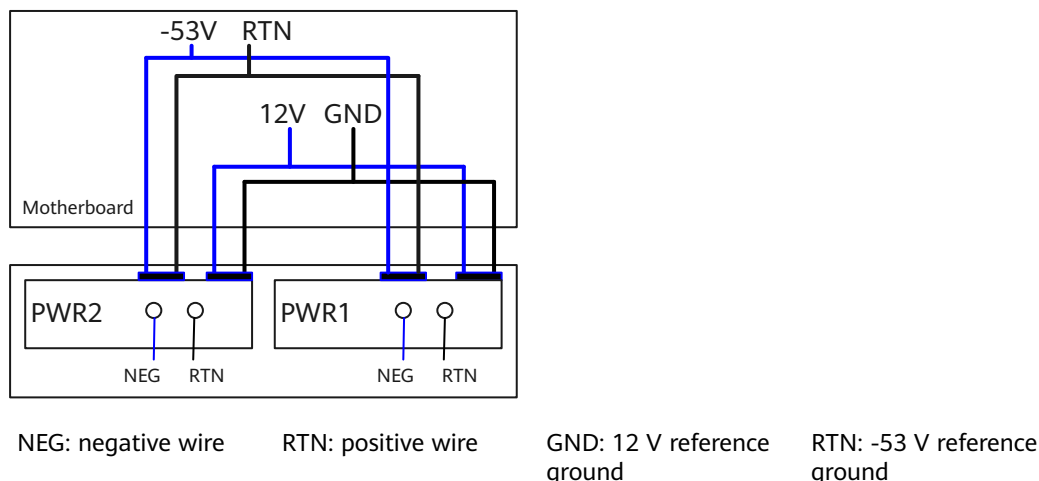
Figure 5-224 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

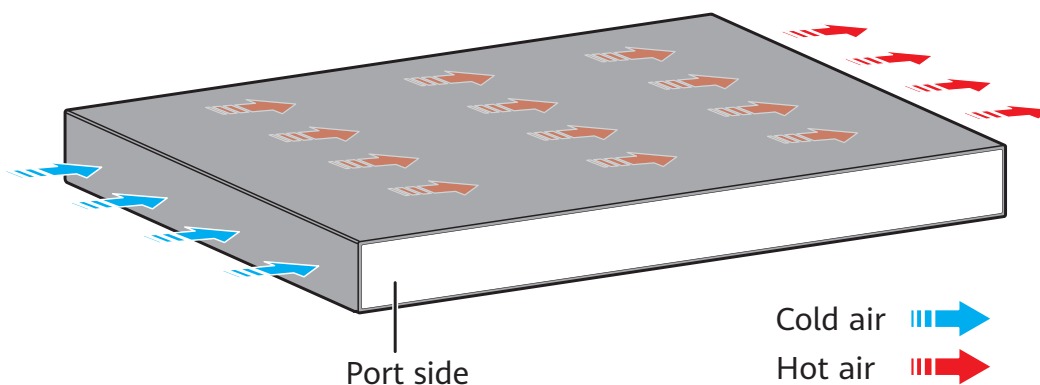
Figure 5-225 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

Figure 5-225 Power supply connections of dual DC PoE power modules



Heat Dissipation

The S5720-52X-PWR-SI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-584](#) lists technical specifications of the S5720-52X-PWR-SI-AC.

Table 5-584 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	50.86 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none">Using 500 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common modeUsing 650 W DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.6 kg (21.17 lb)
Stack ports	GE electrical ports and 10GE SFP+ optical ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">Not providing the PoE function: 93.1 W100% PoE loads: 943.2 W (system power consumption: 203.2 W, PoE: 740 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	51 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 56.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350DLX

5.11.14 S5720-52X-PWR-SI-DC

Version Mapping

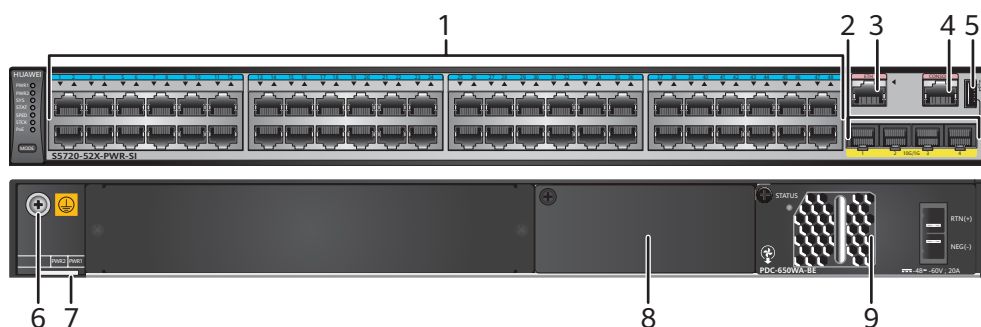
Table 5-585 lists the mapping between the S5720-52X-PWR-SI-DC chassis and software versions.

Table 5-585 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-52X-PWR-SI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 5-226 S5720-52X-PWR-SI-DC appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>	8	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module
9	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-586](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-586 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-587](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-587 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-588](#).

Table 5-588 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-589](#) describes the attributes of an ETH management port.

Table 5-589 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-52X-PWR-SI-DC has the same types of indicators as the S5720-52X-PWR-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52X-PWR-SI-DC is a PoE switch. It has two power module slots, each of which can have a 500 W or 650 W power module installed. A power module can provide 369.6 W of PoE power for powered devices (PDs). A 500 W AC power module and a 650 W DC power module can be used together in the switch. [Table 5-590](#) lists its power supply configurations.

Table 5-590 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 5-227 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 5-227 Power supply by dual AC PoE power modules

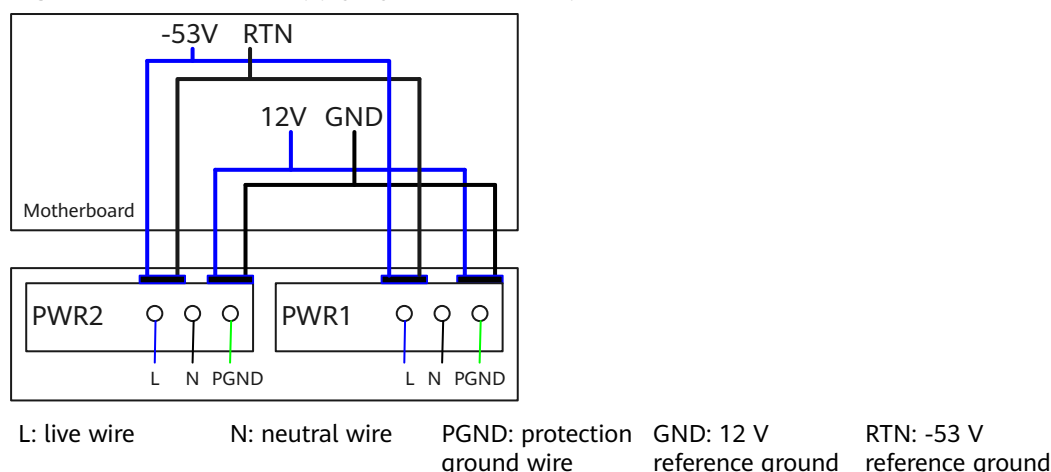
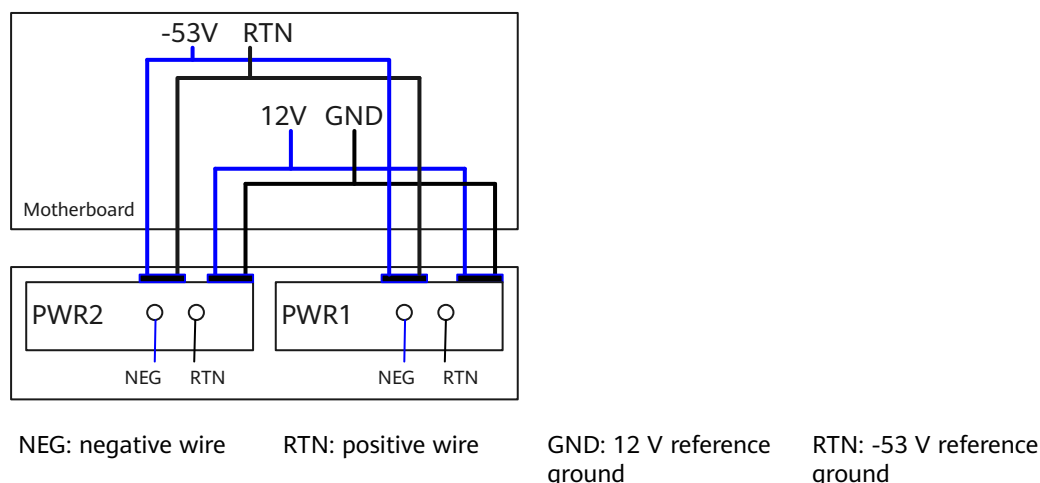


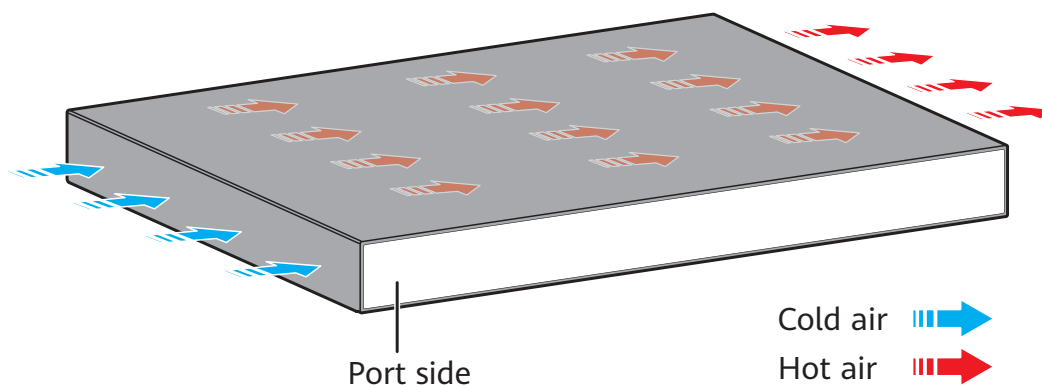
Figure 5-228 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

Figure 5-228 Power supply connections of dual DC PoE power modules



Heat Dissipation

The S5720-52X-PWR-SI-DC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-591 lists technical specifications of the S5720-52X-PWR-SI-DC.

Table 5-591 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	50.86 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none">Using 500 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common modeUsing 650 W DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.6 kg (21.17 lb)
Stack ports	GE electrical ports and 10GE SFP+ optical ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">Not providing the PoE function: 93.1 W100% PoE loads: 943.2 W (system power consumption: 203.2 W, PoE: 740 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	51 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 56.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NGX

5.11.15 S5720-52X-PWR-SI-ACF

Version Mapping

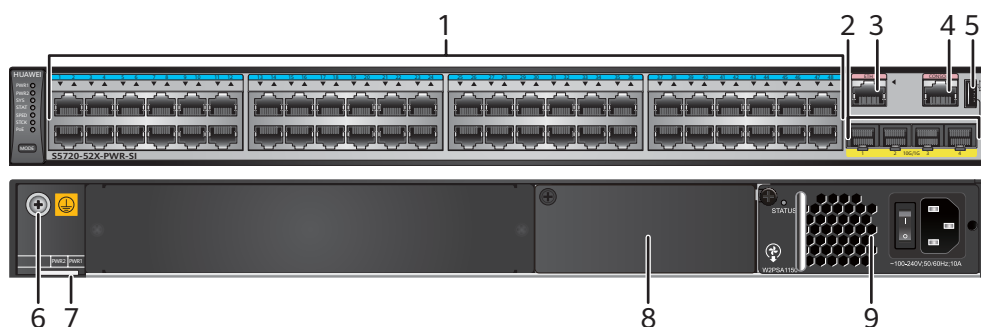
[Table 5-592](#) lists the mapping between the S5720-52X-PWR-SI-ACF chassis and software versions.

Table 5-592 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-52X-PWR-SI-ACF	V200R008C00 to V200R019C10 versions

Appearance and Structure

Figure 5-229 S5720-52X-PWR-SI-ACF appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>	8	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 1150 W AC PoE power module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions)
9	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 1150 W AC PoE power module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 5-593](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-593 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-594](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-594 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC

Attribute	Description
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-595](#).

Table 5-595 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-596](#) describes the attributes of an ETH management port.

Table 5-596 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-52X-PWR-SI-ACF has the same types of indicators as the S5720-52X-PWR-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52X-PWR-SI-ACF is a PoE switch. It has two power module slots and uses 1150 W AC PoE power modules or 1000 W AC PoE power modules (applicable in V200R013C00 and later versions). A 1150 W AC PoE power module and a 1000 W AC PoE power module can be used together. [Table 5-597](#) lists its power supply configurations.

Table 5-597 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1150 W (220 V)	-	785.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 26

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1150 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 48
1150 W (110 V)	-	446.6 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 29• 802.3at (30 W per port): 14
1150 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 29
1000 W (220 V)	-	754.6 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 25
1000 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 48
1000 W (110 V)	-	754.6 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 25
1000 W (110 V)	1000 W (110 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 48
1000 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 48
1150 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 48
1000 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 29

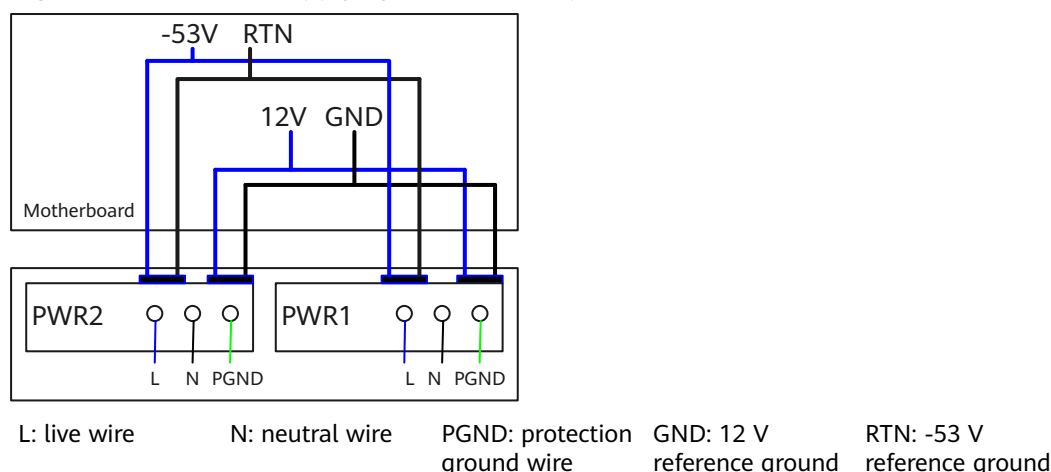
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1150 W (110 V)	1000 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

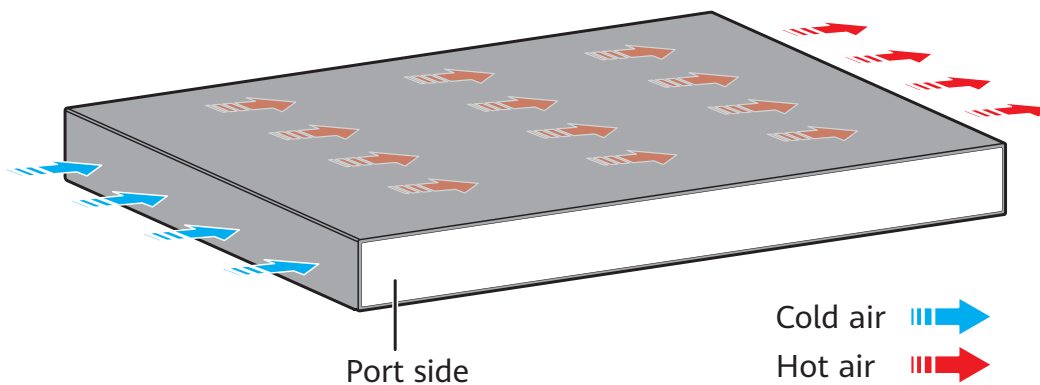
Figure 5-230 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 5-230 Power supply by dual AC PoE power modules



Heat Dissipation

The S5720-52X-PWR-SI-ACF has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-598 lists technical specifications of the S5720-52X-PWR-SI-ACF.

Table 5-598 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	50.86 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 1000 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 1150 W AC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 510.5 mm (1.75 in. x 17.4 in. x 20.1 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 541.1 mm (1.75 in. x 17.4 in. x 21.3 in.)

Item	Description
Weight (with packaging)	10 kg (22.05 lb)
Stack ports	GE electrical ports and 10GE SFP+ optical ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">• Not providing the PoE function: 94.8 W• 100% PoE loads: 1631.5 W (system power consumption: 191.5 W, PoE: 1440 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	57 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 56.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350DLY

5.11.16 S5720-52X-SI-48S

Version Mapping

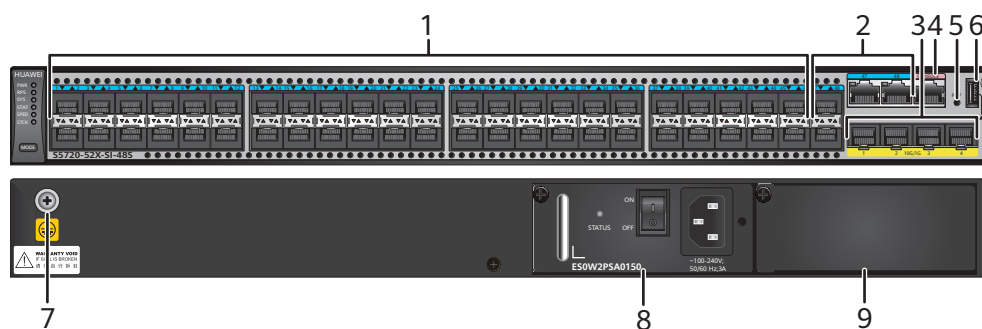
[Table 5-599](#) lists the mapping between the S5720-52X-SI-48S chassis and software versions.

Table 5-599 Version mapping

Series		Model	Software Version
S5720-SI	S5720-X-SI	S5720-52X-SI-48S	V200R013C00 to V200R019C10 versions

Appearance and Structure

Figure 5-231 S5720-52X-SI-48S appearance



1	<p>Forty-six 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (for OADM scenarios only) • GE-DWDM optical module • GE copper module (10M/100M/1000M auto-sensing) 	2	<p>Two combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario)
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ stack cables (only applicable to zero-configuration stacking) • H87MMA5671A2 GPON optical module <p>NOTE If one port uses a GPON optical module, other ports cannot be used.</p>	4	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	<p>One PNP button</p> <p>NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>One USB port</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
9	<p>Power module slot 1</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	-	-

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-600](#) describes the attributes of a 100/1000BASE-X port.

Table 5-600 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-601](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-601 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-602](#).

Table 5-602 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

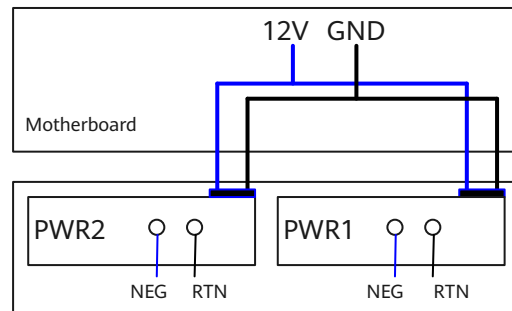
The S5720-52X-SI-48S has similar indicators to those of the S5721-28X-SI-24S-AC, except that the S5720-52X-SI-48S does not have an ETH management port. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52X-SI-48S uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 5-232 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-232 Power supply connections of dual DC power modules



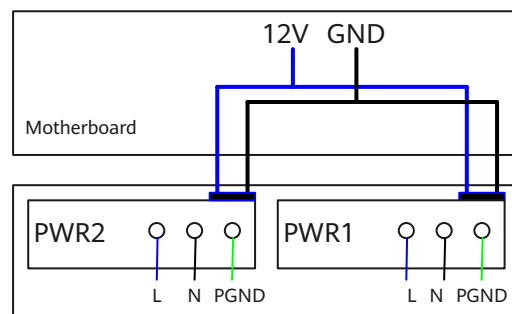
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 5-233 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-233 Power supply connections of dual AC power modules



L: Live wire

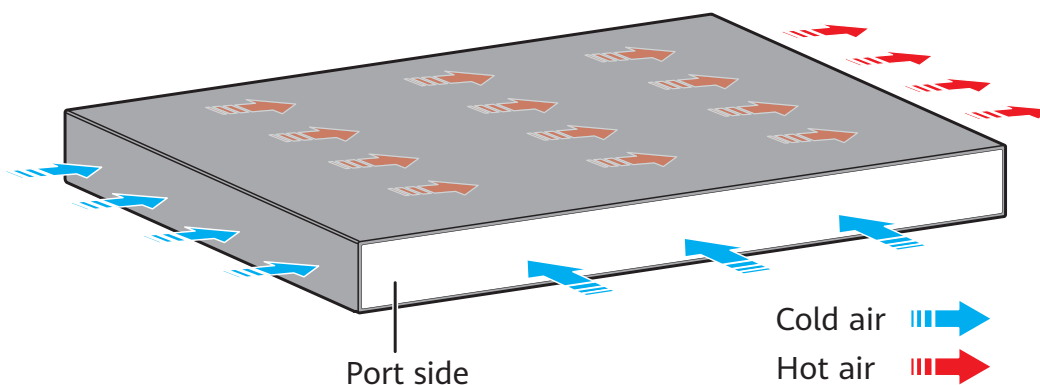
N: Neutral wire

PGND: Protection
ground wire

GND: 12 V reference
ground

Heat Dissipation

The S5720-52X-SI-48S has three built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-603 lists technical specifications of the S5720-52X-SI-48S.

Table 5-603 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	35.23 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.9 mm (1.75 in. x 17.4 in. x 16.73 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.3 mm (1.75 in. x 17.4 in. x 17.77 in.)

Item	Description
Weight (with packaging)	8.05 kg (17.75 lb)
Stack ports	GE optical ports and 10GE SFP+ optical ports except combo ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	85 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	65 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010814

5.12 S5720S-SI

5.12.1 S5720S-28P-SI-AC

Version Mapping

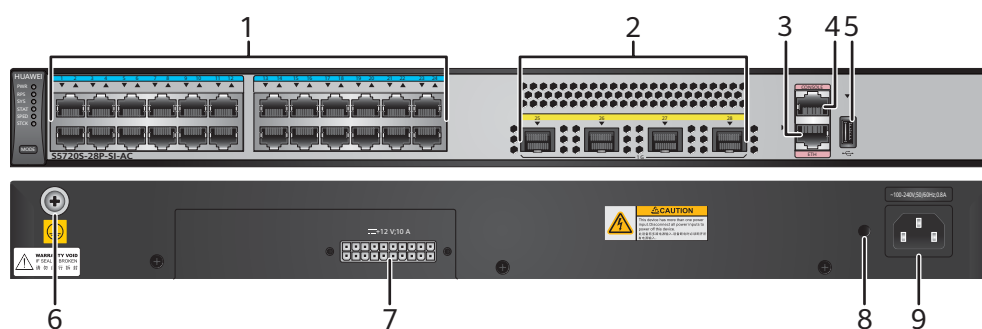
Table 5-604 lists the mapping between the S5720S-28P-SI-AC chassis and software versions.

Table 5-604 Version mapping

Series		Model	Software Version
S5720S-SI	S5720S-P-SI	S5720S-28P-SI-AC	V200R008C00 to V200R019C10 versions

Appearance and Structure

Figure 5-234 S5720S-28P-SI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only applicable to stack ports, a maximum transmission distance of 10 km, OSXD22N00 not supported) • 1 m, 3 m, 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 5 m SFP+ high-speed copper cable (only for stack ports and applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-605** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-605 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. When a 1000BASE-X port uses a 10GE optical module, SFP+ high-speed copper cable, or active optical cable (AOC), the port can only be used for stack connection. **Table 5-606** describes the attributes of a 1000BASE-X port.

Table 5-606 Attributes of a 1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-607](#).

Table 5-607 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-608](#) describes the attributes of an ETH management port.

Table 5-608 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

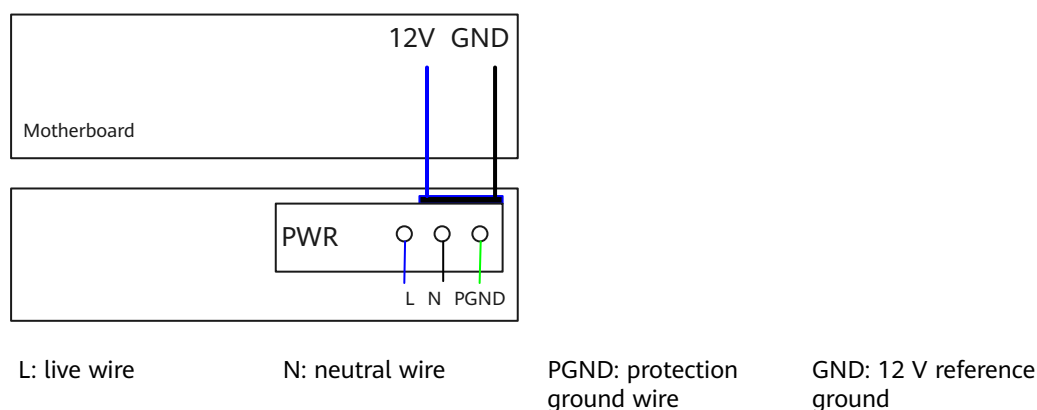
The S5720S-28P-SI-AC has the same types of indicators as the S5720S-52X-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-28P-SI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

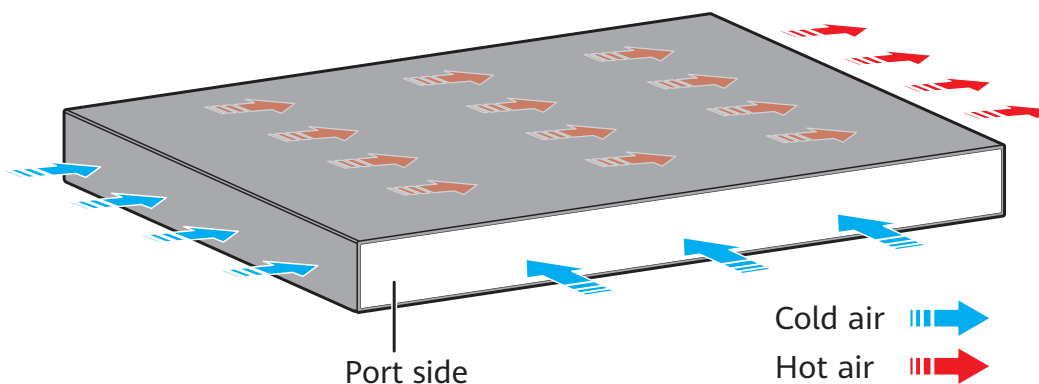
[Figure 5-235](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-235 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720S-28P-SI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-609](#) lists technical specifications of the S5720S-28P-SI-AC.

Table 5-609 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	104.92 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	4.8 kg (10.58 lb)
Stack ports	GE electrical ports and GE SFP optical ports on the front panel
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	29.1 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	20.2 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 50.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02350DLN

5.12.2 S5720S-52P-SI-AC

Version Mapping

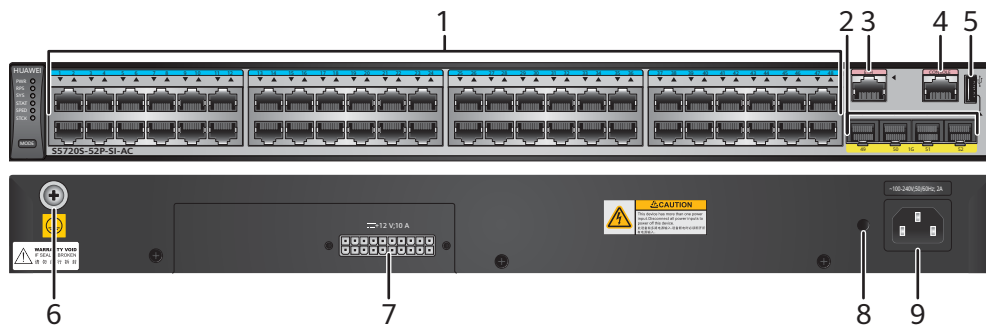
Table 5-610 lists the mapping between the S5720S-52P-SI-AC chassis and software versions.

Table 5-610 Version mapping

Series		Model	Software Version
S5720S-SI	S5720S-P-SI	S5720S-52P-SI-AC	V200R008C00 to V200R019C10 versions

Appearance and Structure

Figure 5-236 S5720S-52P-SI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only applicable to stack ports, a maximum transmission distance of 10 km, OSXD22N00 not supported) • 1 m, 3 m, 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 5 m SFP+ high-speed copper cable (only for stack ports and applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 1000BASE-X optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-611** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-611 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. When a 1000BASE-X port uses a 10GE optical module, SFP+ high-speed copper cable, or active optical cable (AOC), the port can only be used for stack connection. **Table 5-612** describes the attributes of a 1000BASE-X port.

Table 5-612 Attributes of a 1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-613](#).

Table 5-613 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-614](#) describes the attributes of an ETH management port.

Table 5-614 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

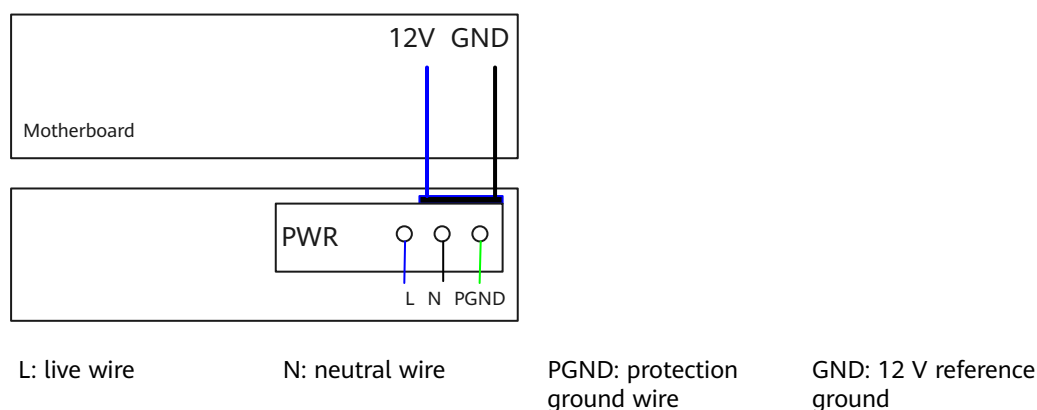
The S5720S-52P-SI-AC has the same types of indicators as the S5720S-52X-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-52P-SI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

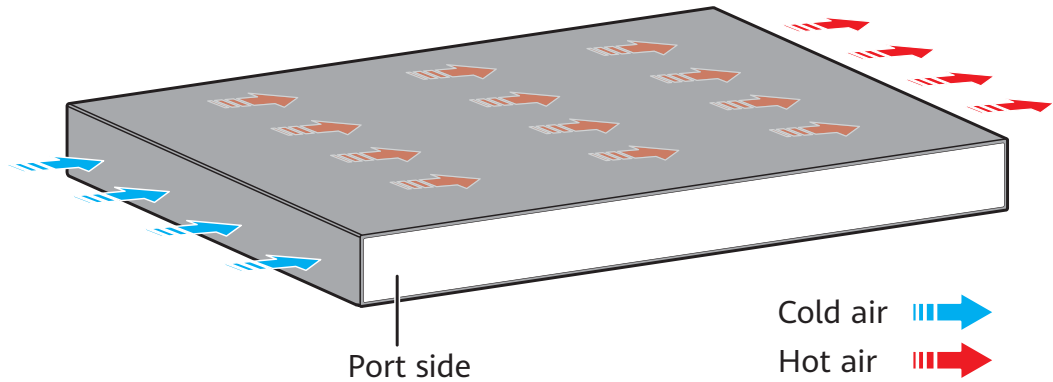
[Figure 5-237](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-237 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720S-52P-SI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-615](#) lists technical specifications of the S5720S-52P-SI-AC.

Table 5-615 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	90.07 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	5 kg (11.02 lb)
Stack ports	GE electrical ports and GE SFP optical ports on the front panel
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	51.5 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	33 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 50.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350DLQ

5.12.3 S5720S-28X-SI-AC

Version Mapping

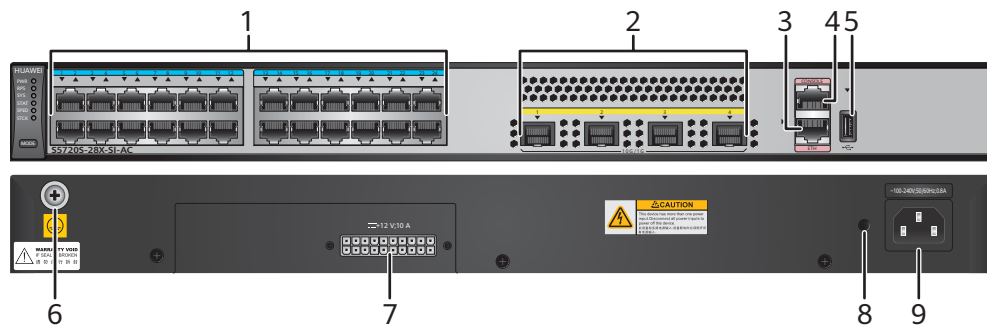
Table 5-616 lists the mapping between the S5720S-28X-SI-AC chassis and software versions.

Table 5-616 Version mapping

Series		Model	Software Version
S5720S-SI	S5720S-X-SI	S5720S-28X-SI-AC	V200R008C00 to V200R019C10 versions

Appearance and Structure

Figure 5-238 S5720S-28X-SI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (a maximum transmission distance of 10 km, OSXD22N00 not supported) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-617** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-617 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. **Table 5-618** describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-618 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-619](#).

Table 5-619 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-620](#) describes the attributes of an ETH management port.

Table 5-620 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

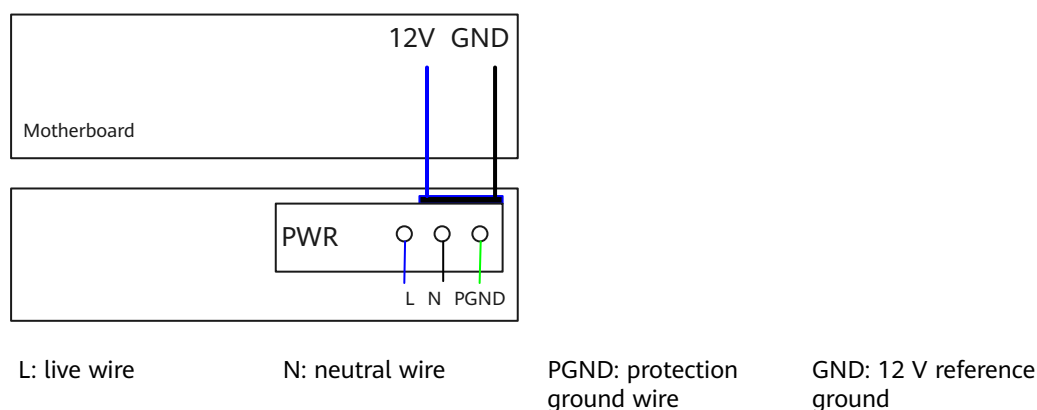
The S5720S-28X-SI-AC has the same types of indicators as the S5720S-52X-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-28X-SI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

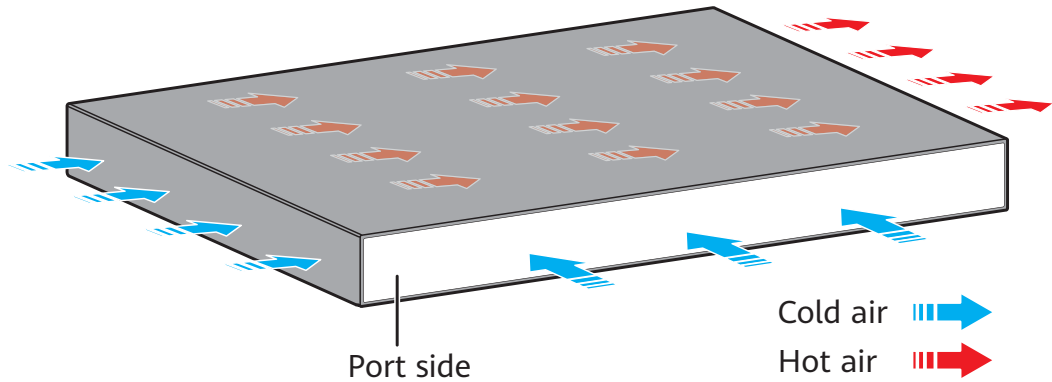
[Figure 5-239](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-239 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720S-28X-SI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-621](#) lists technical specifications of the S5720S-28X-SI-AC.

Table 5-621 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	100.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	4.8 kg (10.58 lb)
Stack ports	GE electrical ports and 10GE SFP+ optical ports on the front panel
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	32 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	22 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 50.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350DLP

5.12.4 S5720S-28X-SI-DC

Version Mapping

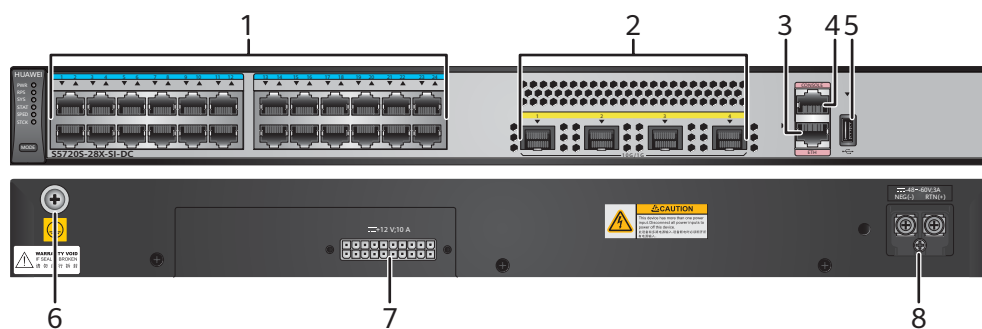
[Table 5-622](#) lists the mapping between the S5720S-28X-SI-DC chassis and software versions.

Table 5-622 Version mapping

Series		Model	Software Version
S5720S-SI	S5720S-X-SI	S5720S-28X-SI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 5-240 S5720S-28X-SI-DC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (a maximum transmission distance of 10 km, OSXD22N00 not supported) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	DC power terminal NOTE It is used together with a DC Power Cable .
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-623](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-623 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-624](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-624 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 5-625](#).

Table 5-625 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-626](#) describes the attributes of an ETH management port.

Table 5-626 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 **NOTE**

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

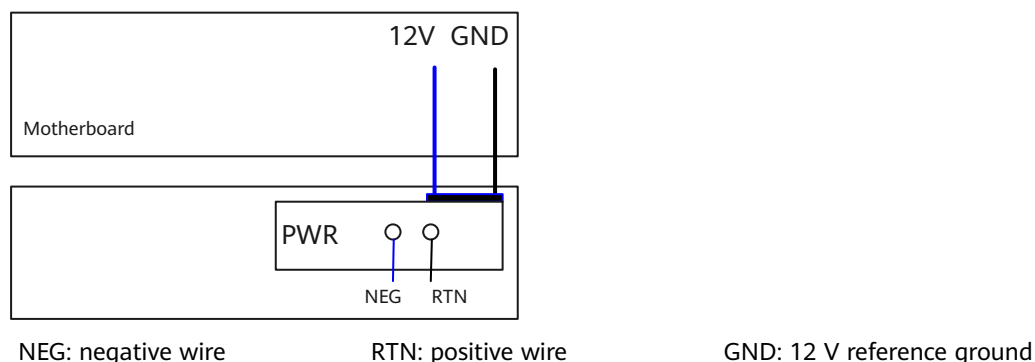
The S5720S-28X-SI-DC has the same types of indicators as the S5720S-52X-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-28X-SI-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

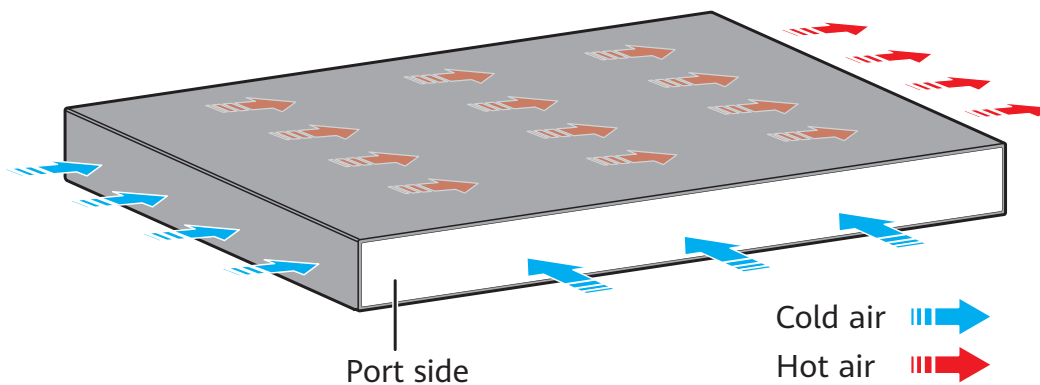
Figure 5-241 shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 5-241 Power supply by a single DC power module



Heat Dissipation

The S5720S-28X-SI-DC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-627 lists technical specifications of the S5720S-28X-SI-DC.

Table 5-627 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	100.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	4.8 kg (10.58 lb)

Item	Description
Stack ports	GE electrical ports and 10GE SFP+ optical ports on the front panel
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	33 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	21.9 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 50.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02350NGY

5.12.5 S5720S-52X-SI-AC

Version Mapping

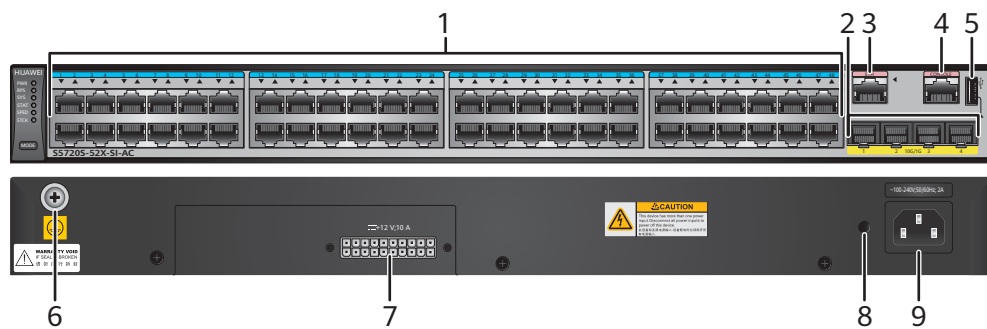
[Table 5-628](#) lists the mapping between the S5720S-52X-SI-AC chassis and software versions.

Table 5-628 Version mapping

Series		Model	Software Version
S5720S-SI	S5720S-X-SI	S5720S-52X-SI-AC	V200R008C00 to V200R019C10 versions

Appearance and Structure

Figure 5-242 S5720S-52X-SI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-629** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-629 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. **Table 5-630** describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-630 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-631](#).

Table 5-631 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-632](#) describes the attributes of an ETH management port.

Table 5-632 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

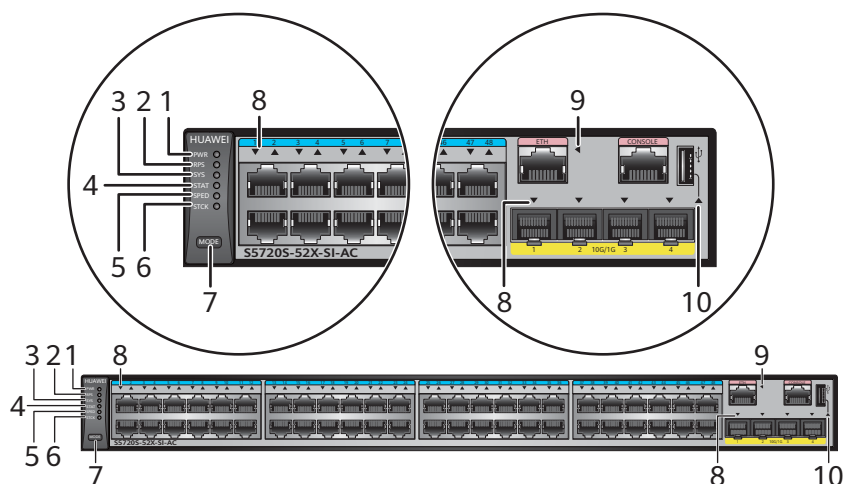
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-243 Indicators on the S5720S-52X-SI-AC



 **NOTE**

The S5720S-SI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, and STCK) are used as fault indicators. When an S5720S-SI switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 5-633 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
			Yellow	Steady on	The built-in power module has failed, and the switch is receiving power from a redundant power supply (RPS).
2	RPS	RPS indicator	-	Off	The switch is not connected to an RPS.
			Green	Steady on	The RPS is in cold standby state.
			Green	Blinking	The RPS is supplying power to another switch.
			Yellow	Blinking	The RPS is supplying power to the local switch, and the built-in power module of the switch has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Yellow	Blinking	The system is in the sleep state. NOTE The system can wake from the sleeping state if you press the MODE button.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-634 .		
9	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
10	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.

No.	Indicator	Name	Color	Status	Description
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-634 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

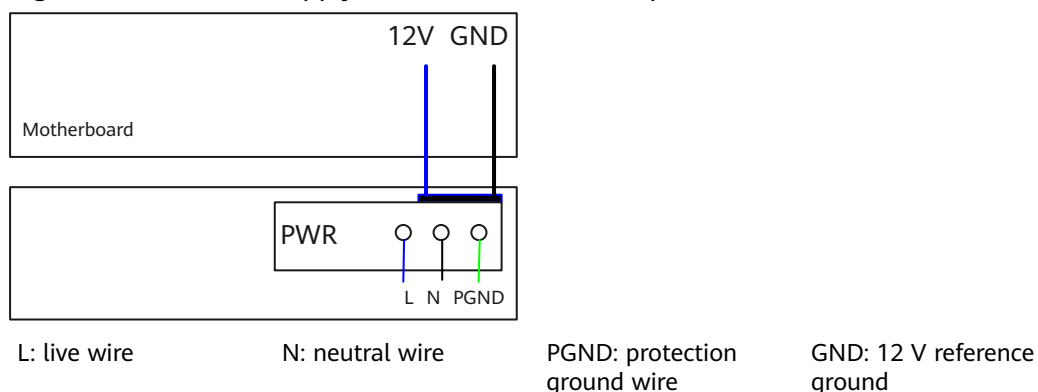
Display Mode	Color	Status	Description
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720S-52X-SI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

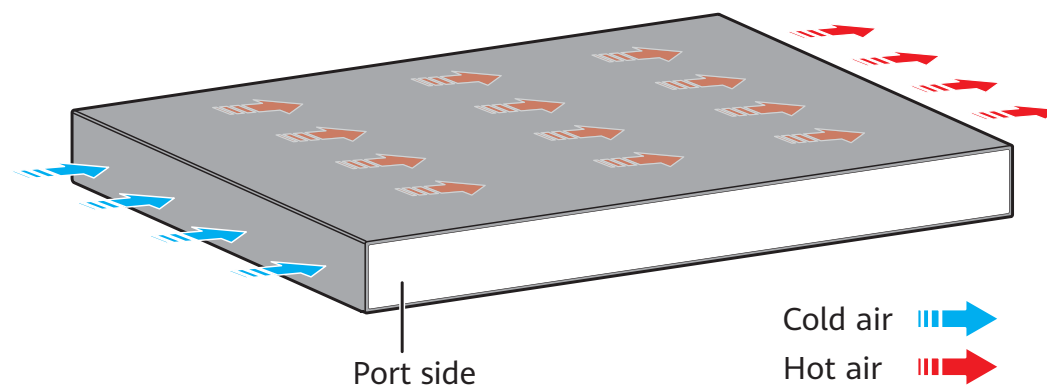
Figure 5-244 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-244 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720S-52X-SI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-635 lists technical specifications of the S5720S-52X-SI-AC.

Table 5-635 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	86.64 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	5 kg (11.02 lb)
Stack ports	GE electrical ports and 10GE SFP+ optical ports on the front panel
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	54.7 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	34.4 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 50.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350DLR

5.12.6 S5720S-52X-SI-DC

Version Mapping

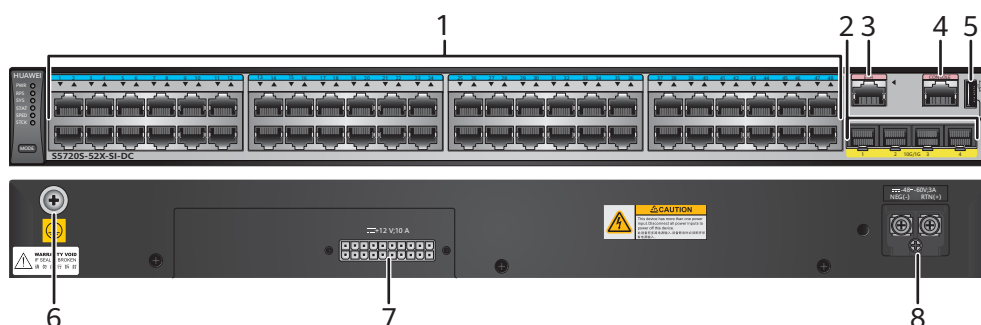
Table 5-636 lists the mapping between the S5720S-52X-SI-DC chassis and software versions.

Table 5-636 Version mapping

Series		Model	Software Version
S5720S-SI	S5720S-X-SI	S5720S-52X-SI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 5-245 S5720S-52X-SI-DC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) • H87MMA5671A2 GPON optical module (applicable in V200R012C00 and later versions) <p>NOTE</p> <p>If a port uses a GPON optical module, other 10GE SFP+ optical ports cannot be used.</p>
3	One ETH management port	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	One USB port	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

7	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	8	DC power terminal NOTE It is used together with a DC Power Cable .
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-637](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-637 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-638](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-638 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 5-639](#).

Table 5-639 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-640](#) describes the attributes of an ETH management port.

Table 5-640 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 **NOTE**

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

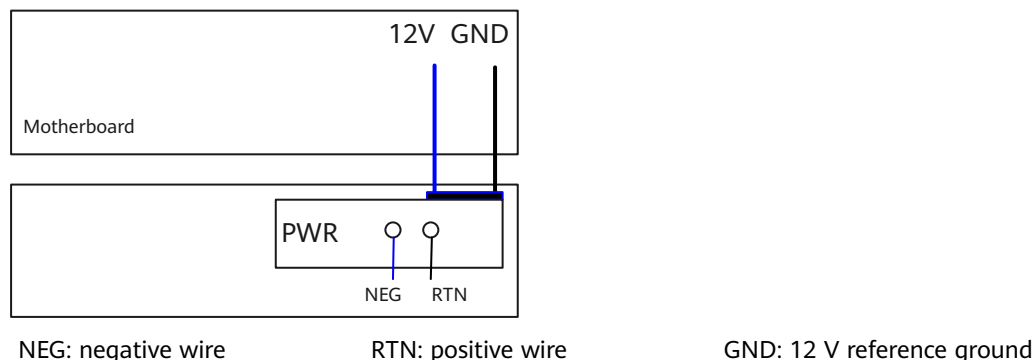
The S5720S-52X-SI-DC has the same types of indicators as the S5720S-52X-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720S-52X-SI-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

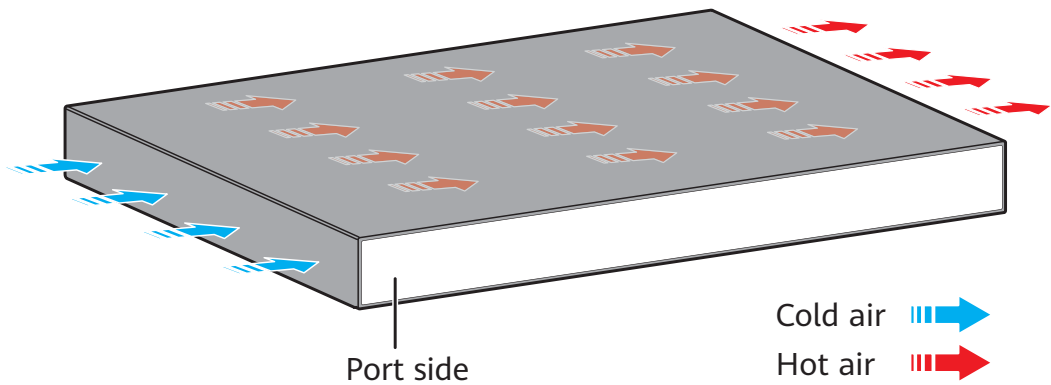
Figure 5-246 shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 5-246 Power supply by a single DC power module



Heat Dissipation

The S5720S-52X-SI-DC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-641 lists technical specifications of the S5720S-52X-SI-DC.

Table 5-641 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	86.64 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	5 kg (11.02 lb)

Item	Description
Stack ports	GE electrical ports and 10GE SFP+ optical ports on the front panel
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	59.7 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	35.5 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 50.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02350NHA

5.13 S5720I-SI

5.13.1 S5720I-6X-PWH-SI-AC

Version Mapping

Table 5-642 lists the mapping between the S5720I-6X-PWH-SI-AC chassis and software versions.

Table 5-642 Version mapping

Series	Model	Software Version
S5720I-SI	S5720I-6X-PWH-SI-AC	V200R013C00 and later versions

Appearance and Structure

Figure 5-247 S5720I-6X-PWH-SI-AC appearance

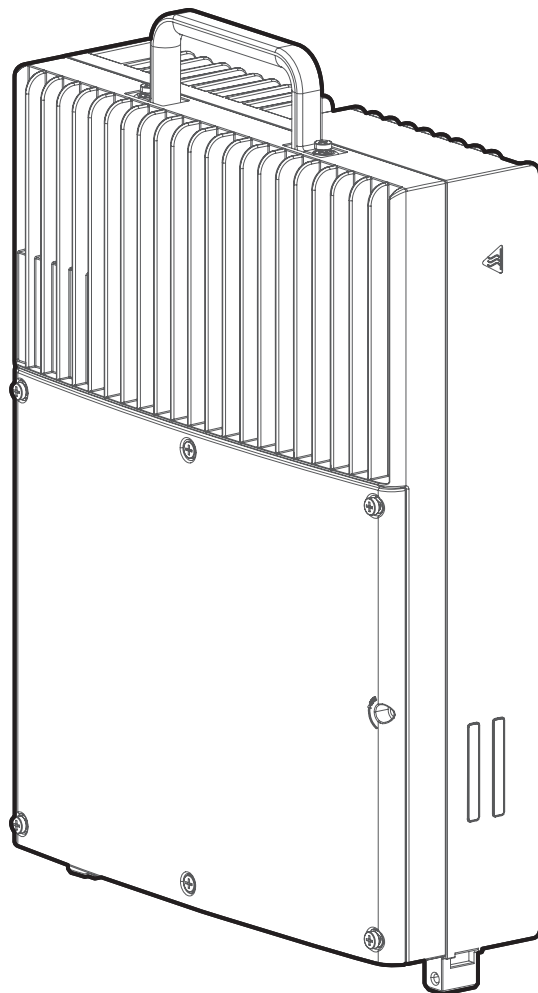
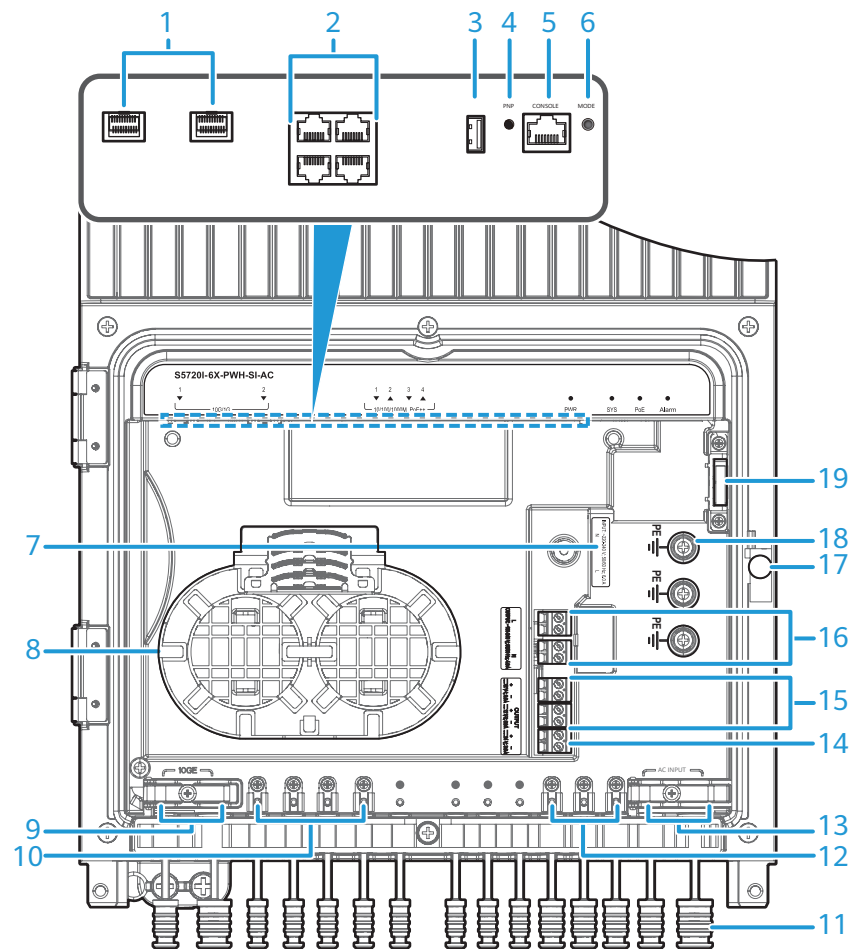


Figure 5-248 Interior of the S5720I-6X-PWH-SI-AC maintenance compartment



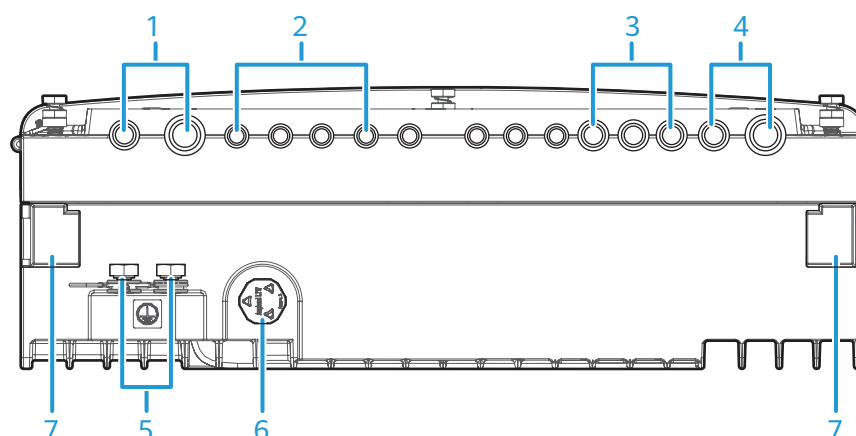
<p>1 Two 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • Industrial optical module • GPON optical module • Third-party GPON optical modules (Hisense LTE3415-SH+ and CIG G-97S) <p>NOTE</p> <p>If one port uses a GPON optical module, the other port cannot be used.</p> <p>The locking bar of an optical port is upward. If an optical module cannot be completely inserted into the optical port, do not force it into the port. Turn the optical module 180 degrees and try again.</p>	<p>2 Four PoE++ 10/100/1000BASE-T ports</p>
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3	One USB port	4	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	One console port	6	<p>MODE button</p> <p>NOTE</p> <p>The switch supports two indicator modes: status (default mode) and PoE. To change the current indicator mode, press the MODE button.</p> <p>Hold down the MODE button for 6 seconds and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none"> • If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of the PoE indicator is as follows: <ul style="list-style-type: none"> • If the system enters the web initial login mode successfully, the PoE indicator turns green and stays on for a maximum of 10 minutes. • If the system fails to enter the initial login mode, the PoE indicator fast blinks for 10 seconds and then restores to the default status. • If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, the PoE indicator fast blinks for 10 seconds, and then returns to the default status.

7	<p>AC power input socket</p> <p>NOTICE</p> <p>The external power supply system must be connected to a circuit breaker (20 A is recommended). For safety purposes, do not use a switch without a circuit breaker.</p> <p>An AC power input socket is used with a power connector, which is included in the installation accessory package delivered with the switch. A power cable needs to be connected to the power connector onsite. If no power cable is available, you can purchase one (part number: 25030398) from Huawei.</p>	8	<p>Fiber management tray (FMT)</p> <p>NOTE</p> <p>The FMT is removable.</p> <p>A maximum of four fused fibers are supported.</p> <p>Maximum length of a fiber that can be coiled up in the FMT: 20 m (for a single bare fiber) or 1 m (for a single fiber pigtail). If two fibers are used, this length is halved.</p>
9	<p>Two optical fiber outlets</p> <p>NOTE</p> <p>The diameter of optical fibers supported: 8±0.5 mm to 9.6±0.5 mm (on the left outlet) and 13.3±0.5 mm (on the right outlet).</p>	10	<p>Four Ethernet cable outlets</p> <p>NOTE</p> <p>Cat5e and Cat6 Ethernet cables are supported.</p>
11	<p>Rubber bungs for cable outlets</p> <p>NOTE</p> <p>Rubber bungs must be inserted into the idle cable outlets.</p>	12	<p>Three DC or AC output power cable outlets</p> <p>NOTE</p> <p>The diameter of power cables supported by an outlet is 9.3±0.5 mm.</p>
13	<p>Two AC input power cable outlets</p> <p>NOTE</p> <p>The diameter of power cables supported: 9.5±0.5 mm (on the left outlet) and 14±0.5 mm (on the right outlet).</p>	14	<p>AC power output socket 2</p> <p>NOTE</p> <p>The switch provides one 24 V AC output to external devices, such as strobe lights and non-PoE PTZ dome cameras.</p> <p>One 24 V AC output provides a maximum of 72 W power.</p>

<p>1 5</p>	<p>DC power output socket</p> <p>NOTE</p> <p>The switch provides two 12 V DC outputs to external devices, such as strobe lights and non-PoE PTZ dome cameras.</p> <p>Two 12 V DC outputs provide a total of 48 W power. The maximum power of a single output is 48 W.</p> <p>Two 12 V DC outputs and one 24 V AC output share power resources with PoE output. The total shared power is 150 W.</p>	<p>1 6</p>	<p>AC power output socket 1</p> <p>NOTICE</p> <p>Cables need to be connected to an AC power output socket onsite. Pay attention to the position of the L and N labels, ensuring that the cables are connected in the correct sockets.</p> <p>The switch provides 220 V AC power to external devices, such as strobe lights and non-PoE PTZ dome cameras. The maximum output current is 4 A.</p> <p>The internal 220 V AC power supply is used only for external power conversion. It has no circuit breaker, regulated voltage circuit, or surge protection.</p> <p>The connected devices must provide certain surge protection capabilities. Recommended values are 20 kA in differential mode and 20 kA in common mode.</p>
<p>1 7</p>	<p>Latch of the maintenance compartment</p> <p>NOTE</p> <ul style="list-style-type: none"> You need to use the key provided in the installation accessory package to open the door of the maintenance compartment. After the maintenance compartment door is closed, the latch is automatically locked. 	<p>1 8</p>	<p>PE cable ground terminal</p> <p>NOTE</p> <p>It is used to ground a PE power cable for 220 V AC input or output.</p>
<p>1 9</p>	<p>Door-opening alarm button</p> <p>NOTE</p> <p>When the door of the maintenance compartment is opened, a door-opening alarm is reported.</p>	<p>-</p>	<p>-</p>

Figure 5-249 Bottom of the S5720I-6X-PWH-SI-AC chassis



1	Two optical fiber outlets NOTE The diameter of optical fibers supported: 8±0.5 mm to 9.6±0.5 mm (on the left outlet) and 13.3±0.5 mm (on the right outlet).	2	Four Ethernet cable outlets NOTE Cat5e and Cat6 Ethernet cables are supported.
3	Three DC or AC output power cable outlets NOTE The diameter of power cables supported by an outlet is 9.3±0.5 mm.	4	Two AC input power cable outlets NOTE The diameter of power cables supported: 9.5±0.5 mm (on the left outlet) and 14±0.5 mm (on the right outlet).
5	Ground screw NOTE It is used to ground the switch. The ground cable needs to be purchased separately.	6	Atmospheric pressure valve NOTE It ensures that the atmospheric pressure inside and outside the switch are the same.
7	Mounting column for a cable cover NOTE It is used to mount an optional cable cover.	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-643](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-643 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	It supports long-distance interconnection with Huawei cameras. For example, it supports the distance of 200 m at 100 Mbit/s and supports the distance of 250 m at 10 Mbit/s. <ul style="list-style-type: none">• The supported camera models are M2220-I, M2221-FL, M2221-VL, M2260-I, and M2220-I(8-32mm).• If the transmission distance exceeds 100 m, Category 5E or higher Ethernet cables are required.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-644](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-644 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-645](#).

Table 5-645 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 5-250 Indicators on the outside of the S5720I-6X-PWH-SI-AC

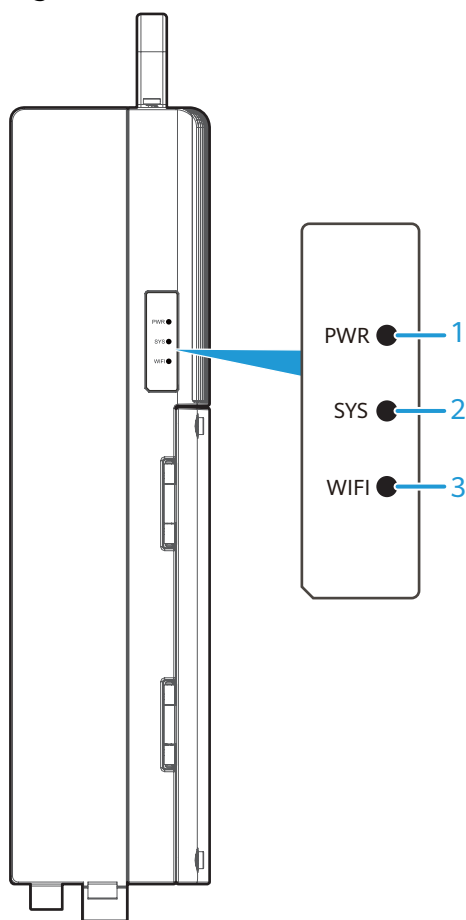


Figure 5-251 Indicators inside the maintenance compartment of the S5720I-6X-PWH-SI-AC

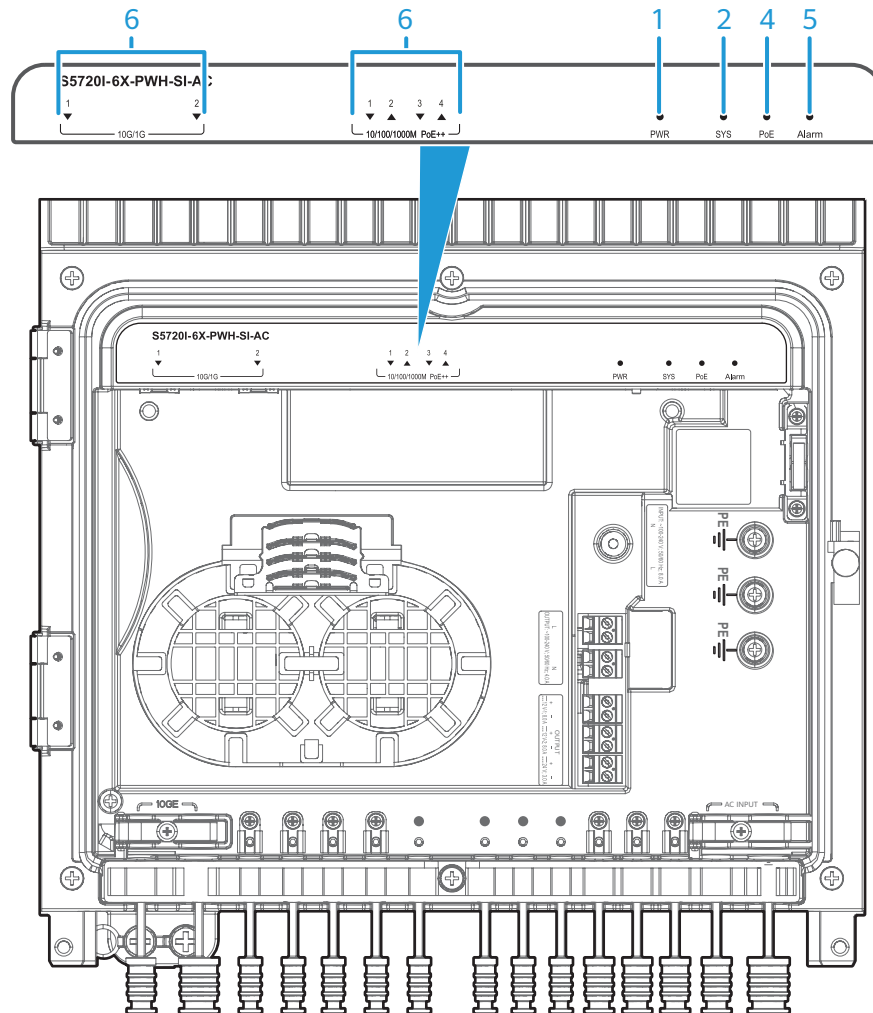


Table 5-646 Description of indicators

No.	Indicator	Name	Color	Status	Description
1	PWR	Built-in power supply indicator	-	Off	The switch is not powered on.
			Green	Steady on	The power module is supplying power normally.
2	SYS	System status indicator	-	Off	The system is not running.

No.	Indicator	Name	Color	Status	Description
			Green	Fast blinking	The system is starting or is copying the system software and configuration file from a USB flash drive during a USB-based upgrade.
			Green	Slow blinking	The system is operating properly.
			Red	Steady on	The system does not work normally after registration, or a temperature alarm has been generated.
			Red	Blinking	The system cannot be upgraded after a USB flash drive is inserted. The USB-based upgrade failed.
			Yellow	Blinking	The switch has restarted after a successful upgrade using a USB flash drive. You can remove the USB flash drive from the switch.
3	WIFI	Wi-Fi indicator	Red	Fast blinking	The Wi-Fi function is reserved for future use. You can configure the WIFI indicator on a switch to fast blink red, helping field maintenance personnel quickly find the switch.
4	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected. In this mode, the service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode. This indicator is steady green after you successfully log in to the switch for the first time using the MODE button.
			Green	Blinking	If you fail to log in to the switch for the first time using the MODE button, this indicator fast blinks for 10 seconds, and then returns to the default status.
5	Alarm	12 V DC and 24 V AC output	-	Off	The 12 V DC or 24 V AC power supply is not in use or the output is normal.

No.	Indicator	Name	Color	Status	Description
		power indicator	Red	Steady on	A short circuit has occurred for the 12 V DC or 24 V AC power supply. Check whether the external device is short-circuited.
6	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-647 .		

Table 5-647 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. The total power consumption of PDs has reached the maximum power of the switch. The manual power management mode is used and the port is not enabled to provide power to the PD.

Power Supply Configuration

The S5720I-6X-PWH-SI-AC has a built-in power module and does not support pluggable power modules. The S5720I-6X-PWH-SI-AC can be connected to an external 220 V AC power supply. [Table 5-648](#) lists power supply configurations.

Table 5-648 Power supply configurations

Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
External 220 V AC power supply	150 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 4 • 802.3at (30 W per port): 4 • 802.3bt (60 W per port): 2

NOTE

The PoE output shares power resources with two 12 V DC outputs and one 24 V AC output. The shared power is 150 W.

Heat Dissipation

The S5720I-6X-PWH-SI-AC has no fans and uses natural heat dissipation.

Technical Specifications

[Table 5-649](#) lists technical specifications of the S5720I-6X-PWH-SI-AC.

Table 5-649 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41.29 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±1.5 kV in differential mode, ±6 kV in common mode

Item	Description
Power supply surge protection	Impulse current: <ul style="list-style-type: none"> ● AC input: 20 kA Surge: <ul style="list-style-type: none"> ● AC input: ±6 kV in differential mode, ±6 kV in common mode ● 12 V DC output: ±2 kV in differential mode, ±4 kV in common mode ● 24 V AC output: ±2 kV in differential mode, ±6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> ● Basic dimensions: 390 mm x 300 mm x 110 mm (15.4 in. x 11.8 in. x 4.3 in.) ● Maximum dimensions: 474.75 mm x 303.3 mm x 110 mm (18.69 in. x 11.94 in. x 4.3 in.)
Weight (with packaging)	13.1 kg (28.88 lb)
Stack ports	Not supported
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	220 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	176 V AC to 264 V AC, 45 Hz to 66 Hz
Maximum power consumption (100% throughput)	<ul style="list-style-type: none"> ● Without PoE: 26 W ● Total power consumption: 188 W (system power consumption: 38 W, total output power: 150 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	25 W

Item	Description
Operating temperature	-40°C to +55°C (-40°F to +131°F) NOTE When the altitude is 1800-4000 m (5906-13123 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch can start when the temperature is higher than -25°C (-13°F).
Storage temperature	-40°C to +85°C (-40°F to +185°F)
IP rating	IP66
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-4000 m (0-13123 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010835

5.13.2 S5720I-10X-PWH-SI-AC

Version Mapping

[Table 5-650](#) lists the mapping between the S5720I-10X-PWH-SI-AC chassis and software versions.

Table 5-650 Version mapping

Series	Model	Software Version
S5720I-SI	S5720I-10X-PWH-SI-AC	V200R013C00 and later versions

Appearance and Structure

Figure 5-252 S5720I-10X-PWH-SI-AC appearance

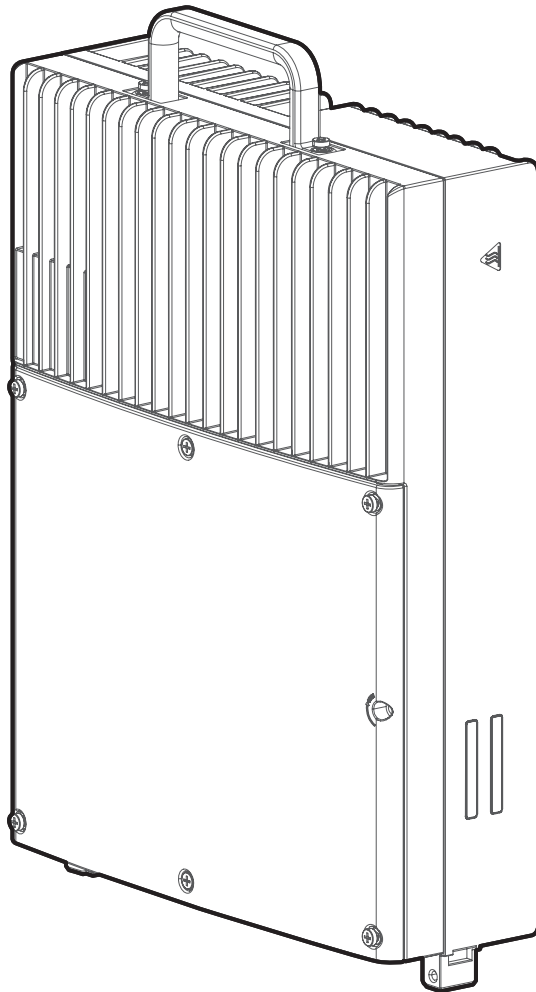
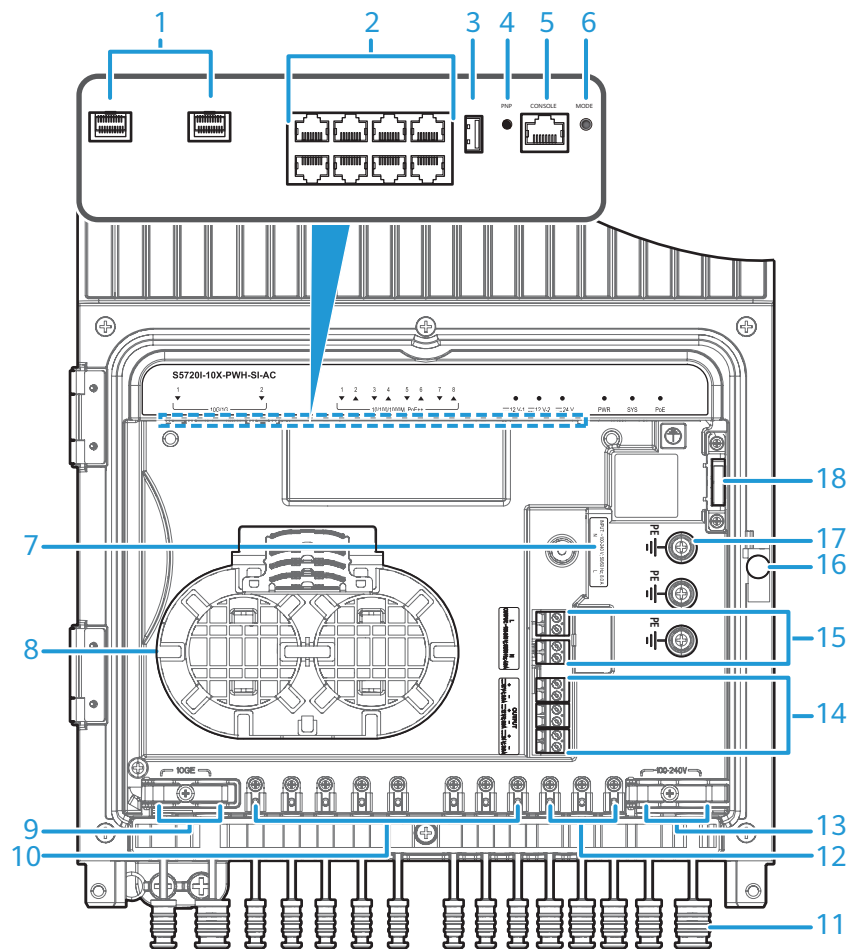


Figure 5-253 Interior of the S5720I-10X-PWH-SI-AC maintenance compartment



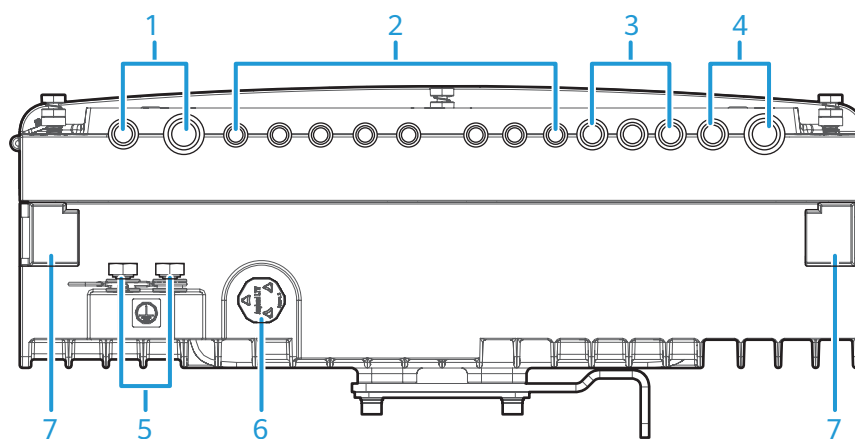
<p>1 Two 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • Industrial optical module • GPON optical module • Third-party GPON optical modules (Hisense LTE3415-SH+ and CIG G-97S) <p>NOTE</p> <p>If one port uses a GPON optical module, the other port cannot be used.</p> <p>The locking bar of an optical port is upward. If an optical module cannot be completely inserted into the optical port, do not force it into the port. Turn the optical module 180 degrees and try again.</p>	<p>2 Eight PoE++ 10/100/1000BASE-T ports</p>
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3	One USB port	4	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	One console port	6	<p>MODE button</p> <p>NOTE</p> <p>The switch supports two indicator modes: status (default mode) and PoE. To change the current indicator mode, press the MODE button.</p> <p>Hold down the MODE button for 6 seconds and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none"> • If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of the PoE indicator is as follows: <ul style="list-style-type: none"> • If the system enters the web initial login mode successfully, the PoE indicator turns green and stays on for a maximum of 10 minutes. • If the system fails to enter the initial login mode, the PoE indicator fast blinks for 10 seconds and then restores to the default status. • If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, the PoE indicator fast blinks for 10 seconds, and then returns to the default status.

7	<p>AC power input socket</p> <p>NOTICE</p> <p>The external power supply system must be connected to a circuit breaker (20 A is recommended). For safety purposes, do not use a switch without a circuit breaker.</p> <p>An AC power input socket is used with a power connector, which is included in the installation accessory package delivered with the switch. A power cable needs to be connected to the power connector onsite. If no power cable is available, you can purchase one (part number: 25030398) from Huawei.</p>	8	<p>Fiber management tray (FMT)</p> <p>NOTE</p> <p>The FMT is removable.</p> <p>A maximum of four fused fibers are supported.</p> <p>Maximum length of a fiber that can be coiled up in the FMT: 20 m (for a single bare fiber) or 1 m (for a single fiber pigtail). If two fibers are used, this length is halved.</p>
9	<p>Two optical fiber outlets</p> <p>NOTE</p> <p>The diameter of optical fibers supported: 8 ± 0.5 mm to 9.6 ± 0.5 mm (on the left outlet) and 13.3 ± 0.5 mm (on the right outlet).</p>	10	<p>Eight Ethernet cable outlets</p> <p>NOTE</p> <p>Cat5e and Cat6 Ethernet cables are supported.</p>
11	<p>Rubber bungs for cable outlets</p> <p>NOTE</p> <p>Rubber bungs must be inserted into the idle cable outlets.</p>	12	<p>Three DC or AC output power cable outlets</p> <p>NOTE</p> <p>The diameter of power cables supported by an outlet is 9.3 ± 0.5 mm.</p>
13	<p>Two AC input power cable outlets</p> <p>NOTE</p> <p>The diameter of power cables supported: 9.5 ± 0.5 mm (on the left outlet) and 14 ± 0.5 mm (on the right outlet).</p>	14	<p>DC power output socket</p> <p>NOTE</p> <p>The switch provides two 12 V DC outputs and one 24 V DC output to external devices, such as strobe lights and non-PoE PTZ dome cameras.</p> <p>Two 12 V DC outputs provide a total of 96 W power. The maximum power of a single output is 96 W.</p> <p>One 24 V DC output provides a maximum of 72 W power.</p> <p>Two 12 V DC outputs and one 24 V DC output share power resources with PoE output. The total shared power is 175 W (110 V input) or 200 W (220 V input).</p>

<p>1 5</p>	<p>AC power output socket 1</p> <p>NOTICE</p> <p>Cables need to be connected to an AC power output socket onsite. Pay attention to the position of the L and N labels, ensuring that the cables are connected in the correct sockets.</p> <p>The switch provides 110 V or 220 V AC power to external devices, such as strobe lights and non-PoE PTZ dome cameras. The maximum output current is 4 A.</p> <p>The internal 110 V or 220 V AC power supply is used only for external power conversion. It has no circuit breaker, regulated voltage circuit, or surge protection.</p> <p>The connected devices must provide certain surge protection capabilities. Recommended values are 20 kA in differential mode and 20 kA in common mode.</p>	<p>1 6</p>	<p>Latch of the maintenance compartment</p> <p>NOTE</p> <ul style="list-style-type: none"> You need to use the key provided in the installation accessory package to open the door of the maintenance compartment. After the maintenance compartment door is closed, the latch is automatically locked.
<p>1 7</p>	<p>PE cable ground terminal</p> <p>NOTE</p> <p>It is used to ground a PE power cable for 220 V AC input or output.</p>	<p>1 8</p>	<p>Door-opening alarm button</p> <p>NOTE</p> <p>When the door of the maintenance compartment is opened, a door-opening alarm is reported.</p>

Figure 5-254 Bottom of the S5720I-10X-PWH-SI-AC chassis



<p>1</p>	<p>Two optical fiber outlets</p> <p>NOTE</p> <p>The diameter of optical fibers supported: 8 ± 0.5 mm to 9.6 ± 0.5 mm (on the left outlet) and 13.3 ± 0.5 mm (on the right outlet).</p>	<p>2</p>	<p>Eight Ethernet cable outlets</p> <p>NOTE</p> <p>Cat5e and Cat6 Ethernet cables are supported.</p>
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3	Three DC or AC output power cable outlets NOTE The diameter of power cables supported by an outlet is 9.3±0.5 mm.	4	Two AC input power cable outlets NOTE The diameter of power cables supported: 9.5±0.5 mm (on the left outlet) and 14±0.5 mm (on the right outlet).
5	Ground screw NOTE It is used to ground the switch. The ground cable needs to be purchased separately.	6	Atmospheric pressure valve NOTE It ensures that the atmospheric pressure inside and outside the switch are the same.
7	Mounting column for a cable cover NOTE It is used to mount an optional cable cover.	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-651](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-651 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	It supports long-distance interconnection with Huawei cameras. For example, it supports the distance of 200 m at 100 Mbit/s and supports the distance of 250 m at 10 Mbit/s. <ul style="list-style-type: none"> The supported camera models are M2220-I, M2221-FL, M2221-VL, M2260-I, and M2220-I(8-32mm). If the transmission distance exceeds 100 m, Category 5E or higher Ethernet cables are required.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-652](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-652 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-653](#).

Table 5-653 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 5-255 Indicators on the outside of the S5720I-10X-PWH-SI-AC

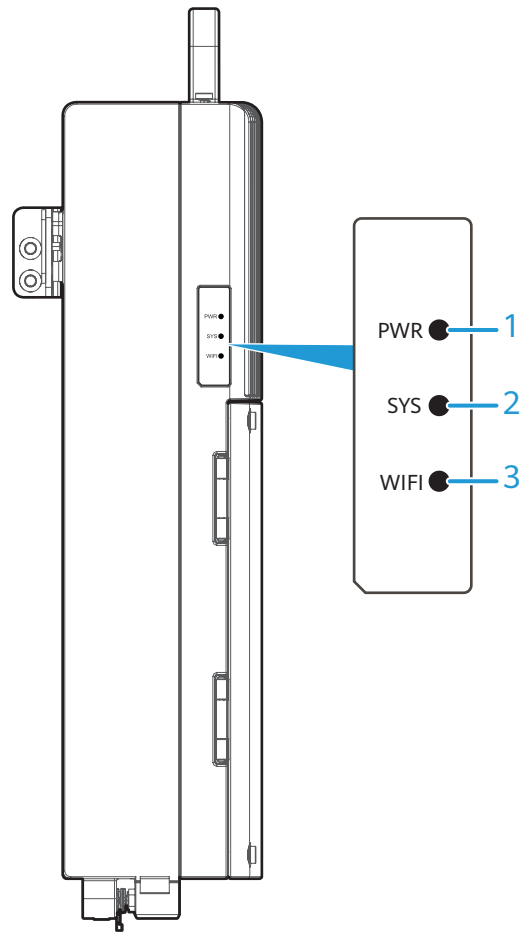


Figure 5-256 Indicators inside the maintenance compartment of the S5720I-10X-PWH-SI-AC

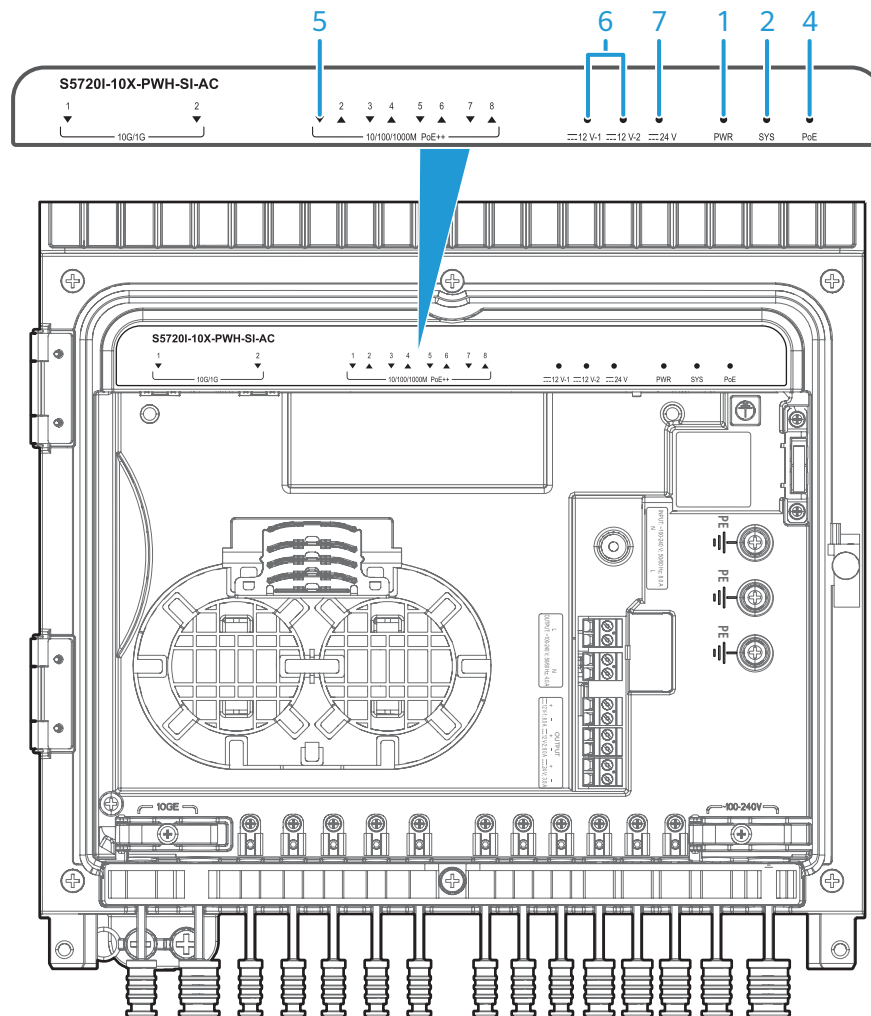


Table 5-654 Description of indicators

No.	Indicator	Name	Color	Status	Description
1	PWR	Built-in power supply indicator	-	Off	The switch is not powered on.
			Green	Steady on	The power module is supplying power normally.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting or is copying the system software and configuration file from a USB flash drive during a USB-based upgrade.

No.	Indicator	Name	Color	Status	Description
			Green	Slow blinking	The system is operating properly.
			Red	Steady on	The system does not work normally after registration, or a temperature alarm has been generated.
			Red	Blinking	The system cannot be upgraded after a USB flash drive is inserted. The USB-based upgrade failed.
			Yellow	Blinking	The switch has restarted after a successful upgrade using a USB flash drive. You can remove the USB flash drive from the switch.
3	WIFI	Wi-Fi indicator	Red	Fast blinking	The Wi-Fi function is reserved and is not supported in V200R013C00. You can configure the WIFI indicator on a switch to fast blink red, helping field maintenance personnel quickly find the switch.
4	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected. In this mode, the service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode. This indicator is steady green after you successfully log in to the switch for the first time using the MODE button.
			Green	Blinking	If you fail to log in to the switch for the first time using the MODE button, this indicator fast blinks for 10 seconds, and then returns to the default status.
5	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-655 .		
6	12V-V1	12 V DC output indicator	-	Off	The 12 V DC power module is not supplying power.
	12V-V2		Green	Steady on	The 12 V DC power module is supplying power.

No.	Indicator	Name	Color	Status	Description
7	24V	24 V DC output indicator	-	Off	The 24 V DC power module is not supplying power.
			Green	Steady on	The 24 V DC power module is supplying power.

Table 5-655 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. The total power consumption of PDs has reached the maximum power of the switch. The manual power management mode is used and the port is not enabled to provide power to the PD.

Power Supply Configuration

The S5720I-10X-PWH-SI-AC has a built-in power module and does not support pluggable power modules. The S5720I-10X-PWH-SI-AC can be connected to an

external 110 V or 220 V AC power supply. [Table 5-656](#) lists power supply configurations.

Table 5-656 Power supply configurations

Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
External 220 V AC power supply	200 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 8 ● 802.3at (30 W per port): 6 ● 802.3bt (60 W per port): 3
External 110 V AC power supply	175 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 8 ● 802.3at (30 W per port): 5 ● 802.3bt (60 W per port): 2

 **NOTE**

The PoE output shares power resources with two 12 V DC outputs and one 24 V DC output. The shared power is 175 W (110 V input) or 200 W (220 V input).

Heat Dissipation

The S5720I-10X-PWH-SI-AC has no fans and uses natural heat dissipation.

Technical Specifications

[Table 5-657](#) lists technical specifications of the S5720I-10X-PWH-SI-AC.

Table 5-657 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	34.4 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±1.5 kV in differential mode, ±6 kV in common mode

Item	Description
Power supply surge protection	AC input (impulse current): 20 kA DC output (surge): ± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions: 390 mm x 300 mm x 100 mm (15.4 in. x 11.8 in. x 3.9 in.)• Maximum dimensions: 474.75 mm x 303.3 mm x 124.77 mm (18.69 in. x 11.94 in. x 4.91 in.)
Weight (with packaging)	12.8 kg (28.22 lb)
Stack ports	Not supported
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput)	<ul style="list-style-type: none">• Without PoE: 33 W• 100% PoE loads: 263 W (system power consumption: 63 W, PoE: 200 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	30 W
Operating temperature	-40°C to +55°C (-40°F to +131°F) NOTE When the altitude is 1800-4000 m (5906-13123 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch can start when the temperature is higher than -25°C (-13°F).
Storage temperature	-40°C to +85°C (-40°F to +185°F)

Item	Description
IP rating	IP66
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-4000 m (0-13123 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010832

5.13.3 S5720I-12X-SI-AC

Version Mapping

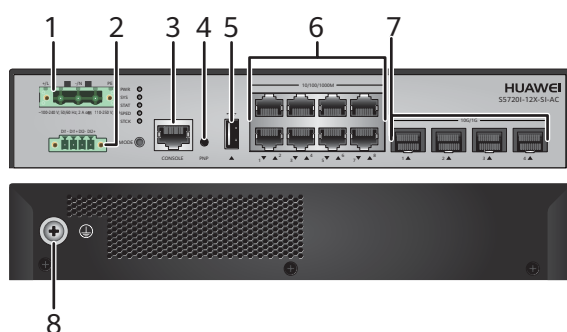
[Table 5-658](#) lists the mapping between the S5720I-12X-SI-AC chassis and software versions.

Table 5-658 Version mapping

Series	Switch Model	Software Version
S5720I-SI	S5720I-12X-SI-AC	V200R012C00 and later versions

Appearance and Structure

Figure 5-257 S5720I-12X-SI-AC appearance



1	AC input power socket NOTE It must be used with the Phoenix connector, which is included in the installation accessory package.	2	Monitoring port NOTE It must be used with the Phoenix connector, which is included in the installation accessory package. The monitoring port detects the status of external devices, for example, monitoring the opening and closing of the cabinet door. For details about how to use a monitoring port, see "Monitoring Interface Configuration" in the CLI-based Configuration Guide - Device Management Configuration Guide.
3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One USB port	6	Eight 10/100/1000BASE-T ports
7	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • Industrial optical module • 3 m SFP+ high-speed cable • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking) 	8	Ground screw NOTE It is used with a ground cable .

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 5-659](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-659 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	It supports long-distance interconnection with Huawei cameras. For example, it supports the distance of 200 m at 100 Mbit/s and supports the distance of 250 m at 10 Mbit/s. <ul style="list-style-type: none">• The supported camera models are M2220-I, M2221-FL, M2221-VL, M2260-I, and M2220-I(8-32mm).• If the transmission distance exceeds 100 m, Category 5E or higher Ethernet cables are required.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-660](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-660 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-661](#).

Table 5-661 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232

Attribute	Description
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

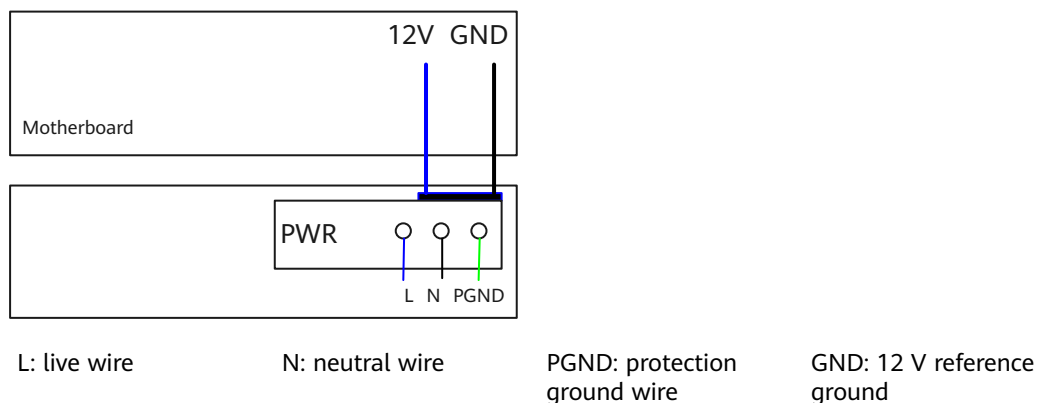
The S5720I-12X-SI-AC has similar indicators to those of the S5720I-12X-PWH-SI-DC except that the S5720I-12X-SI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720I-12X-SI-AC has a built-in power module and does not support pluggable power modules.

[Figure 5-258](#) shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-258 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720I-12X-SI-AC has no fans and uses natural heat dissipation.

Technical Specifications

Table 5-662 lists technical specifications of the S5720I-12X-SI-AC.

Table 5-662 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	67.89 years
Mean time to repair (MTTR)	2
Availability	> 0.99999
Service port surge protection	±1.5 kV in differential mode, ±6 kV in common mode
Power supply surge protection	±6 kV in differential mode, ±6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 250.0 mm x 180.0 mm (1.72 in. x 9.8 in. x 7.1 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 250.0 mm x 186.36 mm (1.72 in. x 9.8 in. x 7.34 in.)
Weight (with packaging)	2.65 kg (5.84 lb)
Stack ports	Eight 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz 110 V DC to 250 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz 110 V DC to 250 V DC

Item	Description
Maximum power consumption (100% throughput)	17 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	15.6 W
Operating temperature	<ul style="list-style-type: none"> • -40°C to +65°C (-40°F to +149°F) (installed in the sealing cabinet) • -40°C to +70°C (-40°F to +158°F) (installed in the ventilation cabinet, with the wind speed of at least 40 LFM) • -40°C to +75°C (-40°F to +167°F) (installed in the ventilation cabinet shipped with fans with a fan speed of at least 200 LFM) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Storage temperature	-40°C to +85°C (-40°F to +185°F)
Protection rating	IP30
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010794

5.13.4 S5720I-12X-PWH-SI-DC

Version Mapping

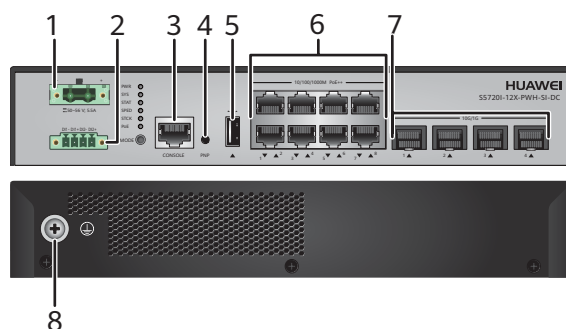
Table 5-663 lists the mapping between the S5720I-12X-PWH-SI-DC chassis and software versions.

Table 5-663 Version mapping

Series	Switch Model	Software Version
S5720I-SI	S5720I-12X-PWH-SI-DC	V200R012C00 and later versions

Appearance and Structure

Figure 5-259 S5720I-12X-PWH-SI-DC appearance



1	<p>DC input power socket</p> <p>NOTE</p> <p>It must be used with the Phoenix connector, which is included in the installation accessory package.</p>	2	<p>Monitoring port</p> <p>NOTE</p> <p>It must be used with the Phoenix connector, which is included in the installation accessory package.</p> <p>The monitoring port detects the status of external devices, for example, monitoring the opening and closing of the cabinet door.</p> <p>For details about how to use a monitoring port, see "Monitoring Interface Configuration" in the CLI-based Configuration Guide - Device Management Configuration Guide.</p>
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3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One USB port	6	Eight PoE++ 10/100/1000BASE-T ports
7	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • Industrial optical module • 3 m SFP+ high-speed cable • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking) 	8	Ground screw NOTE It is used with a ground cable .

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 5-664](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-664 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	It supports long-distance interconnection with Huawei cameras. For example, it supports the distance of 200 m at 100 Mbit/s and supports the distance of 250 m at 10 Mbit/s. <ul style="list-style-type: none"> • The supported camera models are M2220-I, M2221-FL, M2221-VL, M2260-I, and M2220-I(8-32mm). • If the transmission distance exceeds 100 m, Category 5E or higher Ethernet cables are required.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-665](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-665 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-666](#).

Table 5-666 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

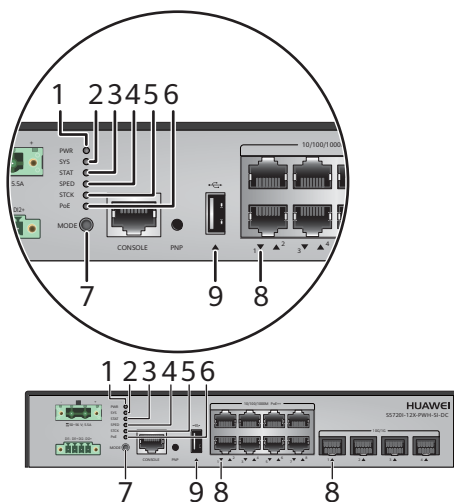
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-260 Indicators on the S5720I-12X-PWH-SI-DC



NOTE

The S5720I-SI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators. When an S5720I-SI switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 5-667 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.

No.	Indicator	Name	Color	Status	Description
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
3	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
5	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

No.	Indicator	Name	Color	Status	Description
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-668 .		
9	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-668 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
		Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
		Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.

Display Mode	Color	Status	Description
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. The total power consumption of PDs has reached the maximum power of the switch. The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 8 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 8 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720I-12X-PWH-SI-DC has a built-in power module and does not support pluggable power modules. It can directly connect to the external power module with 50 V DC to 56 V DC power or the PAC-260WA-E or PAC240S56-CN power module. [Table 5-669](#) lists its power supply configurations.

Table 5-669 Power supply configurations

Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
External power module with 50 V to 56 V DC power supply	220 W by default; 240 W at most	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 8• 802.3at (30 W per port): 8• 802.3bt (60 W per port): 4
260 W power module (PAC-260WA-E)	220 W by default; 240 W at most	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 8• 802.3at (30 W per port): 8• 802.3bt (60 W per port): 4
240 W power module (PAC240S56-CN)	220 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 8• 802.3at (30 W per port): 7• 802.3bt (60 W per port): 3

NOTE

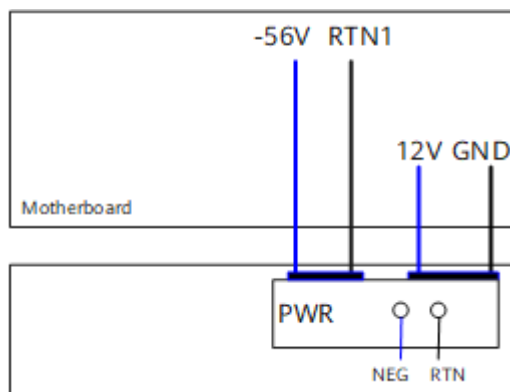
The PoE power supply of S5720I-12X-PWH-SI-DC is in direct mode. The input voltage must meet the PoE standard. If the input voltage does not meet the PoE standard, the voltage on the PD side may be too low.

If the external DC power supply is in grounding design, the non-isolated AP and camera cannot be used. In this case, isolate the AP and camera.

If a non-Huawei external DC power supply is used, ensure that it meets the following requirement:

Maximum power consumption of the device (20 W) + Number of PoE ports in use x PoE consumption of each port

Figure 5-261 shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis and -56 V output to the PoE power supply.

Figure 5-261 Power supply connections of a single DC power module

NEG: negative wire

RTN: positive wire

GND: 12 V reference
groundRTN1: -56 V reference
ground

Heat Dissipation

The S5720I-12X-PWH-SI-DC has no fans and uses natural heat dissipation.

Technical Specifications

[Table 5-670](#) lists technical specifications of the S5720I-12X-PWH-SI-DC.

Table 5-670 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	64.23 years
Mean time to repair (MTTR)	2
Availability	> 0.99999
Service port surge protection	±1.5 kV in differential mode, ±6 kV in common mode
Power supply surge protection	±2 kV in differential mode, ±4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 250.0 mm x 180.0 mm (1.72 in. x 9.8 in. x 7.1 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 250.0 mm x 186.36 mm (1.72 in. x 9.8 in. x 7.34 in.)
Weight (with packaging)	2.5 kg (5.51 lb)
Stack ports	Eight 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	50 V DC to 56 V DC
Maximum voltage range	46 V DC to 57 V DC
Maximum power consumption (100% throughput)	<p>Using PAC-260WA-E power module:</p> <ul style="list-style-type: none"> Without PoE: 28.8 W 100% PoE loads: 288.4 W (system power consumption: 48.4 W, PoE: 240 W) <p>Using PAC240S56-CN power module:</p> <ul style="list-style-type: none"> Without PoE: 26.5 W 100% PoE loads: 270.1 W (system power consumption: 50.1 W, PoE: 220 W)
<p>Typical power consumption (30% of traffic load)</p> <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	<p>Using PAC-260WA-E power module: 27.6 W</p> <p>Using PAC240S56-CN power module: 25 W</p>

Item	Description
Operating temperature	<ul style="list-style-type: none"> -40°C to +65°C (-40°F to +149°F) (installed in the sealing cabinet) -40°C to +70°C (-40°F to +158°F) (installed in the ventilation cabinet, with the wind speed of at least 40 LFM) -40°C to +75°C (-40°F to +167°F) (installed in the ventilation cabinet shipped with fans with a fan speed of at least 200 LFM) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Storage temperature	-40°C to +85°C (-40°F to +185°F)
Protection rating	IP30
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	98010795

5.13.5 S5720I-28X-SI-AC

Version Mapping

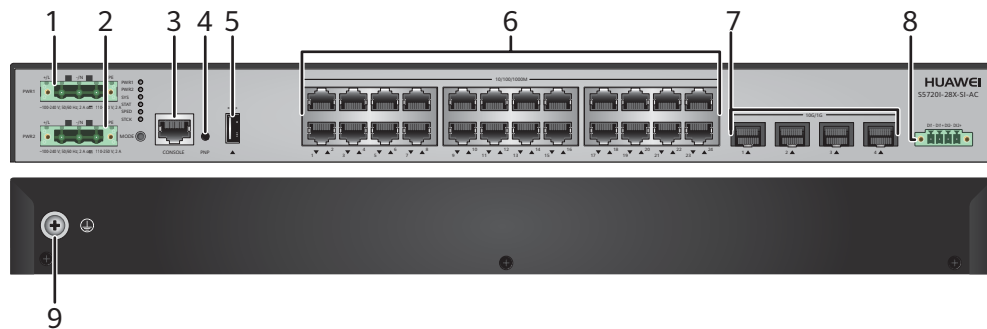
Table 5-671 lists the mapping between the S5720I-28X-SI-AC chassis and software versions.

Table 5-671 Version mapping

Series	Model	Software Version
S5720I-SI	S5720I-28X-SI-AC	V200R012C00 and later versions

Appearance and Structure

Figure 5-262 S5720I-28X-SI-AC appearance



1	<p>AC power input port 1</p> <p>NOTE</p> <p>It must be used with the Phoenix connector, which is included in the installation accessory package.</p>	2	<p>AC power input port 2</p> <p>NOTE</p> <p>It must be used with the Phoenix connector, which is included in the installation accessory package.</p>
3	<p>One console port</p>	4	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	<p>One USB port</p>	6	<p>Twenty-four 10/100/1000BASE-T ports</p>
7	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • Industrial optical module • 3 m SFP+ high-speed cable • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking) 	8	<p>Monitoring port</p> <p>NOTE</p> <p>It must be used with the Phoenix connector, which is included in the installation accessory package.</p> <p>The monitoring port detects the status of external devices, for example, monitoring the opening and closing of the cabinet door.</p> <p>For details about how to use a monitoring port, see "Monitoring Interface Configuration" in the CLI-based Configuration Guide - Device Management Configuration Guide.</p>

9	Ground screw	-	-
	NOTE It is used with a ground cable .		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-672](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-672 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	<p>It supports long-distance interconnection with Huawei cameras. For example, it supports the distance of 200 m at 100 Mbit/s and supports the distance of 250 m at 10 Mbit/s.</p> <ul style="list-style-type: none"> The supported camera models are M2220-I, M2221-FL, M2221-VL, M2260-I, and M2220-I(8-32mm). If the transmission distance exceeds 100 m, Category 5E or higher Ethernet cables are required.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-673](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-673 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-674](#).

Table 5-674 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

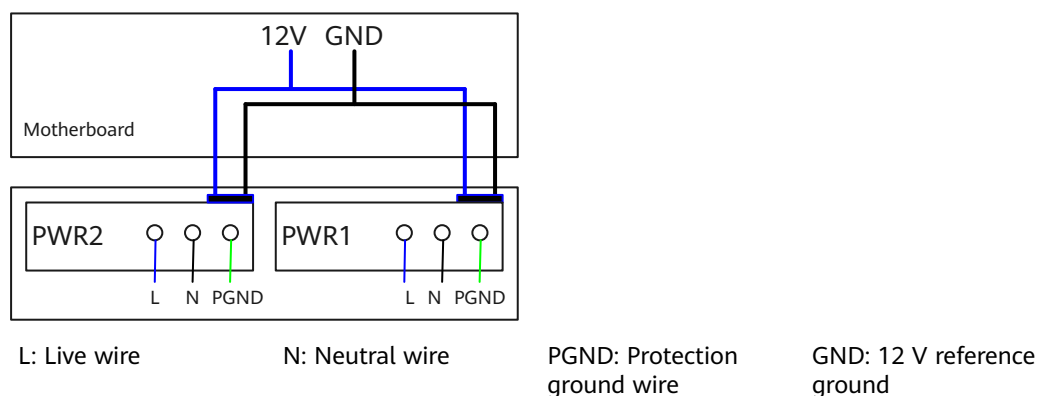
The S5720I-28X-SI-AC has similar indicators to those of the S5720I-28X-PWH-SI-AC except that the S5720I-28X-SI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720I-28X-SI-AC has two built-in power modules for 1+1 power redundancy and does not support pluggable power modules.

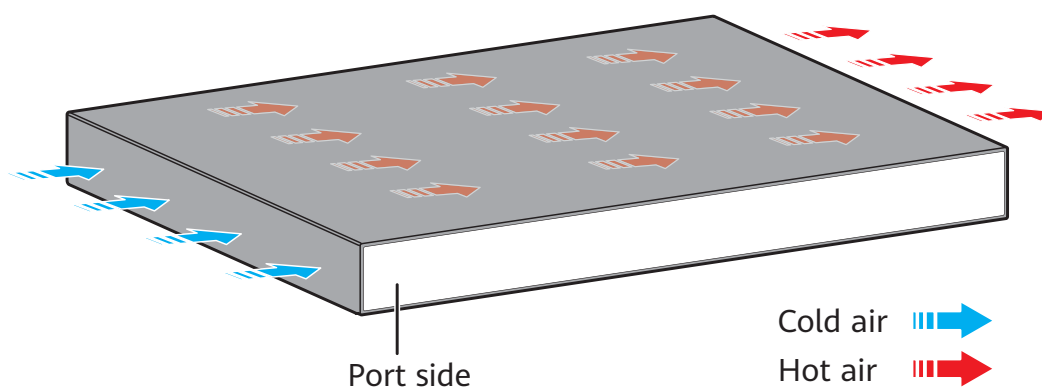
[Figure 5-263](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-263 Power supply connections of dual AC power modules



Heat Dissipation

The S5720I-28X-SI-AC has two built-in fans for forced air cooling. The airflow direction is left-to-right.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-675 lists technical specifications of the S5720I-28X-SI-AC.

Table 5-675 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	72.32 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±1.5 kV in differential mode, ±6 kV in common mode
Power supply surge protection	±6 kV in differential mode, ±6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 226.26 mm (1.72 in. x 17.4 in. x 8.91 in.)
Weight (with packaging)	4.5 kg (9.92 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz 110 V DC to 250 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz 110 V DC to 250 V DC
Maximum power consumption (100% throughput, full speed of fans)	29.3 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	24.8 W
Operating temperature	-40°C to +65°C (-40°F to +149°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +85°C (-40°F to +185°F)
Protection rating	IP20
Noise under normal temperature (27°C, sound power)	< 45 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010796

5.13.6 S5720I-28X-PWH-SI-AC

Version Mapping

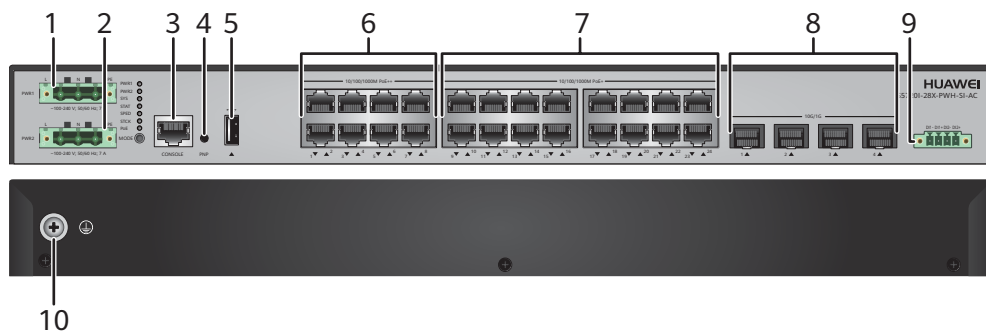
[Table 5-676](#) lists the mapping between the S5720I-28X-PWH-SI-AC chassis and software versions.

Table 5-676 Version mapping

Series	Model	Software Version
S5720I-SI	S5720I-28X-PWH-SI-AC	V200R012C00 and later versions

Appearance and Structure

Figure 5-264 S5720I-28X-PWH-SI-AC appearance



1	AC power input port 1 NOTE It must be used with the Phoenix connector, which is included in the installation accessory package.	2	AC power input port 2 NOTE It must be used with the Phoenix connector, which is included in the installation accessory package.
3	One console port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One USB port	6	Eight PoE++ 10/100/1000BASE-T ports

7	Sixteen PoE+ 10/100/1000BASE-T ports	8	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • Industrial optical module • 3 m SFP+ high-speed cable • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
9	Monitoring port NOTE It must be used with the Phoenix connector, which is included in the installation accessory package. The monitoring port detects the status of external devices, for example, monitoring the opening and closing of the cabinet door. For details about how to use a monitoring port, see "Monitoring Interface Configuration" in the CLI-based Configuration Guide - Device Management Configuration Guide.	10	Ground screw NOTE It is used with a ground cable .

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 5-677](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-677 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	It supports long-distance interconnection with Huawei cameras. For example, it supports the distance of 200 m at 100 Mbit/s and supports the distance of 250 m at 10 Mbit/s. <ul style="list-style-type: none"> • The supported camera models are M2220-I, M2221-FL, M2221-VL, M2260-I, and M2220-I(8-32mm). • If the transmission distance exceeds 100 m, Category 5E or higher Ethernet cables are required.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-678](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-678 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-679](#).

Table 5-679 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

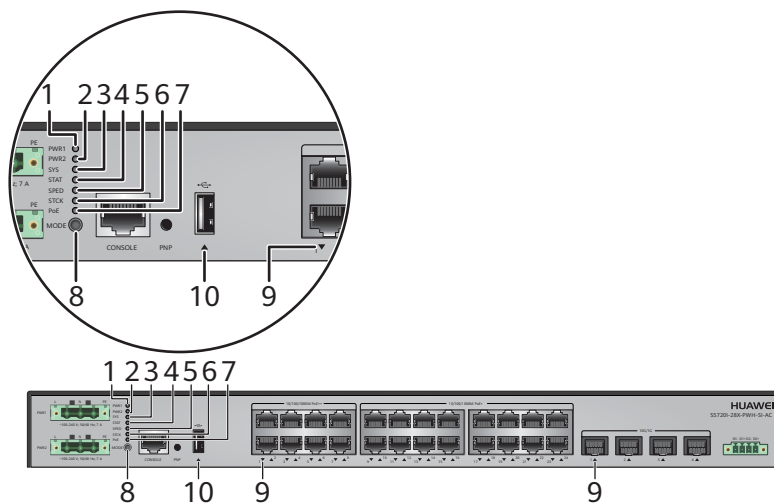
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-265 Indicators on the S5720I-28X-PWH-SI-AC



NOTE

The S5720I-SI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators. When an S5720I-SI switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 5-680 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.

No.	Indicator	Name	Color	Status	Description
8	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
9	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-681 .		
10	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.

No.	Indicator	Name	Color	Status	Description
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-681 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).

Display Mode	Color	Status	Description
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. The total power consumption of PDs has reached the maximum power of the switch. The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720I-28X-PWH-SI-AC has two built-in power modules for 1+1 power redundancy and does not support pluggable power modules.

The following two PoE power supply modes are available:

- High-power mode (default): When double power modules are used, they provide 369.6 W PoE power for the eight PoE++ ports and 369.6 W PoE power for the sixteen PoE+ ports (total of 739.2 W PoE power). When either of the two power modules fails, the eight PoE++ ports can supply power for PDs normally; however, the PDs connected to the sixteen PoE+ ports are powered off, and the PoE function is unavailable. When a single power module is used, only the eight PoE++ ports can supply PoE power for PDs.
- PoE backup mode: You can run the **poe-power backup-mode** command to manually switch the PoE power supply mode to the backup mode. In backup mode, the entire system provides 369.6 W PoE power regardless of whether a single power module or double power modules are used. That is, all 24 ports

share the 369.6 W power. When double power modules are used, they work in 1+1 redundancy mode.

 **NOTE**

When the power supply mode is manually switched to the PoE backup mode, the PDs connected to all ports are powered off and then powered on again.

When the switch works in PoE backup mode, the PDs connected to all ports are powered off and then powered on again if the switch is restarted.

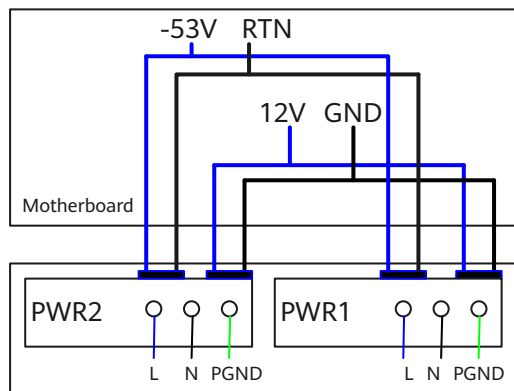
Table 5-682 lists its power supply configurations.

Table 5-682 Power supply configurations

Power Supply Mode	Power Supply Configuration	Available PoE Power	Maximum Number of Ports (Fully Loaded)
High-power mode	Single power module	369.6 W	Eight PoE++ ports: <ul style="list-style-type: none"> 802.3af (15.4 W per port): 8 802.3at (30 W per port): 8 802.3bt (60 W per port): 6 Sixteen PoE+ ports: N/A
	Double power modules	739.2 W	Eight PoE++ ports: <ul style="list-style-type: none"> 802.3af (15.4 W per port): 8 802.3at (30 W per port): 8 802.3bt (60 W per port): 6 Sixteen PoE+ ports: <ul style="list-style-type: none"> 802.3af (15.4 W per port): 16 802.3at (30 W per port): 12
PoE backup mode	Single power module	369.6 W	Twenty-four ports: <ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12 802.3bt (60 W per port): 6 (Only the eight PoE++ ports support this configuration.)
	Double power modules		

Figure 5-266 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

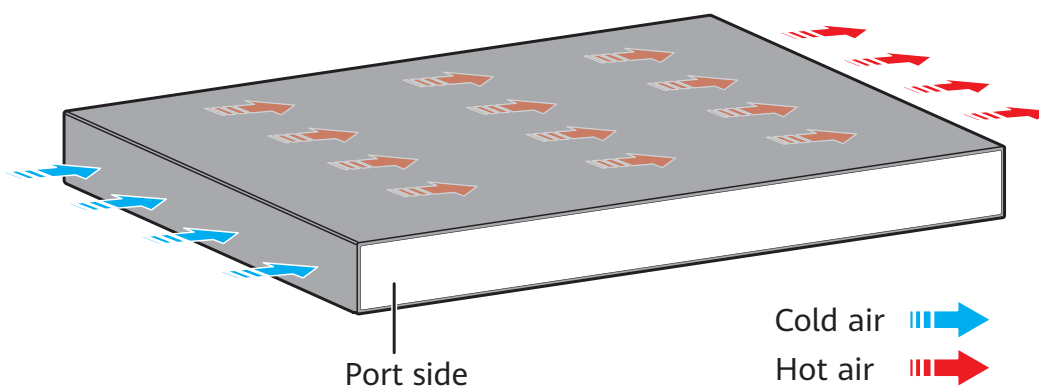
Figure 5-266 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720I-28X-PWH-SI-AC has four built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-683 lists technical specifications of the S5720I-28X-PWH-SI-AC.

Table 5-683 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	45.94 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±1.5 kV in differential mode, ±6 kV in common mode
Power supply surge protection	±6 kV in differential mode, ±6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 310.0 mm (1.72 in. x 17.4 in. x 12.2 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 316.46 mm (1.72 in. x 17.4 in. x 12.46 in.)
Weight (with packaging)	6.7 kg (14.77 lb)
Stack ports	Twenty-four 10/100/1000BASE-T ports and four 10G SFP+ ports
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">• Without PoE: 57.8 W• 100% PoE loads: 905 W (system power consumption: 165.8 W, PoE: 739.2 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	34.6 W
Operating temperature	-40°C to +65°C (-40°F to +149°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +85°C (-40°F to +185°F)
Protection rating	IP20
Noise under normal temperature (27°C, sound power)	< 47 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010797

5.14 S5730-SI

5.14.1 S5730-48C-SI-AC

Version Mapping

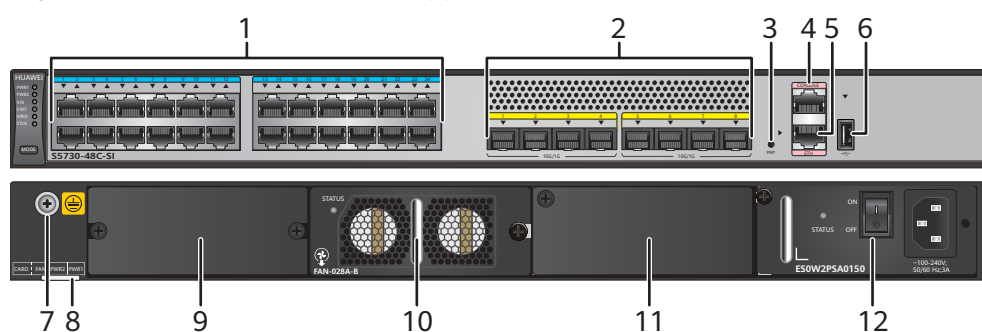
[Table 5-684](#) lists the mapping between the S5730-48C-SI-AC chassis and software versions.

Table 5-684 Version mapping

Series	Model	Software Version
S5730-SI	S5730-48C-SI-AC	V200R011C10 to V200R019C10 versions

Appearance and Structure

Figure 5-267 S5730-48C-SI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Eight 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
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3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	<p>One ETH management port</p>	6	<p>One USB port</p>
7	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE</p> <p>You can draw it out to view the ESN and MAC address of the switch.</p>
9	<p>Rear card slot</p> <p>NOTE</p> <p>Card supported:</p> <ul style="list-style-type: none"> • ES5D21Q04Q01 • ES5D21VST000 (applicable in V200R012C00 and later versions) 	10	<p>Fan slot</p> <p>NOTE</p> <p>Applicable fan module: FAN-028A-B</p>
11	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	12	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Interface Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-685](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-685 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab

Attribute	Description
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-686](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-686 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-687](#).

Table 5-687 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-688](#) describes the attributes of an ETH management port.

Table 5-688 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

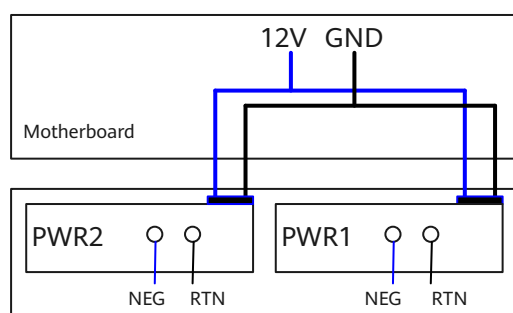
The S5730-48C-SI-AC has similar indicators to those of the S5730-68C-PWR-SI-AC except that the S5730-48C-SI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-48C-SI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 5-268 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-268 Power supply connections of dual DC power modules



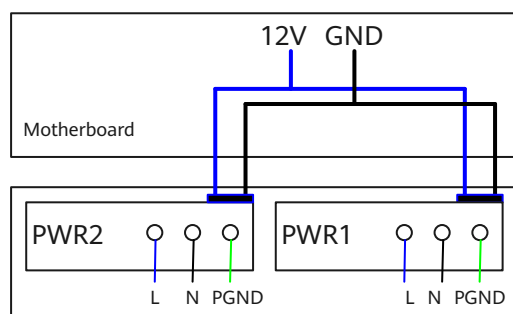
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 5-269 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-269 Power supply connections of dual AC power modules



L: Live wire

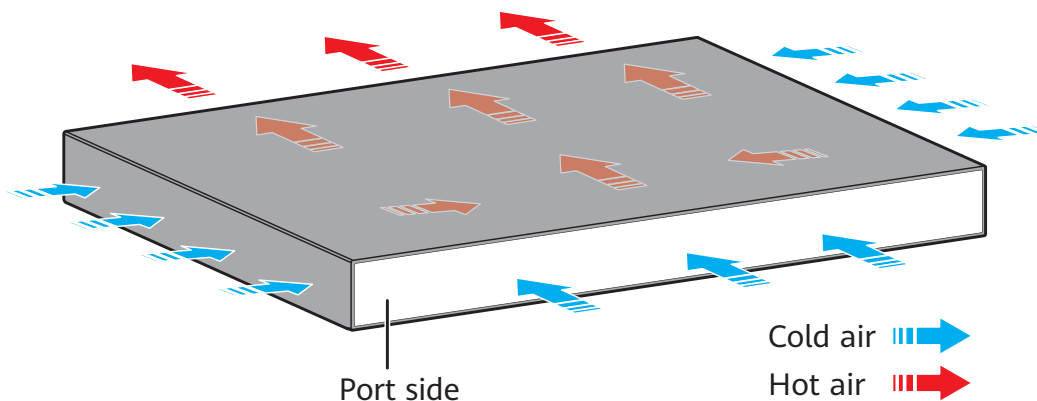
N: Neutral wire

PGND: Protection
ground wire

GND: 12 V reference
ground

Heat Dissipation

The S5730-48C-SI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-689 lists technical specifications of the S5730-48C-SI-AC.

Table 5-689 Technical specifications

Item	Parameter
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	47.83 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 425.0 mm (1.75 in. x 17.4 in. x 16.73 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 454.75 mm (1.75 in. x 17.4 in. x 17.9 in.)

Item	Parameter
Weight (with packaging)	8.2 kg (18.08 lb)
Stack ports	Any 10GE SFP+ or 40GE QSFP+ ports Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	62.4 W (without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	39.02 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses QSFP+ optical modules with 10 km or longer transmission distances.

Item	Parameter
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 59.4 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010710

5.14.2 S5730-48C-PWR-SI-AC

Version Mapping

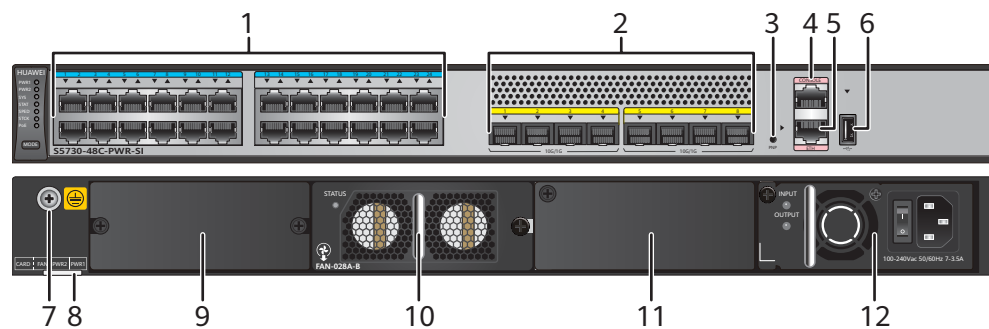
[Table 5-690](#) lists the mapping between the S5730-48C-PWR-SI-AC chassis and software versions.

Table 5-690 Version mapping

Series	Model	Software Version
S5730-SI	S5730-48C-PWR-SI-AC	V200R011C10 to V200R019C10 versions

Appearance and Structure

Figure 5-270 S5730-48C-PWR-SI-AC appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	<p>Eight 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
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3	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	4	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>
5	<p>One ETH management port</p>	6	<p>One USB port</p>
7	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE</p> <p>You can draw it out to view the ESN and MAC address of the switch.</p>
9	<p>Rear card slot</p> <p>NOTE</p> <p>Card supported:</p> <ul style="list-style-type: none"> • ES5D21Q04Q01 • ES5D21VST000 (applicable in V200R012C00 and later versions) 	10	<p>Fan slot</p> <p>NOTE</p> <p>Applicable fan module: FAN-028A-B</p>
11	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module 	12	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module

Interface Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-691](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-691 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab

Attribute	Description
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-692](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-692 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-693](#).

Table 5-693 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-694](#) describes the attributes of an ETH management port.

Table 5-694 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5730-48C-PWR-SI-AC has the same types of indicators as the S5730-68C-PWR-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-48C-PWR-SI-AC is a PoE switch. It has two power module slots, each of which can have a 500 W or 650 W power module installed. A power module can provide 369.6 W of PoE power for powered devices (PDs). A 500 W AC power

module and a 650 W DC power module can be used together in the switch. [Table 5-695](#) lists its power supply configurations.

Table 5-695 Power supply configurations

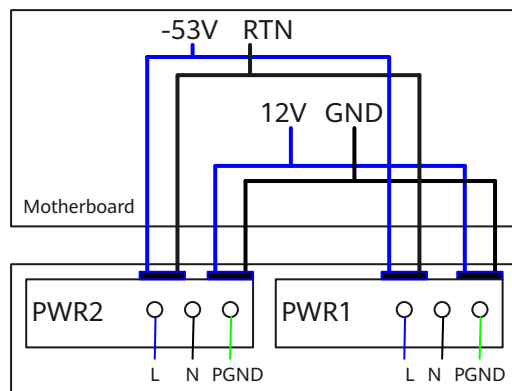
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 5-271](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 5-271 Power supply by dual AC PoE power modules

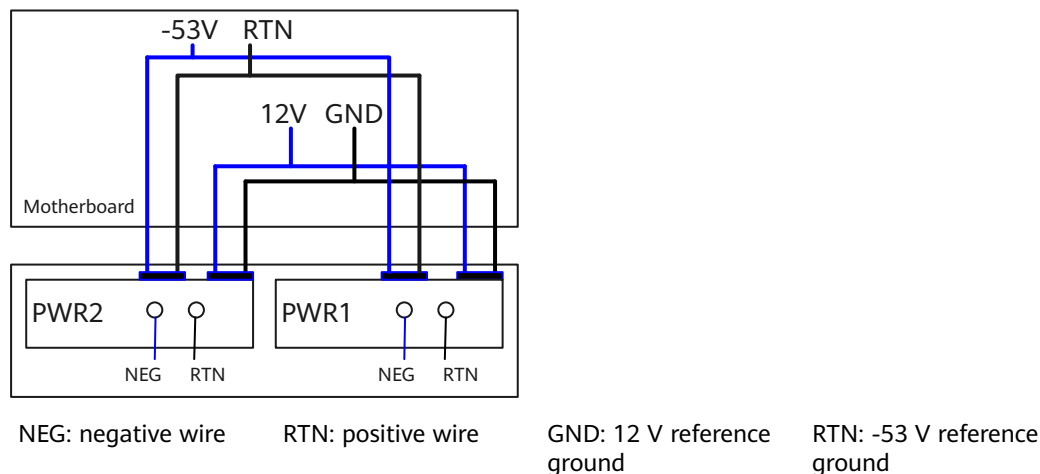


L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

[Figure 5-272](#) shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V

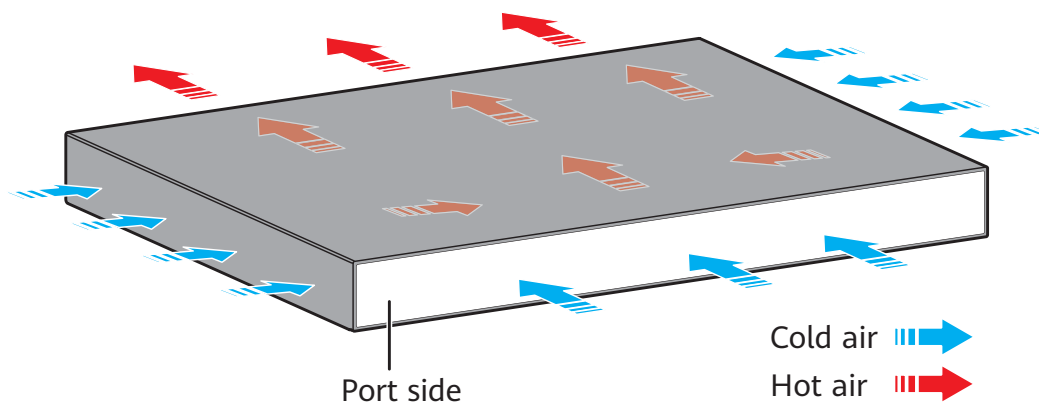
and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

Figure 5-272 Power supply connections of dual DC PoE power modules



Heat Dissipation

The S5730-48C-PWR-SI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-696 lists technical specifications of the S5730-48C-PWR-SI-AC.

Table 5-696 Technical specifications

Item	Description
Memory (RAM)	1 GB

Item	Description
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	46.8 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 425.0 mm (1.75 in. x 17.4 in. x 16.73 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 454.75 mm (1.75 in. x 17.4 in. x 17.9 in.)
Weight (with packaging)	8.3 kg (18.3 lb)
Stack ports	Any 10GE SFP+ or 40GE QSFP+ ports Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 83.2 W (without card) 100% PoE loads: 967 W (system power consumption: 227.8 W, PoE: 739.2 W, without card)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	44.2 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses QSFP+ optical modules with 10 km or longer transmission distances.
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.4 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010712

5.14.3 S5730-68C-SI-AC

Version Mapping

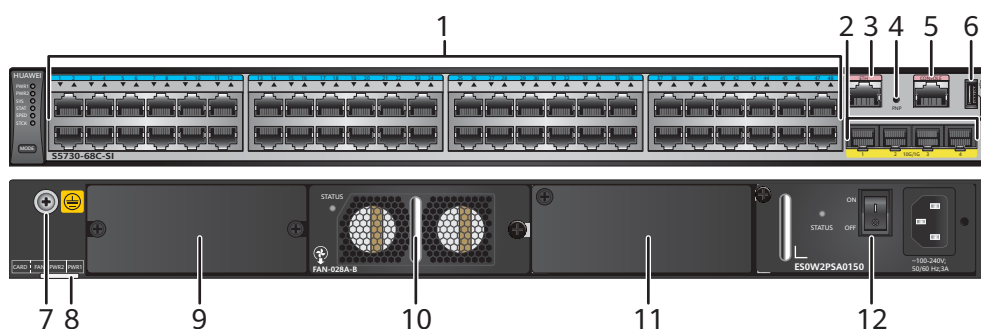
Table 5-697 lists the mapping between the S5730-68C-SI-AC chassis and software versions.

Table 5-697 Version mapping

Series	Model	Software Version
S5730-SI	S5730-68C-SI-AC	V200R011C10 to V200R019C10 versions

Appearance and Structure

Figure 5-273 S5730-68C-SI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One ETH management port	4	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	One USB port
7	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE</p> <p>You can draw it out to view the ESN and MAC address of the switch.</p>

9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • ES5D21Q04Q01 • ES5D21VST000 (applicable in V200R012C00 and later versions) 	10	Fan slot NOTE Applicable fan module: FAN-028A-B
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Interface Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-698](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-698 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-699](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-699 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-700](#).

Table 5-700 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-701](#) describes the attributes of an ETH management port.

Table 5-701 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5730-68C-SI-AC has similar indicators to those of the S5730-68C-PWR-SI-AC except that the S5730-68C-SI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-68C-SI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

[Figure 5-274](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-274 Power supply connections of dual DC power modules

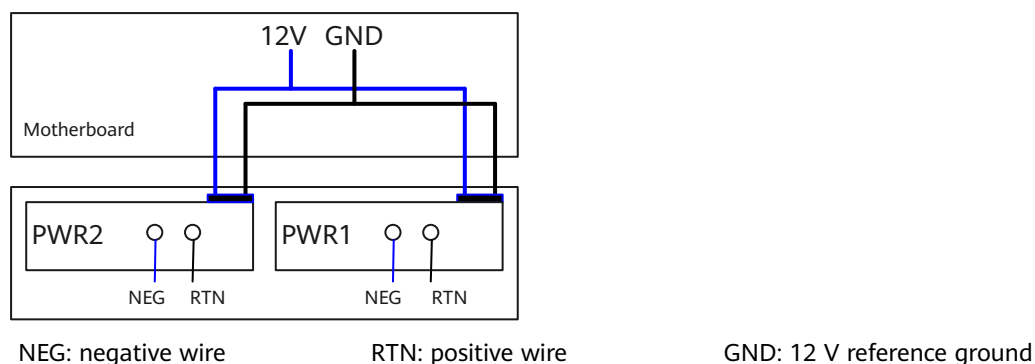
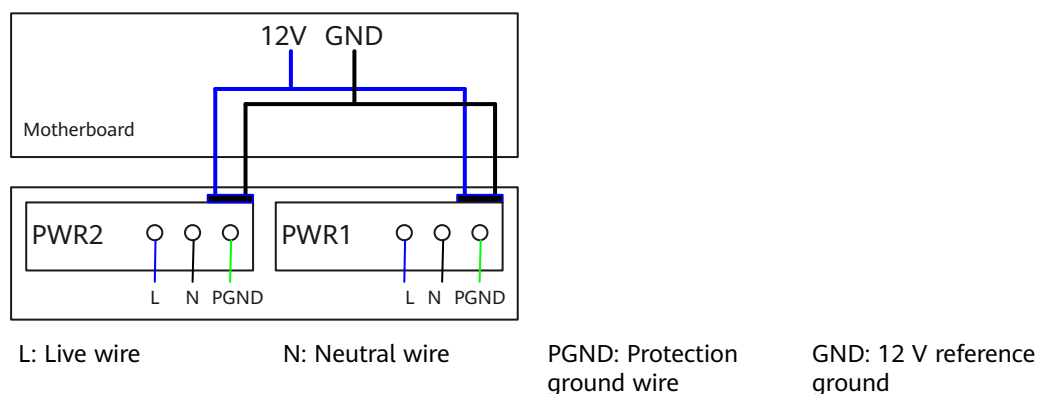


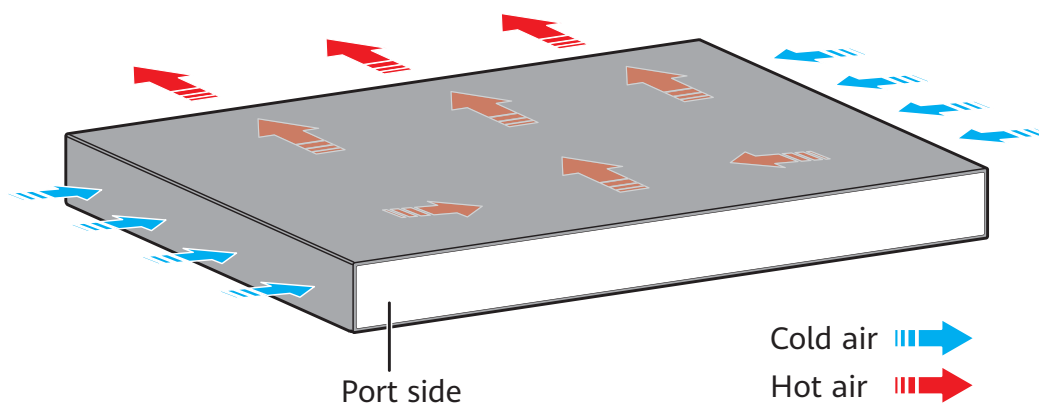
Figure 5-275 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-275 Power supply connections of dual AC power modules



Heat Dissipation

The S5730-68C-SI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-702 lists technical specifications of the S5730-68C-SI-AC.

Table 5-702 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	46.53 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none">Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common modeUsing DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 425.0 mm (1.75 in. x 17.4 in. x 16.73 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 454.75 mm (1.75 in. x 17.4 in. x 17.9 in.)
Weight (with packaging)	8.5 kg (18.74 lb)
Stack ports	Any 10GE SFP+ or 40GE QSFP+ ports Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC

Item	Description
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	65.4 W (without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	42.3 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses QSFP+ optical modules with 10 km or longer transmission distances.
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.

Item	Description
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	98010713

5.14.4 S5730-68C-PWR-SI-AC

Version Mapping

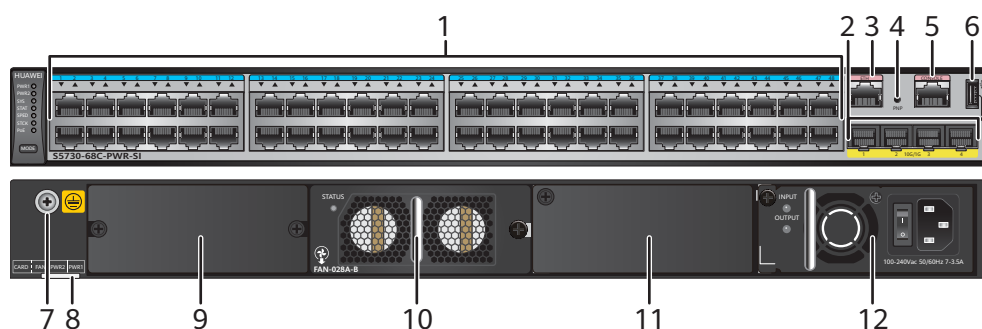
Table 5-703 lists the mapping between the S5730-68C-PWR-SI-AC chassis and software versions.

Table 5-703 Version mapping

Series	Model	Software Version
S5730-SI	S5730-68C-PWR-SI-AC	V200R011C10 to V200R019C10 versions

Appearance and Structure

Figure 5-276 S5730-68C-PWR-SI-AC appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One ETH management port	4	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	One USB port
7	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE</p> <p>You can draw it out to view the ESN and MAC address of the switch.</p>

9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • ES5D21Q04Q01 • ES5D21VST000 (applicable in V200R012C00 and later versions) 	1 0	Fan slot NOTE Applicable fan module: FAN-028A-B
1 1	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module 	1 2	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module

Interface Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-704](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-704 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-705](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-705 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-706](#).

Table 5-706 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-707](#) describes the attributes of an ETH management port.

Table 5-707 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

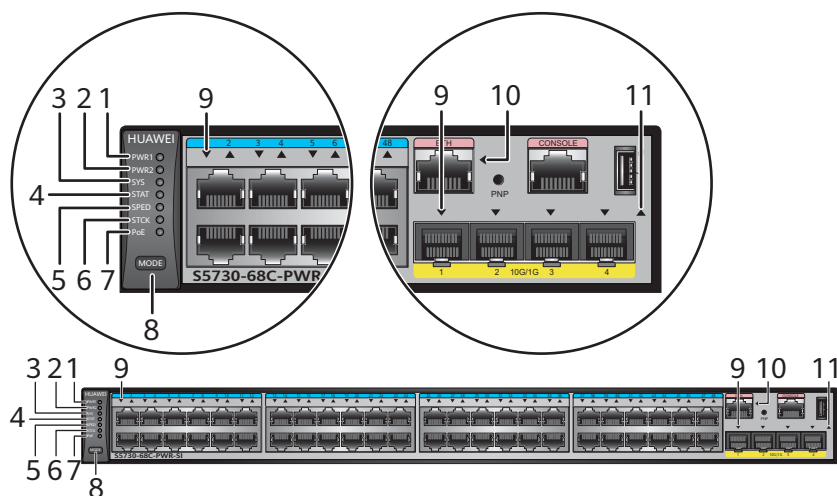
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-277 Indicators on the S5730-68C-PWR-SI-AC



NOTE

The S5730-SI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators of a switch. If the switch fails, its SYS indicator and mode indicators can be configured to blink red fast so that field maintenance personnel can find this faulty switch.

Table 5-708 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.

No.	Indicator	Name	Color	Status	Description
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.

No.	Indicator	Name	Color	Status	Description
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none">If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch.If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none">If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled.If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
7	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.

No.	Indicator	Name	Color	Status	Description
8	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
9	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-709 .		
10	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
11	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-709 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.

Display Mode	Color	Status	Description
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> • The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. • The total power consumption of PDs has reached the maximum power of the switch. • The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is blinking, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5730-68C-PWR-SI-AC is a PoE switch. It has two power module slots, each of which can have a 500 W or 650 W power module installed. A power module can provide 369.6 W of PoE power for powered devices (PDs). A 500 W AC power module and a 650 W DC power module can be used together in the switch. [Table 5-710](#) lists its power supply configurations.

Table 5-710 Power supply configurations

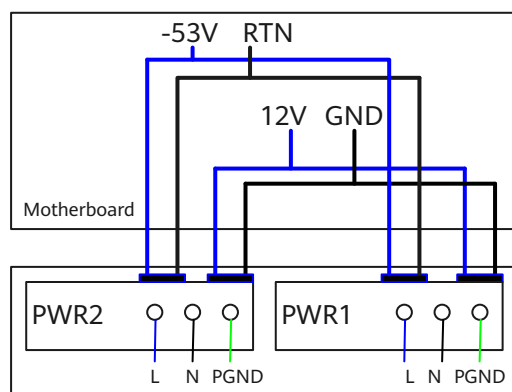
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 5-278 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

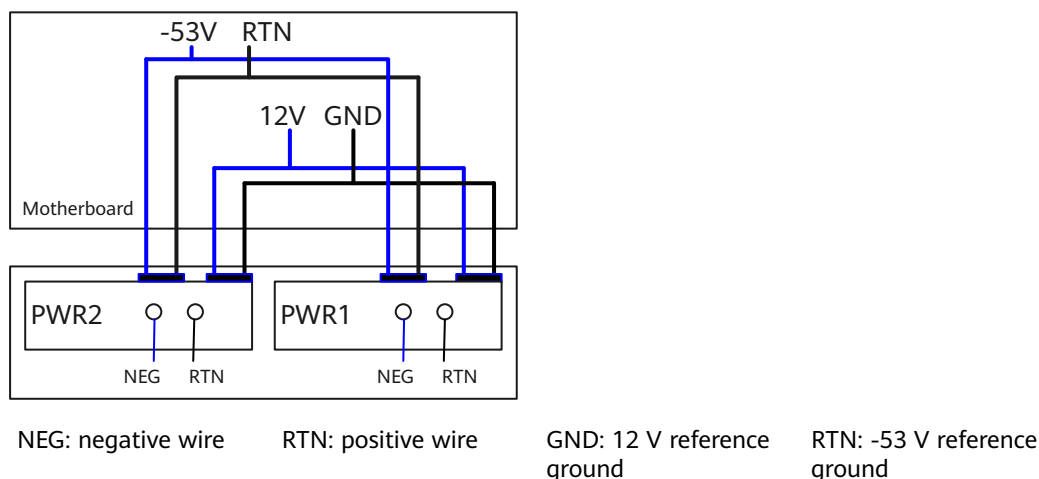
Figure 5-278 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

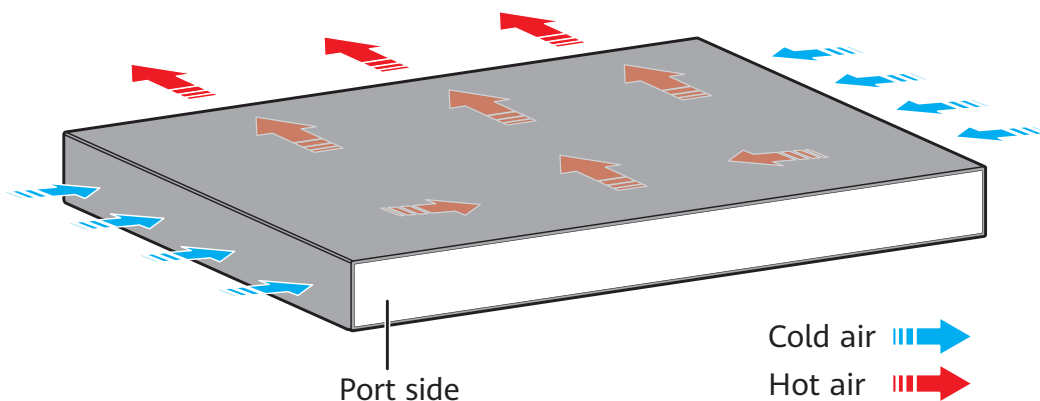
Figure 5-279 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

Figure 5-279 Power supply connections of dual DC PoE power modules



Heat Dissipation

The S5730-68C-PWR-SI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-711 lists technical specifications of the S5730-68C-PWR-SI-AC.

Table 5-711 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	43.28 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 425.0 mm (1.75 in. x 17.4 in. x 16.73 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 454.75 mm (1.75 in. x 17.4 in. x 17.9 in.)
Weight (with packaging)	8.8 kg (19.4 lb)
Stack ports	Any 10GE SFP+ or 40GE QSFP+ ports Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 68.3 W (without card) 100% PoE loads: 925 W (system power consumption: 185.8 W, PoE: 739.2 W, without card)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	50.1 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses QSFP+ optical modules with 10 km or longer transmission distances.
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010714

5.14.5 S5730-68C-PWR-SI

Version Mapping

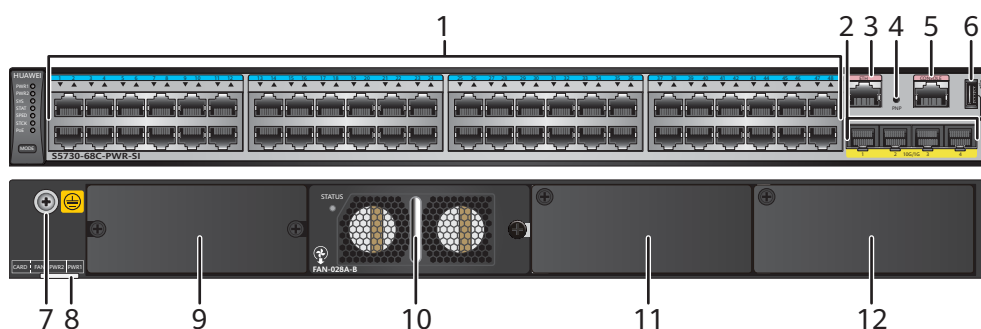
Table 5-712 lists the mapping between the S5730-68C-PWR-SI chassis and software versions.

Table 5-712 Version mapping

Series	Model	Software Version
S5730-SI	S5730-68C-PWR-SI	V200R011C10 to V200R019C10 versions

Appearance and Structure

Figure 5-280 S5730-68C-PWR-SI appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One ETH management port	4	<p>One PNP button</p> <p>NOTICE</p> <p>Applicable in V200R012C00 and later versions:</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	One USB port
7	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE</p> <p>You can draw it out to view the ESN and MAC address of the switch.</p>

9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • ES5D21Q04Q01 • ES5D21VST000 (applicable in V200R012C00 and later versions) 	1 0	Fan slot NOTE Applicable fan module: FAN-028A-B
1 1	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module • 1150 W AC PoE power module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions) 	1 2	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module • 1150 W AC PoE power module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions)

Interface Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-713](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-713 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-714](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-714 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-715](#).

Table 5-715 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-716](#) describes the attributes of an ETH management port.

Table 5-716 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5730-68C-PWR-SI has the same types of indicators as the S5730-68C-PWR-SI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-68C-PWR-SI is a PoE switch. It has two power module slots, each of which can have a 500 W, 650 W, 1150 W, or 1000 W (applicable in V200R013C00 and later versions) power module installed. A 500 W AC power module and a 650 W DC power module can be used together in the switch. A 1150 W AC power module and a 1000 W AC power module can be used together in the switch. [Table 5-717](#) lists its power supply configurations.

Table 5-717 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24
1150 W (220 V)	-	785.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 26
1150 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1150 W (110 V)	-	446.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 29 802.3at (30 W per port): 14
1150 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29
1000 W (220 V)	-	754.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25
1000 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W (110 V)	-	754.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25

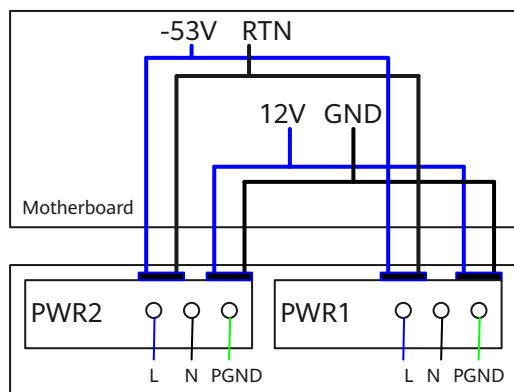
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (110 V)	1000 W (110 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1150 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29
1150 W (110 V)	1000 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 5-281 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

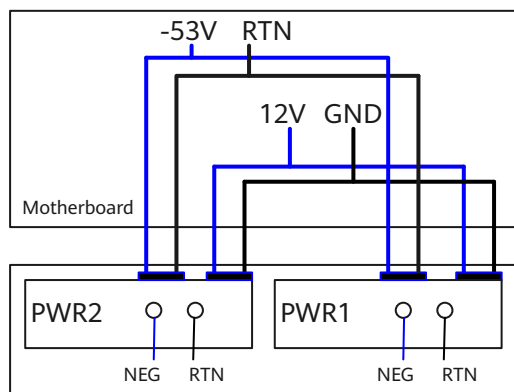
Figure 5-281 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 5-282 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

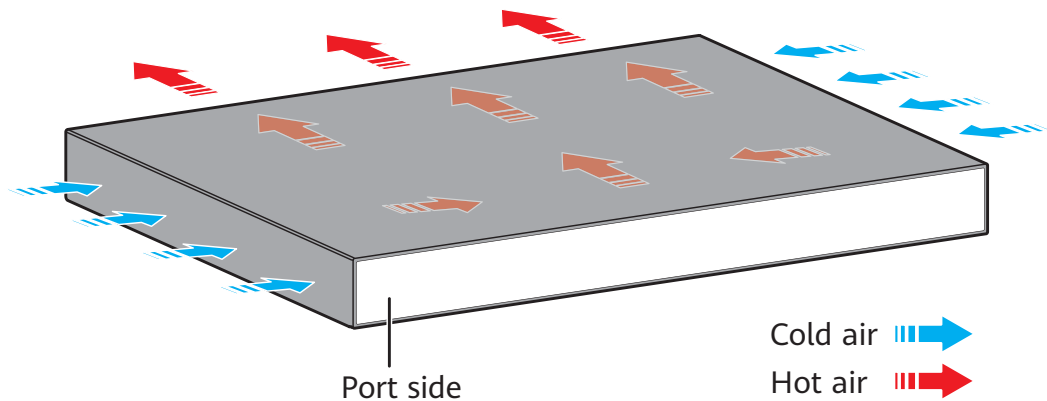
Figure 5-282 Power supply connections of dual DC PoE power modules



NEG: negative wire RTN: positive wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5730-68C-PWR-SI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-718 lists technical specifications of the S5730-68C-PWR-SI.

Table 5-718 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	43.28 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC or 1000 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC or 1150 W AC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 425.0 mm (1.75 in. x 17.4 in. x 16.73 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 454.75 mm (1.75 in. x 17.4 in. x 17.9 in.) <p>When 1150 W power modules are installed, they stretch out from the chassis. Therefore, the total depth of the switch changes to 541.1 mm (21.3 in.).</p>
Weight (with packaging)	8 kg (17.64 lb)
Stack ports	Any 10GE SFP+ or 40GE QSFP+ ports Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Using 650 W DC power modules or 500 W AC power modules <ul style="list-style-type: none"> - Not providing the PoE function: 68.3 W (without card) - 100% PoE loads: 925 W (system power consumption: 185.8 W, PoE: 739.2 W, without card) • Using 1150 W AC power modules or 1000 W AC power modules <ul style="list-style-type: none"> - Not providing the PoE function: 68.3 W (without card) - 100% PoE loads: 1733 W (system power consumption: 293 W, PoE: 1440 W, without card)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	50.1 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses QSFP+ optical modules with 10 km or longer transmission distances.
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 64.3 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010779

5.15 S5700-EI

5.15.1 S5700-28C-EI

Version Mapping

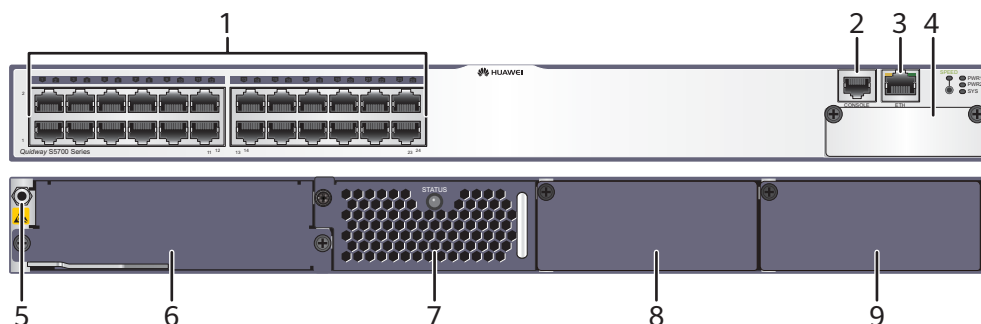
Table 5-719 lists the mapping between the S5700-28C-EI and software versions.

Table 5-719 Version mapping

Series	Model	Software Version
S5700-EI	S5700-28C-EI	V100R005C01 to V200R005C03 NOTE This model does not match V200R003C02 or V200R003C10.

Appearance and Structure

Figure 5-283 S5700-28C-EI appearance



1	Twenty-four 10/100/1000BASE-T ports	2	One console port
3	One ETH management port	4	Front card slot NOTE Card supported: <ul style="list-style-type: none"> 9.5 ES5D000G4S01 (4-Port GE SFP Front Optical Interface Card) 9.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) 9.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card)
5	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.	6	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 9.27 ES5D00ETPC00 (Stack Rear Card) 9.28 ES5D00ETPB00 (Extended Rear Card)
7	Fan slot NOTE Applicable fan module: CX7E1FANA fan module	8	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 150 W AC power module 150 W DC power module
9	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 150 W AC power module 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-720](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-720 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-721](#).

Table 5-721 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 5-722](#) describes the attributes of an ETH management port.

Table 5-722 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

Indicator Description

Figure 5-284 Indicators on the S5700-28C-EI

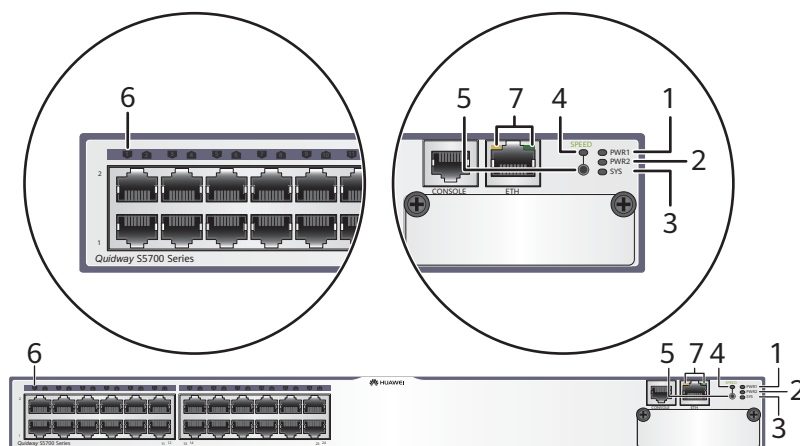


Table 5-723 Indicator Description

No.	Indicator/ Button	Color	Description
1	PWR1: power module indicator	-	Off: No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 1 and is working normally.

No.	Indicator/ Button	Color	Description
		Red	Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none">• A power module is available in this slot but its power switch is in the OFF position.• A power module is available in this slot but it is not connected to a power source.• The power module in this slot has failed.
2	PWR2: power module indicator	-	Off: No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 2 and is working normally.
		Red	Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none">• A power module is available in this slot but its power switch is in the OFF position.• A power module is available in this slot but it is not connected to a power source.• The power module in this slot has failed.
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none">• Steady on: The system is not running normally or is starting.• Slow blinking: The system is running normally.
		Yellow	Steady on: The system is performing self-check during startup.

No.	Indicator/ Button	Color	Description
		Red	Steady on: The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	MODE: mode indicator	-	Off: The service port indicators are in the status mode (default). In the status mode, the service port indicator shows the port link or activity state.
		Green	Steady on: The service port indicators show the port speed. After 45 seconds, the service port indicators automatically restore to the status mode.
		Red	Steady on: The service port indicators show the stack ID of the switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	Mode switch button	-	<ul style="list-style-type: none"> When you press this button once, the mode indicator turns green and the service port indicators show the speed of each service port. When you press this button a second time, the mode indicator turns red and the service port indicators show the stack status. When you press this button a third time, the mode indicator turns off. <p>If you do not press the button within 45 seconds, the mode indicator restores to status mode.</p>
6	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-724 .	
7	ETH indicator	-	Off: No link is established on the port.
		Green	Steady on: The port is connected.
		Yellow	Blinking: The port is sending or receiving data.

Table 5-724 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5700-28C-EI can use a single power module or double power modules for 1+1 power redundancy. In versions prior to V200R005C00, the AC and DC power modules cannot be configured on the same device, while in V200R005C00 and later versions, they can be configured on the same device.

Figure 5-285 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-285 Power supply connections of dual DC power modules

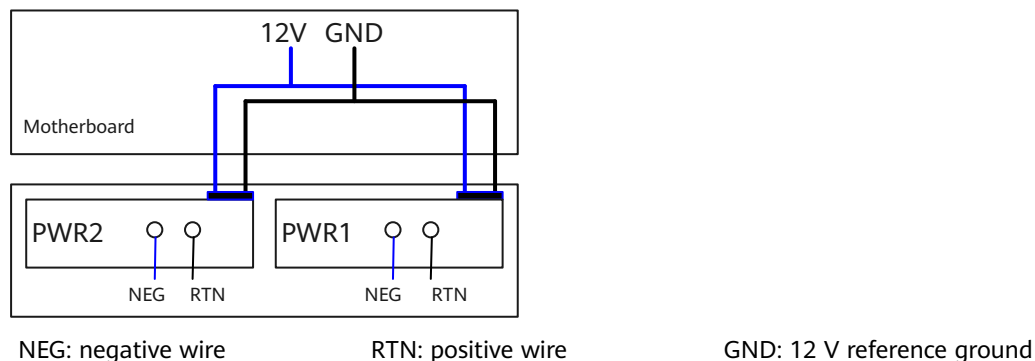
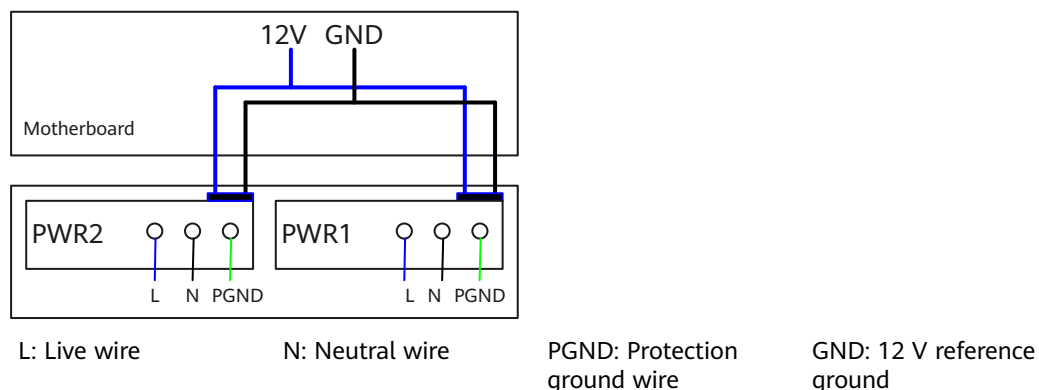


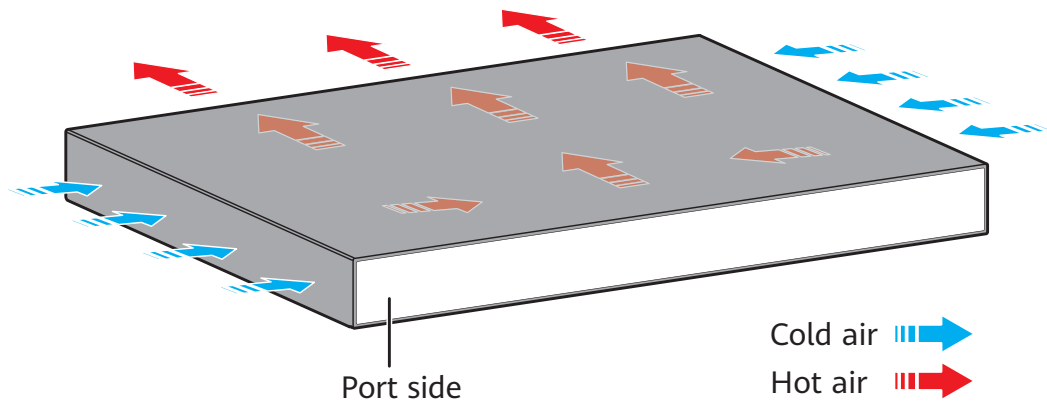
Figure 5-286 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-286 Power supply connections of dual AC power modules



Heat Dissipation

The S5700-28C-EI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-725 lists technical specifications of the S5700-28C-EI.

Table 5-725 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	53.11 years when a 2-port 10GE interface card is configured, 68.33 years when a 4-port GE front card is configured, 25.52 years when a 4-port 10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ±6 kV in differential mode, ±6 kV in common mode Using DC power modules: ±1 kV in differential mode, ±2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported

Item	Description
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	60 W
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 41 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none">• AC power modules configured: 0-5000 m (0-16404 ft.)• DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02352338

5.15.2 S5700-28C-EI-24S

Version Mapping

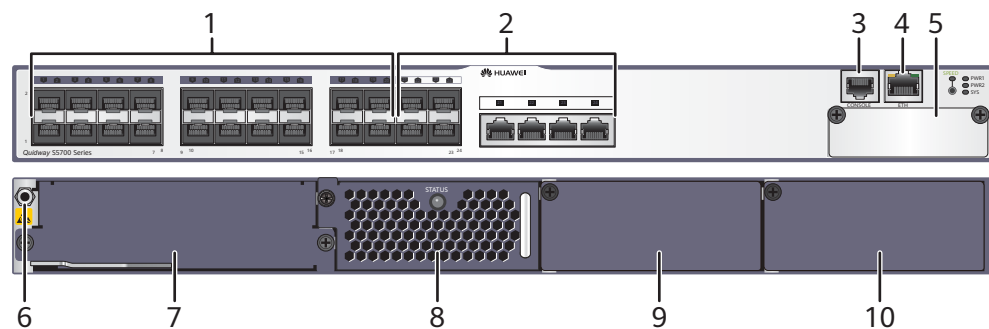
[Table 5-726](#) lists the mapping between the S5700-28C-EI-24S and software versions.

Table 5-726 Version mapping

Series	Model	Software Version
S5700-EI	S5700-28C-EI-24S	V100R005C01 to V200R005C03 NOTE This model does not match V200R003C02 or V200R003C10.

Appearance and Structure

Figure 5-287 S5700-28C-EI-24S appearance



1	<p>Twenty 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module 	2	<p>Four combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
3	One console port	4	One ETH management port
5	<p>Front card slot</p> <p>NOTE</p> <p>Card supported:</p> <ul style="list-style-type: none"> • 9.5 ES5D000G4S01 (4-Port GE SFP Front Optical Interface Card) • 9.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) • 9.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card) 	6	<p>ESD jack</p> <p>NOTE</p> <p>Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.</p>

7	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.27 ES5D00ETPC00 (Stack Rear Card) • 9.28 ES5D00ETPB00 (Extended Rear Card) 	8	Fan slot NOTE Applicable fan module: CX7E1FANA fan module
9	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	10	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-727](#) describes the attributes of a 100/1000BASE-X port.

Table 5-727 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-728](#).

Table 5-728 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 5-729](#) describes the attributes of an ETH management port.

Table 5-729 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

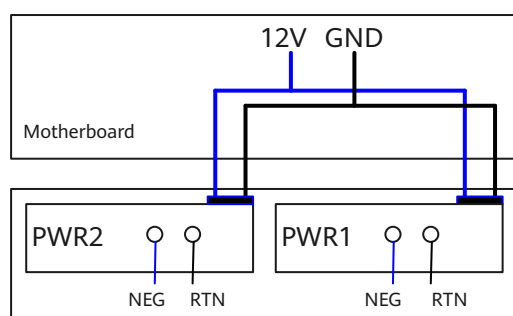
Indicator Description

The S5700-28C-EI-24S has the same types of indicators as the S5700-28C-EI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-28C-EI-24S can use a single power module or double power modules for 1+1 power redundancy. In versions prior to V200R005C00, the AC and DC power modules cannot be configured on the same device, while in V200R005C00 and later versions, they can be configured on the same device.

[Figure 5-288](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-288 Power supply connections of dual DC power modules

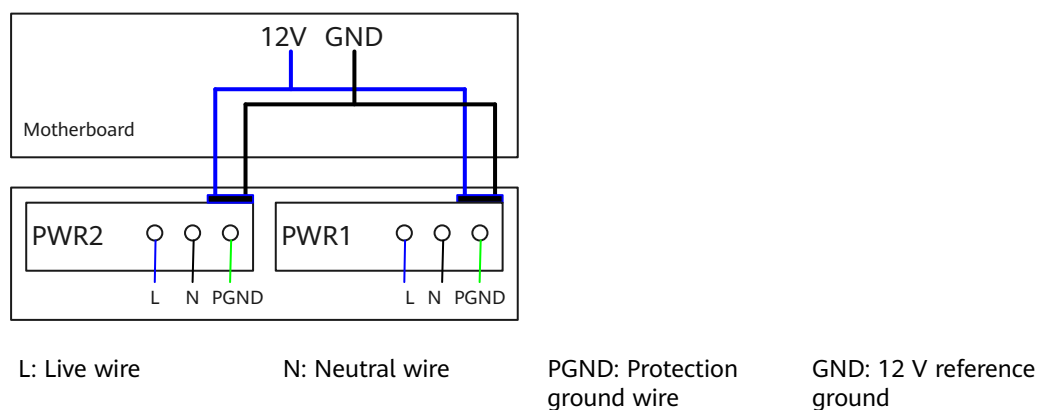
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

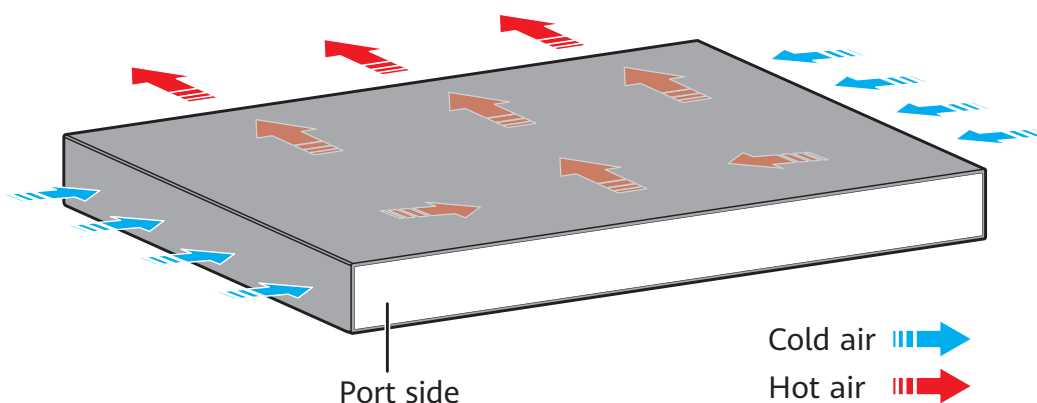
[Figure 5-289](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-289 Power supply connections of dual AC power modules



Heat Dissipation

The S5700-28C-EI-24S uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-730 lists technical specifications of the S5700-28C-EI-24S.

Table 5-730 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB

Item	Description
Mean time between failures (MTBF)	52.80 years when no interface card is configured, 41.33 years when a 2-port 10GE interface card is configured, 50.00 years when a 4-port GE front card is configured, 26.52 years when a 4-port 10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ±6 kV in differential mode, ±6 kV in common mode Using DC power modules: ±1 kV in differential mode, ±2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	63 W
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 41 dB(A)

Item	Description
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02352350

5.15.3 S5700-28C-PWR-EI

Version Mapping

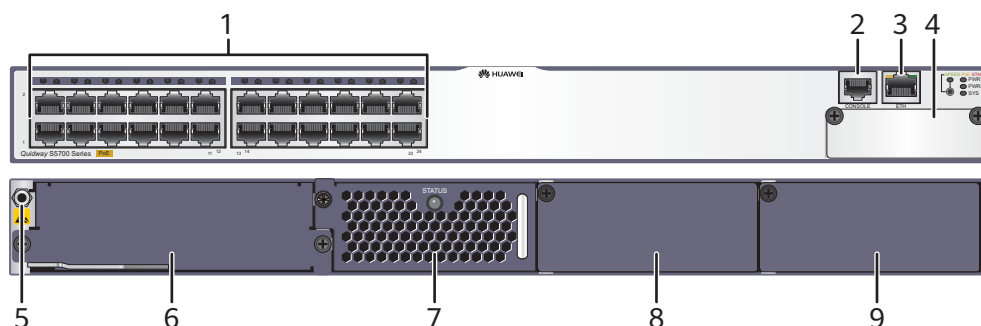
Table 5-731 lists the mapping between the S5700-28C-PWR-EI and software versions.

Table 5-731 Version mapping

Series	Model	Software Version
S5700-EI	S5700-28C-PWR-EI	V100R005C01 to V200R005C03 NOTE This model does not match V200R003C02 or V200R003C10.

Appearance and Structure

Figure 5-290 S5700-28C-PWR-EI appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	One console port
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3	One ETH management port	4	Front card slot NOTE Card supported: <ul style="list-style-type: none"> 9.5 ES5D000G4S01 (4-Port GE SFP Front Optical Interface Card) 9.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) 9.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card)
5	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.	6	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 9.27 ES5D00ETPC00 (Stack Rear Card) 9.28 ES5D00ETPB00 (Extended Rear Card)
7	Fan slot NOTE Applicable fan module: CX7E1FANA fan module	8	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 250 W AC PoE power module 500 W AC PoE power module
9	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 250 W AC PoE power module 500 W AC PoE power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-732](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-732 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-733](#).

Table 5-733 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 5-734](#) describes the attributes of an ETH management port.

Table 5-734 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

Indicator Description

Figure 5-291 Indicators on the S5700-28C-PWR-EI

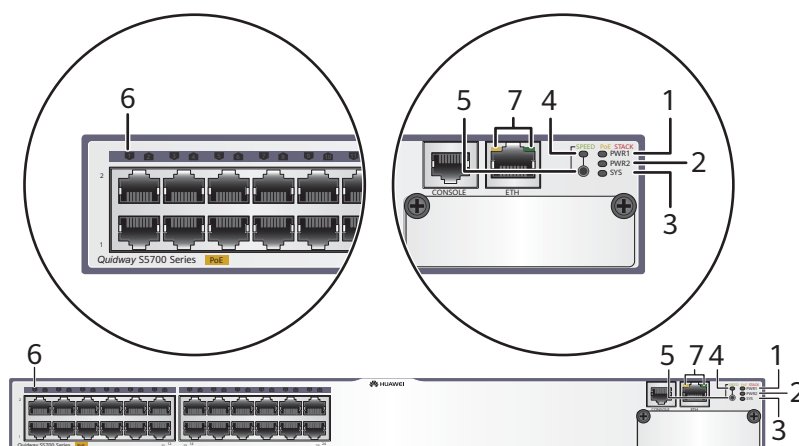


Table 5-735 Description of indicators on the switch

Number	Indicator/Button	Color	Description
1	PWR1: power supply indicator	-	Off: No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 1 and is working normally.

Number	Indicator/ Button	Color	Description
		Red	Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> • A power module is available in this slot but its power switch is in the OFF position. • A power module is available in this slot but it is not connected to a power source. • The system power and PoE power are faulty.
		Yellow	Steady on: If a single power module is installed, the PoE power is out of range. If dual power modules are installed, the system power or PoE power is out of range.
2	PWR2: power supply indicator	-	Off: No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 2 and is working normally.
		Red	Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • A power module is available in this slot but its power switch is in the OFF position. • A power module is available in this slot but it is not connected to a power source. • The system power and PoE power are faulty.
		Yellow	Steady on: If a single power module is installed, the PoE power is out of range. If dual power modules are installed, the system power or PoE power is out of range.

Number	Indicator/ Button	Color	Description
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none">Steady on: The system is not operating properly or is starting.Slow blinking: The system is running normally.
		Yellow	Steady on: The system is performing self-check during startup.
		Red	Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated.
4	Mode indicator	-	Off: The service port indicators are in the status mode (default). In the status mode, the service port indicator shows the port link or activity state.
		Green	Steady on: The service port indicators show the port speed. After 45 seconds, the service port indicators automatically restore to the status mode.
		Red	Steady on: The service port indicators show the stack ID of the switch. After 45 seconds, the service port indicators automatically restore to the status mode.
		Yellow	Steady on: The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.

Number	Indicator/ Button	Color	Description
5	Mode switch button	-	<ul style="list-style-type: none"> When you press this button once, the mode indicator turns green and the service port indicators show the speed of each service port. When you press this button a second time, the mode indicator turns red and the service port indicators show the stack status. When you press this button a third time, the mode indicator turns yellow and the service port indicators show the PoE status. When you press this button a fourth time, the mode indicator turns off. <p>If you do not press the button within 45 seconds, the mode indicator restores to status mode.</p>
6	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-736 .	
7	ETH indicator	-	Off: No link is established on the port.
		Green	Steady on: The port is connected.
		Yellow	Blinking: The port is sending or receiving data.

Table 5-736 Description of service port indicators in different modes

Display Mode	Color	Description
Status	Green	<ul style="list-style-type: none"> Off: The port is not connected or has been shut down. Steady on: The port is connected. Blinking: The port is sending or receiving data.

Display Mode	Color	Description
Speed	Green	<ul style="list-style-type: none">• Off: The port is not connected or has been shut down.• Steady on: 10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.• Blinking: 10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	Green	<ul style="list-style-type: none">• Off: The port does not provide PoE power.• Steady on: The port is providing PoE power.• Blinking: The PD connected to the port is not a standard PD or its power exceeds the maximum power or power threshold of the port.
Stack	Green	<ul style="list-style-type: none">• Off: The STCK mode is not selected.• If the indicator is steady on, the switch is not a master switch:<ul style="list-style-type: none">– If the indicator of a port is steady on, the number of this port is the stack ID of the switch.– If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.• If the indicator is blinking, the switch is a master switch:<ul style="list-style-type: none">– If the indicator of a port is blinking, the number of this port is the stack ID of the switch.– If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

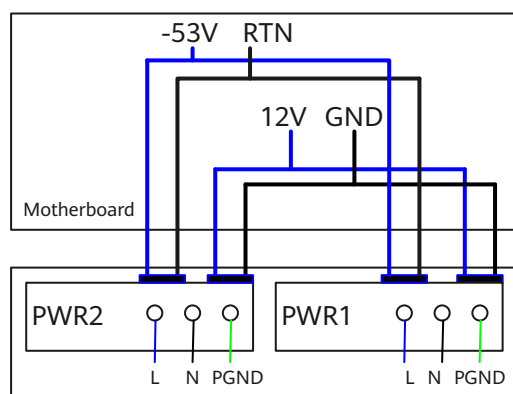
The S5700-28C-PWR-EI is a PoE switch. It has two power module slots, each of which can have a 500 W or 250 W power module installed. A power module can provide 369.6 W or 123.2 W of PoE power for powered devices (PDs). [Table 5-737](#) lists its power supply configurations.

Table 5-737 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
250 W	–	123.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 8 802.3at (30 W per port): 4
500 W	–	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
250 W	250 W	246.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 16 802.3at (30 W per port): 8
500 W	500 W	369.6 W (with PCB of version A for the S5700-28C-PWR-EI)	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
		739.2 W (with PCB of version B for the S5700-28C-PWR-EI)	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

[Figure 5-292](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

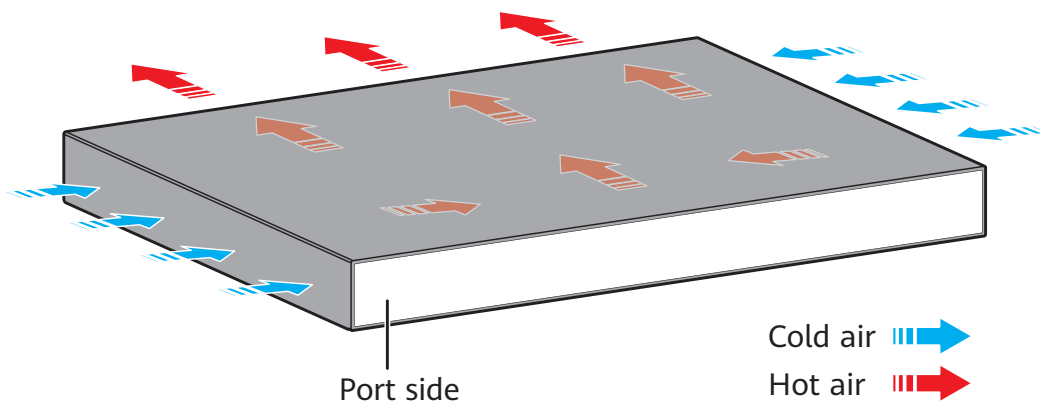
Figure 5-292 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5700-28C-PWR-EI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-738 lists technical specifications of the S5700-28C-PWR-EI.

Table 5-738 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB

Item	Description
Mean time between failures (MTBF)	52 years when a 2-port 10GE interface card is configured, 55.4 years when a 4-port GE front card is configured, 32.92 years when a 4-port 10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±1 kV in common mode
Power supply surge protection	±2 kV in differential mode, ±4 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> • Empty: ≤ 5 kg (11.02 lb) • Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	842 W (system power consumption: 102 W, PoE: 740 W)
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 45 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352361

5.15.4 S5700-52C-EI

Version Mapping

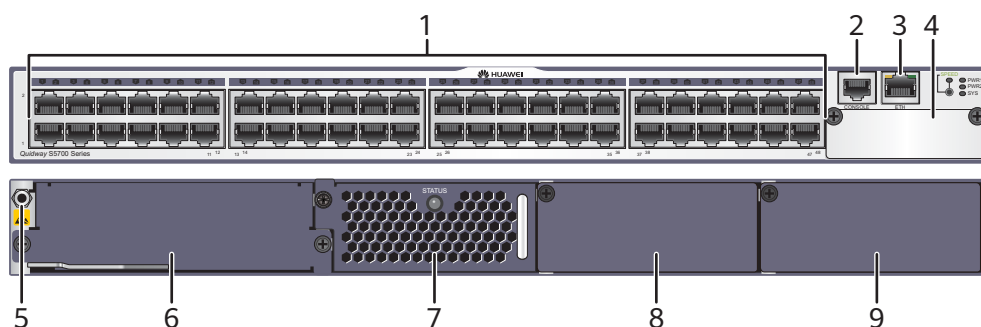
Table 5-739 lists the mapping between the S5700-52C-EI and software versions.

Table 5-739 Version mapping

Series	Model	Software Version
S5700-EI	S5700-52C-EI	V100R005C01 to V200R005C03 NOTE This model does not match V200R003C02 or V200R003C10.

Appearance and Structure

Figure 5-293 S5700-52C-EI appearance



1	Forty-eight 10/100/1000BASE-T ports	2	One console port
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3	One ETH management port	4	Front card slot NOTE Card supported: <ul style="list-style-type: none"> 9.5 ES5D000G4S01 (4-Port GE SFP Front Optical Interface Card) 9.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) 9.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card)
5	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.	6	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 9.27 ES5D00ETPC00 (Stack Rear Card) 9.28 ES5D00ETPB00 (Extended Rear Card)
7	Fan slot NOTE Applicable fan module: CX7E1FANA fan module	8	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 150 W AC power module 150 W DC power module
9	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 150 W AC power module 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-740** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-740 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-741](#).

Table 5-741 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 5-742](#) describes the attributes of an ETH management port.

Table 5-742 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

Indicator Description

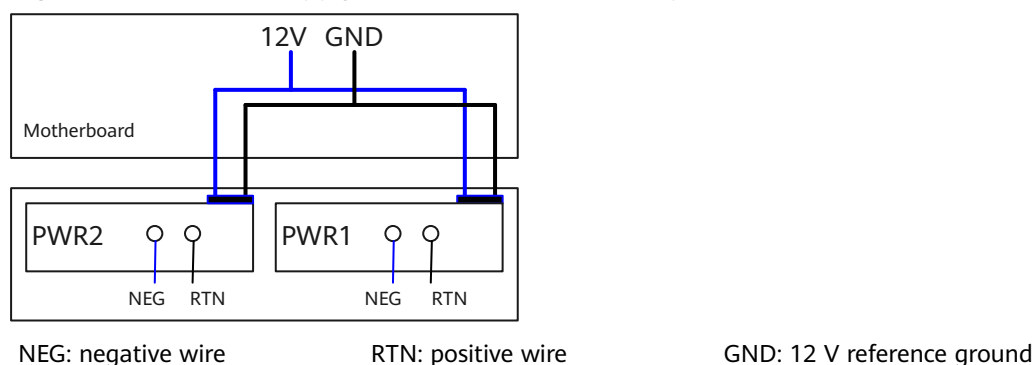
The S5700-52C-EI has the same types of indicators as the S5700-28C-EI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-52C-EI can use a single power module or double power modules for 1+1 power redundancy. In versions prior to V200R005C00, the switch cannot use pluggable AC and DC power modules simultaneously. In V200R005C00 and later versions, the switch supports mixing of pluggable AC and DC power modules.

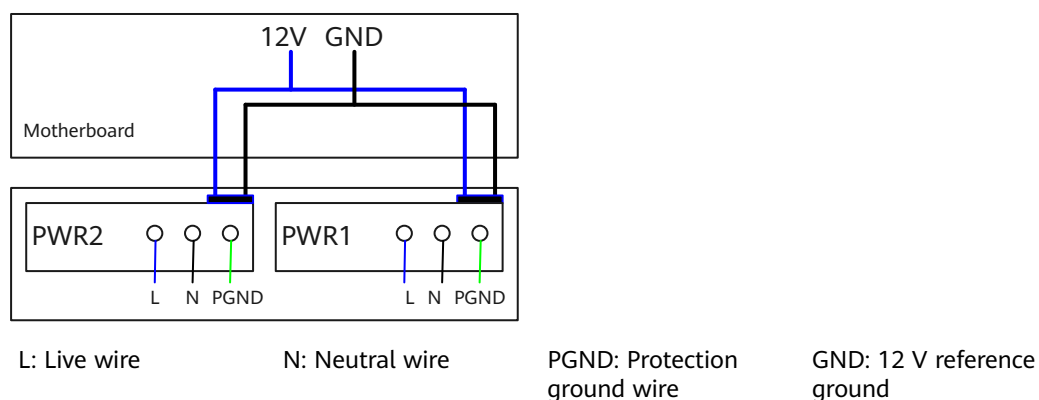
[Figure 5-294](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-294 Power supply connections of dual DC power modules



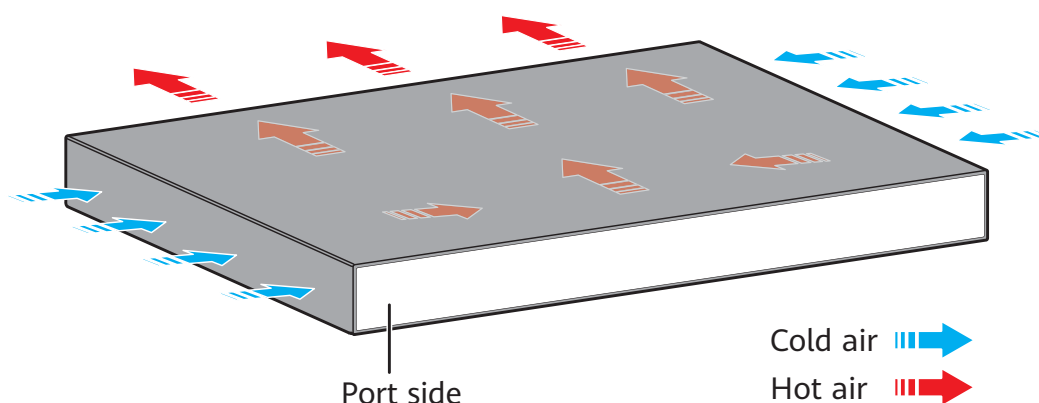
[Figure 5-295](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-295 Power supply connections of dual AC power modules



Heat Dissipation

The S5700-52C-EI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-743 lists technical specifications of the S5700-52C-EI.

Table 5-743 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	46.05 years when a 2-port 10GE interface card is configured, 57.08 years when a 4-port GE front card is configured, 25.58 years when a 4x10GE front card is configured

Item	Description
Mean time to repair (MTTR)	2 years
Availability	> 0.99999
Service port surge protection	Common mode: ± 2 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	88 W
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 41 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352354

5.15.5 S5700-52C-PWR-EI

Version Mapping

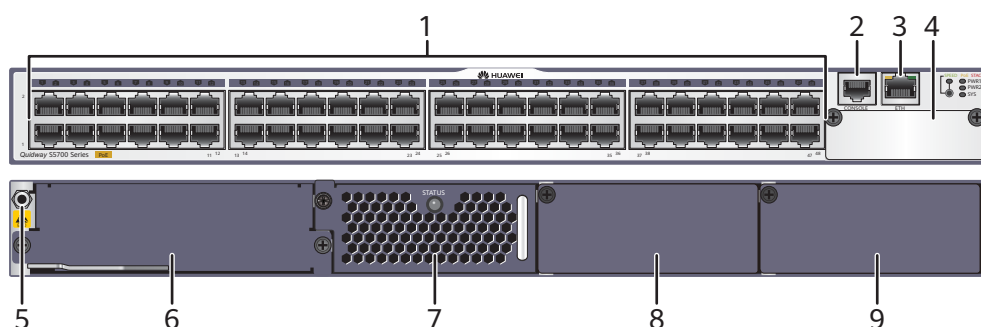
[Table 5-744](#) lists the mapping between the S5700-52C-PWR-EI and software versions.

Table 5-744 Version mapping

Series	Model	Software Version
S5700-EI	S5700-52C-PWR-EI	V100R005C01 to V200R005C03 NOTE This model does not match V200R003C02 or V200R003C10.

Appearance and Structure

Figure 5-296 S5700-52C-PWR-EI appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	One console port
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3	One ETH management port	4	Front card slot NOTE Card supported: <ul style="list-style-type: none"> 9.5 ES5D000G4S01 (4-Port GE SFP Front Optical Interface Card) 9.3 ES5D000X2S00 (2-Port 10GE SFP+ Front Optical Interface Card) 9.4 ES5D000X4S01 (4-Port 10GE SFP+ Front Optical Interface Card)
5	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.	6	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 9.27 ES5D00ETPC00 (Stack Rear Card) 9.28 ES5D00ETPB00 (Extended Rear Card)
7	Fan slot NOTE Applicable fan module: CX7E1FANA fan module	8	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 250 W AC PoE power module 500 W AC PoE power module
9	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 250 W AC PoE power module 500 W AC PoE power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-745](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-745 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-746](#).

Table 5-746 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 5-747](#) describes the attributes of an ETH management port.

Table 5-747 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

Indicator Description

The S5700-52C-PWR-EI has the same types of indicators as the S5700-28C-PWR-EI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-52C-PWR-EI is a PoE switch. It has two power module slots, each of which can have a 500 W or 250 W power module installed. A power module can provide 369.6 W or 123.2 W of PoE power for powered devices (PDs). [Table 5-748](#) lists its power supply configurations.

Table 5-748 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
250 W	–	123.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 8 802.3at (30 W per port): 4
500 W	–	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
250 W	250 W	246.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 16 802.3at (30 W per port): 8
500 W	500 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24

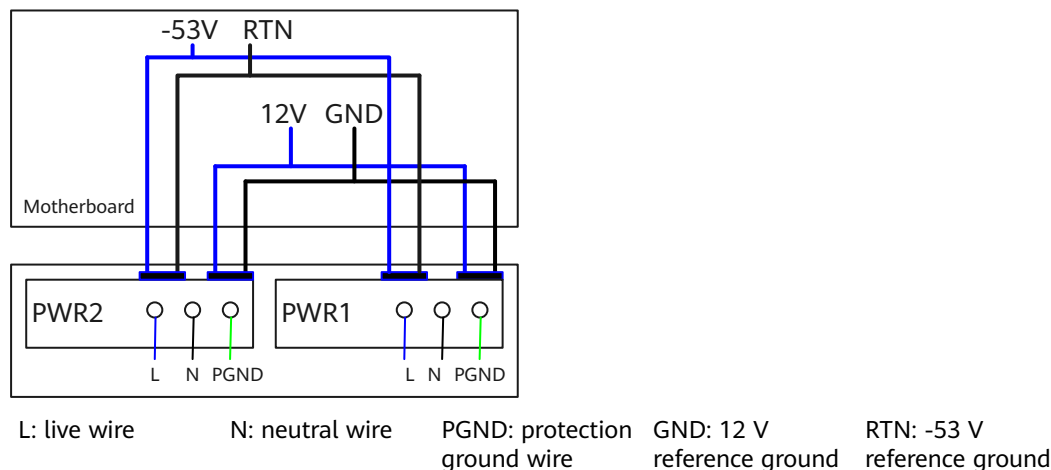
NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 5-297](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR

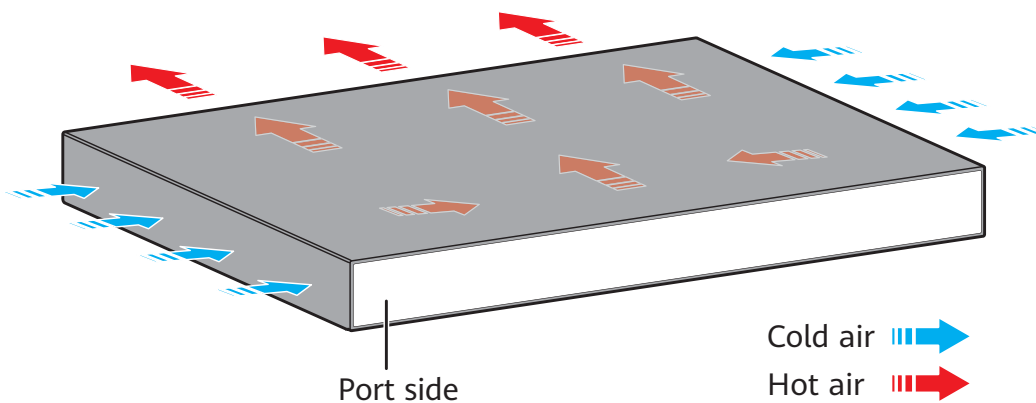
modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 5-297 Power supply by dual AC PoE power modules



Heat Dissipation

The S5700-52C-PWR-EI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-749](#) lists technical specifications of the S5700-52C-PWR-EI.

Table 5-749 Technical specifications

Item	Description
Memory (RAM)	256 MB
Flash	32 MB
Mean time between failures (MTBF)	44.8 years when a 2-port 10GE interface card is configured, 66.8 years when a 4-port GE front card is configured, 29.89 years when a 4x10GE front card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 1 kV
Power supply surge protection	± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none">• Empty: ≤ 5 kg (11.02 lb)• Fully configured: ≤ 8.5 kg (18.74 lb)
Stack ports	Two stack ports available on each stack card
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	930 W (system power consumption: 190 W, PoE: 740 W)
Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 45 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02352366

5.16 S5710-EI

5.16.1 S5710-28C-EI

Version Mapping

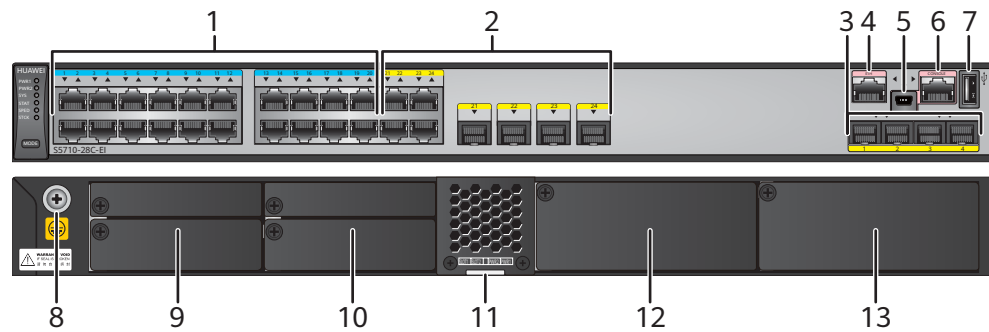
[Table 5-750](#) lists the mapping between the S5710-28C-EI chassis and software versions.

Table 5-750 Version mapping

Series	Model	Software Version
S5710-EI	S5710-28C-EI	V200R001C00 to V200R005C02 NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 5-298 S5710-28C-EI appearance



1	Twenty 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
3	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions) 	4	One ETH management port
5	One mini USB port	6	One console port
7	One USB port	8	Ground screw NOTE It is used with a ground cable .

9	Rear card slot 1 NOTE Card supported: <ul style="list-style-type: none"> 9.10 ES5D21G08S00 (8-Port GE SFP Rear Optical Interface Card) 9.11 ES5D21G08T00 (8-Port GE Rear Electrical Interface Card) 9.12 ES5D21X02S00 (2-Port GE SFP/10GE SFP+ Rear Optical Interface Card) 	10	Rear card slot 2 NOTE Card supported: <ul style="list-style-type: none"> 9.10 ES5D21G08S00 (8-Port GE SFP Rear Optical Interface Card) 9.11 ES5D21G08T00 (8-Port GE Rear Electrical Interface Card) 9.12 ES5D21X02S00 (2-Port GE SFP/10GE SFP+ Rear Optical Interface Card)
11	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.	12	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 150 W AC power module 150 W DC power module
13	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 150 W AC power module 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-751** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-751 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one

internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-752](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-752 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-753](#).

Table 5-753 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. **Table 5-754** describes the attributes of an ETH management port.

Table 5-754 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 5-299 Indicators on the S5710-28C-EI

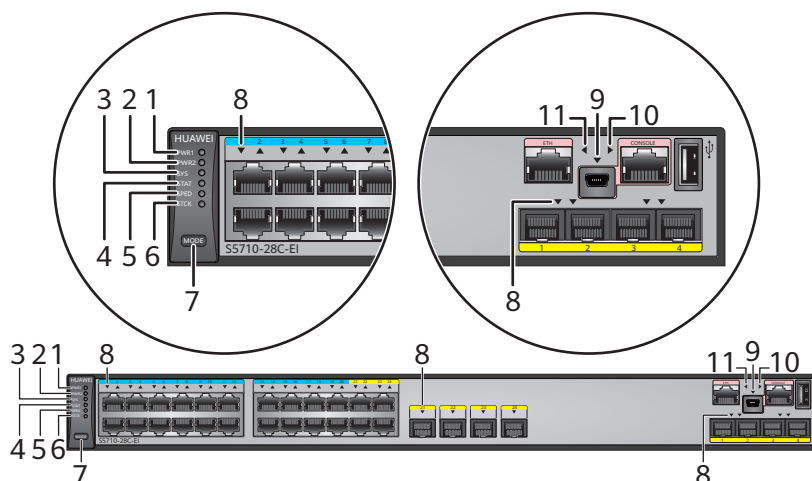


Table 5-755 Description of indicators on the switch

Number	Indicator	Color	Description
1	PWR1: power supply indicator	-	Off: No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 1 and is working normally.

Number	Indicator	Color	Description
		Yellow	<p>Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 1:</p> <ul style="list-style-type: none"> • A power module is available in this slot but its power switch is in the OFF position. • A power module is available in this slot but it is not connected to a power source. • The power module in power module slot 1 fails.
2	PWR2: power supply indicator	-	Off: No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 2 and is working normally.
		Yellow	<p>Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 2:</p> <ul style="list-style-type: none"> • A power module is available in this slot but its power switch is in the OFF position. • A power module is available in this slot but it is not connected to a power source. • The power module in power module slot 2 fails.
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> • Fast blinking: The system is starting or is copying the system software and configuration file from a USB flash drive. • Slow blinking: The system is running properly.

Number	Indicator	Color	Description
		Yellow	Blinking: The system has been successfully upgraded using a USB flash drive and the switch has restarted. You can remove the USB flash drive from the switch.
		Red	<ul style="list-style-type: none"> Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated. Blinking: An error occurred during USB-based upgrade and the system failed to be upgraded after a USB flash drive is inserted.
4	STAT: status indicator	Green	<ul style="list-style-type: none"> Off: The status mode is not selected. Steady on: The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPED: speed indicator	Green	<ul style="list-style-type: none"> Off: The speed mode is not selected. Steady on: The speed mode is selected. If the speed mode is selected, the service port indicator shows the port speed state. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK: stack indicator NOTE This indicator has different states and meanings in different versions. Here are the indicator states and meaning in versions earlier than V200R003C00.	Green	<ul style="list-style-type: none"> Off: The stack mode is not selected. Steady on: The service port indicators show the stack information. After 45 seconds, the service port indicators automatically restore to the status mode. Blinking: The switch is the master switch in a stack or a standalone switch.

Number	Indicator	Color	Description
	<p>STCK: stack indicator</p> <p>NOTE This indicator has different states and meanings in different versions. Here are the indicator states and meaning in V200R003C00 and later versions.</p>	Green	<p>If you are not changing the indicator mode (default):</p> <ul style="list-style-type: none"> • Off: The switch is in stack standby or slave state or the stacking function is not enabled on the switch. • Blinking: The switch is a stack master switch or a standalone switch with the stacking function enabled. <hr/> <p>If you are changing the indicator mode:</p> <ul style="list-style-type: none"> • Off: The stack mode is not selected. • Steady on: The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch. • Blinking: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

Number	Indicator	Color	Description
7	MODE: mode switch button	-	<ul style="list-style-type: none">When you press this button once, the service port indicators change to the speed mode and show the speed of each service port.When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch.When you press this button a third time, the STAT indicator turns green and the service port indicators restore to the default mode. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
8	Service port indicator <ul style="list-style-type: none">GE electrical ports: The ports are numbered from bottom to top and left to right, starting with 1.GE/10GE optical ports: Each port has an indicator above it.		Meanings of service port indicators vary in different modes. For details, see Table 5-756 .

Number	Indicator	Color	Description
9	Mini USB indicator	Green	<ul style="list-style-type: none"> Off: The Mini USB port is not active, and the console port is active. Steady on: The Mini USB port is active. <p>When this indicator is on, the console indicator is off.</p>
10	Console indicator	Green	<ul style="list-style-type: none"> Off: The console port is not active, and the Mini USB port is active. Steady on (default): The console port is active. <p>When this LED is on, the Mini USB port indicator is off.</p>
11	ETH indicator	Green	<ul style="list-style-type: none"> Off: No link is established on the port. Steady on: The port is connected. Blinking: The port is sending or receiving data.

Table 5-756 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	<p>10M/100M/1000M port: The port is operating at 10/100 Mbit/s.</p> <p>1000M/10GE port: The port is operating at 1000 Mbit/s.</p>

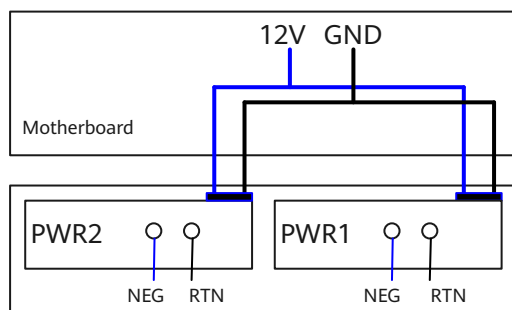
Display Mode	Color	Status	Description
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is blinking, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5710-28C-EI uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 5-300 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-300 Power supply connections of dual DC power modules



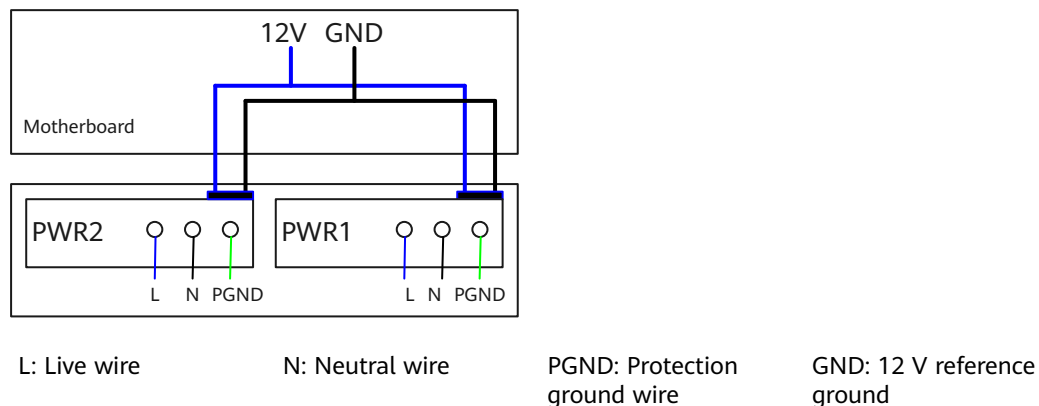
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

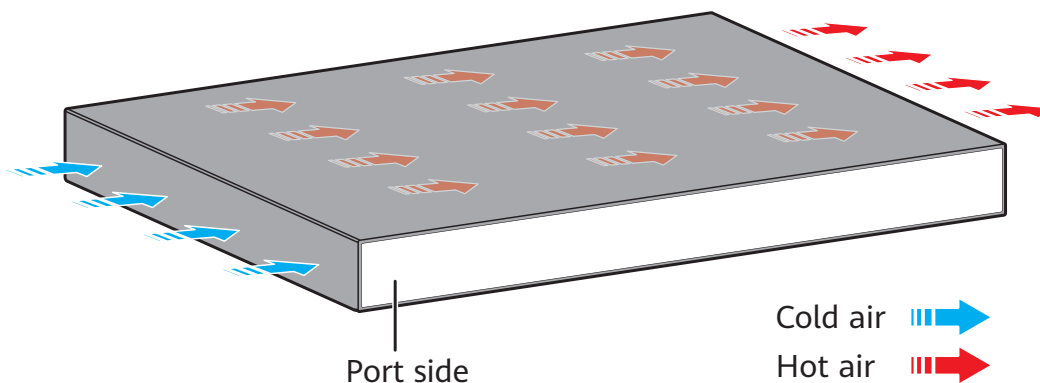
Figure 5-301 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-301 Power supply connections of dual AC power modules



Heat Dissipation

The S5710-28C-EI has five built-in fans for forced air cooling. The airflow direction is left-to-right.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-757 lists technical specifications of the S5710-28C-EI.

Table 5-757 Technical specifications

Item	Description
Memory (RAM)	512 MB

Item	Description
Flash	<ul style="list-style-type: none"> • V200R001: 64 MB • V200R002 and later versions: 200 MB
Mean time between failures (MTBF)	55.98 years when an 8-port GE optical card is configured, 54.93 years when an 8-port GE electrical card is configured, 52.69 years when a 2-port 10GE interface card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 2 kV
Power supply surge protection	<ul style="list-style-type: none"> • Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode • Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	44.4 mm x 442.0 mm x 420.0 mm (1.75 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> • Empty: ≤ 6 kg (13.23 lb) • Fully configured: ≤ 10 kg (22.05 lb)
Stack ports	Four fixed 10GE SFP+ ports on the front panel or ports on the 2-port 10GE rear card
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	98 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 53.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02353170

5.16.2 S5710-28C-PWR-EI-AC

Version Mapping

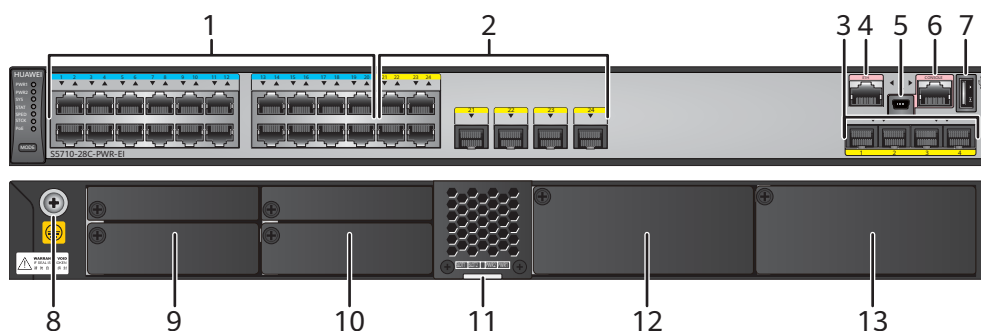
Table 5-758 lists the mapping between the S5710-28C-PWR-EI-AC chassis and software versions.

Table 5-758 Version mapping

Series	Model	Software Version
S5710-EI	S5710-28C-PWR-EI-AC	V200R002C00 to V200R005C02 NOTE This model does not match V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 5-302 S5710-28C-PWR-EI-AC appearance



1	Twenty PoE+ 10/100/1000BASE-T ports	2	<p>Four combo ports (10/100/1000BASE-T (PoE+) + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions) 	4	One ETH management port
5	One mini USB port	6	One console port
7	One USB port	8	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
9	<p>Rear card slot 1</p> <p>NOTE Card supported:</p> <ul style="list-style-type: none"> • 9.10 ES5D21G08S00 (8-Port GE SFP Rear Optical Interface Card) • 9.11 ES5D21G08T00 (8-Port GE Rear Electrical Interface Card) • 9.12 ES5D21X02S00 (2-Port GE SFP/10GE SFP+ Rear Optical Interface Card) 	10	<p>Rear card slot 2</p> <p>NOTE Card supported:</p> <ul style="list-style-type: none"> • 9.10 ES5D21G08S00 (8-Port GE SFP Rear Optical Interface Card) • 9.11 ES5D21G08T00 (8-Port GE Rear Electrical Interface Card) • 9.12 ES5D21X02S00 (2-Port GE SFP/10GE SFP+ Rear Optical Interface Card)

1 1	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.	1 2	Power module slot 2 NOTE Applicable power module: • 580 W AC PoE power module
1 3	Power module slot 1 NOTE Applicable power module: • 580 W AC PoE power module	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-759** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-759 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-760](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-760 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-761](#).

Table 5-761 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 5-762](#) describes the attributes of an ETH management port.

Table 5-762 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 5-303 Indicators on the S5710-28C-PWR-EI-AC

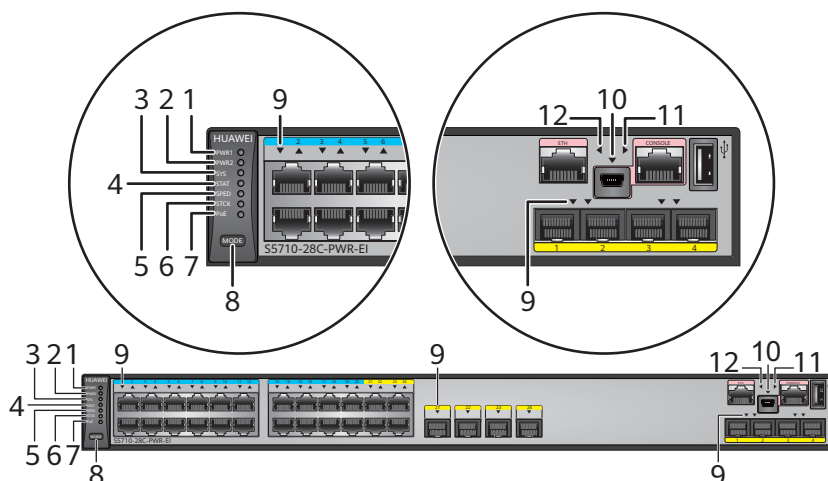


Table 5-763 Description of indicators on the switch

Number	Indicator	Color	Description
1	PWR1: power supply indicator	-	Off: No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 1 and is working normally.

Number	Indicator	Color	Description
		Yellow	Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none">• A power module is available in this slot but its power switch is in the OFF position.• A power module is available in this slot but it is not connected to a power source.• The power module in power module slot 1 fails.
2	PWR2: power supply indicator	-	Off: No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 2 and is working normally.
		Yellow	Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none">• A power module is available in this slot but its power switch is in the OFF position.• A power module is available in this slot but it is not connected to a power source.• The power module in power module slot 2 fails.
3	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none">• Fast blinking: The system is starting or is copying the system software and configuration file from a USB flash drive.• Slow blinking: The system is running properly.

Number	Indicator	Color	Description
		Yellow	Blinking: The system has been successfully upgraded using a USB flash drive and the switch has restarted. You can remove the USB flash drive from the switch.
		Red	<ul style="list-style-type: none"> Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated. Blinking: An error occurred during USB-based upgrade and the system failed to be upgraded after a USB flash drive is inserted.
4	STAT: status indicator	Green	<ul style="list-style-type: none"> Off: The status mode is not selected. Steady on: The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPED: speed indicator	Green	<ul style="list-style-type: none"> Off: The speed mode is not selected. Steady on: The speed mode is selected. If the speed mode is selected, the service port indicator shows the port speed state. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK: stack indicator NOTE This indicator has different states and meanings in different versions. Here are the indicator states and meaning in versions earlier than V200R003C00.	Green	<ul style="list-style-type: none"> Off: The stack mode is not selected. Steady on: The service port indicators show the stack information. After 45 seconds, the service port indicators automatically restore to the status mode. Blinking: The switch is the master switch in a stack or a standalone switch.

Number	Indicator	Color	Description
	STCK: stack indicator NOTE This indicator has different states and meanings in different versions. Here are the indicator states and meaning in V200R003C00 and later versions.	Green	<p>If you are not changing the indicator mode (default):</p> <ul style="list-style-type: none">• Off: The switch is in stack standby or slave state or the stacking function is not enabled on the switch.• Blinking: The switch is a stack master switch or a standalone switch with the stacking function enabled. <p>If you are changing the indicator mode:</p> <ul style="list-style-type: none">• Off: The stack mode is not selected.• Steady on: The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.• Blinking: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	PoE: PoE indicator	Green	<ul style="list-style-type: none">• Off: The PoE mode is not selected.• Steady on: The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.

Number	Indicator	Color	Description
8	MODE: mode switch button	-	<ul style="list-style-type: none">When you press this button once, the service port indicators change to the speed mode and show the speed of each service port.When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch.When you press this button a third time, the service port indicators change to PoE mode and show the PoE status of ports.When you press this button a fourth time, the STAT indicator turns green and the service port indicators restore to the default mode. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
9	Service port indicator <ul style="list-style-type: none">GE electrical ports: The ports are numbered from bottom to top and left to right, starting with 1.GE/10GE optical ports: Each port has an indicator above it.		Meanings of service port indicators vary in different modes. For details, see Table 5-764 .

Number	Indicator	Color	Description
10	Mini USB indicator	Green	<ul style="list-style-type: none"> Off: The Mini USB port is not active, and the console port is active. Steady on: The Mini USB port is active. <p>When this indicator is on, the console indicator is off.</p>
11	Console indicator	Green	<ul style="list-style-type: none"> Off: The console port is not active, and the Mini USB port is active. Steady on (default): The console port is active. <p>When this LED is on, the Mini USB port indicator is off.</p>
12	ETH indicator	Green	<ul style="list-style-type: none"> Off: No link is established on the port. Steady on: The port is connected. Blinking: The port is sending or receiving data.

Table 5-764 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	<p>10M/100M/1000M port: The port is operating at 10/100 Mbit/s.</p> <p>1000M/10GE port: The port is operating at 1000 Mbit/s.</p>

Display Mode	Color	Status	Description
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> • The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. • The total power consumption of PDs has reached the maximum power of the switch. • The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is steady on, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is blinking, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5710-28C-PWR-EI-AC is a PoE switch and uses 580 W AC PoE power modules. It has two power module slots. [Table 5-765](#) lists its power supply configurations.

Table 5-765 Power supply configurations

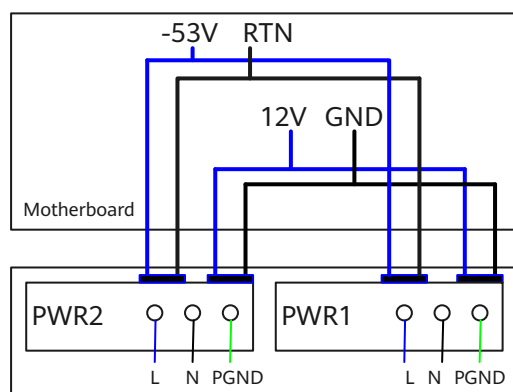
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
580 W	–	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
580 W	580 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 5-304](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 5-304 Power supply by dual AC PoE power modules



L: live wire

N: neutral wire

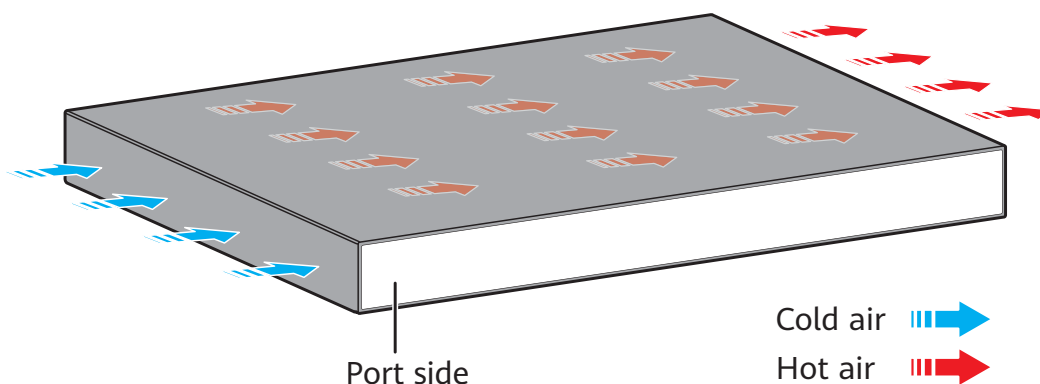
PGND: protection ground wire

GND: 12 V reference ground

RTN: -53 V reference ground

Heat Dissipation

The S5710-28C-PWR-EI-AC has five built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-766](#) lists technical specifications of the S5710-28C-PWR-EI-AC.

Table 5-766 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	200 MB
Mean time between failures (MTBF)	51.28 years when an 8-port GE optical card is configured, 50.31 years when an 8-port GE electrical card is configured, 48.25 years when a 2-port 10GE interface card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 1 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	44.4 mm x 442.0 mm x 420.0 mm (1.75 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 6 kg (13.23 lb) Fully configured: ≤ 10 kg (22.05 lb)
Stack ports	Four fixed 10GE SFP+ ports on the front panel or ports on the 2-port 10GE rear card

Item	Description
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	<ul style="list-style-type: none">• No card: 920 W (system power consumption: 180 W, PoE: 740 W)• Two 8-port GE electrical card: 934 W (system power consumption: 194 W, PoE: 740 W)• Two 8-port GE optical card: 942 W (system power consumption: 202 W, PoE: 740 W)• Two 2-port 10GE optical card: 941 W (system power consumption: 201 W, PoE: 740 W)
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 59.7 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02354038

5.16.3 S5710-52C-EI

Version Mapping

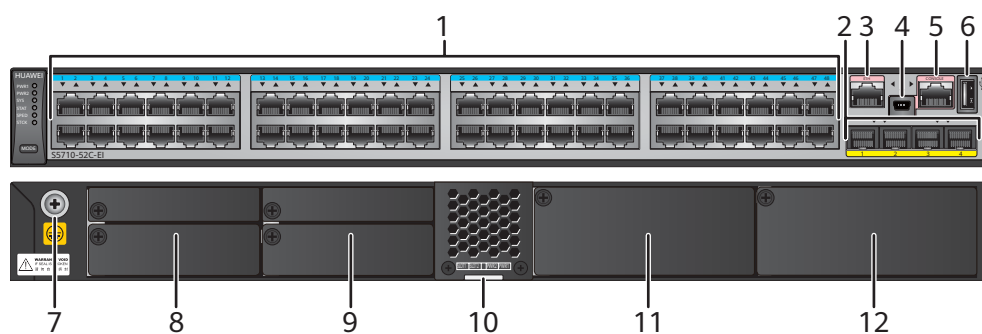
Table 5-767 lists the mapping between the S5710-52C-EI chassis and software versions.

Table 5-767 Version mapping

Series	Model	Software Version
S5710-EI	S5710-52C-EI	V200R001C00 to V200R005C02 NOTE This model does not match V200R001C01, V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 5-305 S5710-52C-EI appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions)
3	One ETH management port	4	One mini USB port

5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot 1 NOTE Card supported: <ul style="list-style-type: none"> • 9.10 ES5D21G08S00 (8-Port GE SFP Rear Optical Interface Card) • 9.11 ES5D21G08T00 (8-Port GE Rear Electrical Interface Card) • 9.12 ES5D21X02S00 (2-Port GE SFP/10GE SFP+ Rear Optical Interface Card)
9	Rear card slot 2 NOTE Card supported: <ul style="list-style-type: none"> • 9.10 ES5D21G08S00 (8-Port GE SFP Rear Optical Interface Card) • 9.11 ES5D21G08T00 (8-Port GE Rear Electrical Interface Card) • 9.12 ES5D21X02S00 (2-Port GE SFP/10GE SFP+ Rear Optical Interface Card) 	10	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-768](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-768 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-769](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-769 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-770](#).

Table 5-770 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 5-771](#) describes the attributes of an ETH management port.

Table 5-771 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5710-52C-EI has the same types of indicators as the S5710-28C-EI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5710-52C-EI uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 5-306 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-306 Power supply connections of dual DC power modules

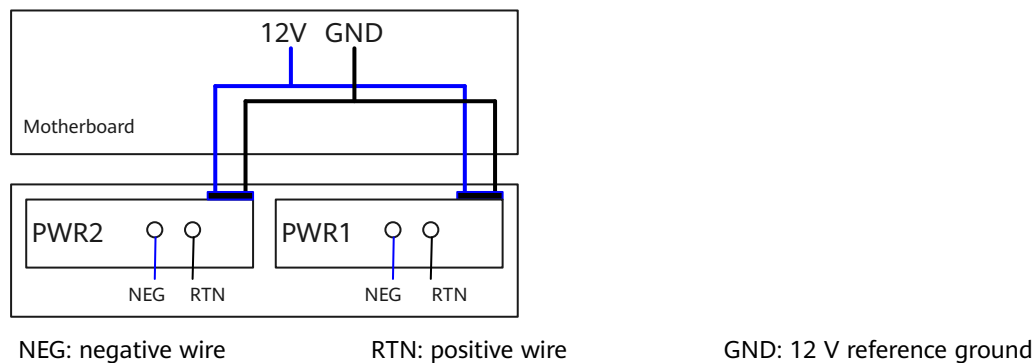
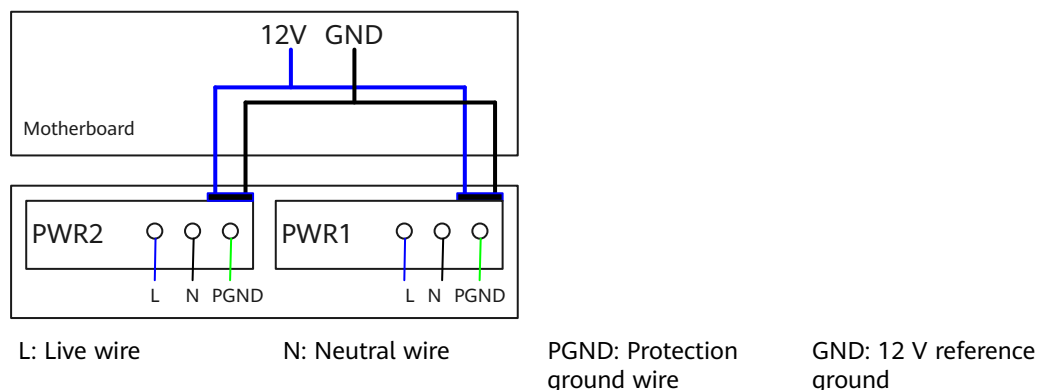


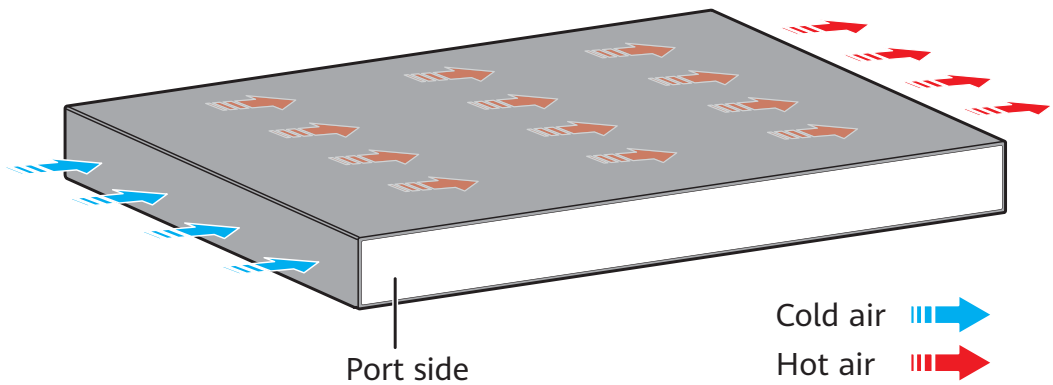
Figure 5-307 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-307 Power supply connections of dual AC power modules



Heat Dissipation

The S5710-52C-EI has five built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-772 lists technical specifications of the S5710-52C-EI.

Table 5-772 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	<ul style="list-style-type: none"> V200R001: 64 MB V200R002 and later versions: 200 MB
Mean time between failures (MTBF)	45.57 years when an 8-port GE optical card is configured, 44.85 years when an 8-port GE electrical card is configured, 43.33 years when a 2-port 10GE interface card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 2 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	44.4 mm x 442.0 mm x 420.0 mm (1.75 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 6 kg (13.23 lb) Fully configured: ≤ 10 kg (22.05 lb)
Stack ports	Four fixed 10GE SFP+ ports on the front panel or ports on the 2-port 10GE rear card

Item	Description
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	146.9 W
Operating temperature	0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 53.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02353169

5.16.4 S5710-52C-PWR-EI

Version Mapping

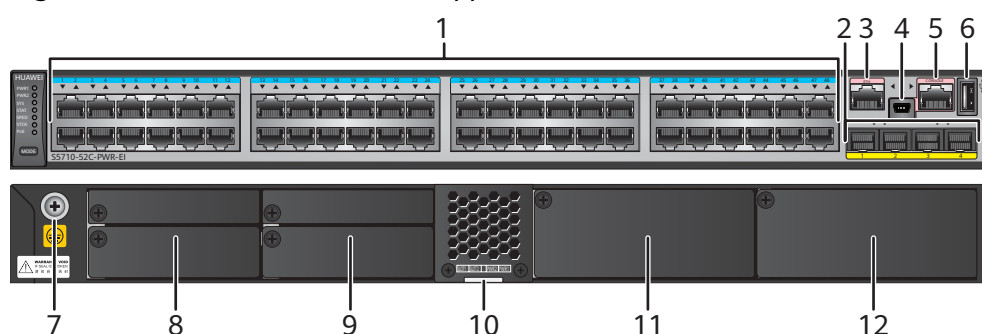
[Table 5-773](#) lists the mapping between the S5710-52C-PWR-EI chassis and software versions.

Table 5-773 Version mapping

Series	Model	Software Version
S5710-EI	S5710-52C-PWR-EI	V200R002C00 to V200R005C02 NOTE This model does not match V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 5-308 S5710-52C-PWR-EI appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions)
3	One ETH management port	4	One mini USB port
5	One console port	6	One USB port

7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot 1 NOTE Card supported: <ul style="list-style-type: none"> • 9.10 ES5D21G08S00 (8-Port GE SFP Rear Optical Interface Card) • 9.11 ES5D21G08T00 (8-Port GE Rear Electrical Interface Card) • 9.12 ES5D21X02S00 (2-Port GE SFP/10GE SFP+ Rear Optical Interface Card)
9	Rear card slot 2 NOTE Card supported: <ul style="list-style-type: none"> • 9.10 ES5D21G08S00 (8-Port GE SFP Rear Optical Interface Card) • 9.11 ES5D21G08T00 (8-Port GE Rear Electrical Interface Card) • 9.12 ES5D21X02S00 (2-Port GE SFP/10GE SFP+ Rear Optical Interface Card) 	10	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
11	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 580 W AC PoE power module • 1150 W AC PoE power module 	12	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 580 W AC PoE power module • 1150 W AC PoE power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-774](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-774 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-775](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-775 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-776](#).

Table 5-776 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the

software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 5-777](#) describes the attributes of an ETH management port.

Table 5-777 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5710-52C-PWR-EI has the same types of indicators as the S5710-28C-PWR-EI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5710-52C-PWR-EI is a PoE switch and uses 580 W or 1150 W AC PoE power modules. It has two power module slots. [Table 5-778](#) lists its power supply configurations.

Table 5-778 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
580 W	–	369.6 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 12

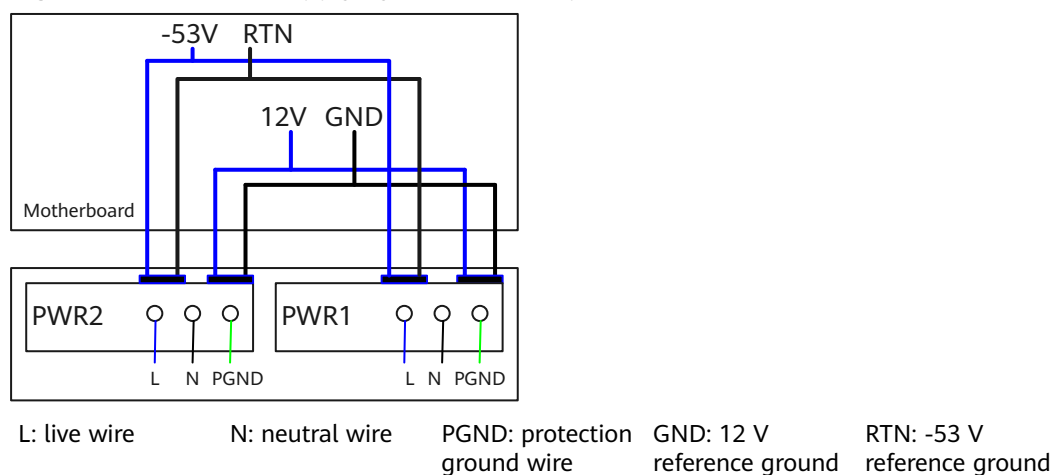
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
580 W	580 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24
1150 W	-	785.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 26
1150 W	1150 W	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

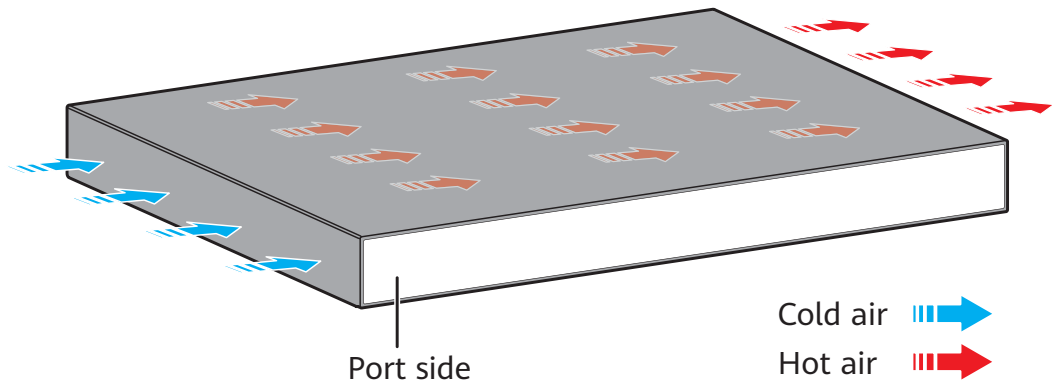
Figure 5-309 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 5-309 Power supply by dual AC PoE power modules



Heat Dissipation

The S5710-52C-PWR-EI has five built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-779](#) lists technical specifications of the S5710-52C-PWR-EI.

Table 5-779 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	200 MB
Mean time between failures (MTBF)	36.86 years when an 8-port GE optical card is configured, 36.35 years when an 8-port GE electrical card is configured, 35.27 years when a 2-port 10GE interface card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 1 kV
Power supply surge protection	<ul style="list-style-type: none"> • Using 580 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode • Using 1150 W AC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	44.4 mm x 442.0 mm x 420.0 mm (1.75 in. x 17.4 in. x 16.5 in.) When 1150 W power modules are installed, they stretch out from the chassis. Therefore, the total depth of the switch changes to 507.3 mm (19.97 in.).

Item	Description
Weight	<ul style="list-style-type: none"> • Empty: ≤ 6 kg (13.23 lb) • Fully configured: ≤ 10 kg (22.05 lb)
Stack ports	Four fixed 10GE SFP+ ports on the front panel or ports on the 2-port 10GE rear card
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	<p>Using two 580 W power modules</p> <ul style="list-style-type: none"> • No card: 1023 W (system power consumption: 283 W, PoE: 740 W) • Two 8-port GE electrical card: 1035 W (system power consumption: 295 W, PoE: 740 W) • Two 8-port GE optical card: 1043 W (system power consumption: 303 W, PoE: 740 W) • Two 2-port 10GE optical card: 1040 W (system power consumption: 300 W, PoE: 740 W) <p>Using two 1150 W power modules</p> <ul style="list-style-type: none"> • No card: 1605 W (system power consumption: 165 W, PoE: 1440 W) • Two 8-port GE electrical card: 1625 W (system power consumption: 185 W, PoE: 1440 W) • Two 8-port GE optical card: 1635 W (system power consumption: 195 W, PoE: 1440 W) • Two 2-port 10GE optical card: 1633 W (system power consumption: 193 W, PoE: 1440 W)
Operating temperature	<p>0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 60 dB(A)

Item	Description
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02355886

5.16.5 S5710-52C-PWR-EI-AC

Version Mapping

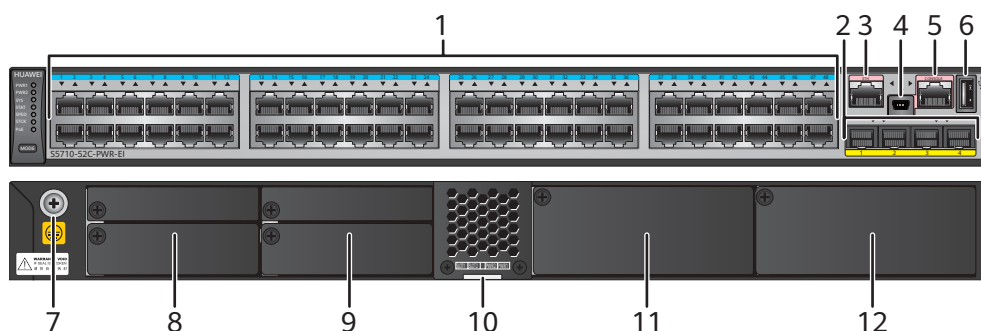
Table 5-780 lists the mapping between the S5710-52C-PWR-EI-AC chassis and software versions.

Table 5-780 Version mapping

Series	Model	Software Version
S5710-EI	S5710-52C-PWR-EI-AC	V200R002C00 to V200R005C02 NOTE This model does not match V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 5-310 S5710-52C-PWR-EI-AC appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions)
3	One ETH management port	4	One mini USB port
5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot 1 NOTE Card supported: <ul style="list-style-type: none"> • 9.10 ES5D21G08S00 (8-Port GE SFP Rear Optical Interface Card) • 9.11 ES5D21G08T00 (8-Port GE Rear Electrical Interface Card) • 9.12 ES5D21X02S00 (2-Port GE SFP/10GE SFP+ Rear Optical Interface Card)
9	Rear card slot 2 NOTE Card supported: <ul style="list-style-type: none"> • 9.10 ES5D21G08S00 (8-Port GE SFP Rear Optical Interface Card) • 9.11 ES5D21G08T00 (8-Port GE Rear Electrical Interface Card) • 9.12 ES5D21X02S00 (2-Port GE SFP/10GE SFP+ Rear Optical Interface Card) 	10	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
11	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 580 W AC PoE power module 	12	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 580 W AC PoE power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-781](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-781 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-782](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-782 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-783](#).

Table 5-783 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. **Table 5-784** describes the attributes of an ETH management port.

Table 5-784 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5710-52C-PWR-EI-AC has the same types of indicators as the S5710-28C-PWR-EI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5710-52C-PWR-EI-AC is a PoE switch and uses 580 W AC PoE power modules. It has two power module slots. [Table 5-785](#) lists its power supply configurations.

Table 5-785 Power supply configurations

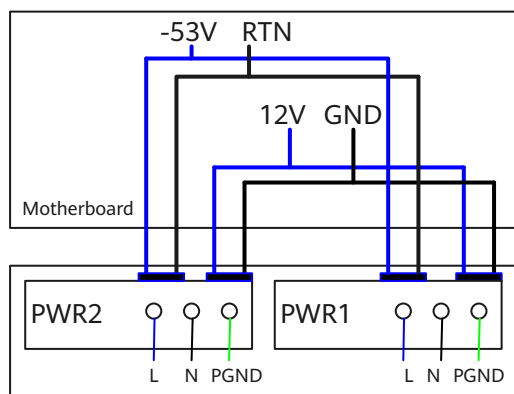
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
580 W	–	369.6 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 12
580 W	580 W	739.2 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 48802.3at (30 W per port): 24

 NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 5-311](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

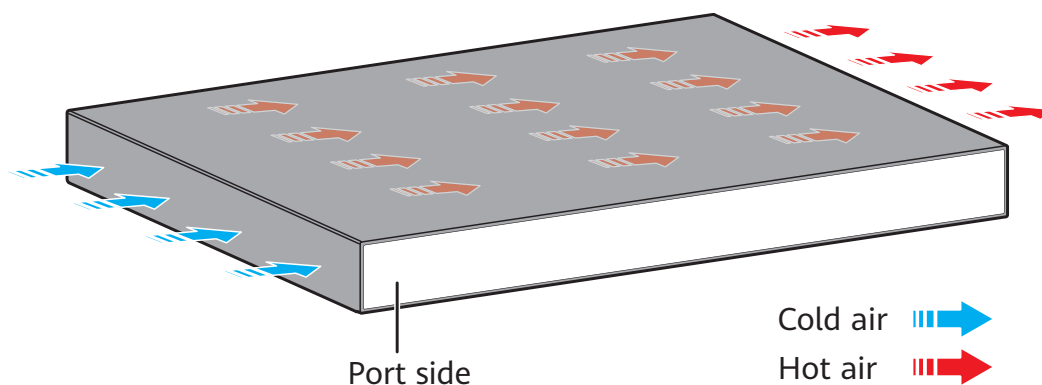
Figure 5-311 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5710-52C-PWR-EI-AC has five built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-786](#) lists technical specifications of the S5710-52C-PWR-EI-AC.

Table 5-786 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	200 MB

Item	Description
Mean time between failures (MTBF)	36.86 years when an 8-port GE optical card is configured, 36.35 years when an 8-port GE electrical card is configured, 35.27 years when a 2-port 10GE interface card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 1 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	44.4 mm x 442.0 mm x 420.0 mm (1.75 in. x 17.4 in. x 16.5 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 6 kg (13.23 lb) Fully configured: ≤ 10 kg (22.05 lb)
Stack ports	Four fixed 10GE SFP+ ports on the front panel or ports on the 2-port 10GE rear card
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	<ul style="list-style-type: none"> No card: 1023 W (system power consumption: 283 W, PoE: 740 W) Two 8-port GE electrical card: 1035 W (system power consumption: 295 W, PoE: 740 W) Two 8-port GE optical card: 1043 W (system power consumption: 303 W, PoE: 740 W) Two 2-port 10GE optical card: 1040 W (system power consumption: 300 W, PoE: 740 W)
Operating temperature	<p>0°C to 50°C (32°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 60 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02354042

5.17 S5720-EI

5.17.1 S5720-36C-EI-AC

Version Mapping

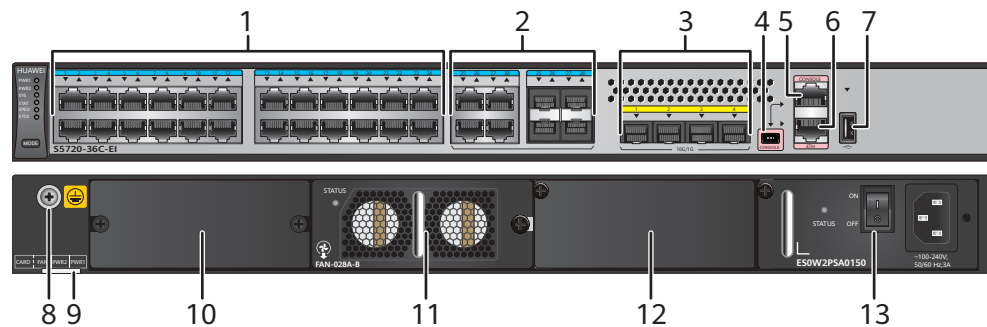
[Table 5-787](#) lists the mapping between the S5720-36C-EI-AC chassis and software versions.

Table 5-787 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-36C-EI-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 5-312 S5720-36C-EI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2 Four combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
3	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables 	4 One mini USB port

5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One ETH management port
7	One USB port	8	Ground screw NOTE It is used with a ground cable .
9	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.	10	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 9.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 9.26 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface)
11	Fan slot NOTE Applicable fan module: 8.3 FAN-028A-B Fan Module	12	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
13	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-788](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-788 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-789](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-789 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-790](#).

Table 5-790 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-791](#) describes the attributes of an ETH management port.

Table 5-791 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-36C-EI-AC has similar indicators to those on the S5720-36C-PWR-EI-AC, except that the S5720-36C-EI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-36C-EI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 5-313 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-313 Power supply connections of dual DC power modules

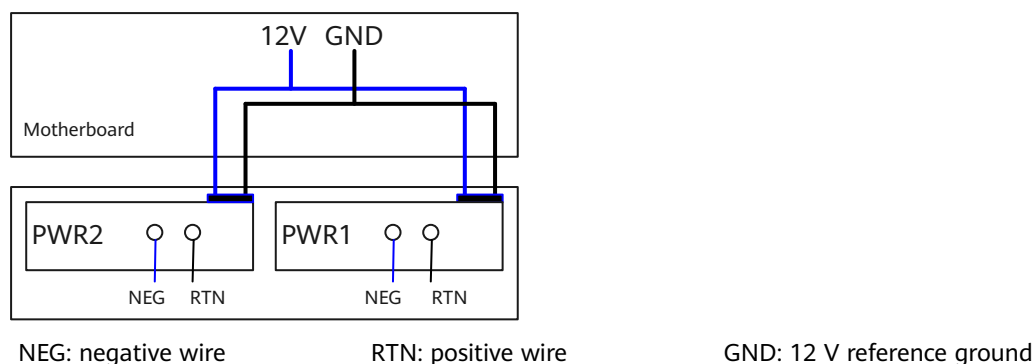
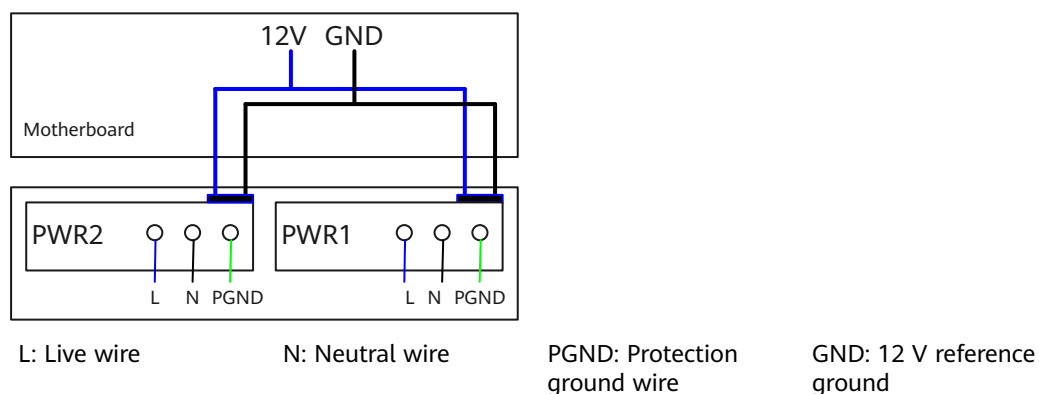


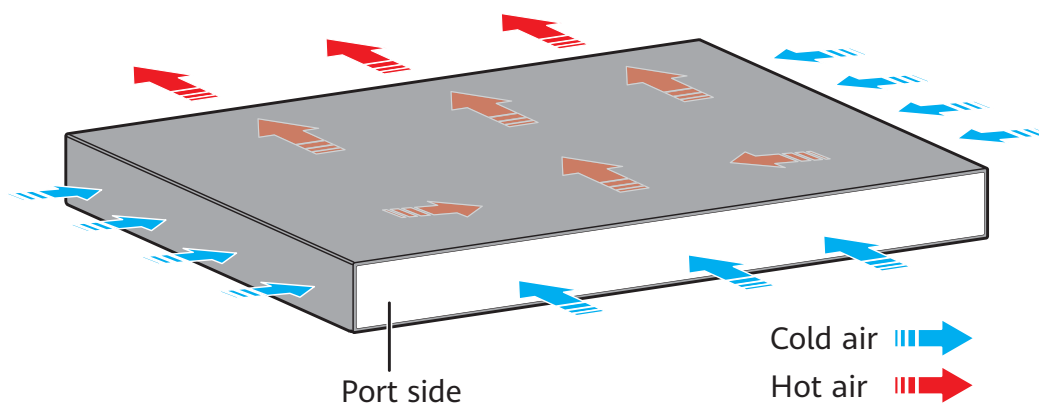
Figure 5-314 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-314 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-36C-EI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left side, right side, and front panel, and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-792 lists technical specifications of the S5720-36C-EI-AC.

Table 5-792 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	80.05 years when no card is configured; 73.65 years when a 2-port 10GE SFP+ interface card is configured; 71.58 years when a 2-port 10GE RJ45 interface card is configured; 71.74 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> • Service ports on front panel: ± 6 kV in common mode • Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> • Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode • Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.8 kg (21.61 lb)
Stack ports	<ul style="list-style-type: none"> • Ports on the 2-port 10GE SFP+ rear interface card • Ports on the 2-port 10GE RJ45 rear interface card • Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported

Item	Description
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	75.8 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	<ul style="list-style-type: none">• 39.5 W (without subcard)• 47.28 W (with 2*10G optical subcards)• 52.17 W (2*QSFP+ stack cards)• 55.14 W (with 2*10G electrical subcards)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02359562

5.17.2 S5720-36C-EI-DC

Version Mapping

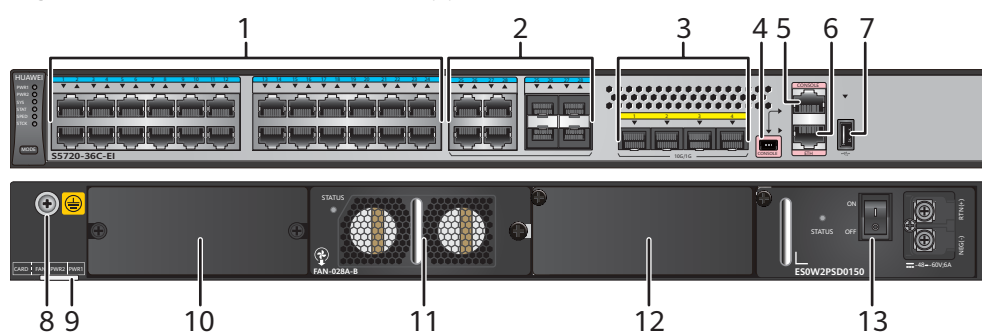
[Table 5-793](#) lists the mapping between the S5720-36C-EI-DC chassis and software versions.

Table 5-793 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-36C-EI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 5-315 S5720-36C-EI-DC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> ● FE optical module ● GE optical module ● GE-CWDM optical module ● GE-DWDM optical module
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables 	4	<p>One mini USB port</p>
5	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	<p>One ETH management port</p>
7	<p>One USB port</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
9	<p>ESN label</p> <p>NOTE</p> <p>You can draw it out to view the ESN and MAC address of the switch.</p>	10	<p>Rear card slot</p> <p>NOTE</p> <p>Card supported:</p> <ul style="list-style-type: none"> • 9.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 9.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 9.26 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface)

1 1	Fan slot NOTE Applicable fan module: 8.3 FAN-028A-B Fan Module	1 2	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
1 3	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-794](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-794 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-795](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-795 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-796](#).

Table 5-796 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-797](#) describes the attributes of an ETH management port.

Table 5-797 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not

support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

 **NOTE**

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

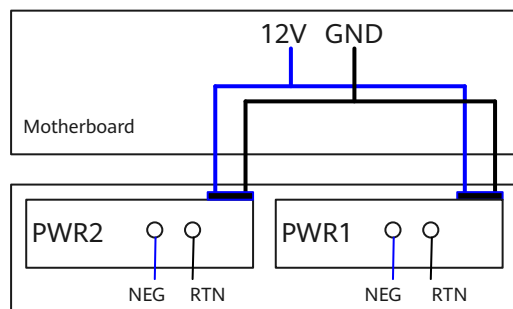
The S5720-36C-EI-DC has similar indicators to those on the S5720-36C-PWR-EI-AC, except that the S5720-56C-EI-DC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-36C-EI-DC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

[Figure 5-316](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-316 Power supply connections of dual DC power modules



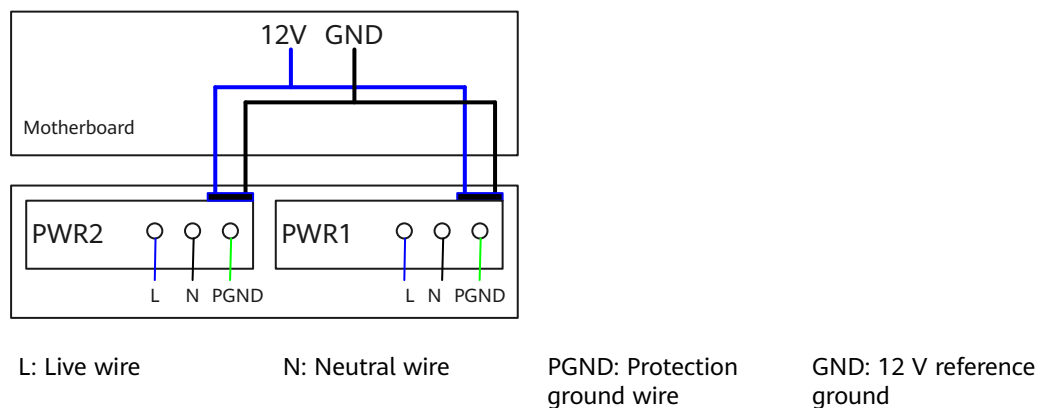
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

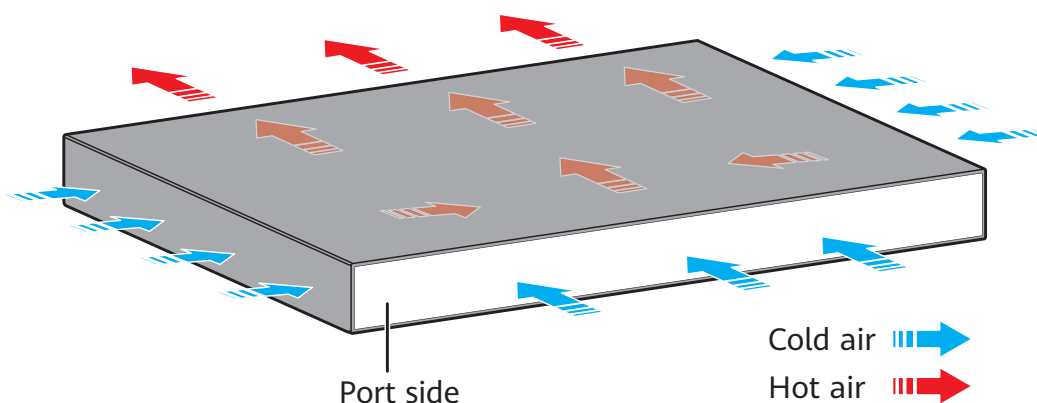
[Figure 5-317](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-317 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-36C-EI-DC uses pluggable fan modules for forced air cooling. Air flows in from the left side, right side, and front panel, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-798 lists technical specifications of the S5720-36C-EI-DC.

Table 5-798 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	80.05 years when no card is configured; 73.65 years when a 2-port 10GE SFP+ interface card is configured; 71.58 years when a 2-port 10GE RJ45 interface card is configured; 71.74 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> Service ports on front panel: ± 6 kV in common mode Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.6 kg (21.17 lb)
Stack ports	<ul style="list-style-type: none"> Ports on the 2-port 10GE SFP+ rear interface card Ports on the 2-port 10GE RJ45 rear interface card Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	75.8 W

Item	Description
<p>Typical power consumption (30% of traffic load)</p> <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	<ul style="list-style-type: none"> • 39.5 W (without card) • 47.28 W (with 2*10GE optical card) • 52.17 W (with 2*QSFP+ stack card) • 55.14 W (with 2*10GE electrical card)
<p>Operating temperature</p>	<p>0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
<p>Short-term operating temperature</p>	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
<p>Storage temperature</p>	<p>-40°C to +70°C (-40°F to +158°F)</p>
<p>Noise under normal temperature (27°C, sound power)</p>	<p>< 51.2 dB(A)</p>
<p>Relative humidity</p>	<p>5% to 95%, noncondensing</p>
<p>Operating altitude</p>	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NHJ

5.17.3 S5720-36C-EI-28S-AC

Version Mapping

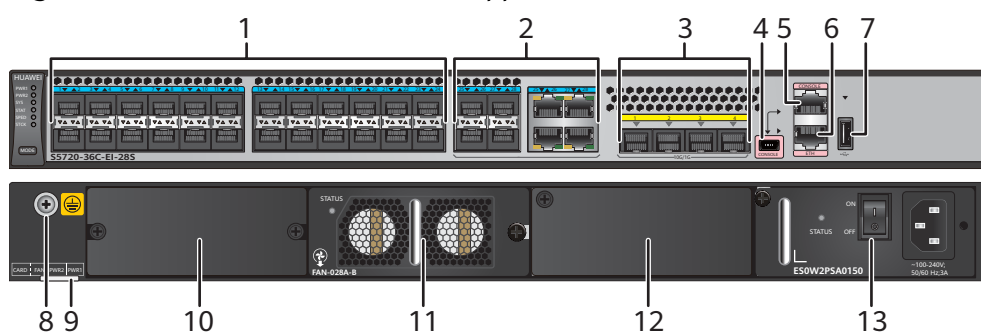
[Table 5-799](#) lists the mapping between the S5720-36C-EI-28S-AC chassis and software versions.

Table 5-799 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-36C-EI-28S-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 5-318 S5720-36C-EI-28S-AC appearance



1	<p>Twenty-four 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Four combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module
3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables 	4	<p>One mini USB port</p>
5	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	<p>One ETH management port</p>
7	<p>One USB port</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

9	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.	1 0	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 9.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) 9.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) 9.26 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface)
1 1	Fan slot NOTE Applicable fan module: 8.3 FAN-028A-B Fan Module	1 2	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 150 W AC power module 150 W DC power module
1 3	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 150 W AC power module 150 W DC power module 	-	-

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-800](#) describes the attributes of a 100/1000BASE-X port.

Table 5-800 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The

electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-801](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-801 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-802](#).

Table 5-802 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-803](#) describes the attributes of an ETH management port.

Table 5-803 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

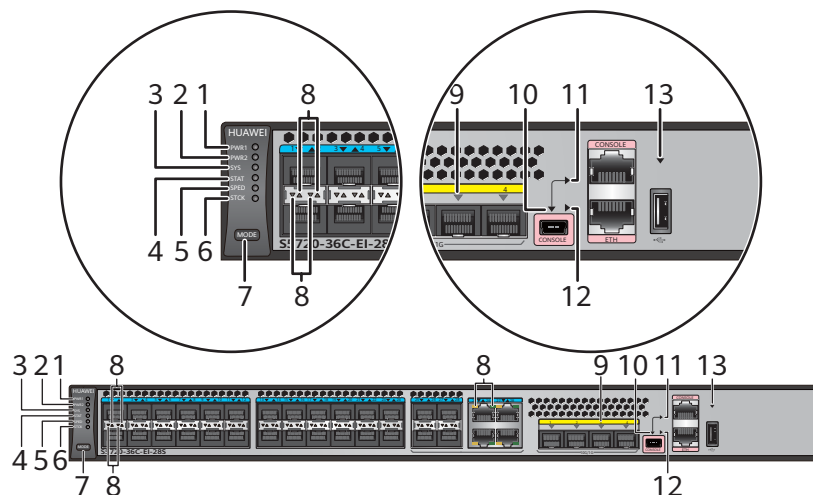
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-319 Indicators on the S5720-36C-EI-28S-AC



NOTE

The S5720-EI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators. When an S5720-EI switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 5-804 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
8	-	Service port indicator (two indicators for each port)	Meanings of service port indicators vary in different modes. For details, see Table 5-805 .		
9	-	Service port indicator (one indicator for each port)	Meanings of service port indicators vary in different modes. For details, see Table 5-806 .		
10	-	Mini USB indicator	-	Off	The Mini USB port is disabled, and the console port is enabled.
			Green	Steady on	The Mini USB port is enabled. When the Mini USB indicator is steady green, the console indicator is off.
11	-	Console indicator	-	Off	The console port is disabled, and the Mini USB port is enabled.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	The console port is enabled (default state). When the console indicator is steady green, the Mini USB indicator is off.
12	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
13	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-805 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green and yellow	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 100M/1000M port: The port is operating at 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green and yellow	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green and yellow	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none">• If the indicator of a port is steady on, the number of this port is the stack ID of the switch.• If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none">• If the indicator of a port is blinking, the number of this port is the stack ID of the switch.• If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Table 5-806 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-36C-EI-28S-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 5-320 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-320 Power supply connections of dual DC power modules

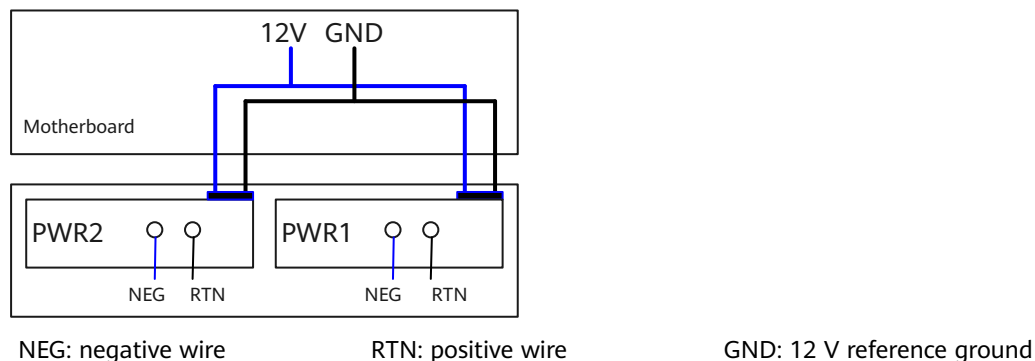
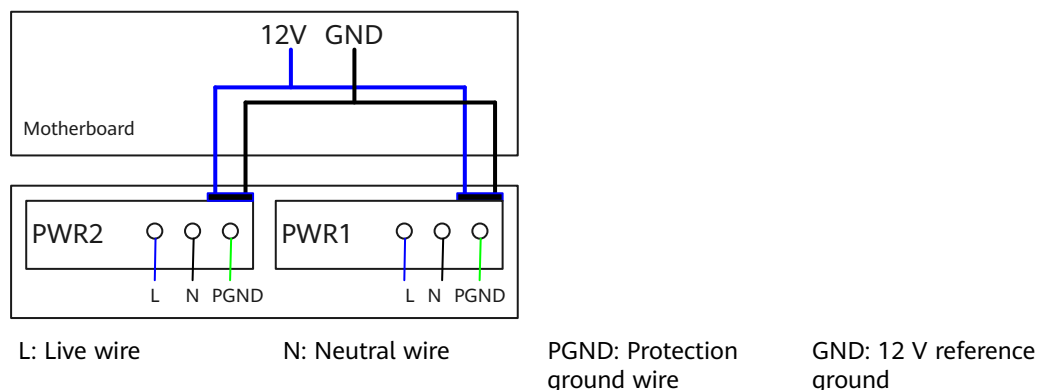


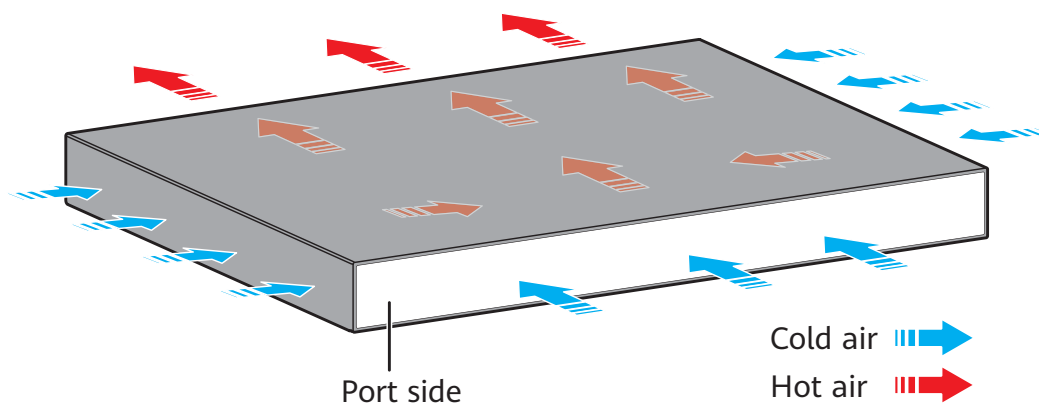
Figure 5-321 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-321 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-36C-EI-28S-AC uses pluggable fan modules for forced air cooling. Air flows in from the left side, right side, and front panel, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-807 lists technical specifications of the S5720-36C-EI-28S-AC.

Table 5-807 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	85.45 years when no card is configured; 78.2 years when a 2-port 10GE SFP+ interface card is configured; 75.87 years when a 2-port 10GE RJ45 interface card is configured; 76.05 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> Service ports on front panel: ± 6 kV in common mode Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> ● Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) ● Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.9 kg (21.83 lb)
Stack ports	<ul style="list-style-type: none"> ● Ports on the 2-port 10GE SFP+ rear interface card ● Ports on the 2-port 10GE RJ45 rear interface card ● Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	83.9 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	<ul style="list-style-type: none"> ● 47.86 W (without card) ● 55.35 W (with 2*10GE optical card) ● 60.25 W (with 2*QSFP+ stack card) ● 63.5 W (with 2*10GE electrical card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02359503

5.17.4 S5720-36C-EI-28S-DC

Version Mapping

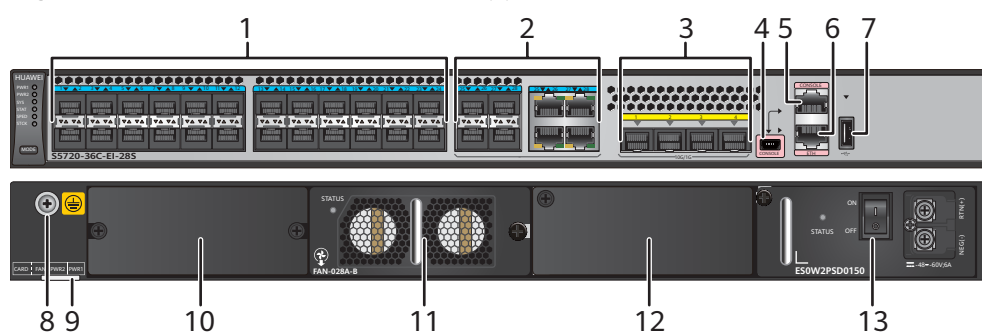
Table 5-808 lists the mapping between the S5720-36C-EI-28S-DC chassis and software versions.

Table 5-808 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-36C-EI-28S-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 5-322 S5720-36C-EI-28S-DC appearance



1	<p>Twenty-four 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> ● FE optical module ● GE optical module ● GE-CWDM optical module ● GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Four combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> ● FE optical module ● GE optical module ● GE-CWDM optical module
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables 	4	<p>One mini USB port</p>
5	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	<p>One ETH management port</p>
7	<p>One USB port</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
9	<p>ESN label</p> <p>NOTE</p> <p>You can draw it out to view the ESN and MAC address of the switch.</p>	10	<p>Rear card slot</p> <p>NOTE</p> <p>Card supported:</p> <ul style="list-style-type: none"> • 9.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 9.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 9.26 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface)

1 1	Fan slot NOTE Applicable fan module: 8.3 FAN-028A-B Fan Module	1 2	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
1 3	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	-	-

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-809](#) describes the attributes of a 100/1000BASE-X port.

Table 5-809 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

 **NOTE**

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-810](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-810 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-811](#).

Table 5-811 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-812](#) describes the attributes of an ETH management port.

Table 5-812 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not

support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

 **NOTE**

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

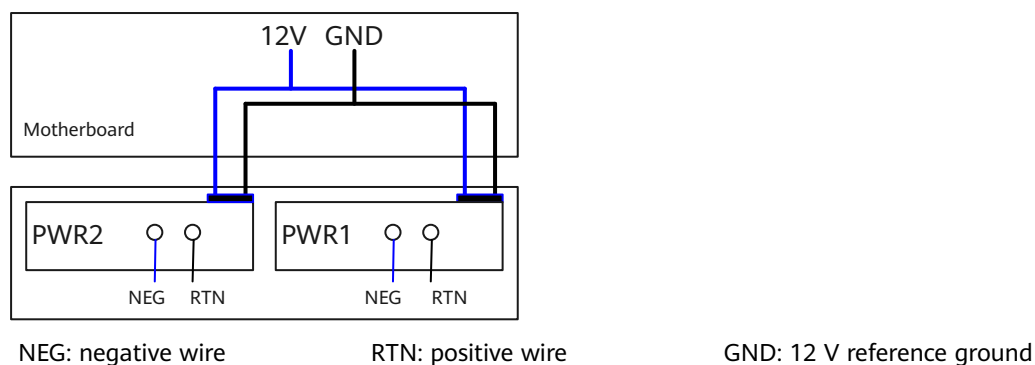
The S5720-36C-EI-28S-DC has the same types of indicators as the S5720-36C-EI-28S-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-36C-EI-28S-DC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

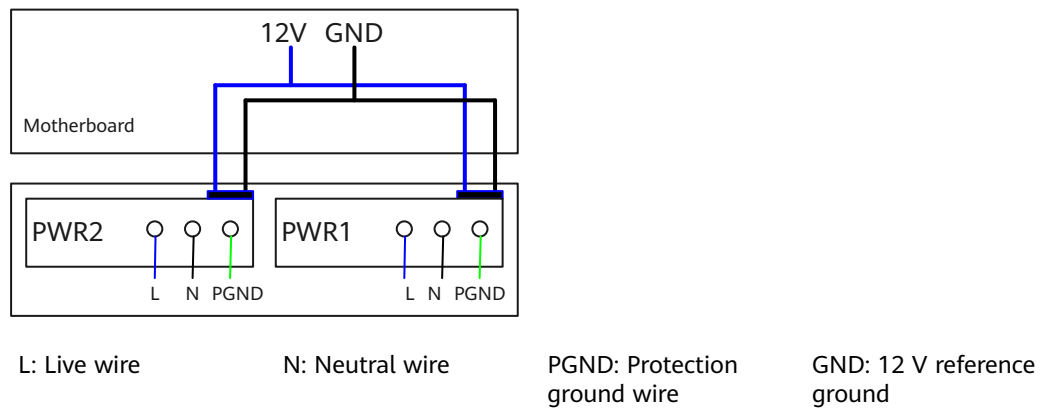
[Figure 5-323](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-323 Power supply connections of dual DC power modules



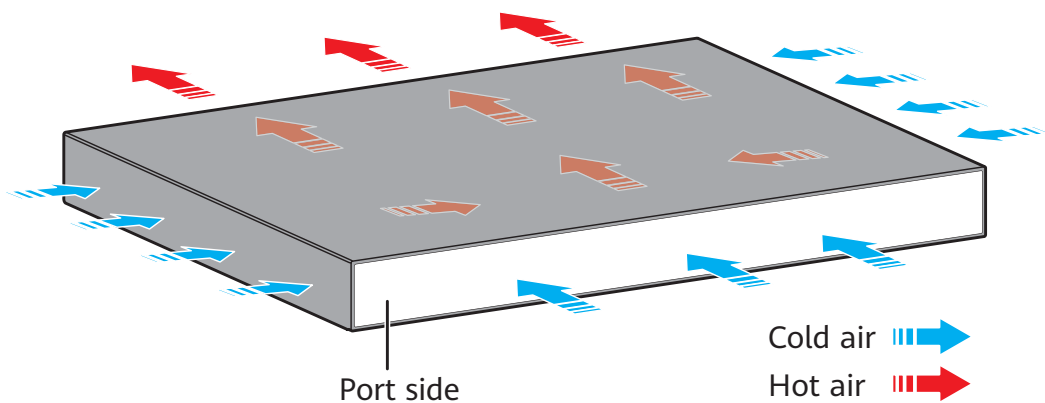
[Figure 5-324](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-324 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-36C-EI-28S-DC uses pluggable fan modules for forced air cooling. Air flows in from the left side, right side, and front panel, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-813 lists technical specifications of the S5720-36C-EI-28S-DC.

Table 5-813 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	85.45 years when no card is configured; 78.2 years when a 2-port 10GE SFP+ interface card is configured; 75.87 years when a 2-port 10GE RJ45 interface card is configured; 76.05 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> Service ports on front panel: ± 6 kV in common mode Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.7 kg (21.39 lb)
Stack ports	<ul style="list-style-type: none"> Ports on the 2-port 10GE SFP+ rear interface card Ports on the 2-port 10GE RJ45 rear interface card Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	83.9 W

Item	Description
<p>Typical power consumption (30% of traffic load)</p> <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	<ul style="list-style-type: none"> • 47.86 W (without card) • 55.35 W (with 2*10GE optical card) • 60.25 W (with 2*QSFP+ stack card) • 63.5 W (with 2*10GE electrical card)
<p>Operating temperature</p>	<p>0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
<p>Short-term operating temperature</p>	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
<p>Storage temperature</p>	<p>-40°C to +70°C (-40°F to +158°F)</p>
<p>Noise under normal temperature (27°C, sound power)</p>	<p>< 51.2 dB(A)</p>
<p>Relative humidity</p>	<p>5% to 95%, noncondensing</p>
<p>Operating altitude</p>	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NHN

5.17.5 S5720-36C-PWR-EI-AC

Version Mapping

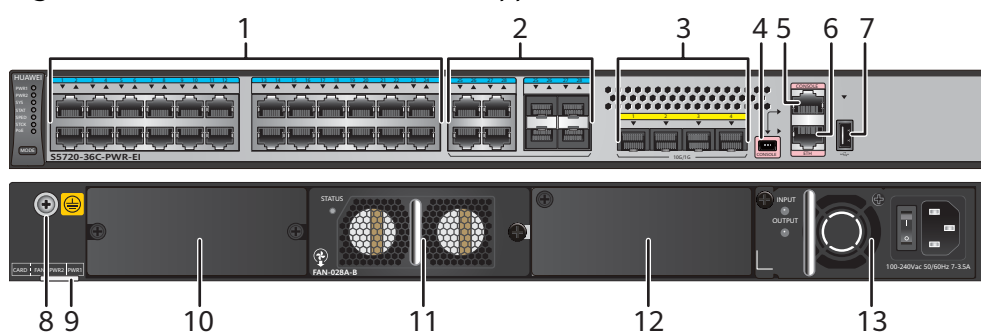
[Table 5-814](#) lists the mapping between the S5720-36C-PWR-EI-AC chassis and software versions.

Table 5-814 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-36C-PWR-EI-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 5-325 S5720-36C-PWR-EI-AC appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	<p>Four combo ports (10/100/1000BASE-T (PoE+) + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables 	4	One mini USB port
5	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	One ETH management port
7	One USB port	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

9	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.	1 0	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 9.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) 9.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) 9.26 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface)
1 1	Fan slot NOTE Applicable fan module: 8.3 FAN-028A-B Fan Module	1 2	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 500 W AC PoE power module 650 W DC PoE power module
1 3	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 500 W AC PoE power module 650 W DC PoE power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-815](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-815 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-816](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-816 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-817](#).

Table 5-817 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-818](#) describes the attributes of an ETH management port.

Table 5-818 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

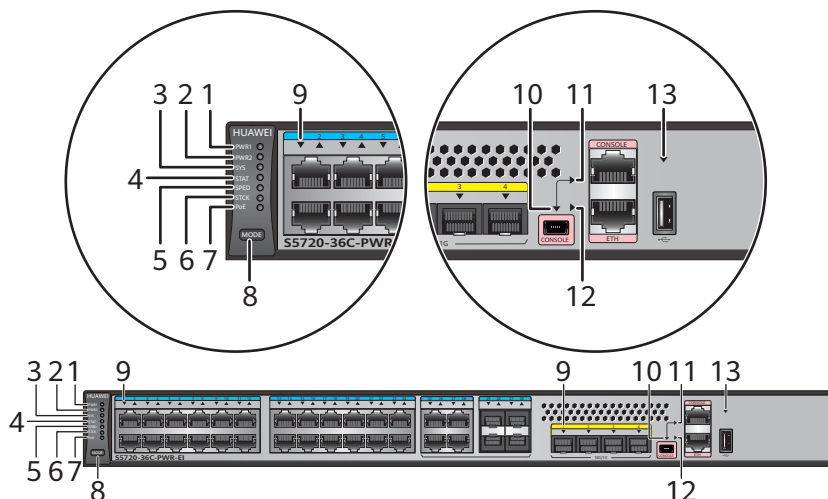
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-326 Indicators on the S5720-36C-PWR-EI-AC



NOTE

The S5720-EI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators. When an S5720-EI switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 5-819 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	PoE	PoE indicator	-	Off	The PoE mode is not selected.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.
8	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
9	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-820 .		
10	-	Mini USB indicator	-	Off	The Mini USB port is disabled, and the console port is enabled.
			Green	Steady on	The Mini USB port is enabled. When the Mini USB indicator is steady green, the console indicator is off.
11	-	Console indicator	-	Off	The console port is disabled, and the Mini USB port is enabled.
			Green	Steady on	The console port is enabled (default state). When the console indicator is steady green, the Mini USB indicator is off.

No.	Indicator	Name	Color	Status	Description
12	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
13	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-820 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. The total power consumption of PDs has reached the maximum power of the switch. The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

Display Mode	Color	Status	Description
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> • If the indicator of a port is blinking, the number of this port is the stack ID of the switch. • If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-36C-PWR-EI-AC is a PoE switch. It has two power module slots, each of which can have a 500 W or 650 W power module installed. A power module can provide 369.6 W of PoE power for powered devices (PDs). A 500 W AC power module and a 650 W DC power module can be used together in the switch. [Table 5-821](#) lists its power supply configurations.

Table 5-821 Power supply configurations

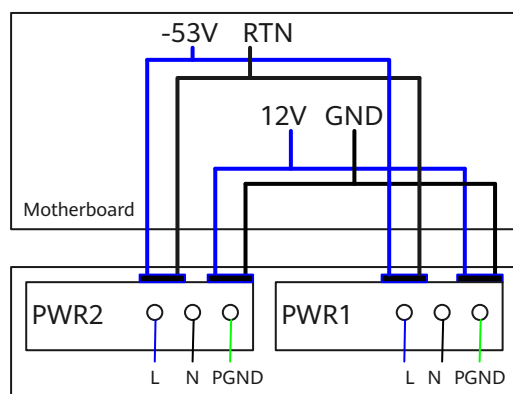
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 28 • 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 5-327](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

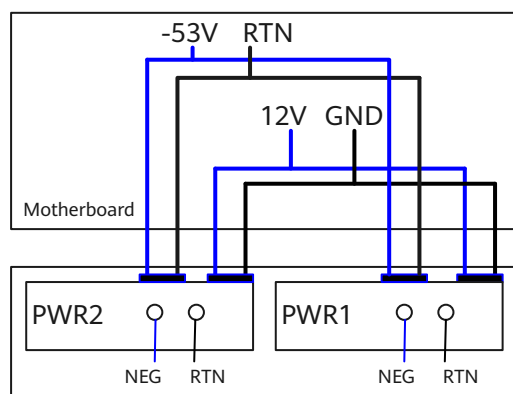
Figure 5-327 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 5-328 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

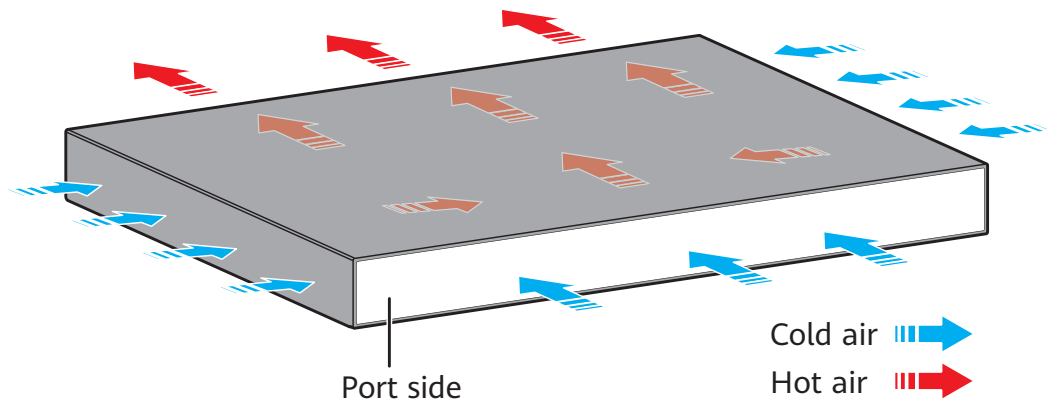
Figure 5-328 Power supply connections of dual DC PoE power modules



NEG: negative wire RTN: positive wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720-36C-PWR-EI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left side, right side, and front panel, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-822 lists technical specifications of the S5720-36C-PWR-EI-AC.

Table 5-822 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	60.72 years when no card is configured; 56.97 years when a 2-port 10GE SFP+ interface card is configured; 55.72 years when a 2-port 10GE RJ45 interface card is configured; 55.82 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> Service ports on front panel: ± 6 kV in common mode Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.9 kg (21.83 lb)
Stack ports	<ul style="list-style-type: none"> • Ports on the 2-port 10GE SFP+ rear interface card • Ports on the 2-port 10GE RJ45 rear interface card • Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Not providing the PoE function: 78 W • 100% PoE loads: 864.3 W (system power consumption: 124.3 W, PoE: 740 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	<ul style="list-style-type: none"> • 48.45 W (without card) • 56.14 W (with 2*10GE optical card) • 60.76 W (with 2*QSFP+ stack card) • 64.8 W (with 2*10GE electrical card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 53.7 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02359573

5.17.6 S5720-36C-PWR-EI-DC

Version Mapping

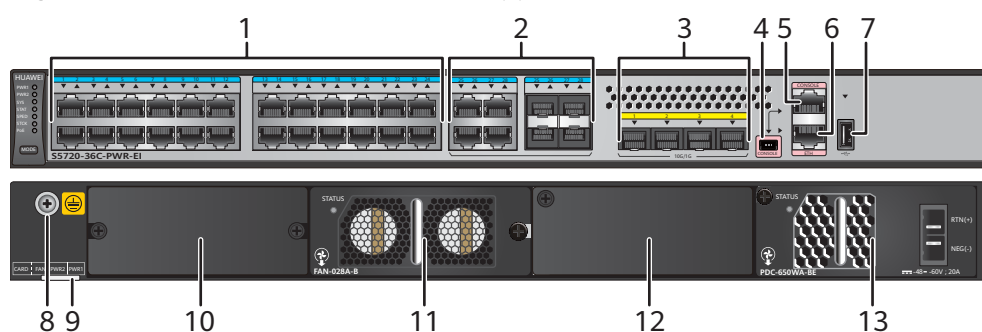
[Table 5-823](#) lists the mapping between the S5720-36C-PWR-EI-DC chassis and software versions.

Table 5-823 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-36C-PWR-EI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 5-329 S5720-36C-PWR-EI-DC appearance



1	<p>Twenty-four PoE + 10/100/1000BASE-T ports</p>	2	<p>Four combo ports (10/100/1000BASE-T (PoE+) + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> ● FE optical module ● GE optical module ● GE-CWDM optical module ● GE-DWDM optical module
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables 	4	<p>One mini USB port</p>
5	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	<p>One ETH management port</p>
7	<p>One USB port</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
9	<p>ESN label</p> <p>NOTE</p> <p>You can draw it out to view the ESN and MAC address of the switch.</p>	10	<p>Rear card slot</p> <p>NOTE</p> <p>Card supported:</p> <ul style="list-style-type: none"> • 9.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 9.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 9.26 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface)

1 1	Fan slot NOTE Applicable fan module: 8.3 FAN-028A-B Fan Module	1 2	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module
1 3	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-824](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-824 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

 NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-825](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-825 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-826](#).

Table 5-826 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-827](#) describes the attributes of an ETH management port.

Table 5-827 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not

support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

 **NOTE**

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-36C-PWR-EI-DC has the same types of indicators as the S5720-36C-PWR-EI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-36C-PWR-EI-DC is a PoE switch. It has two power module slots, each of which can have a 500 W or 650 W power module installed. A power module can provide 369.6 W of PoE power for powered devices (PDs). A 500 W AC power module and a 650 W DC power module can be used together in the switch. [Table 5-828](#) lists its power supply configurations.

Table 5-828 Power supply configurations

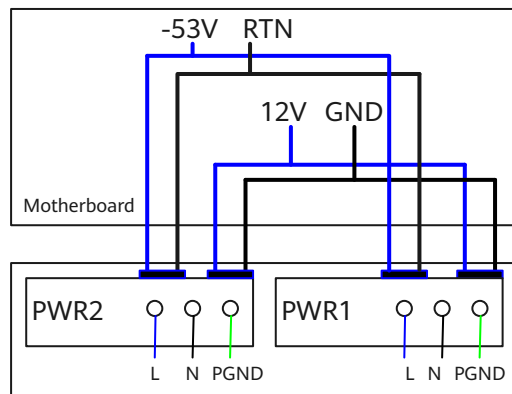
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 28 802.3at (30 W per port): 24

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 5-330](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

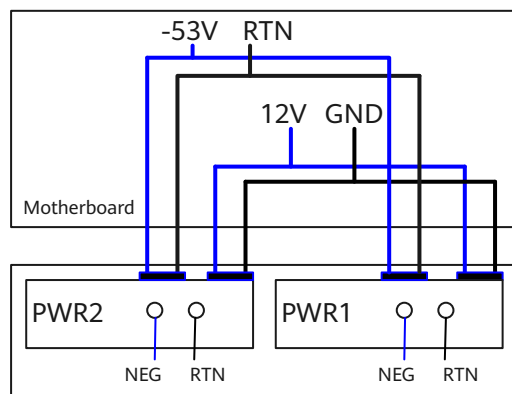
Figure 5-330 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 5-331 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

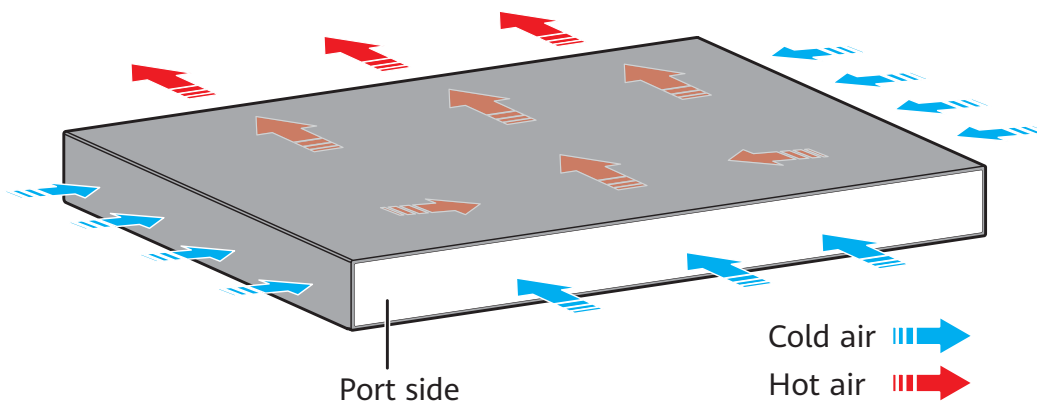
Figure 5-331 Power supply connections of dual DC PoE power modules



NEG: negative wire RTN: positive wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720-36C-PWR-EI-DC uses pluggable fan modules for forced air cooling. Air flows in from the left side, right side, and front panel, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-829 lists technical specifications of the S5720-36C-PWR-EI-DC.

Table 5-829 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	60.72 years when no card is configured; 56.97 years when a 2-port 10GE SFP+ interface card is configured; 55.72 years when a 2-port 10GE RJ45 interface card is configured; 55.82 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> • Service ports on front panel: ± 6 kV in common mode • Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> • Using 500 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode • Using 650 W DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.9 kg (21.83 lb)
Stack ports	<ul style="list-style-type: none"> • Ports on the 2-port 10GE SFP+ rear interface card • Ports on the 2-port 10GE RJ45 rear interface card • Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Not providing the PoE function: 78 W • 100% PoE loads: 864.3 W (system power consumption: 124.3 W, PoE: 740 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	<ul style="list-style-type: none"> • 48.45 W (without card) • 56.14 W (with 2*10GE optical card) • 60.76 W (with 2*QSFP+ stack card) • 64.8 W (with 2*10GE electrical card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 53.7 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02350NHL

5.17.7 S5720-56C-EI-AC

Version Mapping

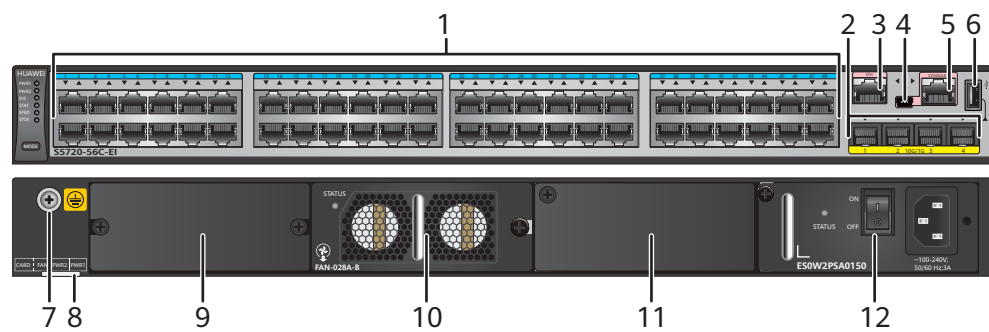
[Table 5-830](#) lists the mapping between the S5720-56C-EI-AC chassis and software versions.

Table 5-830 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-56C-EI-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 5-332 S5720-56C-EI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
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3	One ETH management port	4	One mini USB port
5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 9.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 9.26 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface) 	10	Fan slot NOTE Applicable fan module: 8.3 FAN-028A-B Fan Module
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-831](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-831 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab

Attribute	Description
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-832](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-832 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-833](#).

Table 5-833 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-834](#) describes the attributes of an ETH management port.

Table 5-834 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

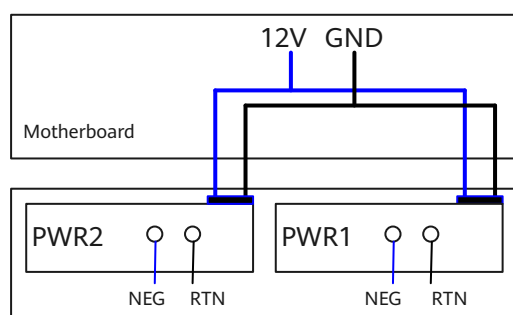
The S5720-56C-EI-AC has similar indicators to those on the S5720-36C-PWR-EI-AC, except that the S5720-56C-EI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-56C-EI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 5-333 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-333 Power supply connections of dual DC power modules



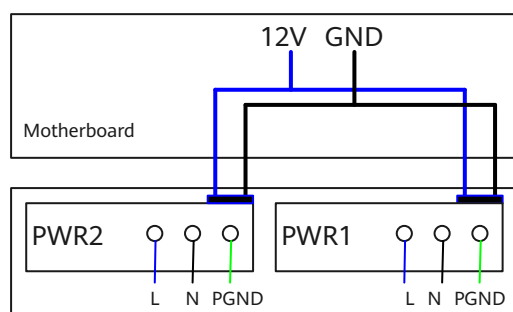
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 5-334 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-334 Power supply connections of dual AC power modules



L: Live wire

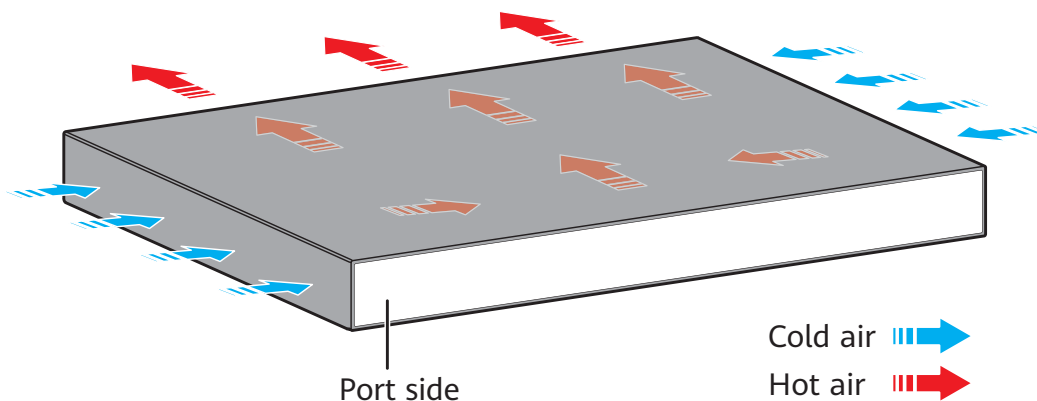
N: Neutral wire

PGND: Protection ground wire

GND: 12 V reference ground

Heat Dissipation

The S5720-56C-EI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-835](#) lists technical specifications of the S5720-56C-EI-AC.

Table 5-835 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	71.18 years when no card is configured; 66.07 years when a 2-port 10GE SFP+ interface card is configured; 66.40 years when a 2-port 10GE RJ45 interface card is configured; 64.53 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> Service ports on front panel: ± 6 kV in common mode Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	10 kg (22.05 lb)
Stack ports	<ul style="list-style-type: none">• Ports on the 2-port 10GE SFP+ rear interface card• Ports on the 2-port 10GE RJ45 rear interface card• Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	86.9 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	<ul style="list-style-type: none">• 40.45 W (without card)• 47.78 W (with 2*10GE optical card)• 52.87 W (with 2*QSFP+ stack card)• 55.85 W (with 2*10GE electrical card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none">• AC power modules configured: 0-5000 m (0-16404 ft.)• DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02359504

5.17.8 S5720-56C-EI-DC

Version Mapping

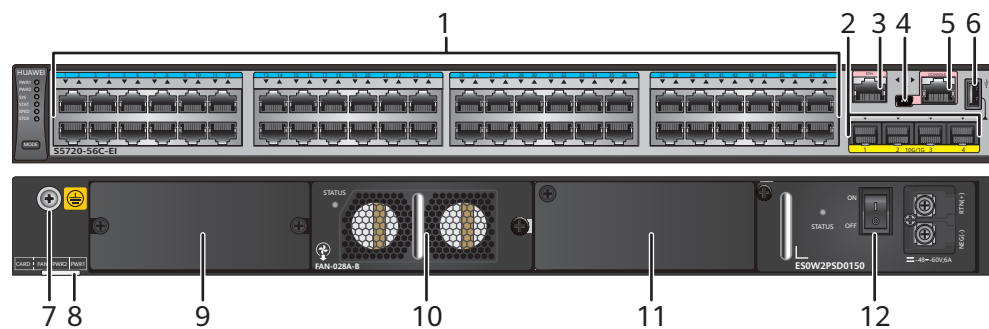
[Table 5-836](#) lists the mapping between the S5720-56C-EI-DC chassis and software versions.

Table 5-836 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-56C-EI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 5-335 S5720-56C-EI-DC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
3	One ETH management port	4	One mini USB port

5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 9.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 9.26 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface) 	10	Fan slot NOTE Applicable fan module: 8.3 FAN-028A-B Fan Module
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-837](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-837 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-838](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-838 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-839](#).

Table 5-839 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. **Table 5-840** describes the attributes of an ETH management port.

Table 5-840 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

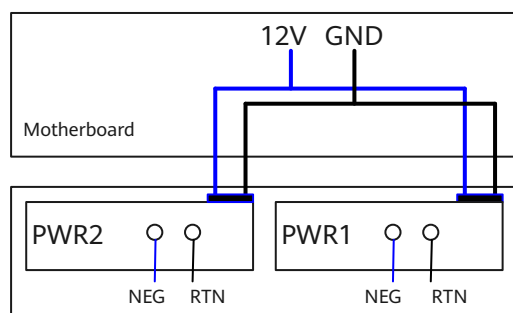
The S5720-56C-EI-DC has similar indicators to those on the S5720-36C-PWR-EI-AC, except that the S5720-56C-EI-DC does not have a PoE mode indicator. For details, see **Indicator Description**.

Power Supply Configuration

The S5720-56C-EI-DC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 5-336 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-336 Power supply connections of dual DC power modules



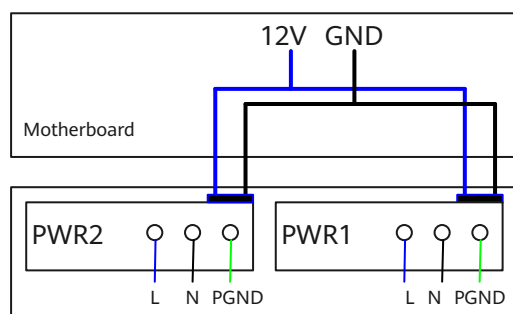
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 5-337 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-337 Power supply connections of dual AC power modules



L: Live wire

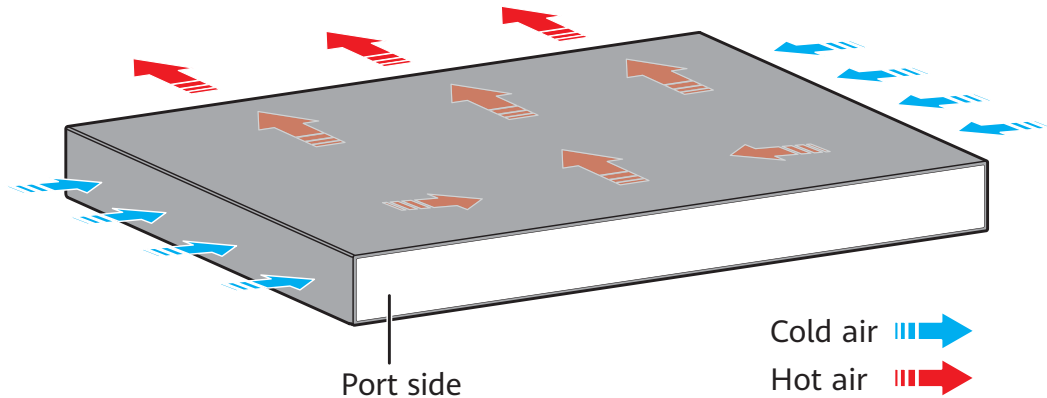
N: Neutral wire

PGND: Protection
ground wire

GND: 12 V reference
ground

Heat Dissipation

The S5720-56C-EI-DC has pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-841 lists technical specifications of the S5720-56C-EI-DC.

Table 5-841 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	71.18 years when no card is configured; 66.07 years when a 2-port 10GE SFP+ interface card is configured; 66.40 years when a 2-port 10GE RJ45 interface card is configured; 64.53 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> • Service ports on front panel: ± 6 kV in common mode • Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> • Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode • Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> ● Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) ● Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.8 kg (21.61 lb)
Stack ports	<ul style="list-style-type: none"> ● Ports on the 2-port 10GE SFP+ rear interface card ● Ports on the 2-port 10GE RJ45 rear interface card ● Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	86.9 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	<ul style="list-style-type: none"> ● 40.45 W (without card) ● 47.78 W (with 2*10GE optical card) ● 52.87 W (with 2*QSFP+ stack card) ● 55.85 W (with 2*10GE electrical card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none">• AC power modules configured: 0-5000 m (0-16404 ft.)• DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02350NHK

5.17.9 S5720-56C-EI-48S-AC

Version Mapping

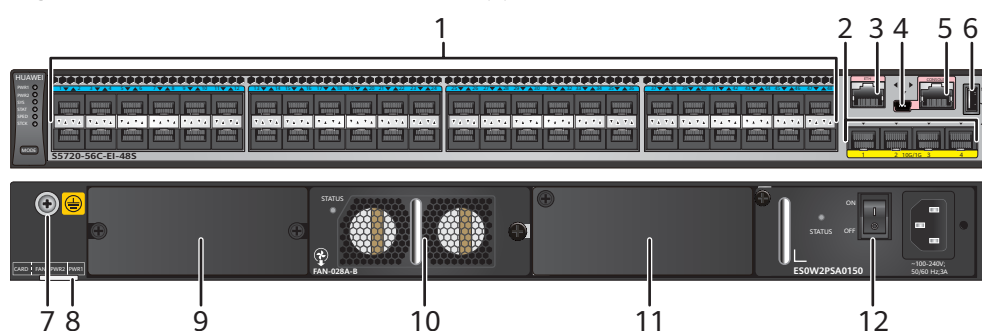
[Table 5-842](#) lists the mapping between the S5720-56C-EI-48S-AC chassis and software versions.

Table 5-842 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-56C-EI-48S-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 5-338 S5720-56C-EI-48S-AC appearance



1	<p>Forty-eight 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
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3	One ETH management port	4	One mini USB port
5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 9.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 9.26 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface) 	10	Fan slot NOTE Applicable fan module: 8.3 FAN-028A-B Fan Module
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-843](#) describes the attributes of a 100/1000BASE-X port.

Table 5-843 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-844](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-844 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-845](#).

Table 5-845 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-846](#) describes the attributes of an ETH management port.

Table 5-846 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

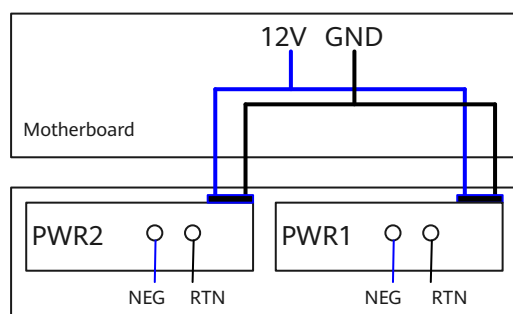
The S5720-56C-EI-48S-AC has the same types of indicators as the S5720-36C-EI-28S-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-56C-EI-48S-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 5-339 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-339 Power supply connections of dual DC power modules



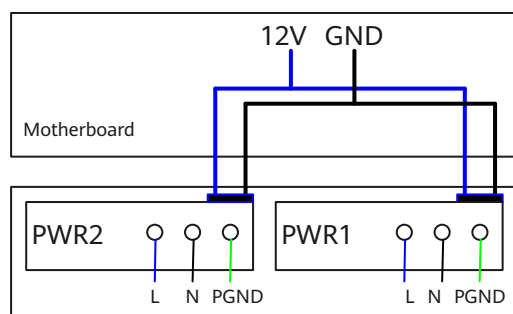
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 5-340 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-340 Power supply connections of dual AC power modules



L: Live wire

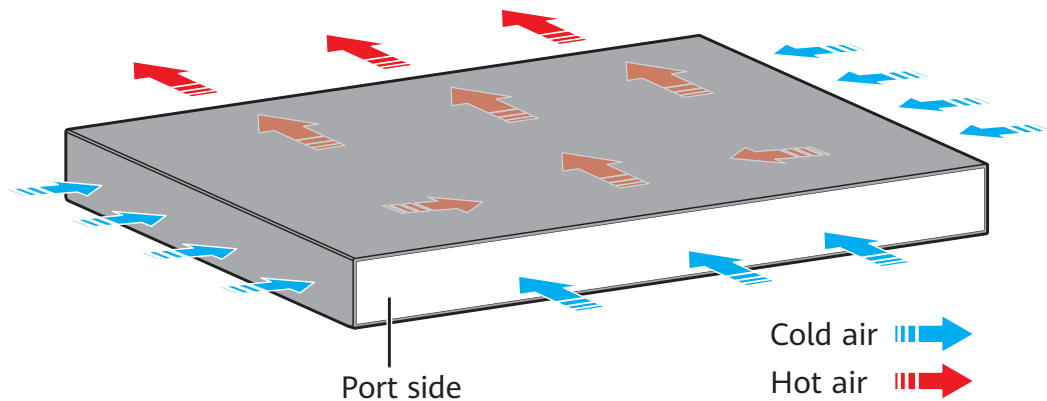
N: Neutral wire

PGND: Protection
ground wire

GND: 12 V reference
ground

Heat Dissipation

The S5720-56C-EI-48S-AC uses pluggable fan modules for forced air cooling. Air flows in from the left side, right side, and front panel, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-847 lists technical specifications of the S5720-56C-EI-48S-AC.

Table 5-847 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	73.91 years when no card is configured; 68.42 years when a 2-port 10GE SFP+ interface card is configured; 66.63 years when a 2-port 10GE RJ45 interface card is configured; 66.77 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)

Item	Description
Weight (with packaging)	10.1 kg (22.27 lb)
Stack ports	<ul style="list-style-type: none"> • Ports on the 2-port 10GE SFP+ rear interface card • Ports on the 2-port 10GE RJ45 rear interface card • Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	104 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	<ul style="list-style-type: none"> • 68.82 W (without card) • 76.55 W (with 2*10GE optical card) • 81.23 W (with 2*QSFP+ stack card) • 83.78 W (with 2*10GE electrical card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none">• AC power modules configured: 0-5000 m (0-16404 ft.)• DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02359558

5.17.10 S5720-56C-EI-48S-DC

Version Mapping

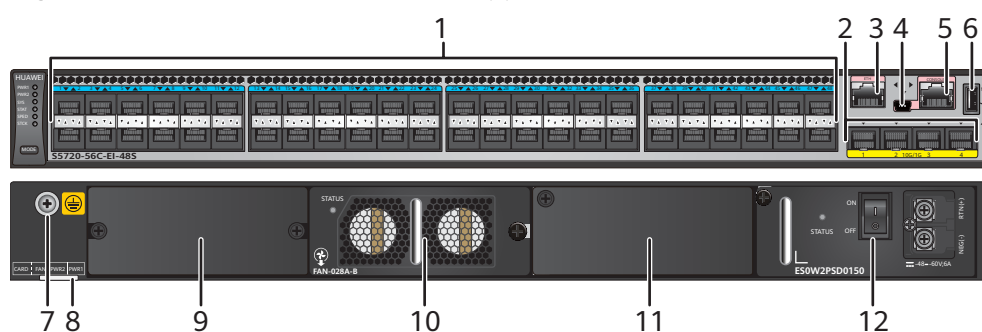
[Table 5-848](#) lists the mapping between the S5720-56C-EI-48S-DC chassis and software versions.

Table 5-848 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-56C-EI-48S-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 5-341 S5720-56C-EI-48S-DC appearance



1	Forty-eight 100/1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
3	One ETH management port	4	One mini USB port

5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 9.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 9.26 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface) 	10	Fan slot NOTE Applicable fan module: 8.3 FAN-028A-B Fan Module
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-849](#) describes the attributes of a 100/1000BASE-X port.

Table 5-849 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z

Attribute	Description
Working mode	100/1000 Mbit/s auto-sensing

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-850](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-850 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-851](#).

Table 5-851 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-852](#) describes the attributes of an ETH management port.

Table 5-852 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

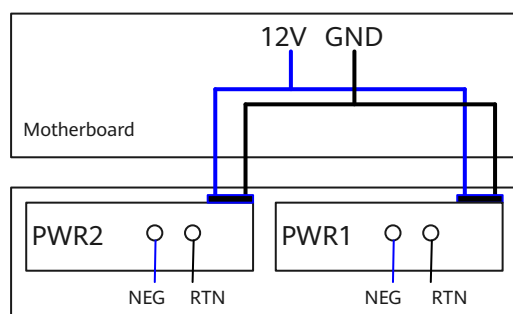
The S5720-56C-EI-48S-DC has the same types of indicators as the S5720-36C-EI-28S-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-56C-EI-48S-DC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 5-342 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-342 Power supply connections of dual DC power modules



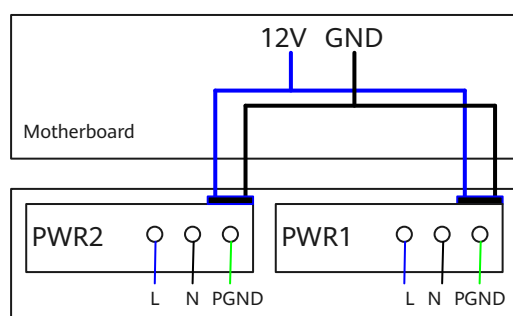
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 5-343 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-343 Power supply connections of dual AC power modules



L: Live wire

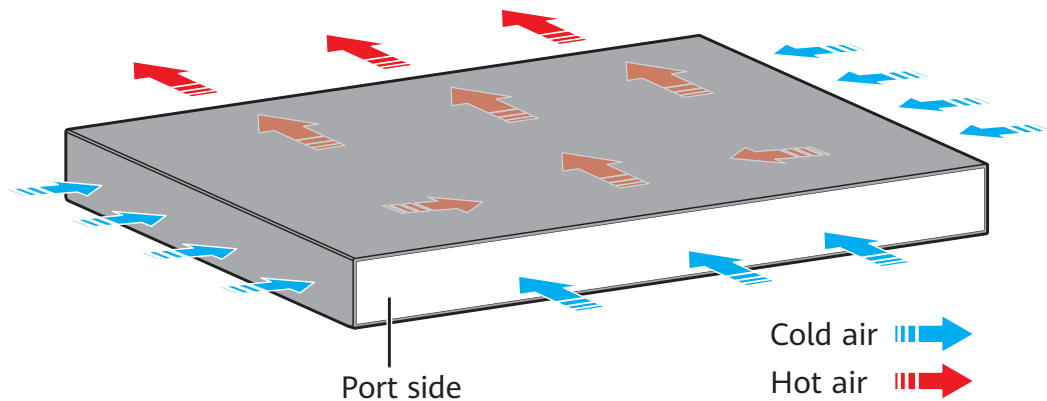
N: Neutral wire

PGND: Protection ground wire

GND: 12 V reference ground

Heat Dissipation

The S5720-56C-EI-48S-DC uses pluggable fan modules for forced air cooling. Air flows in from the left side, right side, and front panel, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-853 lists technical specifications of the S5720-56C-EI-48S-DC.

Table 5-853 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	73.91 years when no card is configured; 68.42 years when a 2-port 10GE SFP+ interface card is configured; 66.63 years when a 2-port 10GE RJ45 interface card is configured; 66.77 years when a stack card is configured
Mean time to repair (MTTR)	2
Availability	> 0.99999
Service port surge protection	Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)

Item	Description
Weight (with packaging)	9.9 kg (21.83 lb)
Stack ports	<ul style="list-style-type: none"> • Ports on the 2-port 10GE SFP+ rear interface card • Ports on the 2-port 10GE RJ45 rear interface card • Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	104 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	<ul style="list-style-type: none"> • 68.82 W (without card) • 76.55 W (with 2*10GE optical card) • 81.23 W (with 2*QSFP+ stack card) • 83.78 W (with 2*10GE electrical card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NHP

5.17.11 S5720-56C-PWR-EI-AC

Version Mapping

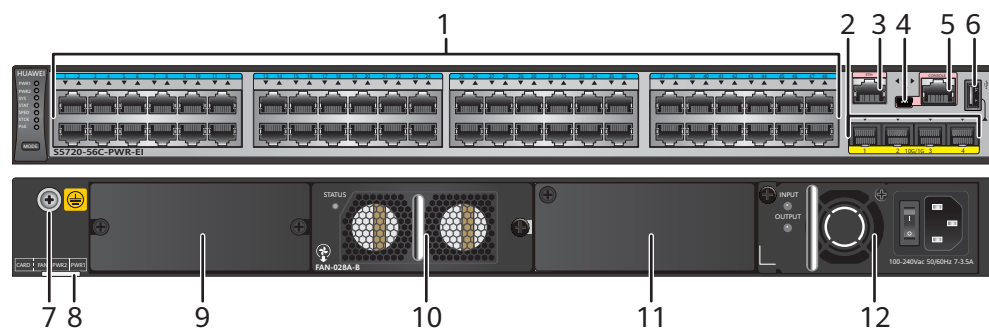
[Table 5-854](#) lists the mapping between the S5720-56C-PWR-EI-AC chassis and software versions.

Table 5-854 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-56C-PWR-EI-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 5-344 S5720-56C-PWR-EI-AC appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
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3	One ETH management port	4	One mini USB port
5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 9.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 9.26 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface) 	10	Fan slot NOTE Applicable fan module: 8.3 FAN-028A-B Fan Module
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-855](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-855 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab

Attribute	Description
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-856](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-856 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-857](#).

Table 5-857 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-858](#) describes the attributes of an ETH management port.

Table 5-858 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-56C-PWR-EI-AC has the same types of indicators as the S5720-36C-PWR-EI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-56C-PWR-EI-AC is a PoE switch. It has two power module slots, each of which can have a 500 W or 650 W power module installed. A power module can provide 369.6 W of PoE power for powered devices (PDs). A 500 W AC power module and a 650 W DC power module can be used together in the switch. [Table 5-859](#) lists its power supply configurations.

Table 5-859 Power supply configurations

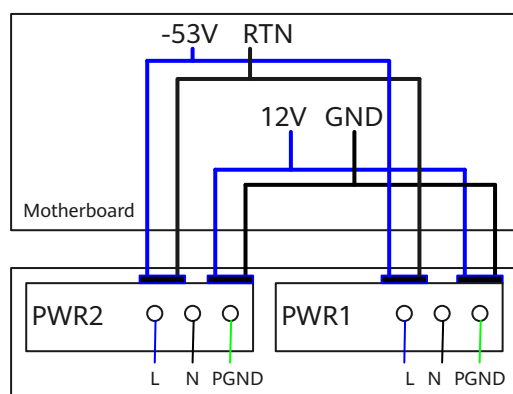
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 5-345](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

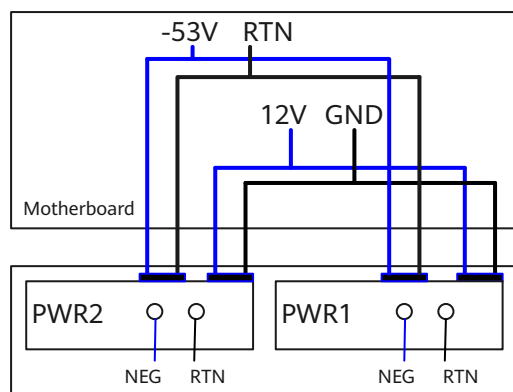
Figure 5-345 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 5-346 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

Figure 5-346 Power supply connections of dual DC PoE power modules



NEG: negative wire

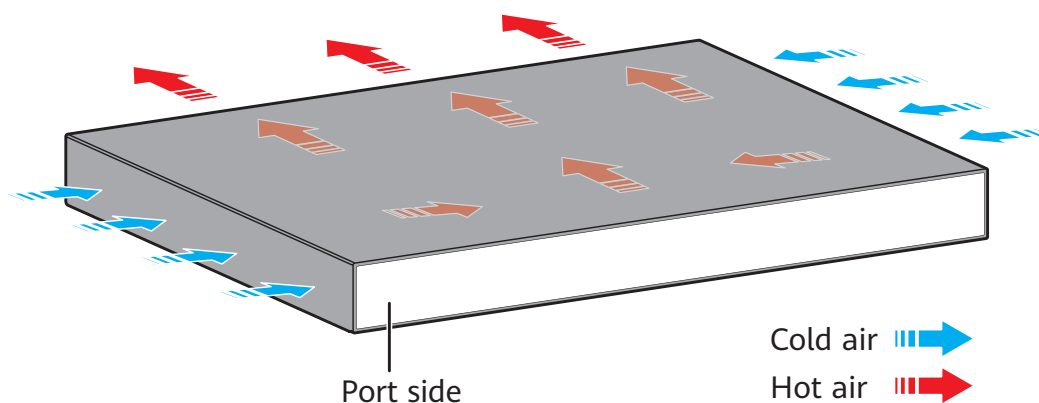
RTN: positive wire

GND: 12 V reference ground

RTN: -53 V reference ground

Heat Dissipation

The S5720-56C-PWR-EI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-860 lists technical specifications of the S5720-56C-PWR-EI-AC.

Table 5-860 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	51.34 years when no card is configured; 48.63 years when a 2-port 10GE SFP+ interface card is configured; 47.71 years when a 2-port 10GE RJ45 interface card is configured; 47.79 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> • Service ports on front panel: ± 6 kV in common mode • Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> • Using 500 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode • Using 650 W DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	10.4 kg (22.93 lb)
Stack ports	<ul style="list-style-type: none"> • Ports on the 2-port 10GE SFP+ rear interface card • Ports on the 2-port 10GE RJ45 rear interface card • Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Not providing the PoE function: 91.6 W • 100% PoE loads: 889.4 W (system power consumption: 149.4 W, PoE: 740 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	<ul style="list-style-type: none"> • 53.5 W (without card) • 61.12 W (with 2*10GE optical card) • 65.85 W (with 2*QSFP+ stack card) • 69.3 W (with 2*10GE electrical card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 53.7 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02359576

5.17.12 S5720-56C-PWR-EI-DC

Version Mapping

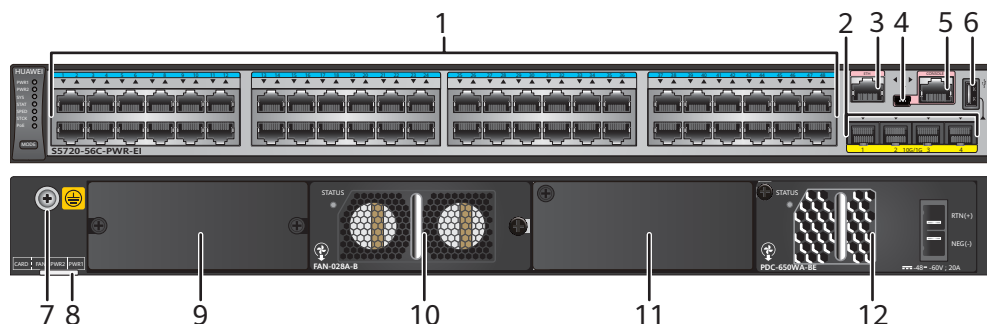
Table 5-861 lists the mapping between the S5720-56C-PWR-EI-DC chassis and software versions.

Table 5-861 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-56C-PWR-EI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 5-347 S5720-56C-PWR-EI-DC appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
3	One ETH management port	4	One mini USB port
5	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	One USB port
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>

9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 9.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 9.26 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface) 	1 0	Fan slot NOTE Applicable fan module: 8.3 FAN-028A-B Fan Module
1 1	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module 	1 2	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-862](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-862 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-863](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-863 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-864](#).

Table 5-864 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-865](#) describes the attributes of an ETH management port.

Table 5-865 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-56C-PWR-EI-DC has the same types of indicators as the S5720-36C-PWR-EI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-56C-PWR-EI-DC is a PoE switch. It has two power module slots, each of which can have a 500 W or 650 W power module installed. A power module can provide 369.6 W of PoE power for powered devices (PDs). A 500 W AC power module and a 650 W DC power module can be used together in the switch. [Table 5-866](#) lists its power supply configurations.

Table 5-866 Power supply configurations

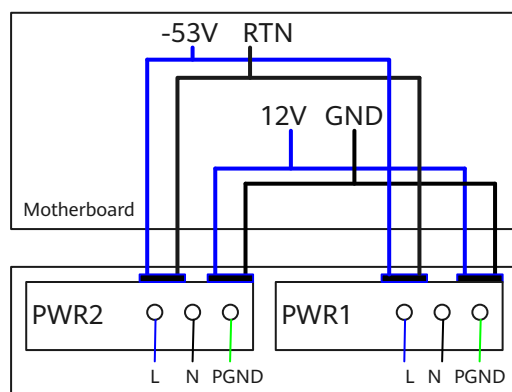
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 5-348 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

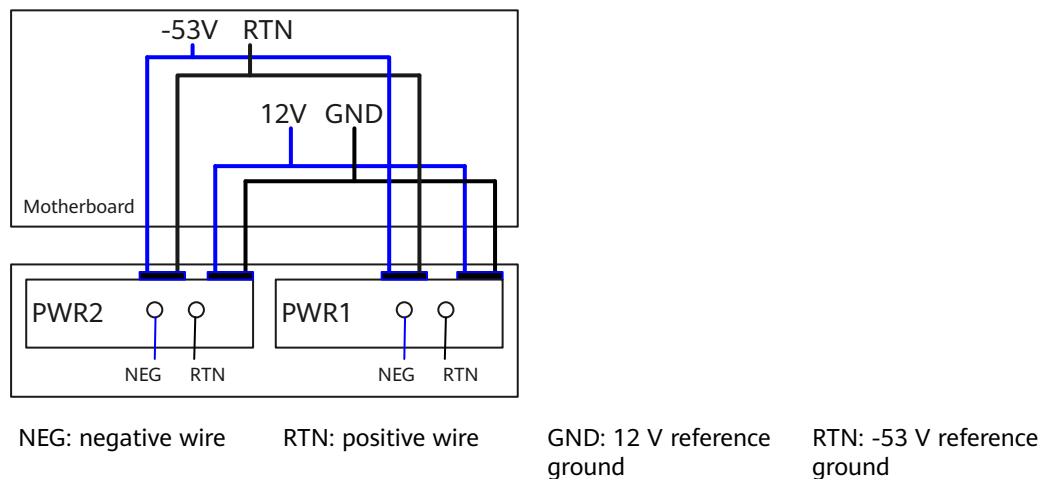
Figure 5-348 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

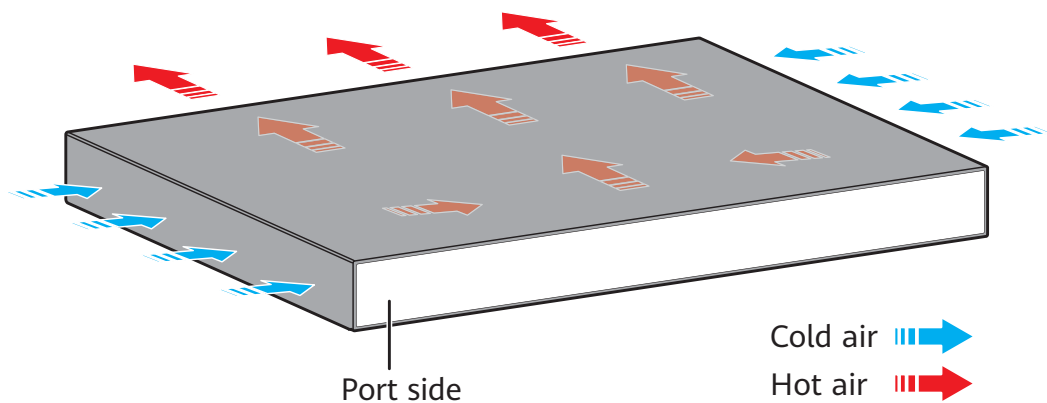
Figure 5-349 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

Figure 5-349 Power supply connections of dual DC PoE power modules



Heat Dissipation

The S5720-56C-PWR-EI-DC uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-867 lists technical specifications of the S5720-56C-PWR-EI-DC.

Table 5-867 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	51.34 years when no card is configured; 48.63 years when a 2-port 10GE SFP+ interface card is configured; 47.71 years when a 2-port 10GE RJ45 interface card is configured; 47.79 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> Service ports on front panel: ± 6 kV in common mode Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	10.3 kg (22.71 lb)
Stack ports	<ul style="list-style-type: none"> Ports on the 2-port 10GE SFP+ rear interface card Ports on the 2-port 10GE RJ45 rear interface card Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 98 W 100% PoE loads: 913 W (system power consumption: 173 W, PoE: 740 W)

Item	Description
<p>Typical power consumption (30% of traffic load)</p> <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	<ul style="list-style-type: none"> • 56.68 W (without card) • 63.63 W (with 2*10GE optical card) • 68.56 W (with 2*QSFP+ stack card) • 72.61 W (with 2*10GE electrical card)
<p>Operating temperature</p>	<p>0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
<p>Short-term operating temperature</p>	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
<p>Storage temperature</p>	<p>-40°C to +70°C (-40°F to +158°F)</p>
<p>Noise under normal temperature (27°C, sound power)</p>	<p>< 53.7 dB(A)</p>
<p>Relative humidity</p>	<p>5% to 95%, noncondensing</p>
<p>Operating altitude</p>	<p>0-5000 m (0-16404 ft.)</p>

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NHM

5.17.13 S5720-56C-PWR-EI-AC1

Version Mapping

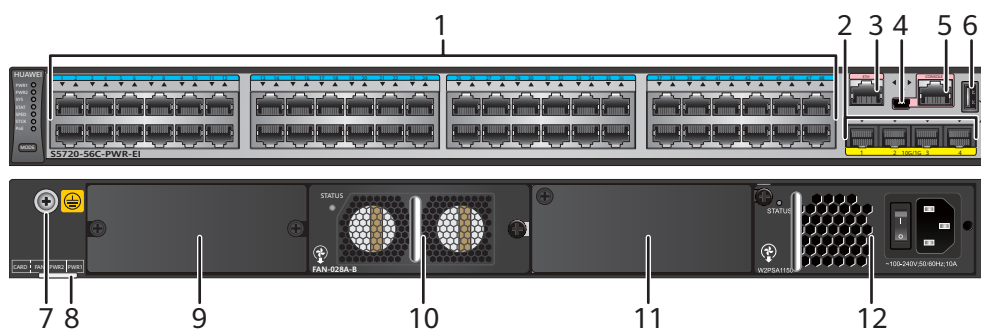
Table 5-868 lists the mapping between the S5720-56C-PWR-EI-AC1 chassis and software versions.

Table 5-868 Version mapping

Series		Model	Software Version
S5720-EI	S5720-C-EI	S5720-56C-PWR-EI-AC1	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 5-350 S5720-56C-PWR-EI-AC1 appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
3	One ETH management port	4	One mini USB port
5	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	One USB port
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>

9	<p>Rear card slot</p> <p>NOTE</p> <p>Card supported:</p> <ul style="list-style-type: none"> • 9.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 9.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 9.26 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface) 	1 0	<p>Fan slot</p> <p>NOTE</p> <p>Applicable fan module: 8.3 FAN-028A-B Fan Module</p>
1 1	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 1150 W AC PoE power module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions) 	1 2	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 1150 W AC PoE power module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions)

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-869](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-869 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-870](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-870 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-871](#).

Table 5-871 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-872](#) describes the attributes of an ETH management port.

Table 5-872 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-56C-PWR-EI-AC1 has the same types of indicators as the S5720-36C-PWR-EI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-56C-PWR-EI-AC1 is a PoE switch. It has two power module slots and uses 1150 W AC PoE power modules or 1000 W AC PoE power modules (applicable in V200R013C00 and later versions). A 1150 W AC PoE power module and a 1000 W AC PoE power module can be used together. [Table 5-873](#) lists its power supply configurations.

Table 5-873 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1150 W (220 V)	-	785.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 26
1150 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1150 W (110 V)	-	446.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 29 802.3at (30 W per port): 14
1150 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29
1000 W (220 V)	-	754.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25
1000 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W (110 V)	-	754.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25
1000 W (110 V)	1000 W (110 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48

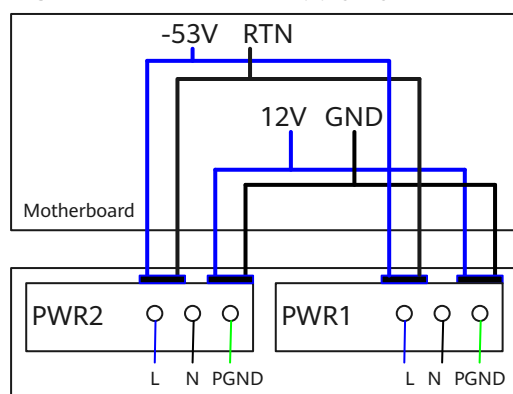
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1150 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29
1150 W (110 V)	1000 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 5-351 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

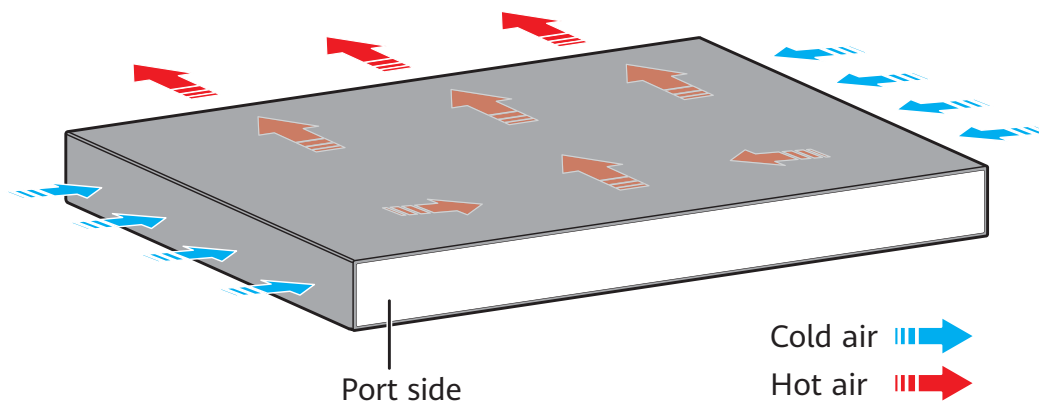
Figure 5-351 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5720-56C-PWR-EI-AC1 uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-874](#) lists technical specifications of the S5720-56C-PWR-EI-AC1.

Table 5-874 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	51.34 years when no card is configured; 48.63 years when a 2-port 10GE SFP+ interface card is configured; 47.71 years when a 2-port 10GE RJ45 interface card is configured; 47.79 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> Service ports on front panel: ± 6 kV in common mode Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using 1000 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 1150 W AC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 510.5 mm (1.75 in. x 17.4 in. x 20.1 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 541.1 mm (1.75 in. x 17.4 in. x 21.3 in.)
Weight (with packaging)	10.9 kg (24.03 lb)
Stack ports	<ul style="list-style-type: none"> • Ports on the 2-port 10GE SFP+ rear interface card • Ports on the 2-port 10GE RJ45 rear interface card • Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Not providing the PoE function: 91.6 W • 100% PoE loads: 1564.8 W (system power consumption: 124.8 W, PoE: 1440 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	<ul style="list-style-type: none"> • 53.5 W (without subcard) • 61.12 W (with 2*10G optical subcards) • 65.85 W (2*QSFP+ stack cards) • 69.3 W (with 2*10G electrical subcards)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 61.7 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02359578

5.17.14 S5720-36PC-EI-AC

Version Mapping

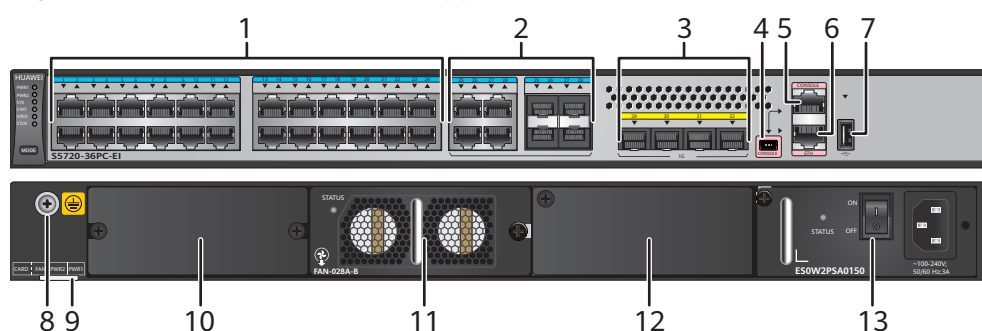
[Table 5-875](#) lists the mapping between the S5720-36PC-EI-AC chassis and software versions.

Table 5-875 Version mapping

Series		Model	Software Version
S5720-EI	S5720-PC-EI	S5720-36PC-EI-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 5-352 S5720-36PC-EI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four combo ports (10/100/1000BASE-T + 100/1000BASE-X) Modules applicable to combo optical ports: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module
3	Four 1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) 	4	One mini USB port

5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One ETH management port
7	One USB port	8	Ground screw NOTE It is used with a ground cable .
9	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.	10	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) • 9.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) • 9.26 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface)
11	Fan slot NOTE Applicable fan module: 8.3 FAN-028A-B Fan Module	12	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
13	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-876](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-876 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Combo port

A combo port refers to a pair of ports consisting of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. A combo port can be configured as an electrical port or an optical port, but only one port can be active at a time. When one port is active, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

1000BASE-X port

A 1000BASE-X Ethernet optical port sends and receives service data at 1000 Mbit/s. [Table 5-877](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-877 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3z
Working mode	1000 Mbit/s

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-878](#).

Table 5-878 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-879](#) describes the attributes of an ETH management port.

Table 5-879 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-36PC-EI-AC has similar indicators to those on the S5720-36C-PWR-EI-AC, except that the S5720-36PC-EI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-36PC-EI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 5-353 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-353 Power supply connections of dual DC power modules

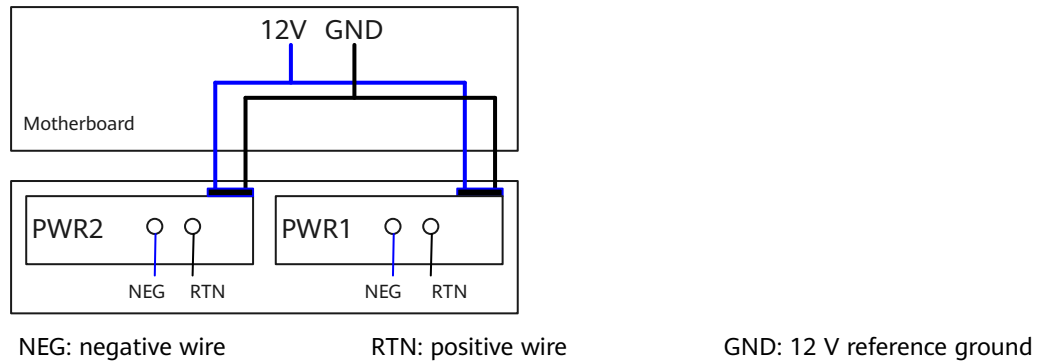
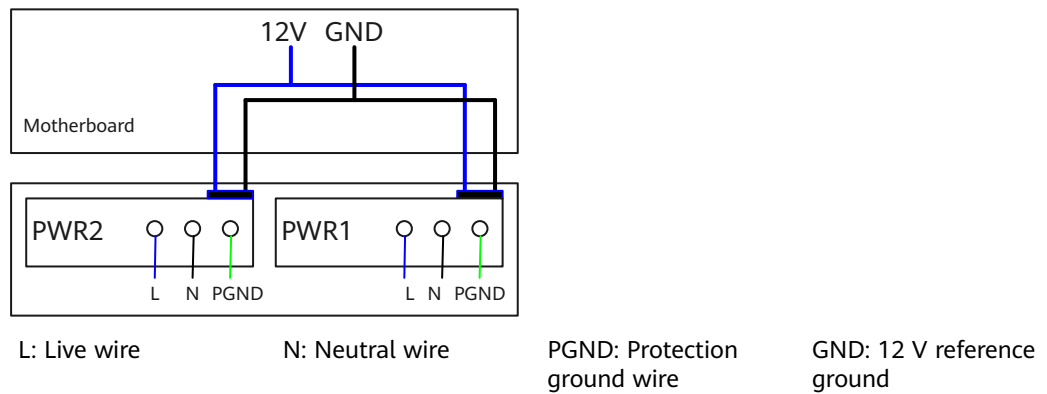


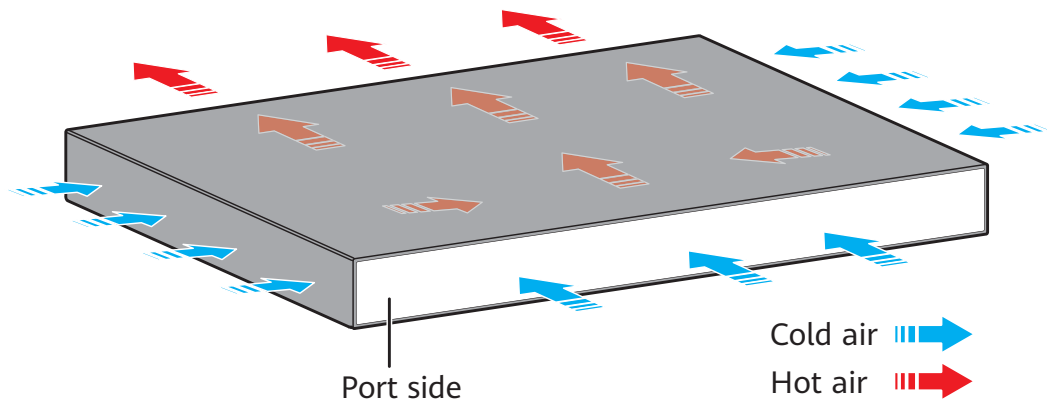
Figure 5-354 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-354 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-36PC-EI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left side, right side, and front panel, and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-880 lists technical specifications of the S5720-36PC-EI-AC.

Table 5-880 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	80.05 years when no card is configured; 73.65 years when a 2-port 10GE SFP+ interface card is configured; 71.58 years when a 2-port 10GE RJ45 interface card is configured; 71.74 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none"> Service ports on front panel: ± 6 kV in common mode Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.8 kg (21.61 lb)
Stack ports	<ul style="list-style-type: none"> Ports on the 2-port 10GE SFP+ rear interface card Ports on the 2-port 10GE RJ45 rear interface card Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported

Item	Description
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	74.6 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	<ul style="list-style-type: none">• 39.5 W (without card)• 47.28 W (with 2*10GE optical card)• 52.17 W (with 2*QSFP+ stack card)• 55.14 W (with 2*10GE electrical card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350BDQ

5.17.15 S5720-56PC-EI-AC

Version Mapping

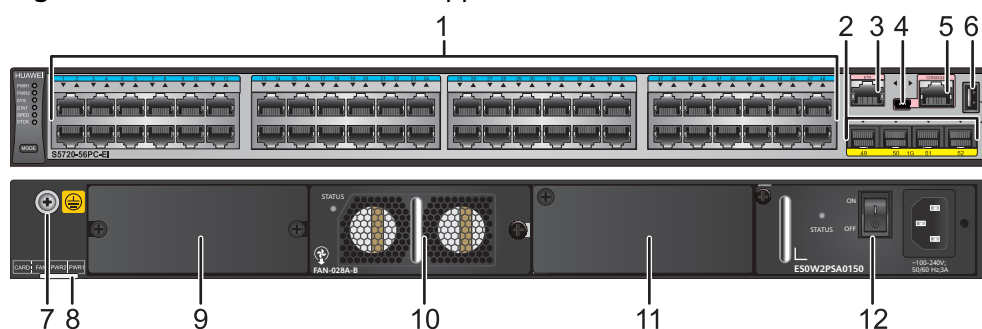
[Table 5-881](#) lists the mapping between the S5720-56PC-EI-AC chassis and software versions.

Table 5-881 Version mapping

Series		Model	Software Version
S5720-EI	S5720-PC-EI	S5720-56PC-EI-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 5-355 S5720-56PC-EI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported)
3	One ETH management port	4	One mini USB port
5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.

9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> 9.20 ES5D21X02S01 (2-Port 10 Gig SFP+ Rear Interface Card, Used in S5720-EI Series) 9.21 ES5D21X02T01 (2-Port 10 Gig RJ45 Rear Interface Card, Used in S5720-EI Series) 9.26 ES5D21VST000 (Dedicated Stack Card with 2*QSFP+ Interface) 	10	Fan slot NOTE Applicable fan module: 8.3 FAN-028A-B Fan Module
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 150 W AC power module 150 W DC power module 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 150 W AC power module 150 W DC power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-882](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-882 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

A 1000BASE-X Ethernet optical port sends and receives service data at 1000 Mbit/s. [Table 5-883](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-883 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	1000 Mbit/s

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-884](#).

Table 5-884 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-885](#) describes the attributes of an ETH management port.

Table 5-885 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-56PC-EI-AC has similar indicators to those on the S5720-36C-PWR-EI-AC, except that the S5720-56PC-EI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-56PC-EI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 5-356 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-356 Power supply connections of dual DC power modules

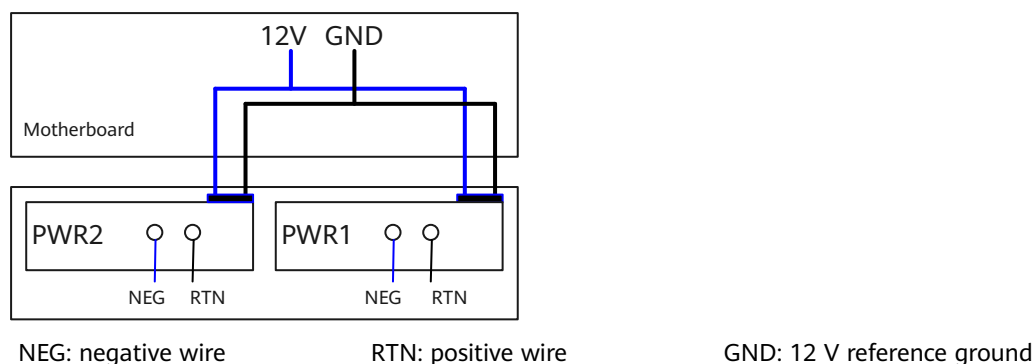
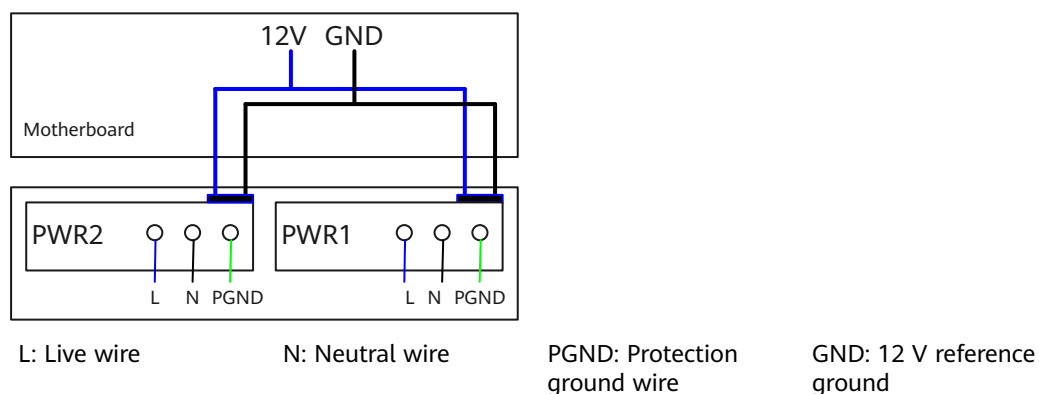


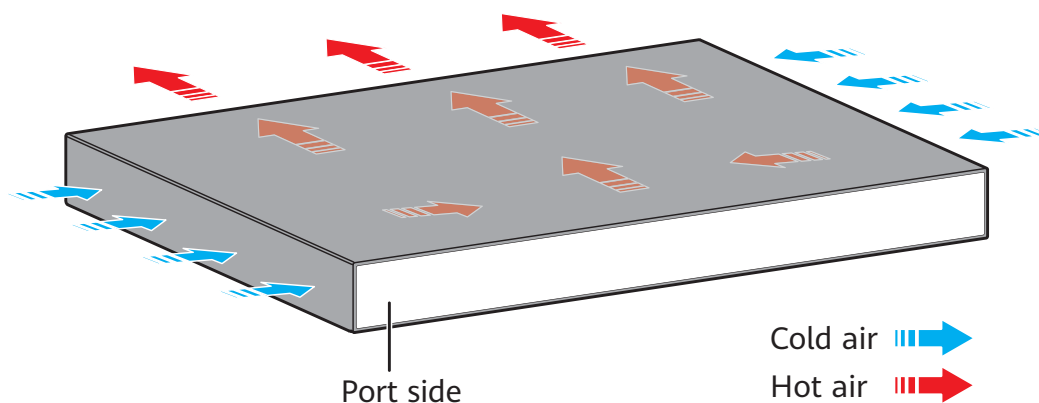
Figure 5-357 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-357 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-56PC-EI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-886 lists technical specifications of the S5720-56PC-EI-AC.

Table 5-886 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	71.18 years when no card is configured; 66.07 years when a 2-port 10GE SFP+ interface card is configured; 66.40 years when a 2-port 10GE RJ45 interface card is configured; 64.53 years when a stack card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	<ul style="list-style-type: none">• Service ports on front panel: ± 6 kV in common mode• Ports on the 2-port 10GE RJ45 rear interface card: ± 2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none">• Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode• Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	10 kg (22.05 lb)
Stack ports	<ul style="list-style-type: none">• Ports on the 2-port 10GE SFP+ rear interface card• Ports on the 2-port 10GE RJ45 rear interface card• Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported

Item	Description
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	85.7 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	<ul style="list-style-type: none">• 40.45 W (without card)• 47.78 W (with 2*10GE optical card)• 52.87 W (with 2*QSFP+ stack card)• 55.85 W (with 2*10GE electrical card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350BDV

5.17.16 S5720-32X-EI-AC

Version Mapping

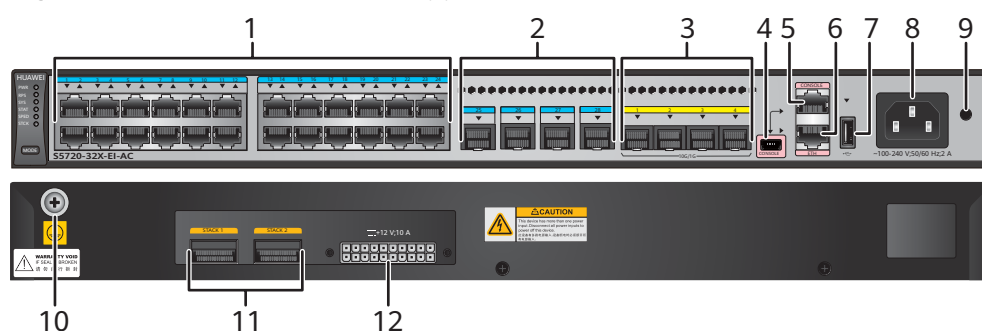
[Table 5-887](#) lists the mapping between the S5720-32X-EI-AC chassis and software versions.

Table 5-887 Version mapping

Series		Model	Software Version
S5720-EI	S5720-X-EI	S5720-32X-EI-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 5-358 S5720-32X-EI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 100/1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s)
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables 	4	One mini USB port
5	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	One ETH management port
7	One USB port	8	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>
9	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>	10	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
11	<p>Two QSFP+ stack optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module (only QSFP-40G-SR4 and QSFP-40G-iSR supported) • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables 	12	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-888](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-888 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-889](#) describes the attributes of a 100/1000BASE-X port.

Table 5-889 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-890](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-890 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

QSFP+ stack optical port

QSFP+ stack optical ports can only be used for stack connection. [Table 5-891](#) describes the attributes of a QSFP+ stack optical port.

Table 5-891 Attributes of a QSFP+ stack optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-892](#).

Table 5-892 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-893](#) describes the attributes of an ETH management port.

Table 5-893 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

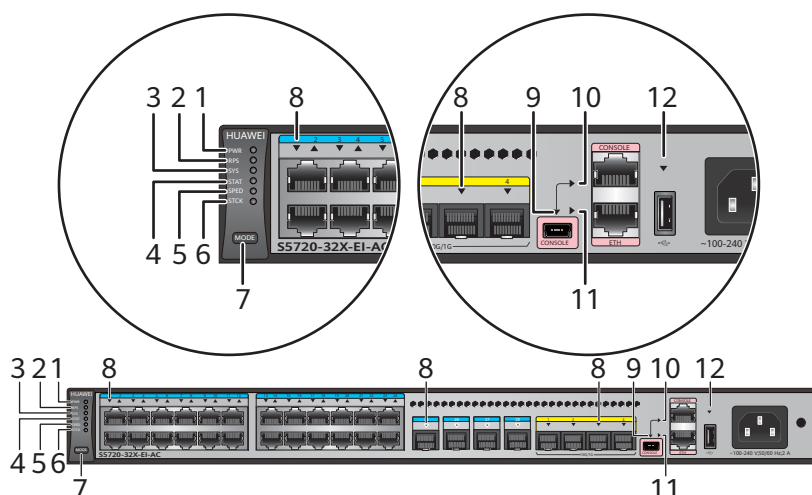
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-359 Indicators on the S5720-32X-EI-AC



NOTE

The S5720-EI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators. When an S5720-EI switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 5-894 Description of indicators on the switch

No.	Indicator/ Button	Name	Color	Status	Description
1	PWR	Power module	-	Off	The switch is powered off.

No.	Indicator/ Button	Name	Color	Status	Description
		indicator	Green	Steady on	The system power supply is normal.
			Yellow	Steady on	The built-in power module has failed, and the switch is receiving power from a redundant power supply (RPS).
2	RPS	RPS indicator	-	Off	The switch is not connected to an RPS.
			Green	Steady on	The RPS is in cold standby state.
			Green	Blinking	The RPS is supplying power to another switch.
			Yellow	Blinking	The RPS is supplying power to the local switch, and the built-in power module of the switch has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.

No.	Indicator/ Button	Name	Color	Status	Description
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>

No.	Indicator/ Button	Name	Color	Status	Description
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-895 .		
9	-	Mini USB indicator	-	Off	The Mini USB port is disabled, and the console port is enabled.
			Green	Steady on	The Mini USB port is enabled. When the Mini USB indicator is steady green, the console indicator is off.
10	-	Console indicator	-	Off	The console port is disabled, and the Mini USB port is enabled.
			Green	Steady on	The console port is enabled (default state). When the console indicator is steady green, the Mini USB indicator is off.
11	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
12	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.

No.	Indicator/ Button	Name	Color	Status	Description
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-895 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.

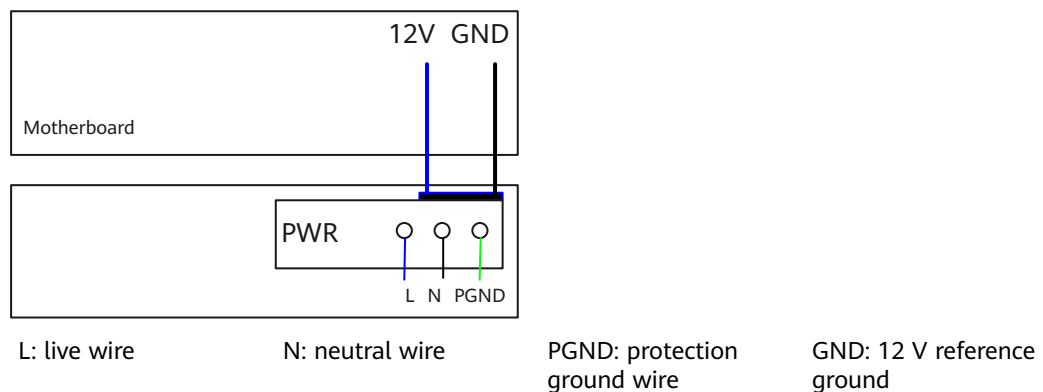
Display Mode	Color	Status	Description
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-32X-EI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

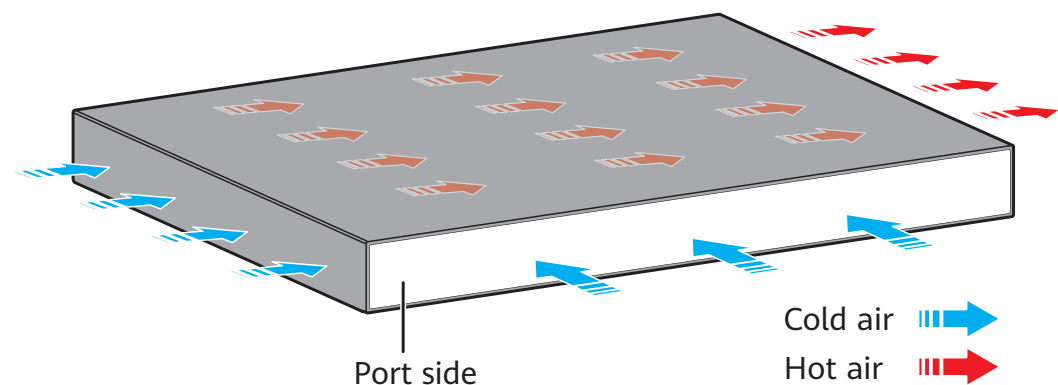
Figure 5-360 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-360 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-32X-EI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-896 lists technical specifications of the S5720-32X-EI-AC.

Table 5-896 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	80.32 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	4.5 kg (9.92 lb)
Stack ports	<ul style="list-style-type: none"> Two fixed QSFP+ stack ports on the rear card
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	51.9 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	40.85 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02359586

5.17.17 S5720-32X-EI-DC

Version Mapping

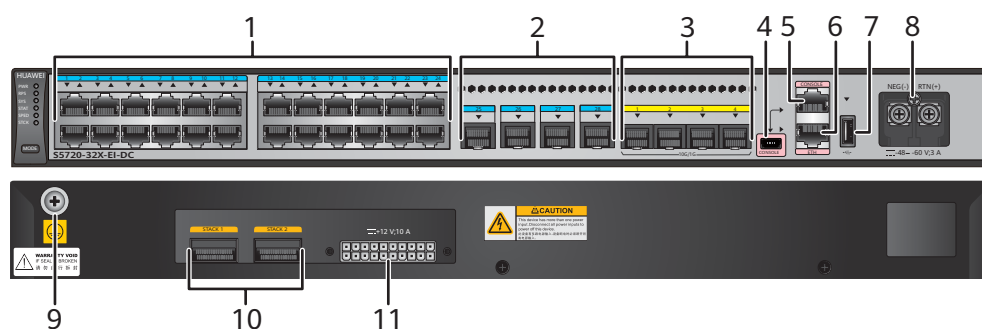
Table 5-897 lists the mapping between the S5720-32X-EI-DC chassis and software versions.

Table 5-897 Version mapping

Series		Model	Software Version
S5720-EI	S5720-X-EI	S5720-32X-EI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 5-361 S5720-32X-EI-DC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 100/1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s)
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables 	4	One mini USB port
5	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	One ETH management port
7	One USB port	8	<p>DC power terminal</p> <p>NOTE It is used together with a DC Power Cable.</p>
9	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	10	<p>Two QSFP+ stack optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module (only QSFP-40G-SR4 and QSFP-40G-iSR supported) • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables
11	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-898](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-898 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-899](#) describes the attributes of a 100/1000BASE-X port.

Table 5-899 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-900](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-900 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

QSFP+ stack optical port

QSFP+ stack optical ports can only be used for stack connection. [Table 5-901](#) describes the attributes of a QSFP+ stack optical port.

Table 5-901 Attributes of a QSFP+ stack optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-902](#).

Table 5-902 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-903](#) describes the attributes of an ETH management port.

Table 5-903 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

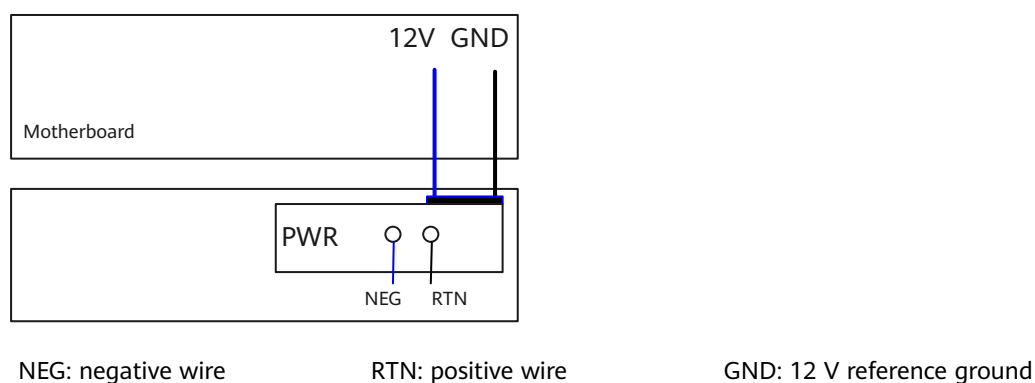
The S5720-32X-EI-DC has the same types of indicators as the S5720-32X-EI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-32X-EI-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

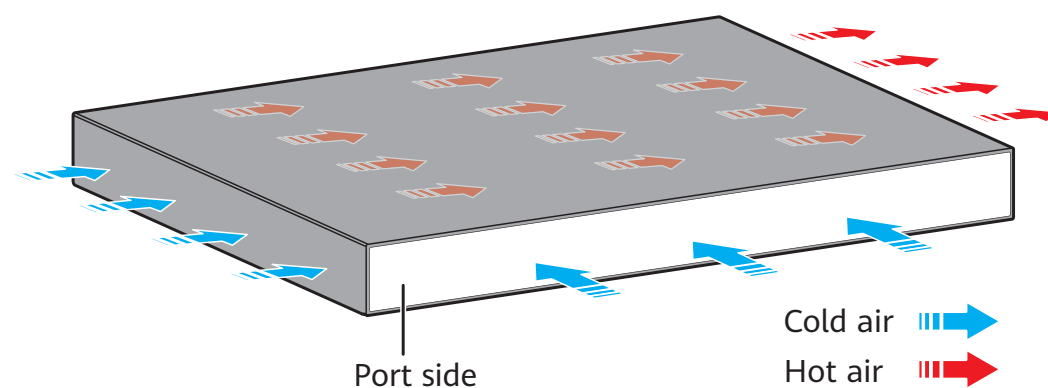
Figure 5-362 shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 5-362 Power supply by a single DC power module



Heat Dissipation

The S5720-32X-EI-DC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-904 lists technical specifications of the S5720-32X-EI-DC.

Table 5-904 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	80.32 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	4.3 kg (9.48 lb)
Stack ports	<ul style="list-style-type: none">• Two fixed QSFP+ stack ports on the rear card
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	51.9 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	40.85 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NHC

5.17.18 S5720-32X-EI-24S-AC

Version Mapping

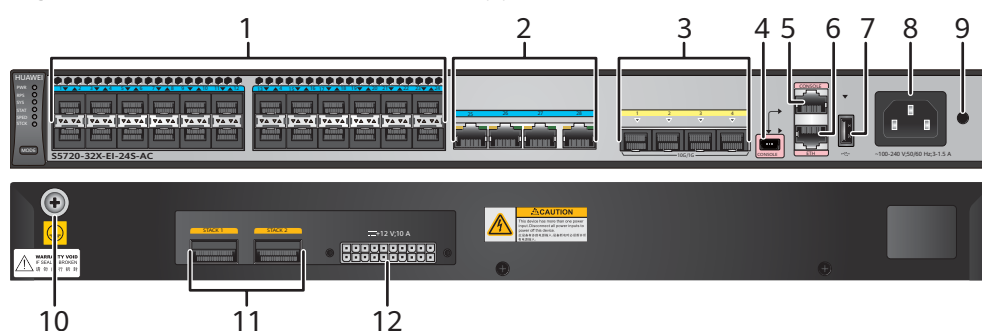
Table 5-905 lists the mapping between the S5720-32X-EI-24S-AC chassis and software versions.

Table 5-905 Version mapping

Series		Model	Software Version
S5720-EI	S5720-X-EI	S5720-32X-EI-24S-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 5-363 S5720-32X-EI-24S-AC appearance



1	<p>Twenty-four 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Four 10/100/1000BASE-T ports</p>
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables 	4	One mini USB port
5	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	One ETH management port
7	One USB port	8	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>
9	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>	10	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
11	<p>Two QSFP+ stack optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module (only QSFP-40G-SR4 and QSFP-40G-iSR supported) • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables 	12	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-906](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-906 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-907](#) describes the attributes of a 100/1000BASE-X port.

Table 5-907 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-908](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-908 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

QSFP+ stack optical port

QSFP+ stack optical ports can only be used for stack connection. [Table 5-909](#) describes the attributes of a QSFP+ stack optical port.

Table 5-909 Attributes of a QSFP+ stack optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-910](#).

Table 5-910 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-911](#) describes the attributes of an ETH management port.

Table 5-911 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-32X-EI-24S-AC has 24 downlink optical port indicators, whereas the S5720-32X-EI-AC has 24 downlink electrical port indicators. Symbols and

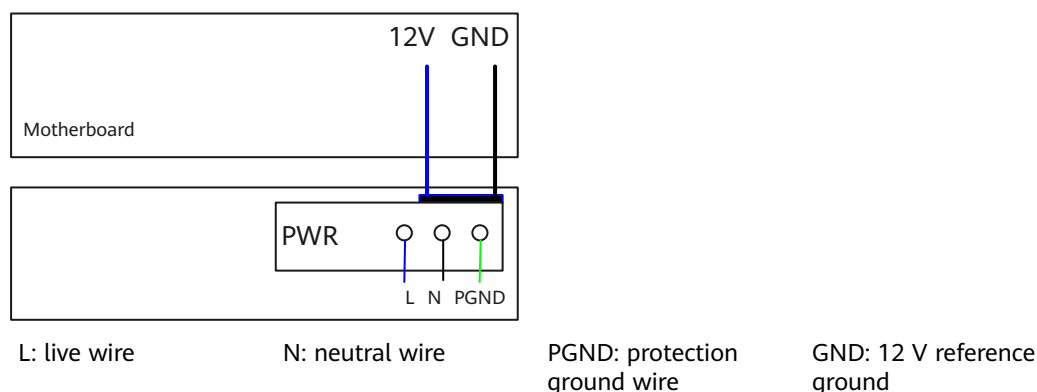
meanings of other indicators on the two switch models are the same. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-32X-EI-24S-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

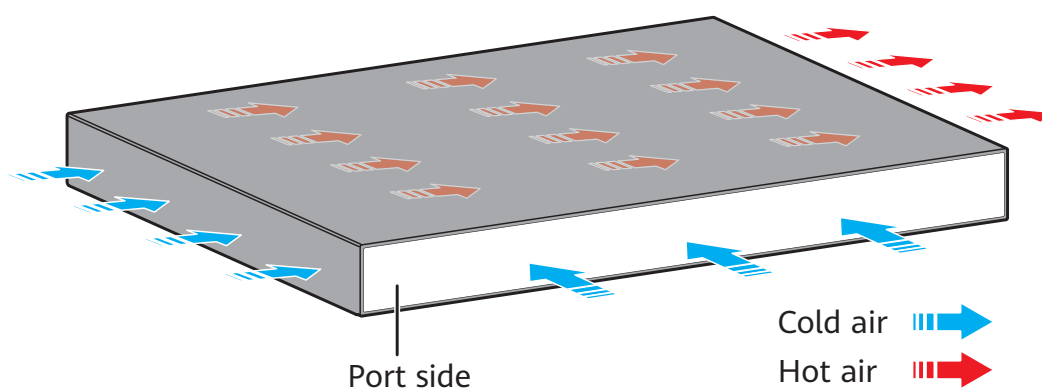
Figure 5-364 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-364 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-32X-EI-24S-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-912 lists technical specifications of the S5720-32X-EI-24S-AC.

Table 5-912 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	82.54 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	4.5 kg (9.92 lb)
Stack ports	<ul style="list-style-type: none">• Two fixed QSFP+ stack ports on the rear card
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	58.9 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	55.46 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02359579

5.17.19 S5720-32X-EI-24S-DC

Version Mapping

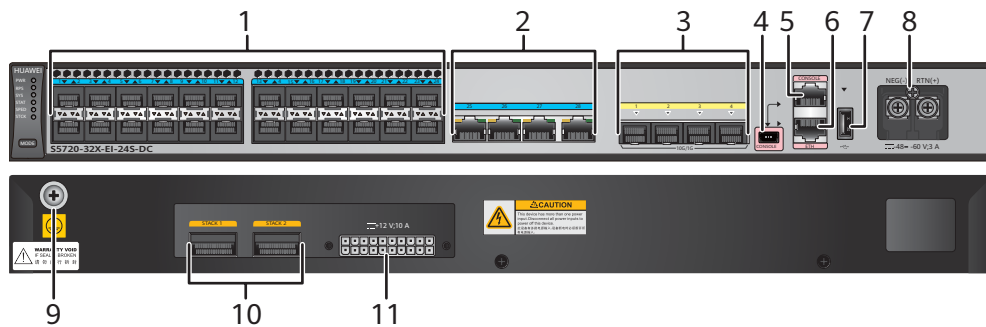
Table 5-913 lists the mapping between the S5720-32X-EI-24S-DC chassis and software versions.

Table 5-913 Version mapping

Series		Model	Software Version
S5720-EI	S5720-X-EI	S5720-32X-EI-24S-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 5-365 S5720-32X-EI-24S-DC appearance



1	Twenty-four 100/1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	Four 10/100/1000BASE-T ports
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables 	4	One mini USB port
5	<p>One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	6	One ETH management port
7	One USB port	8	<p>DC power terminal</p> <p>NOTE It is used together with a DC Power Cable.</p>
9	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	10	<p>Two QSFP+ stack optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module (only QSFP-40G-SR4 and QSFP-40G-iSR supported) • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables
11	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-914](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-914 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-915](#) describes the attributes of a 100/1000BASE-X port.

Table 5-915 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-916](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-916 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

QSFP+ stack optical port

QSFP+ stack optical ports can only be used for stack connection. [Table 5-917](#) describes the attributes of a QSFP+ stack optical port.

Table 5-917 Attributes of a QSFP+ stack optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-918](#).

Table 5-918 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-919](#) describes the attributes of an ETH management port.

Table 5-919 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-32X-EI-24S-DC has 24 downlink optical port indicators, whereas the S5720-32X-EI-AC has 24 downlink electrical port indicators. Symbols and

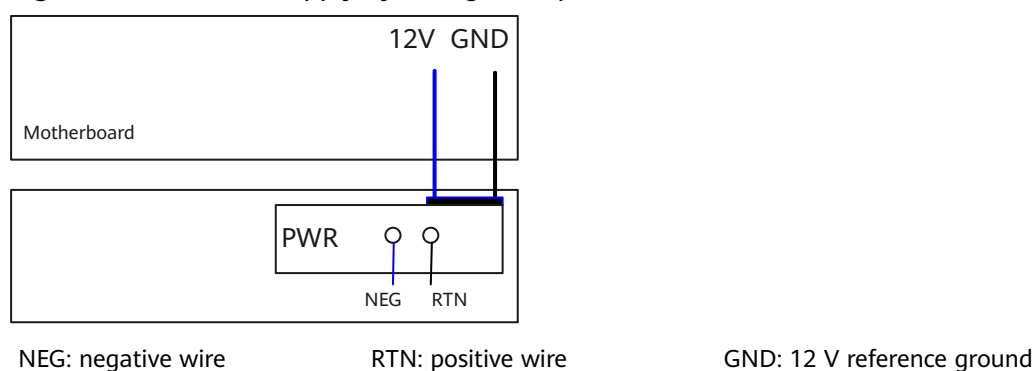
meanings of other indicators on the two switch models are the same. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-32X-EI-24S-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

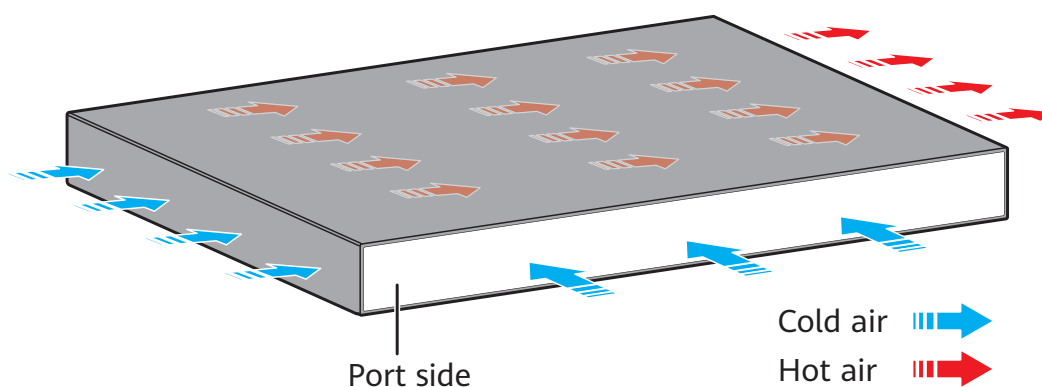
[Figure 5-366](#) shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 5-366 Power supply by a single DC power module



Heat Dissipation

The S5720-32X-EI-24S-DC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-920](#) lists technical specifications of the S5720-32X-EI-24S-DC.

Table 5-920 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	82.54 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	4.2 kg (9.26 lb)
Stack ports	<ul style="list-style-type: none">• Two fixed QSFP+ stack ports on the rear card
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	58.9 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	55.46 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02350NHE

5.17.20 S5720-50X-EI-AC

Version Mapping

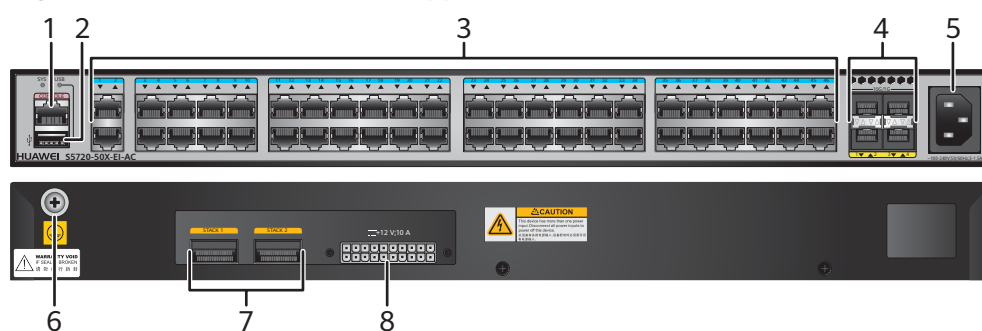
[Table 5-921](#) lists the mapping between the S5720-50X-EI-AC chassis and software versions.

Table 5-921 Version mapping

Series		Model	Software Version
S5720-EI	S5720-X-EI	S5720-50X-EI-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 5-367 S5720-50X-EI-AC appearance



1	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	2	<p>One USB port</p>
---	---	---	---------------------

3	Forty-six 10/100/1000BASE-T ports	4	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
5	<p>AC socket</p> <p>NOTE It is used with an AC power cable.</p>	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>Two QSFP+ stack optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module (only QSFP-40G-SR4 and QSFP-40G-iSR supported) • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables 	8	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 5-922](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-922 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-923](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-923 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

QSFP+ stack optical port

QSFP+ stack optical ports can only be used for stack connection. [Table 5-924](#) describes the attributes of a QSFP+ stack optical port.

Table 5-924 Attributes of a QSFP+ stack optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-925](#).

Table 5-925 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 5-368 Indicators on the S5720-50X-EI-AC

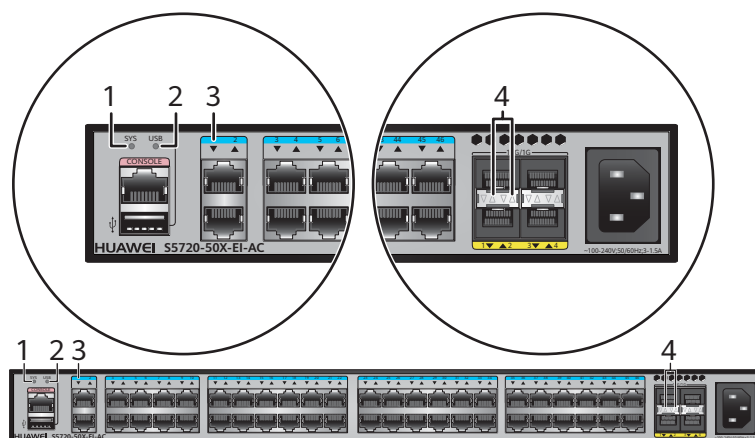


Table 5-926 Description of indicators on the switch

No.	Indicator/ Button	Name	Color	Status	Description
1	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
2	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.
3	-	Service port indicator (one indicator for each port)	-	Off	The port is not connected or has been shut down.
			Green	Steady on	The port is connected.
			Green	Blinking	The port is sending or receiving data.

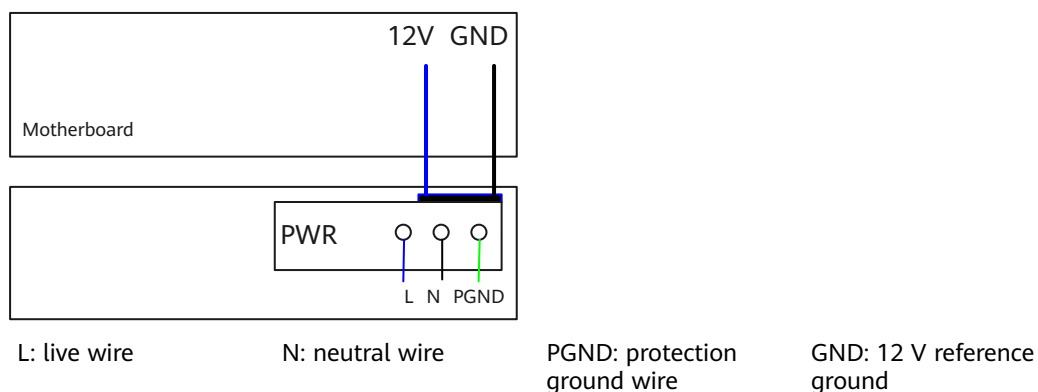
No.	Indicator/ Button	Name	Color	Status	Description
4	-	Service port indicator (two indicators for each port)	-	Off	The port is not connected or has been shut down.
			Green	Steady on	The port is connected.
			Yellow	Blinking	The port is sending or receiving data.

Power Supply Configuration

The S5720-50X-EI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

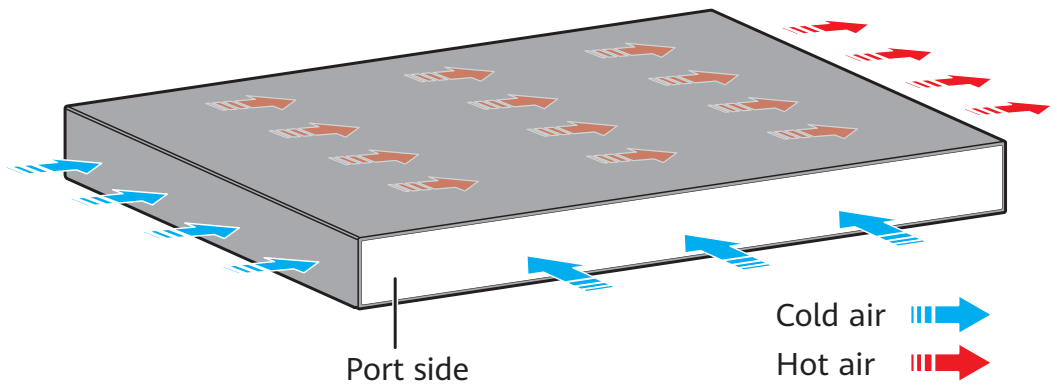
Figure 5-369 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-369 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-50X-EI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-927 lists technical specifications of the S5720-50X-EI-AC.

Table 5-927 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	74.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 229.9 mm (1.72 in. x 17.4 in. x 9.05 in.)
Weight (with packaging)	4.9 kg (10.81 lb)

Item	Description
Stack ports	<ul style="list-style-type: none"> Two fixed QSFP+ stack ports on the rear card
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	55.3 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	47.45 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02359592

5.17.21 S5720-50X-EI-DC

Version Mapping

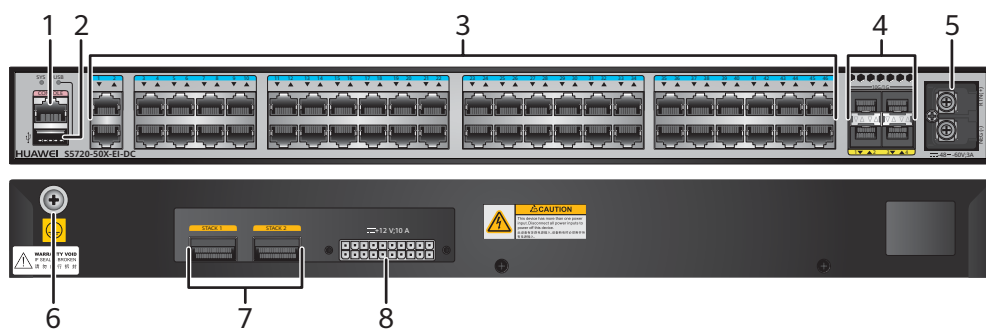
[Table 5-928](#) lists the mapping between the S5720-50X-EI-DC chassis and software versions.

Table 5-928 Version mapping

Series		Model	Software Version
S5720-EI	S5720-X-EI	S5720-50X-EI-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 5-370 S5720-50X-EI-DC appearance



1	<p>One console port</p> <p>NOTE</p> <p>It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	2	One USB port
---	---	---	--------------

3	Forty-six 10/100/1000BASE-T ports	4	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
5	<p>DC power terminal</p> <p>NOTE It is used together with a DC Power Cable.</p>	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>Two QSFP+ stack optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module (only QSFP-40G-SR4 and QSFP-40G-iSR supported) • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables 	8	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-929](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-929 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-930](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-930 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

QSFP+ stack optical port

QSFP+ stack optical ports can only be used for stack connection. [Table 5-931](#) describes the attributes of a QSFP+ stack optical port.

Table 5-931 Attributes of a QSFP+ stack optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-932](#).

Table 5-932 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

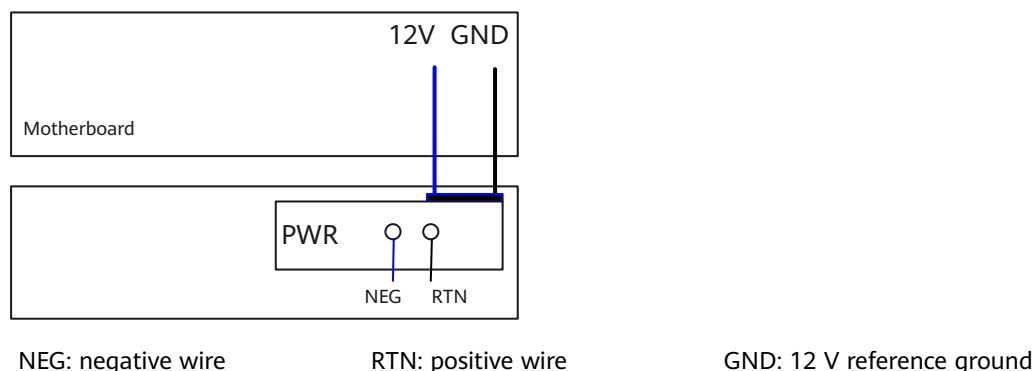
The S5720-50X-EI-DC has the same types of indicators as the S5720-50X-EI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-50X-EI-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

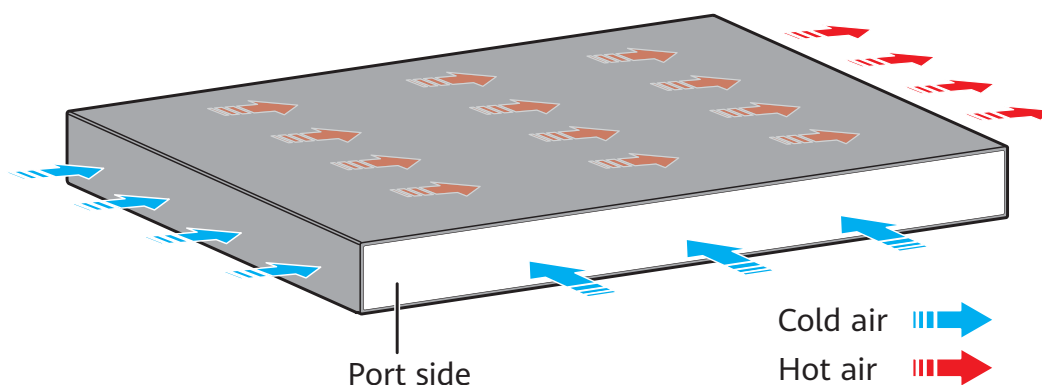
[Figure 5-371](#) shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 5-371 Power supply by a single DC power module



Heat Dissipation

The S5720-50X-EI-DC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-933 lists technical specifications of the S5720-50X-EI-DC.

Table 5-933 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	74.31 years

Item	Description
Mean time to repair (MTTR)	2
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 229.9 mm (1.72 in. x 17.4 in. x 9.05 in.)
Weight (with packaging)	4.7 kg (10.36 lb)
Stack ports	<ul style="list-style-type: none"> Two fixed QSFP+ stack ports on the rear card
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	55.3 W
Typical power consumption (30% of traffic load)	47.45 W
	<ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NHD

5.17.22 S5720-50X-EI-46S-AC

Version Mapping

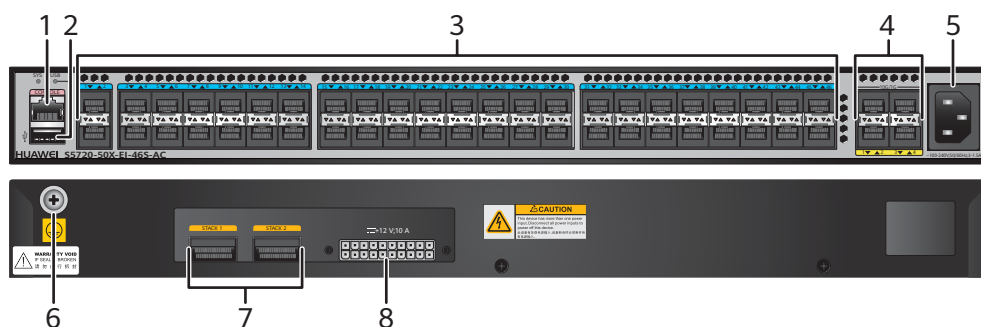
[Table 5-934](#) lists the mapping between the S5720-50X-EI-46S-AC chassis and software versions.

Table 5-934 Version mapping

Series		Model	Software Version
S5720-EI	S5720-X-EI	S5720-50X-EI-46S-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 5-372 S5720-50X-EI-46S-AC appearance



<p>1 One console port</p> <p>NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.</p>	<p>2 One USB port</p>
<p>3 Forty-six 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	<p>4 Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
<p>5 AC socket</p> <p>NOTE It is used with an AC power cable.</p>	<p>6 Ground screw</p> <p>NOTE It is used with a ground cable.</p>

7	Two QSFP+ stack optical ports Applicable modules and cables: <ul style="list-style-type: none">• QSFP+ optical module (only QSFP-40G-SR4 and QSFP-40G-iSR supported)• 1 m, 3 m, and 5 m QSFP+ high-speed copper cables	8	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.
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Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-935](#) describes the attributes of a 100/1000BASE-X port.

Table 5-935 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-936](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-936 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

QSFP+ stack optical port

QSFP+ stack optical ports can only be used for stack connection. [Table 5-937](#) describes the attributes of a QSFP+ stack optical port.

Table 5-937 Attributes of a QSFP+ stack optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-938](#).

Table 5-938 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

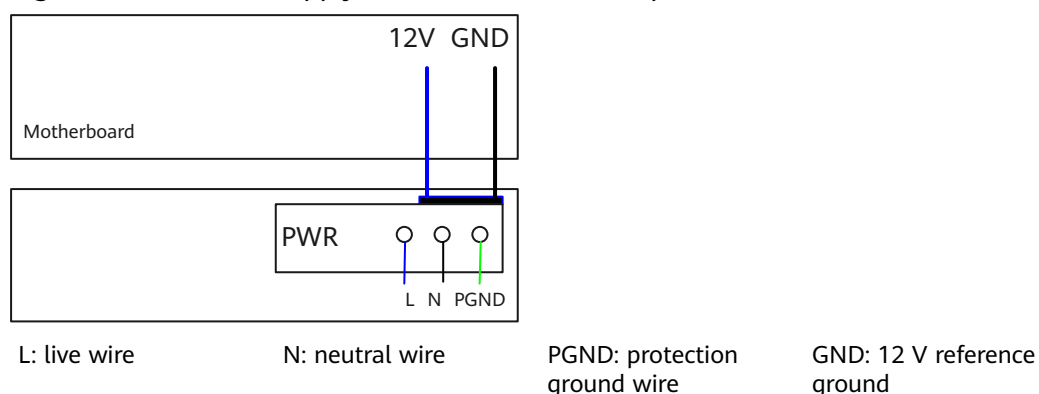
The S5720-50X-EI-46S-AC has 46 downlink optical port indicators, whereas the S5720-50X-EI-AC has 46 downlink electrical port indicators. Symbols and meanings of other indicators on the two switch models are the same. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-50X-EI-46S-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

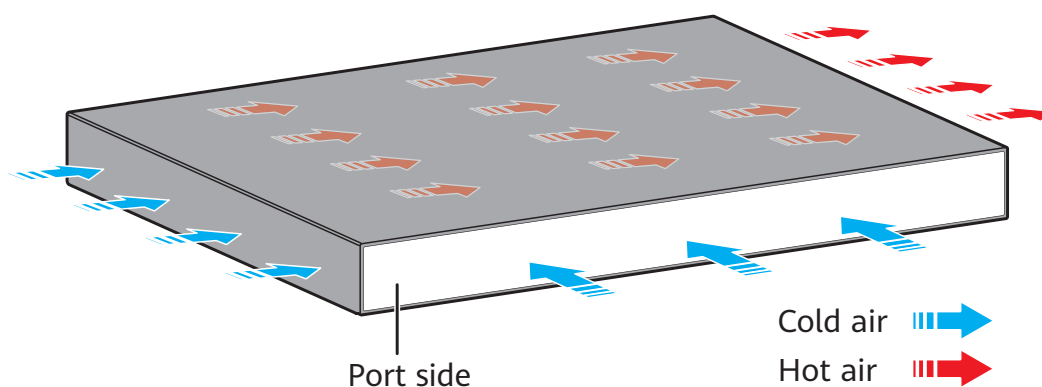
Figure 5-373 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-373 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-50X-EI-46S-AC has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-939 lists technical specifications of the S5720-50X-EI-46S-AC.

Table 5-939 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	67.59 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	NA
Power supply surge protection	±6 kV in differential mode, ±6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 229.9 mm (1.72 in. x 17.4 in. x 9.05 in.)
Weight (with packaging)	5 kg (11.03 lb)
Stack ports	<ul style="list-style-type: none"> Two fixed QSFP+ stack ports on the rear card
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	81.5 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	73.75 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51.1 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02359583

5.17.23 S5720-50X-EI-46S-DC

Version Mapping

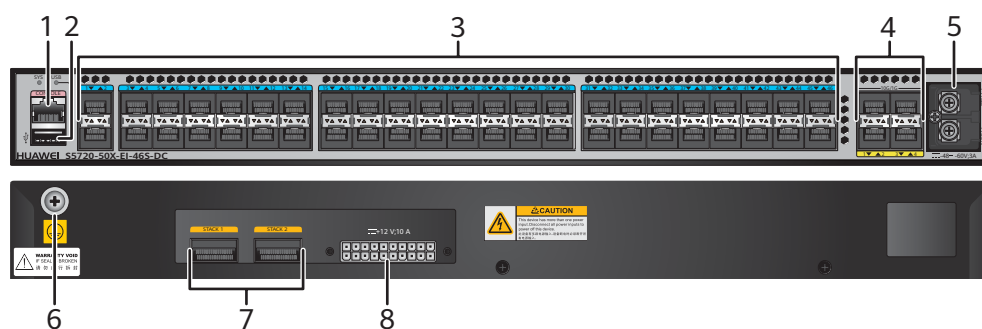
Table 5-940 lists the mapping between the S5720-50X-EI-46S-DC chassis and software versions.

Table 5-940 Version mapping

Series		Model	Software Version
S5720-EI	S5720-X-EI	S5720-50X-EI-46S-DC	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 5-374 S5720-50X-EI-46S-DC appearance



1	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	2	One USB port
---	--	---	--------------

3	<p>Forty-six 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	4	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
5	<p>DC power terminal</p> <p>NOTE It is used together with a DC Power Cable.</p>	6	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
7	<p>Two QSFP+ stack optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module (only QSFP-40G-SR4 and QSFP-40G-iSR supported) • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables 	8	<p>RPS socket</p> <p>NOTE It is used with an RPS cable, which is not hot swappable.</p>

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-941](#) describes the attributes of a 100/1000BASE-X port.

Table 5-941 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC

Attribute	Description
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-942](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-942 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

QSFP+ stack optical port

QSFP+ stack optical ports can only be used for stack connection. [Table 5-943](#) describes the attributes of a QSFP+ stack optical port.

Table 5-943 Attributes of a QSFP+ stack optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 5-944](#).

Table 5-944 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

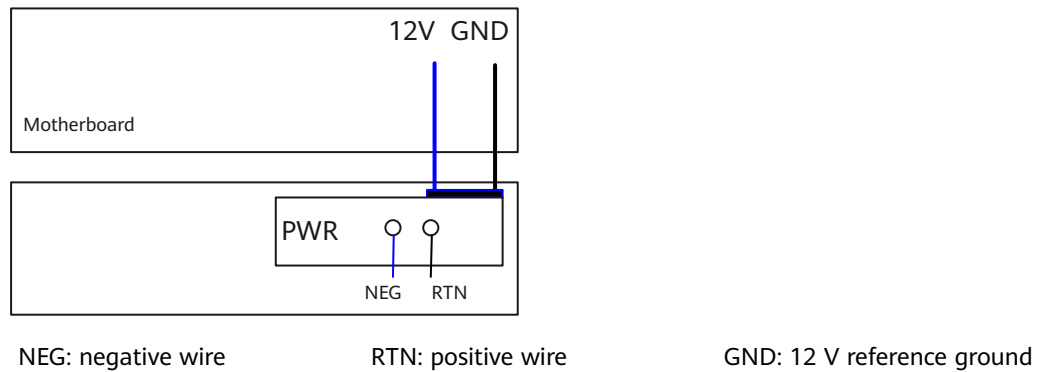
The S5720-50X-EI-46S-DC has 46 downlink optical port indicators, whereas the S5720-50X-EI-AC has 46 downlink electrical port indicators. Symbols and meanings of other indicators on the two switch models are the same. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-50X-EI-46S-DC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

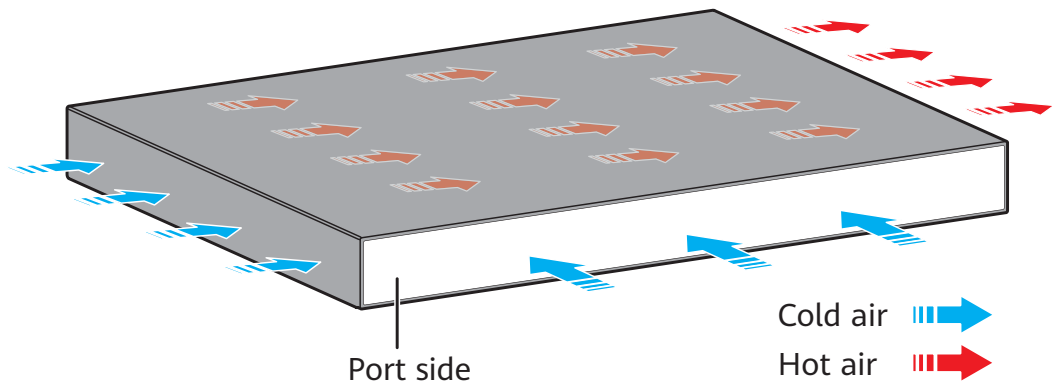
[Figure 5-375](#) shows the power supply mode of a single DC power module. The built-in DC power module (PWR) receives DC power from an external power source and provides a 12 V output to the chassis.

Figure 5-375 Power supply by a single DC power module



Heat Dissipation

The S5720-50X-EI-46S-DC has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-945 lists technical specifications of the S5720-50X-EI-46S-DC.

Table 5-945 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	67.59 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	NA
Power supply surge protection	±1 kV in differential mode, ±2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	4.8 kg (10.59 lb)
Stack ports	<ul style="list-style-type: none">• Two fixed QSFP+ stack ports on the rear card
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	81.5 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	73.75 W

Item	Description
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 51.1 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350NHF

5.17.24 S5720-52X-EI-AC

Version Mapping

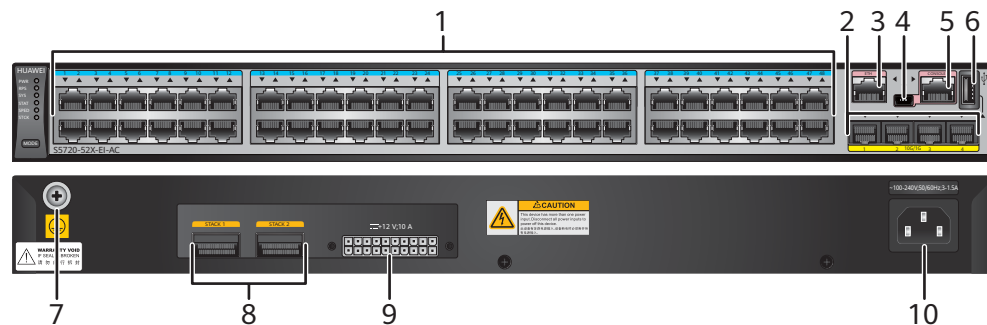
[Table 5-946](#) lists the mapping between the S5720-52X-EI-AC chassis and software versions.

Table 5-946 Version mapping

Series		Model	Software Version
S5720-EI	S5720-X-EI	S5720-52X-EI-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 5-376 S5720-52X-EI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables
3	One ETH management port	4	One mini USB port
5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port

7	Ground screw NOTE It is used with a ground cable .	8	Two QSFP+ stack optical ports Applicable modules and cables: <ul style="list-style-type: none"> • QSFP+ optical module (only QSFP-40G-SR4 and QSFP-40G-iSR supported) • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables
9	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	10	AC socket NOTE It is used with an AC power cable .

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-947](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-947 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-948](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-948 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC

Attribute	Description
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

QSFP+ stack optical port

QSFP+ stack optical ports can only be used for stack connection. [Table 5-949](#) describes the attributes of a QSFP+ stack optical port.

Table 5-949 Attributes of a QSFP+ stack optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-950](#).

Table 5-950 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. **Table 5-951** describes the attributes of an ETH management port.

Table 5-951 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

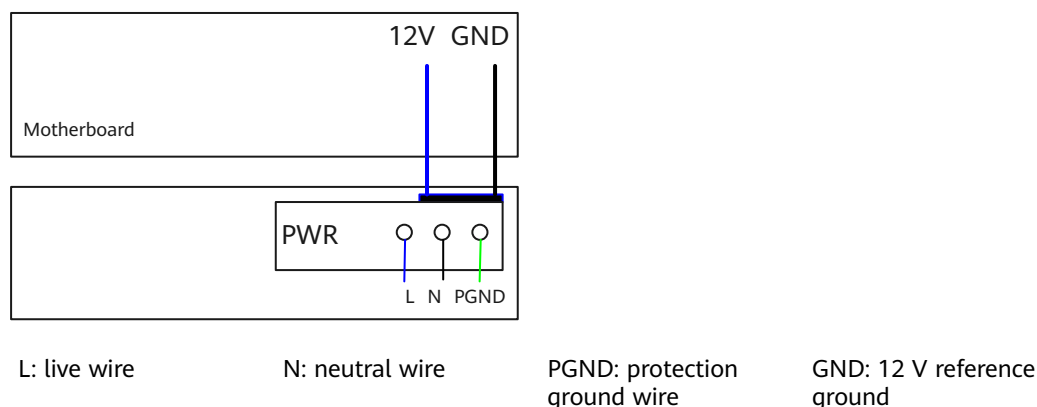
The S5720-52X-EI-AC has the same types of indicators as the S5720-32X-EI-AC. For details, see **Indicator Description**.

Power Supply Configuration

The S5720-52X-EI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

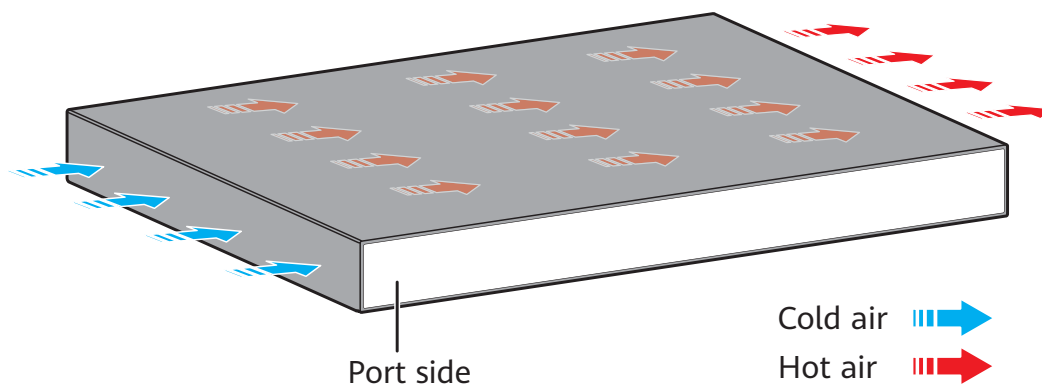
Figure 5-377 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-377 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-52X-EI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-952 lists technical specifications of the S5720-52X-EI-AC.

Table 5-952 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	73.12 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	4.7 kg (10.36 lb)
Stack ports	<ul style="list-style-type: none">• Two fixed QSFP+ stack ports on the rear card
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	61.5 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	52.25 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02359589

5.17.25 S5720-32P-EI-AC

Version Mapping

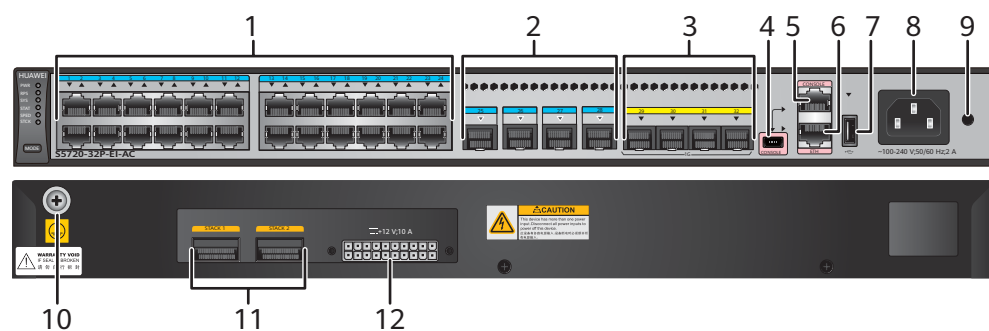
[Table 5-953](#) lists the mapping between the S5720-32P-EI-AC chassis and software versions.

Table 5-953 Version mapping

Series		Model	Software Version
S5720-EI	S5720-P-EI	S5720-32P-EI-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 5-378 S5720-32P-EI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 100/1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s)
3	Four 1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported) 	4	One mini USB port

5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One ETH management port
7	One USB port	8	AC socket NOTE It is used with an AC power cable .
9	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	10	Ground screw NOTE It is used with a ground cable .
11	Two QSFP+ stack optical ports Applicable modules and cables: <ul style="list-style-type: none"> • QSFP+ optical module (only QSFP-40G-SR4 and QSFP-40G-iSR supported) • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables 	12	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-954](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-954 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-955](#) describes the attributes of a 100/1000BASE-X port.

Table 5-955 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

1000BASE-X port

A 1000BASE-X Ethernet optical port sends and receives service data at 1000 Mbit/s. [Table 5-956](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-956 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	1000 Mbit/s

QSFP+ stack optical port

QSFP+ stack optical ports can only be used for stack connection. [Table 5-957](#) describes the attributes of a QSFP+ stack optical port.

Table 5-957 Attributes of a QSFP+ stack optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3ae

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-958](#).

Table 5-958 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-959](#) describes the attributes of an ETH management port.

Table 5-959 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3

Attribute	Description
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

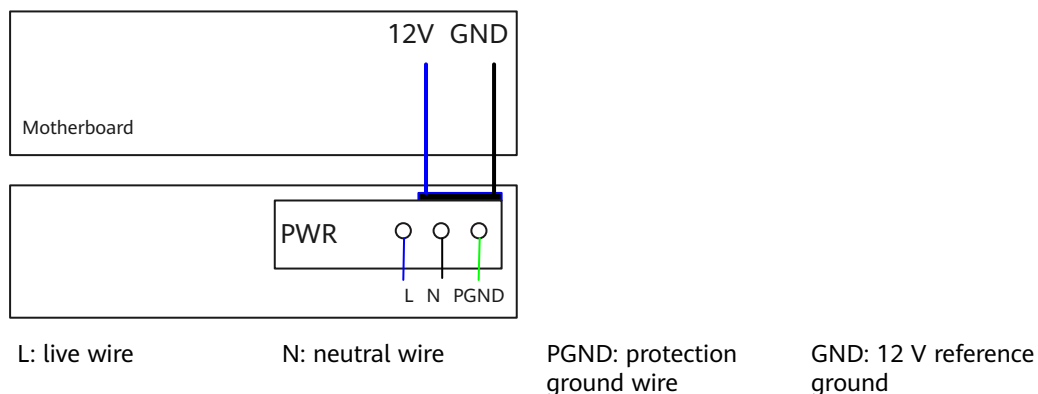
The S5720-32P-EI-AC has the same types of indicators as the S5720-32X-EI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-32P-EI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

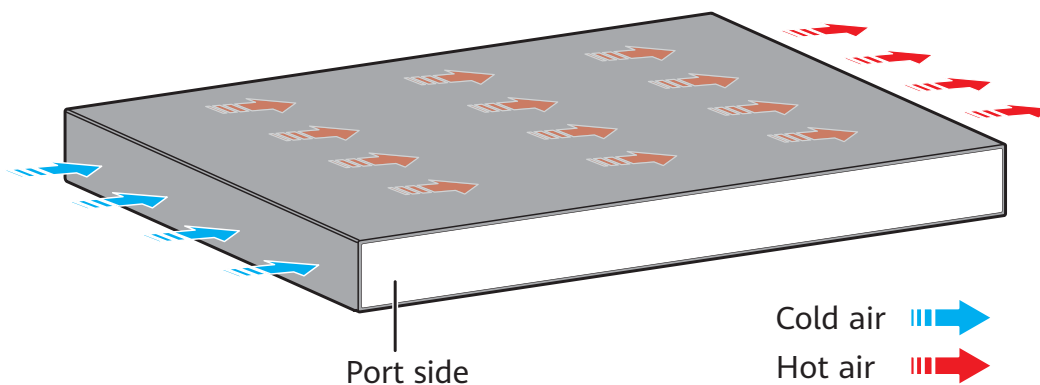
Figure 5-379 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-379 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-32P-EI-AC has a built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-960 lists technical specifications of the S5720-32P-EI-AC.

Table 5-960 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	80.32 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	4.5 kg (9.92 lb)
Stack ports	<ul style="list-style-type: none"> Two fixed QSFP+ stack ports on the rear card
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	50.7 W
Typical power consumption (30% of traffic load)	39.75 W
	<ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350BDY

5.17.26 S5720-52P-EI-AC

Version Mapping

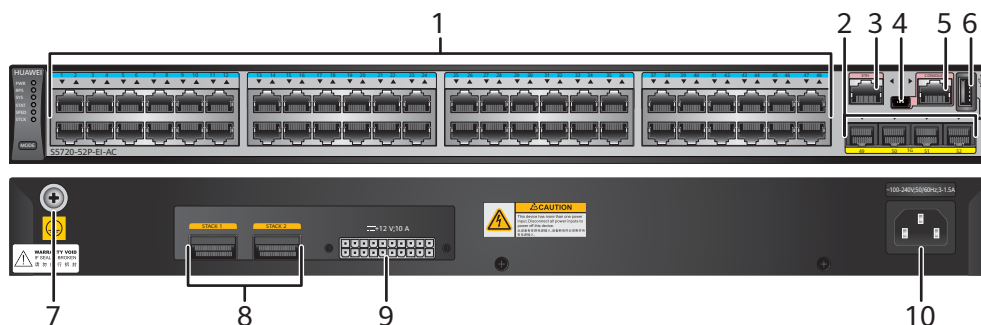
Table 5-961 lists the mapping between the S5720-52P-EI-AC chassis and software versions.

Table 5-961 Version mapping

Series		Model	Software Version
S5720-EI	S5720-P-EI	S5720-52P-EI-AC	V200R007C00 to V200R019C10 versions NOTE This model does not match V200R007C10.

Appearance and Structure

Figure 5-380 S5720-52P-EI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (only 1000 Mbit/s supported)
3	One ETH management port	4	One mini USB port
5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	Two QSFP+ stack optical ports Applicable modules and cables: <ul style="list-style-type: none"> • QSFP+ optical module (only QSFP-40G-SR4 and QSFP-40G-iSR supported) • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables
9	RPS socket NOTE It is used with an RPS cable , which is not hot swappable.	10	AC socket NOTE It is used with an AC power cable .

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-962](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-962 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

A 1000BASE-X Ethernet optical port sends and receives service data at 1000 Mbit/s. [Table 5-963](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-963 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	1000 Mbit/s

QSFP+ stack optical port

QSFP+ stack optical ports can only be used for stack connection. [Table 5-964](#) describes the attributes of a QSFP+ stack optical port.

Table 5-964 Attributes of a QSFP+ stack optical port

Attribute	Description
Connector type	MPO
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-965](#).

Table 5-965 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-966](#) describes the attributes of an ETH management port.

Table 5-966 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port of the S5720-EI does not support USB 1.1 and can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

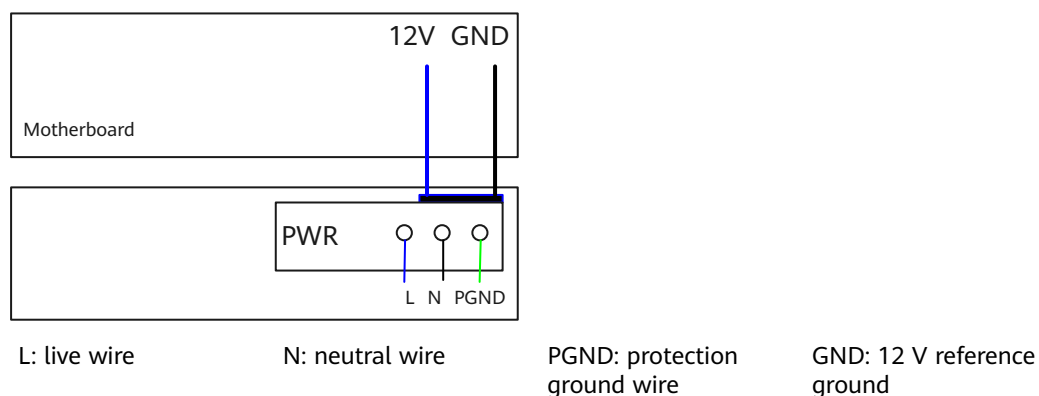
The S5720-52P-EI-AC has the same types of indicators as the S5720-32X-EI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-52P-EI-AC has a built-in power module and does not support pluggable power modules. It can connect to an RPS1800 power supply for power redundancy.

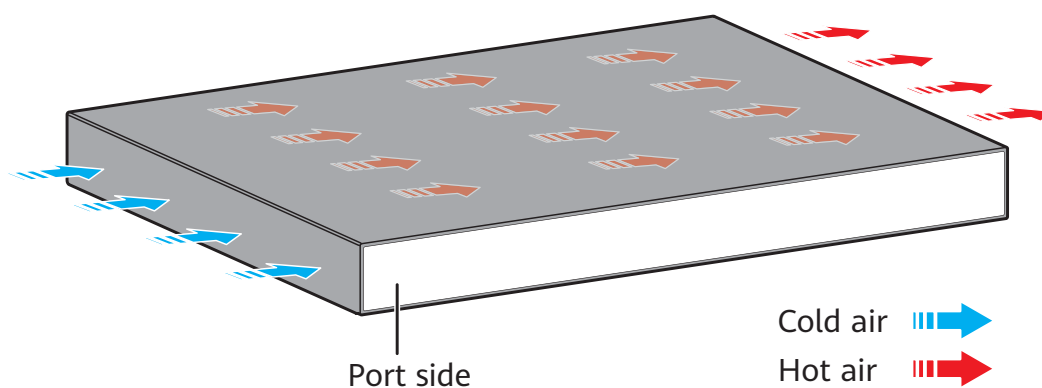
Figure 5-381 shows the power supply mode of a built-in AC power module. The built-in AC power module (PWR) receives power from an external power source and provides a 12 V output to the chassis.

Figure 5-381 Power supply mode of a built-in AC power module



Heat Dissipation

The S5720-52P-EI-AC has a built-in fan for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-967](#) lists technical specifications of the S5720-52P-EI-AC.

Table 5-967 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	73.12 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 224.9 mm (1.72 in. x 17.4 in. x 8.85 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 237.3 mm (1.72 in. x 17.4 in. x 9.34 in.)
Weight (with packaging)	4.7 kg (10.36 lb)
Stack ports	<ul style="list-style-type: none">• Two fixed QSFP+ stack ports on the rear card
RTC	Supported
RPS	Supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, full speed of fans)	60.3 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	51.14 W

Item	Description
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 49.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350BEC

5.18 S5730S-EI

5.18.1 S5730S-48C-EI-AC

Version Mapping

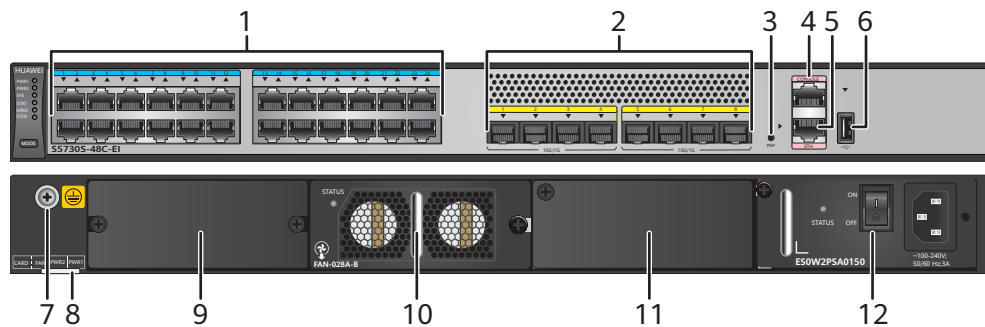
[Table 5-968](#) lists the mapping between the S5730S-48C-EI-AC chassis and software versions.

Table 5-968 Version mapping

Series	Model	Software Version
S5730S-EI	S5730S-48C-EI-AC	V200R011C10 to V200R019C10 versions

Appearance and Structure

Figure 5-382 S5730S-48C-EI-AC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Eight 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One PNP button NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	4	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.
5	One ETH management port	6	One USB port

7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • ES5D21Q04Q01 • ES5D21VST000 (applicable in V200R012C00 and later versions) 	10	Fan slot NOTE Applicable fan module: FAN-028A-B
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Interface Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-969](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-969 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-970](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-970 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-971](#).

Table 5-971 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-972](#) describes the attributes of an ETH management port.

Table 5-972 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5730S-48C-EI-AC has similar indicators to those of the S5730S-68C-PWR-EI except that the S5730S-48C-EI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730S-48C-EI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 5-383 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-383 Power supply connections of dual DC power modules

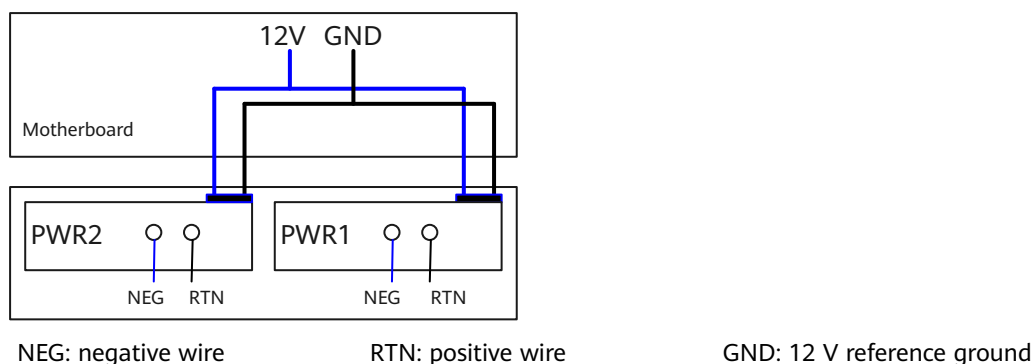
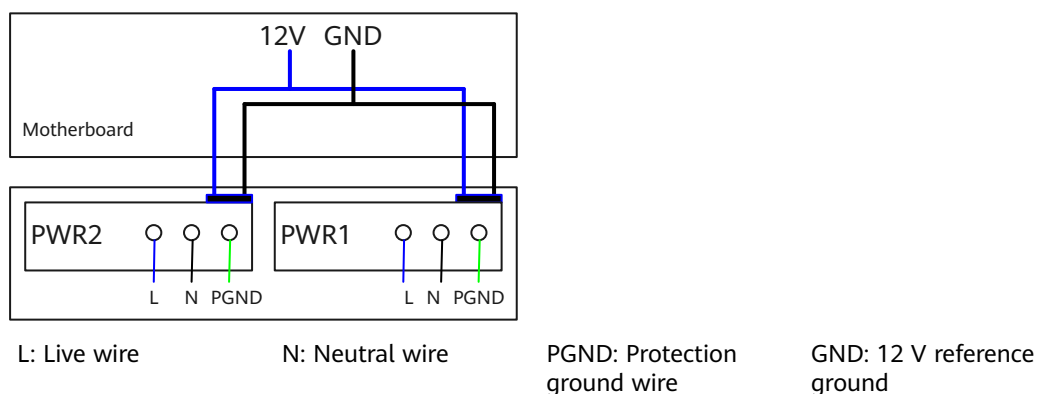


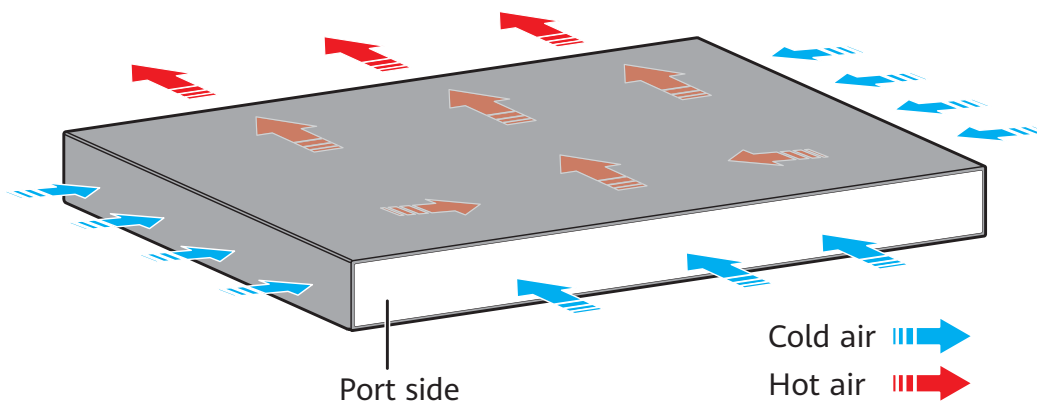
Figure 5-384 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-384 Power supply connections of dual AC power modules



Heat Dissipation

The S5730S-48C-EI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-973](#) lists technical specifications of the S5730S-48C-EI-AC.

Table 5-973 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	47.83 years
Mean time to repair (MTTR)	2 years
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 425.0 mm (1.75 in. x 17.4 in. x 16.73 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 454.75 mm (1.75 in. x 17.4 in. x 17.9 in.)
Weight (with packaging)	8.2 kg (18.08 lb)
Stack ports	Any 10GE SFP+ or 40GE QSFP+ ports Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC

Item	Description
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	62.4 W (without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	39.02 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses QSFP+ optical modules with 10 km or longer transmission distances.
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.

Item	Description
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 59.4 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	98010790

5.18.2 S5730S-48C-PWR-EI

Version Mapping

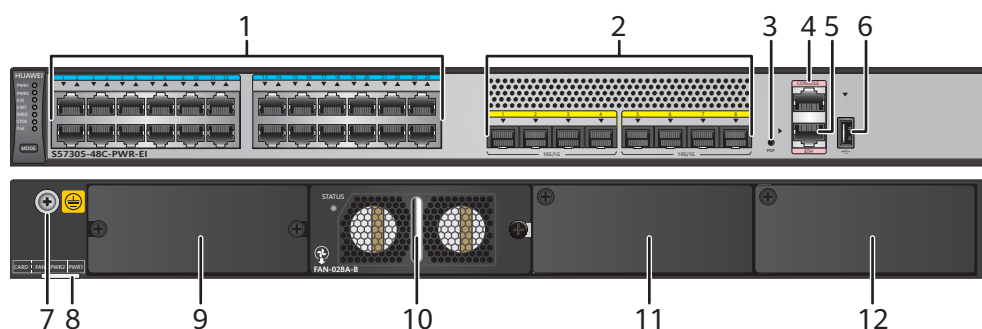
Table 5-974 lists the mapping between the S5730S-48C-PWR-EI chassis and software versions.

Table 5-974 Version mapping

Series	Model	Software Version
S5730S-EI	S5730S-48C-PWR-EI	V200R011C10 to V200R019C10 versions

Appearance and Structure

Figure 5-385 S5730S-48C-PWR-EI appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Eight 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One PNP button NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	4	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.
5	One ETH management port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • ES5D21Q04Q01 • ES5D21VST000 (applicable in V200R012C00 and later versions) 	10	Fan slot NOTE Applicable fan module: FAN-028A-B

<p>1 Power module slot 2</p> <p>1 NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module 	<p>1 Power module slot 1</p> <p>2 NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module
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Interface Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-975](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-975 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-976](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-976 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-977](#).

Table 5-977 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-978](#) describes the attributes of an ETH management port.

Table 5-978 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5730S-48C-PWR-EI has the same types of indicators as the S5730S-68C-PWR-EI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730S-48C-PWR-EI is a PoE switch. It has two power module slots, each of which can have a 500 W or 650 W power module installed. A power module can provide 369.6 W of PoE power for powered devices (PDs). A 500 W AC power module and a 650 W DC power module can be used together in the switch. [Table 5-979](#) lists its power supply configurations.

Table 5-979 Power supply configurations

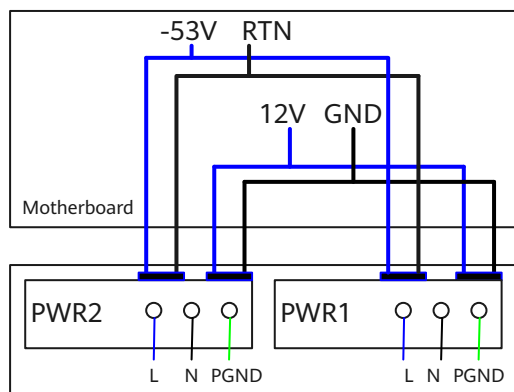
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	–	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

[Figure 5-386](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

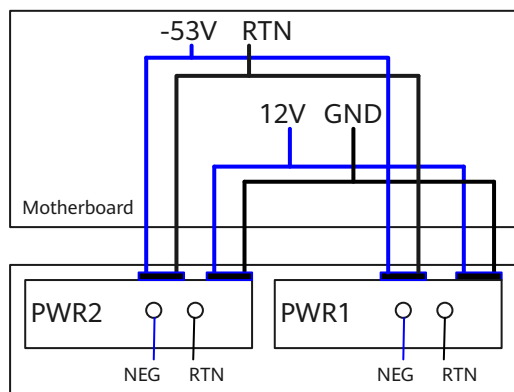
Figure 5-386 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 5-387 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

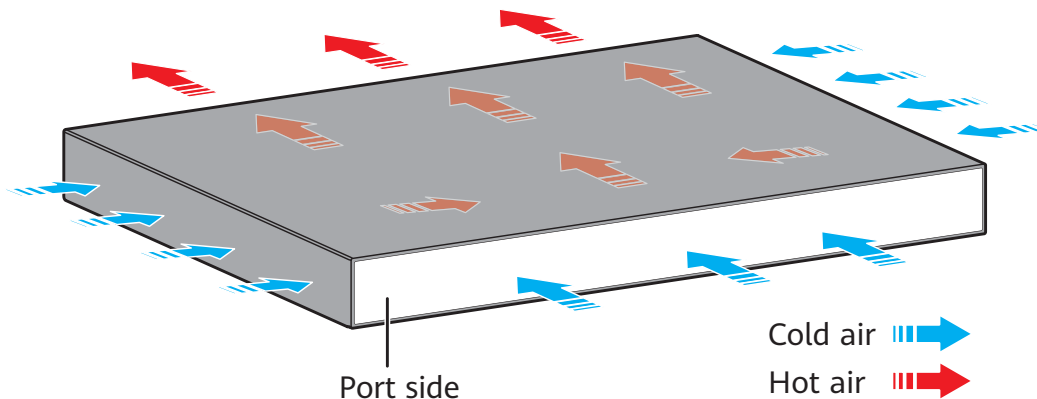
Figure 5-387 Power supply connections of dual DC PoE power modules



NEG: negative wire RTN: positive wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5730S-48C-PWR-EI uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-980 lists technical specifications of the S5730S-48C-PWR-EI.

Table 5-980 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	46.8 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 425.0 mm (1.75 in. x 17.4 in. x 16.73 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 454.75 mm (1.75 in. x 17.4 in. x 17.9 in.)

Item	Description
Weight (with packaging)	7.5 kg (16.53 lb)
Stack ports	Any 10GE SFP+ or 40GE QSFP+ ports Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 83.2 W (without card) 100% PoE loads: 967 W (system power consumption: 227.8 W, PoE: 739.2 W, without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	44.2 W (without card)
Operating temperature	<p>0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses QSFP+ optical modules with 10 km or longer transmission distances.</p>

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.4 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010791

5.18.3 S5730S-68C-EI-AC

Version Mapping

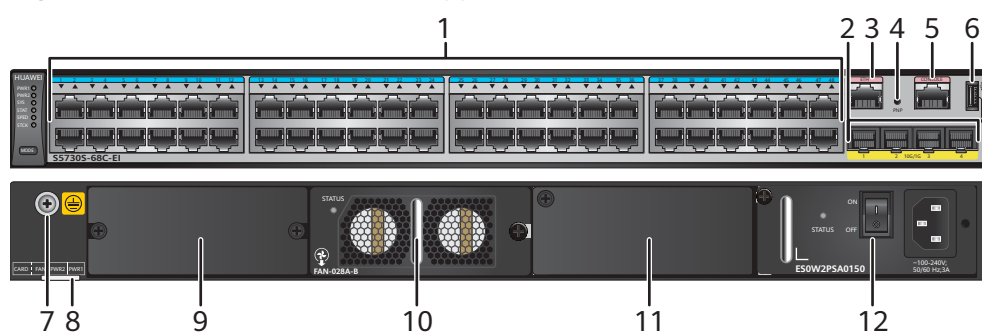
Table 5-981 lists the mapping between the S5730S-68C-EI-AC chassis and software versions.

Table 5-981 Version mapping

Series	Model	Software Version
S5730S-EI	S5730S-68C-EI-AC	V200R011C10 to V200R019C10 versions

Appearance and Structure

Figure 5-388 S5730S-68C-EI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
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3	One ETH management port	4	One PNP button NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • ES5D21Q04Q01 • ES5D21VST000 (applicable in V200R012C00 and later versions) 	10	Fan slot NOTE Applicable fan module: FAN-028A-B
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Interface Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-982](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-982 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-983](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-983 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-984](#).

Table 5-984 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-985](#) describes the attributes of an ETH management port.

Table 5-985 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

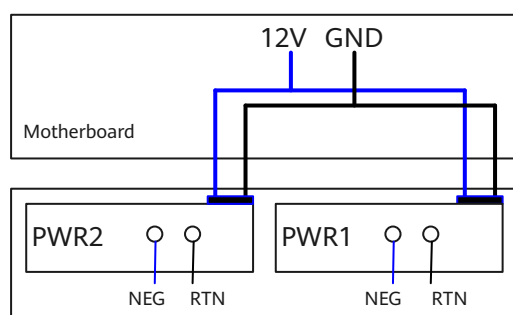
The S5730S-68C-EI-AC has similar indicators to those of the S5730S-68C-PWR-EI except that the S5730S-68C-EI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730S-68C-EI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 5-389 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-389 Power supply connections of dual DC power modules



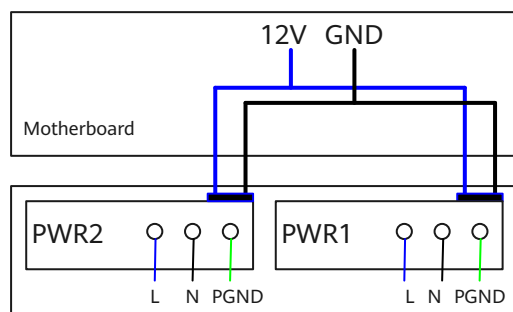
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 5-390 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-390 Power supply connections of dual AC power modules



L: Live wire

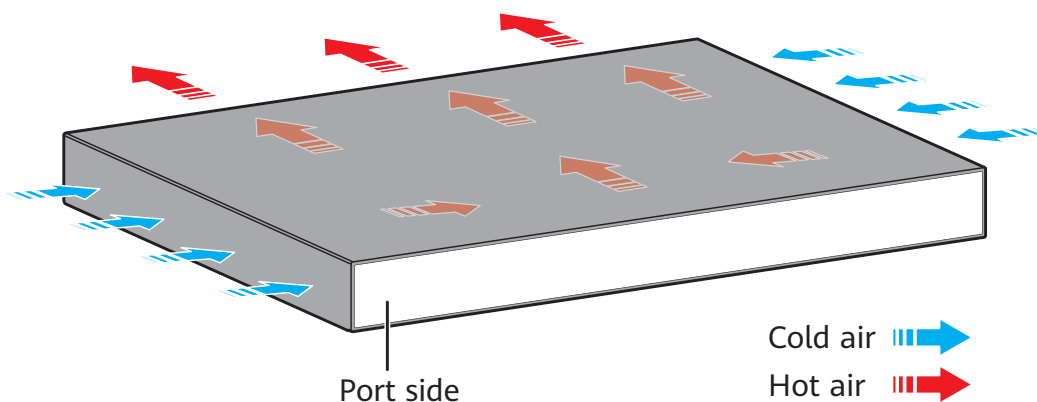
N: Neutral wire

PGND: Protection ground wire

GND: 12 V reference ground

Heat Dissipation

The S5730S-68C-EI-AC uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-986](#) lists technical specifications of the S5730S-68C-EI-AC.

Table 5-986 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	46.53 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 425.0 mm (1.75 in. x 17.4 in. x 16.73 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 454.75 mm (1.75 in. x 17.4 in. x 17.9 in.)
Weight (with packaging)	8.5 kg (18.74 lb)
Stack ports	Any 10GE SFP+ or 40GE QSFP+ ports Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	65.4 W (without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	42.3 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses QSFP+ optical modules with 10 km or longer transmission distances.

Item	Description
Short-term operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none">• AC power modules configured: 0-5000 m (0-16404 ft.)• DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010792

5.18.4 S5730S-68C-PWR-EI

Version Mapping

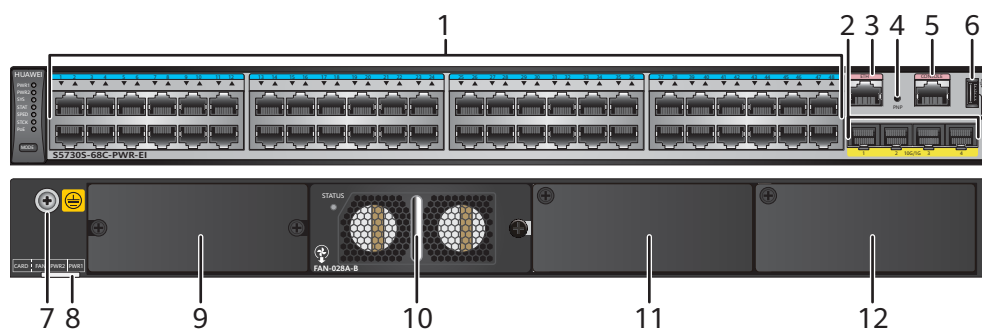
[Table 5-987](#) lists the mapping between the S5730S-68C-PWR-EI chassis and software versions.

Table 5-987 Version mapping

Series	Model	Software Version
S5730S-EI	S5730S-68C-PWR-EI	V200R011C10 to V200R019C10 versions

Appearance and Structure

Figure 5-391 S5730S-68C-PWR-EI appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
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3	One ETH management port	4	One PNP button NOTICE Applicable in V200R012C00 and later versions: To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One console port NOTE It is used with a console cable. The console cable is not delivered with the switch and needs to be separately purchased if needed.	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • ES5D21Q04Q01 • ES5D21VST000 (applicable in V200R012C00 and later versions) 	10	Fan slot NOTE Applicable fan module: FAN-028A-B
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module • 1150 W AC PoE power module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions) 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE power module • 650 W DC PoE power module • 1150 W AC PoE power module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions)

Interface Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-988](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-988 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-989](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-989 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-990](#).

Table 5-990 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-991](#) describes the attributes of an ETH management port.

Table 5-991 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

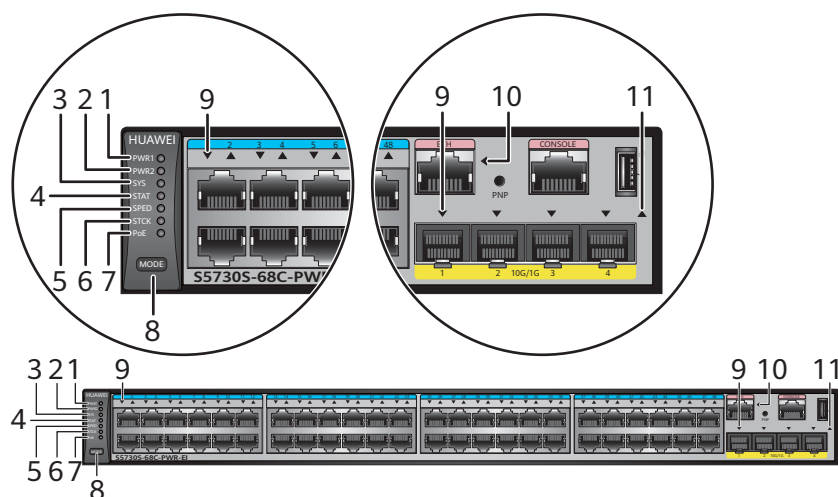
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-392 Indicators on the S5730S-68C-PWR-EI



NOTE

The S5730S-EI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators of a switch. If the switch fails, its SYS indicator and mode indicators can be configured to blink red fast so that field maintenance personnel can find this faulty switch.

Table 5-992 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.

No.	Indicator	Name	Color	Status	Description
8	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
9	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-993 .		
10	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
11	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-993 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.

Display Mode	Color	Status	Description
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none"> The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. The total power consumption of PDs has reached the maximum power of the switch. The manual power management mode is used and the port is not enabled to provide power to the PD.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5730S-68C-PWR-EI is a PoE switch. It has two power module slots, each of which can have a 500 W, 650 W, 1150 W, or 1000 W (applicable in V200R013C00 and later versions) power module installed. A 500 W AC power module and a 650 W DC power module can be used together in the switch. A 1150 W AC power module and a 1000 W AC power module can be used together in the switch.

[Table 5-994](#) lists its power supply configurations.

Table 5-994 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24
1150 W (220 V)	-	785.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 26
1150 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1150 W (110 V)	-	446.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 29 802.3at (30 W per port): 14
1150 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29
1000 W (220 V)	-	754.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25
1000 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W (110 V)	-	754.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25

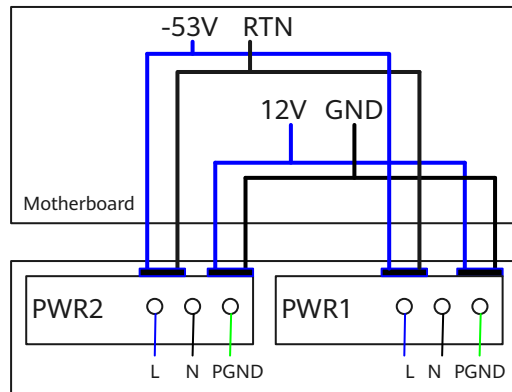
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (110 V)	1000 W (110 V)	1440 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 48
1000 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 48
1150 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 48
1000 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 29
1150 W (110 V)	1000 W (110 V)	893.2 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 29

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 5-393 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

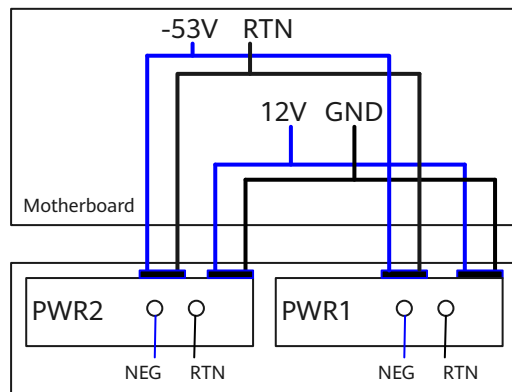
Figure 5-393 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 5-394 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

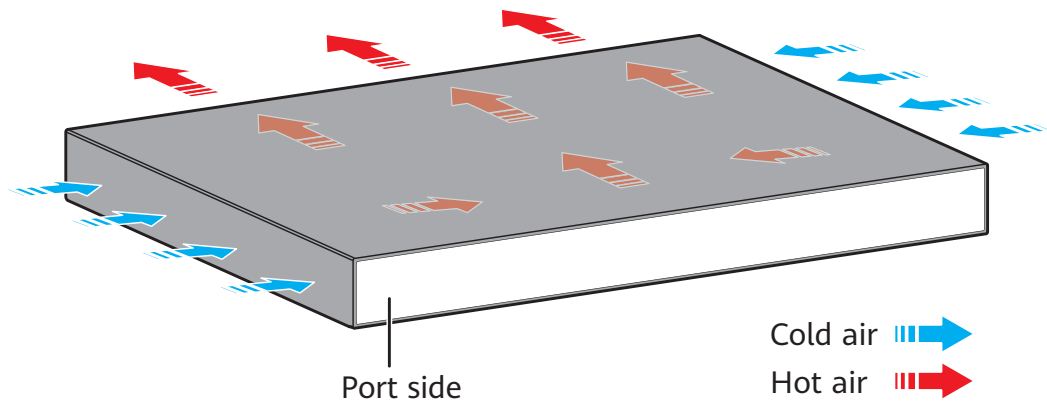
Figure 5-394 Power supply connections of dual DC PoE power modules



NEG: negative wire RTN: positive wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5730S-68C-PWR-EI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-995 lists technical specifications of the S5730S-68C-PWR-EI.

Table 5-995 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	43.28 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC or 1000 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC or 1150 W AC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 425.0 mm (1.75 in. x 17.4 in. x 16.73 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 454.75 mm (1.75 in. x 17.4 in. x 17.9 in.) <p>When 1150 W power modules are installed, they stretch out from the chassis. Therefore, the total depth of the switch changes to 541.1 mm (21.3 in.).</p>
Weight (with packaging)	8 kg (17.64 lb)
Stack ports	Any 10GE SFP+ or 40GE QSFP+ ports Ports on the 2-port QSFP+ rear stack card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Using 650 W DC or 500 W AC power modules <ul style="list-style-type: none"> - Not providing the PoE function: 68.3 W (without card) - 100% PoE loads: 925 W (system power consumption: 185.8 W, PoE: 739.2 W, without card) • Using 1150 W AC or 1000 W AC power modules <ul style="list-style-type: none"> - Not providing the PoE function: 68.3 W (without card) - 100% PoE loads: 1733 W (system power consumption: 293 W, PoE: 1440 W, without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	50.1 W (without card)

Item	Description
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The operating temperature of the switch is 0°C to 40°C (32°F to 104°F) when it uses QSFP+ optical modules with 10 km or longer transmission distances.
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 64.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010793

5.19 S5700-HI

5.19.1 S5700-28C-HI

Version Mapping

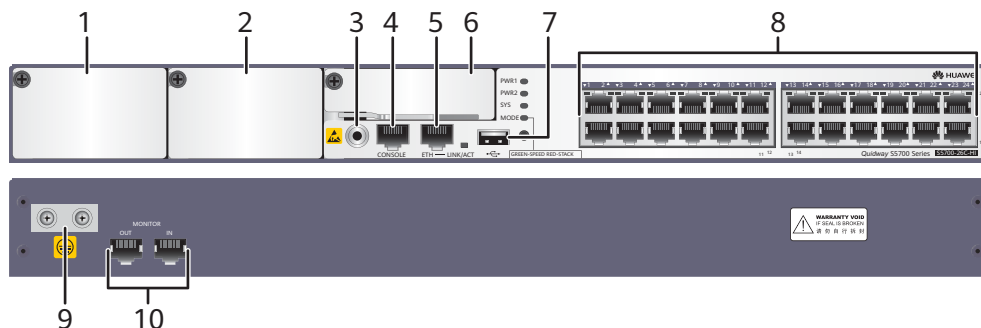
[Table 5-996](#) lists the mapping between the S5700-28C-HI and software versions.

Table 5-996 Version mapping

Series	Model	Software Version
S5700-HI	S5700-28C-HI	V100R006C01 to V200R005C02 NOTE This model does not match V200R003C02 or V200R003C10.

Appearance and Structure

Figure 5-395 S5700-28C-HI appearance



1	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 170 W AC power module 170 W DC power module 	2	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 170 W AC power module 170 W DC power module
3	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.	4	One console port

5	One ETH management port	6	Front card slot NOTE Card supported: <ul style="list-style-type: none"> 9.7 ES5D00X2SA00 (2-Port GE SFP/10GE SFP+ Front Optical Interface Card) 9.8 ES5D00X4SA00 (4-Port GE SFP/10GE SFP+ Front Optical Interface Card) 9.9 ES5D00G4SC00 (4-Port GE SFP Front Optical Interface Card)
7	One USB port	8	Twenty-four 10/100/1000BASE-T ports
9	Ground screw NOTE It is used with a ground cable . The switch has two ground screws, any of which can be used to install a ground cable.	10	Monitoring port NOTE The monitoring port monitors the cabinet door, power module, battery power, and power supply of the air conditioner.

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 5-997](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-997 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-998](#).

Table 5-998 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. **Table 5-999** describes the attributes of an ETH management port.

Table 5-999 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 5-396 Indicators on the S5700-28C-HI

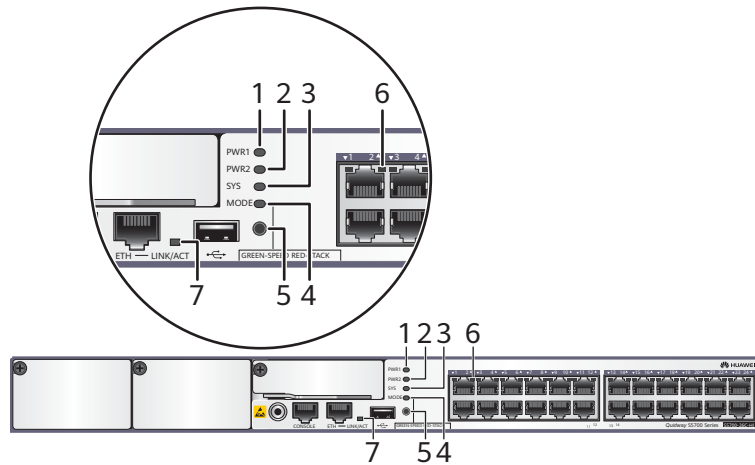


Table 5-1000 Description of indicators on the switch

Number	Indicator/Button	Color	Description
1	PWR1: power supply indicator	-	Off: No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 1 and is working normally.
		Red	Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in power module slot 1 fails.

Number	Indicator/ Button	Color	Description
2	PWR2: power supply indicator	-	Off: No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
		Green	Steady on: A power module is installed in power module slot 2 and is working normally.
		Red	Steady on: The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • A power module is available in this slot but its power switch is in the OFF position. • A power module is available in this slot but it is not connected to a power source. • The power module in power module slot 2 fails.
3	SYS: system status indicator	-	Off: The system is not running.
		Green	Indicator states and meaning in V100R006 version: <ul style="list-style-type: none"> • Steady on: The system is not operating properly or is starting. • Slow blinking: The system is running normally. • Fast blinking: The system is copying the system software and configuration file from a USB flash drive during a USB-based upgrade. Indicator states and meaning in V200R001 and later versions: <ul style="list-style-type: none"> • Fast blinking: The system is starting or is copying the system software and configuration file from a USB flash drive during a USB-based upgrade. • Slow blinking: The system is running normally.

Number	Indicator/ Button	Color	Description
		Yellow	<ul style="list-style-type: none"> Steady on: The system is performing self-check during startup (only applicable to V100R006). Blinking: The system has been successfully upgraded using a USB flash drive and the switch has restarted. You can remove the USB flash drive from the switch.
		Red	<ul style="list-style-type: none"> Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated. Blinking: An error occurred during USB-based upgrade and the system failed to be upgraded after a USB flash drive is inserted.
4	MODE: mode indicator	-	Off: The service port indicators are in the status mode (default). In the status mode, the service port indicator shows the port link or activity state.
		Green	Steady on: The service port indicators show the port speed. After 45 seconds, the service port indicators automatically restore to the status mode.
		Red	Steady on: The service port indicators show the stack ID of the switch. After 45 seconds, the service port indicators automatically restore to the status mode.

Number	Indicator/Button	Color	Description
5	Mode switch button	-	<p>In versions earlier than V200R003C00:</p> <ul style="list-style-type: none">• When you press this button once, the mode indicator turns green and the service port indicators show the speed of each service port.• When you press this button a second time, the mode indicator turns off. <p>In V200R003C00 and later versions:</p> <ul style="list-style-type: none">• When you press this button once, the mode indicator turns green and the service port indicators show the speed of ports.• When you press this button a second time, the mode indicator turns red and the service port indicators show stack information.• When you press this button a third time, the mode indicator turns off and the service port indicators restore to the status mode. <p>If you do not press the button within 45 seconds, the mode indicator restores to the default mode.</p>
6	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-1001 and Table 5-1002 .	
7	ETH indicator	Green	<ul style="list-style-type: none">• Off: No link is established on the port.• Steady on: The port is connected.• Blinking: The port is sending or receiving data.

Table 5-1001 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none">• If the indicator of a port is steady on, the number of this port is the stack ID of the switch.• If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none">• If the indicator of a port is blinking, the number of this port is the stack ID of the switch.• If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Table 5-1002 Description of service port indicators in different modes (two indicators for each port)

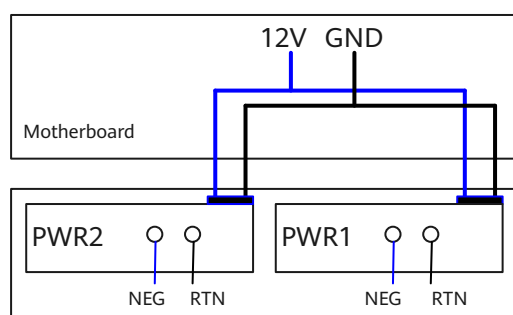
Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green and yellow	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 100M/1000M port: The port is operating at 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green and yellow	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green and yellow	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5700-28C-HI uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 5-397 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-397 Power supply connections of dual DC power modules



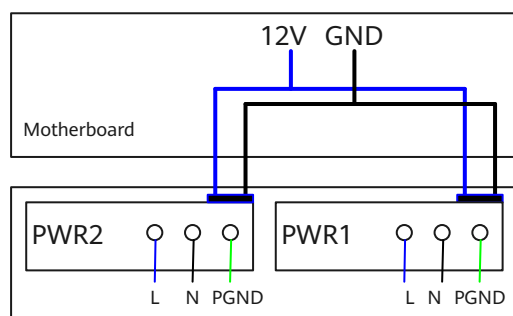
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

Figure 5-398 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-398 Power supply connections of dual AC power modules



L: Live wire

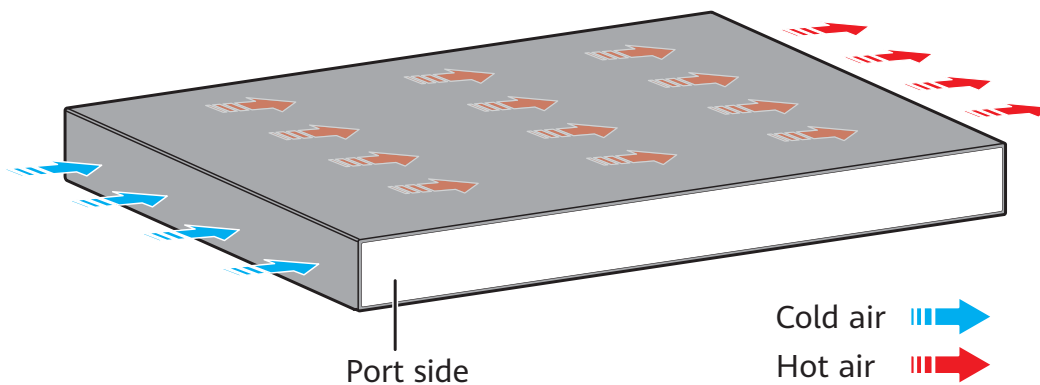
N: Neutral wire

PGND: Protection
ground wire

GND: 12 V reference
ground

Heat Dissipation

The S5700-28C-HI has three built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1003 lists technical specifications of the S5700-28C-HI.

Table 5-1003 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	64 MB
Mean time between failures (MTBF)	28.7 years when a 4-port 10GE interface card is configured, 41.1 years when a 2-port 10GE interface card is configured, 42.9 years when a 4-port GE interface card is configured
Mean time to repair (MTTR)	2 years
Availability	> 0.99999
Service port surge protection	±2 kV in common mode
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ±6 kV in differential mode, ±6 kV in common mode Using DC power modules: ±1 kV in differential mode, ±2 kV in common mode
Dimensions (H x W x D)	44.4 mm x 442.0 mm x 220.0 mm (1.75 in. x 17.4 in. x 8.7 in.)
Weight	<ul style="list-style-type: none"> Empty: ≤ 5 kg (11.02 lb) Fully configured: ≤ 6.5 kg (14.33 lb)

Item	Description
Stack ports	<ul style="list-style-type: none">• Versions earlier than V200R003C00 do not support stack ports.• Since V200R003C00, 10GE ports on the front card can be used as stack ports.
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	76.6 W
Operating temperature	-5°C to +55°C (23°F to 131°F) NOTE The operating temperature of the switch is -5°C to +50°C (23°F to 122°F) when it uses SFP+ optical modules with 40 km or longer transmission distances.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 60 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none">• AC power modules configured: 0-5000 m (0-16404 ft.)• DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02353630

5.19.2 S5700-28C-HI-24S

Version Mapping

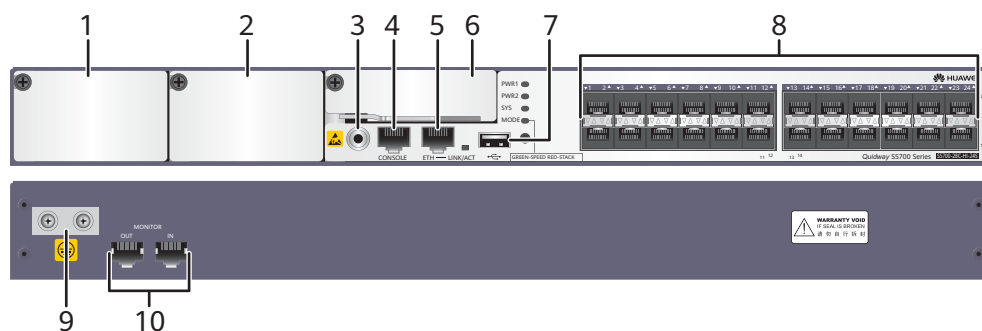
Table 5-1004 lists the mapping between the S5700-28C-HI-24S and software versions.

Table 5-1004 Version mapping

Series	Model	Software Version
S5700-HI	S5700-28C-HI-24S	V100R006C01 to V200R005C02 NOTE This model does not match V200R003C02 or V200R003C10.

Appearance and Structure

Figure 5-399 S5700-28C-HI-24S appearance



1	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> 170 W AC power module 170 W DC power module 	2	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> 170 W AC power module 170 W DC power module
3	ESD jack NOTE Before installing or maintaining a switch, wear an ESD wrist strap and insert the other end of the ESD wrist strap into this ESD jack.	4	One console port

5	One ETH management port	6	Front card slot NOTE Card supported: <ul style="list-style-type: none"> 9.7 ES5D00X2SA00 (2-Port GE SFP/10GE SFP+ Front Optical Interface Card) 9.8 ES5D00X4SA00 (4-Port GE SFP/10GE SFP+ Front Optical Interface Card) 9.9 ES5D00G4SC00 (4-Port GE SFP Front Optical Interface Card)
7	One USB port	8	Twenty-four 100/1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> FE optical module GE optical module GE-CWDM optical module GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s)
9	Ground screw NOTE It is used with a ground cable . The switch has two ground screws, any of which can be used to install a ground cable.	10	Monitoring port NOTE The monitoring port monitors the cabinet door, power module, battery power, and power supply of the air conditioner.

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-1005](#) describes the attributes of a 100/1000BASE-X port.

Table 5-1005 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1006](#).

Table 5-1006 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. [Table 5-1007](#) describes the attributes of an ETH management port.

Table 5-1007 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5700-28C-HI-24S has similar indicators (except service port indicators) to those on the S5700-28C-HI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5700-28C-HI-24S uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 5-400 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-400 Power supply connections of dual DC power modules

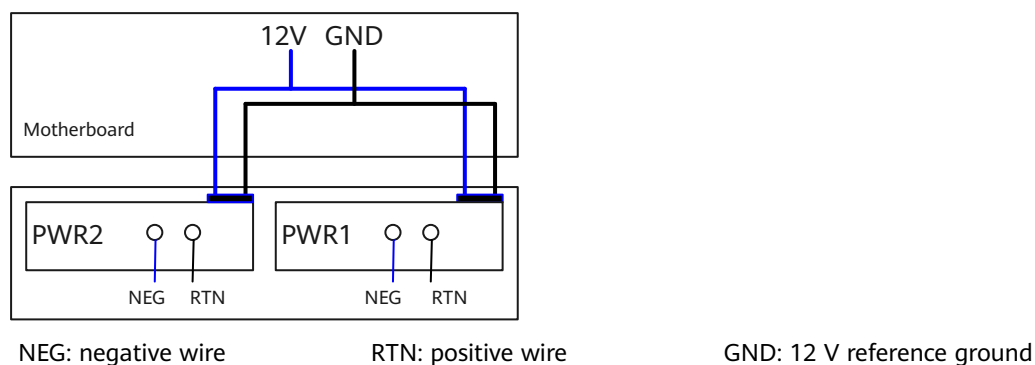
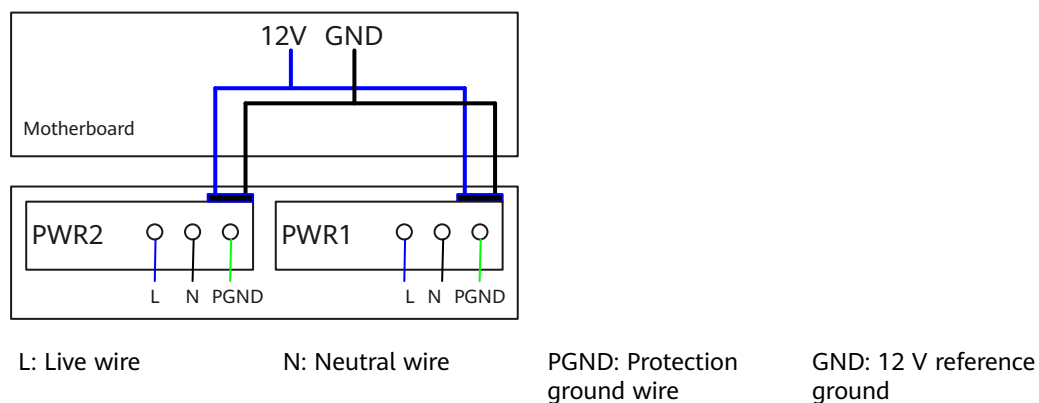


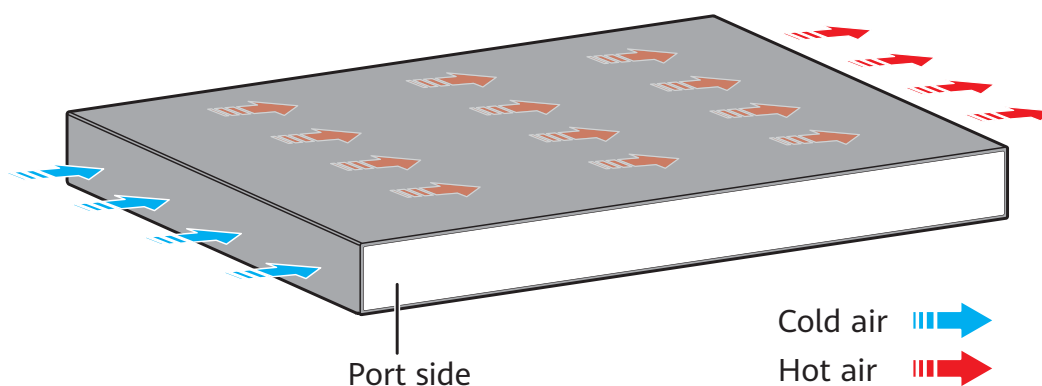
Figure 5-401 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-401 Power supply connections of dual AC power modules



Heat Dissipation

The S5700-28C-HI-24S has three built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1008 lists technical specifications of the S5700-28C-HI-24S.

Table 5-1008 Technical specifications

Item	Description
Memory (RAM)	512 MB
Flash	64 MB
Mean time between failures (MTBF)	25.5 years when a 4-port 10GE interface card is configured, 34.8 years when a 2-port 10GE interface card is configured, 36.1 years when a 4-port GE interface card is configured

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	NA
Power supply surge protection	<ul style="list-style-type: none">Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common modeUsing DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	44.4 mm x 442.0 mm x 220.0 mm (1.75 in. x 17.4 in. x 8.7 in.)
Weight	<ul style="list-style-type: none">Empty: ≤ 5 kg (11.02 lb)Fully configured: ≤ 6.5 kg (14.33 lb)
Stack ports	<ul style="list-style-type: none">Versions earlier than V200R003C00 do not support stack ports.Since V200R003C00, 10GE ports on the front card can be used as stack ports.
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	80.7 W
Operating temperature	-5°C to +55°C (23°F to 131°F) NOTE The operating temperature of the switch is -5°C to +50°C (23°F to 122°F) when it uses SFP+ optical modules with 40 km or longer transmission distances.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 60 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02353631

5.20 S5710-HI

5.20.1 S5710-108C-PWR-HI

Version Mapping

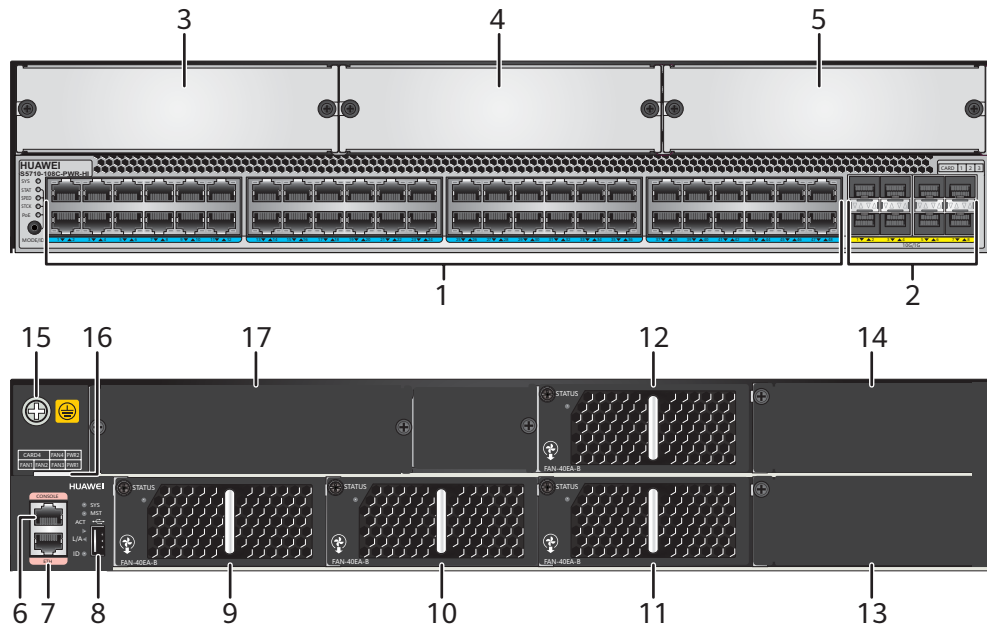
[Table 5-1009](#) lists the mapping between the S5710-108C-PWR-HI chassis and software versions.

Table 5-1009 Version mapping

Series	Model	Software Version
S5710-HI	S5710-108C-PWR-HI	V200R003C00 to V200R005C03 NOTE This model does not match V200R003C02, V200R003C10, or V200R005C01.

Appearance and Structure

Figure 5-402 S5710-108C-PWR-HI appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Eight 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module (applicable in V200R005C00) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables (applicable in V200R003C00 and later versions)
3	Front card slot 1 NOTE Card supported: <ul style="list-style-type: none"> • 9.13 ES5D21G16S00 (16-Port GE SFP Front Optical Interface Card) • 9.14 ES5D21G16T00 (16-Port GE Front Electrical Interface Card) 	4	Front card slot 2 NOTE Card supported: <ul style="list-style-type: none"> • 9.13 ES5D21G16S00 (16-Port GE SFP Front Optical Interface Card) • 9.14 ES5D21G16T00 (16-Port GE Front Electrical Interface Card)

5	Front card slot 3 NOTE Card supported: <ul style="list-style-type: none"> • 9.13 ES5D21G16S00 (16-Port GE SFP Front Optical Interface Card) • 9.14 ES5D21G16T00 (16-Port GE Front Electrical Interface Card) 	6	One console port
7	One ETH management port	8	One USB port
9	Fan slot 1 NOTE Applicable fan module: 8.2 FAN-40EA-B Fan Module	10	Fan slot 2 NOTE Applicable fan module: 8.2 FAN-40EA-B Fan Module
11	Fan slot 3 NOTE Applicable fan module: 8.2 FAN-40EA-B Fan Module	12	Fan slot 4 NOTE Applicable fan module: 8.2 FAN-40EA-B Fan Module
13	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 350 W AC power module • 1150 W AC PoE power module 	14	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 350 W AC power module • 1150 W AC PoE power module
15	Ground screw NOTE It is used with a ground cable .	16	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
17	Rear card slot NOTE Card supported: <ul style="list-style-type: none"> • 9.18 ES5D21X04S00 (4-Port 10GE SFP+ Rear Optical Interface Card) • 9.16 ES5D21L04Q00 (4-Port 40GE QSFP+ Optical Interface Card) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1010](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1010 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1011](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1011 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1012](#).

Table 5-1012 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootROM menu. File transfer through the ETH management port is faster than transfer through the console port. For details on how to use the ETH management port, see the *Configuration Guide - Basic Configurations*. **Table 5-1013** describes the attributes of an ETH management port.

Table 5-1013 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 5-403 Indicators on the S5710-108C-PWR-HI front panel

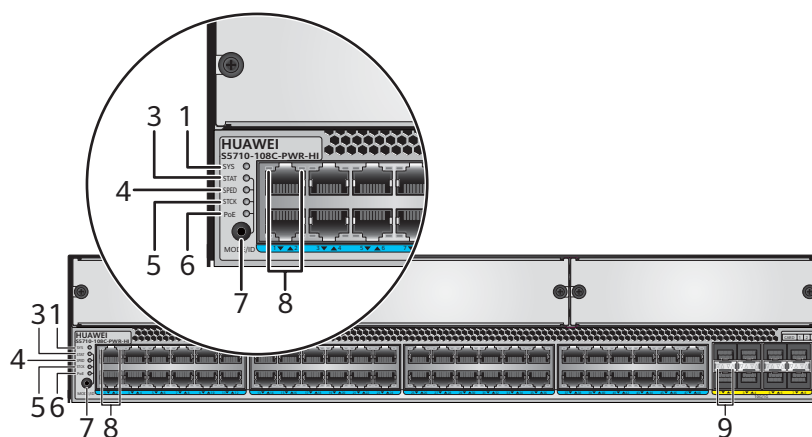


Figure 5-404 Indicators on the S5710-108C-PWR-HI rear panel

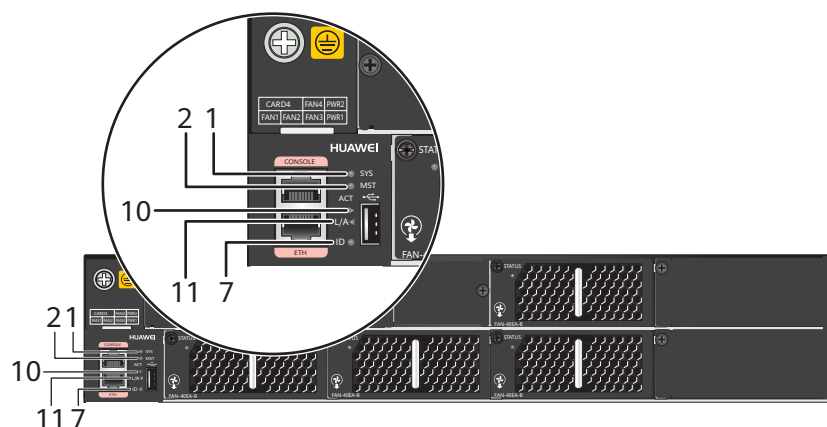


Table 5-1014 Description of indicators on the switch

Number	Indicator	Color	Description
1	SYS: system status indicator	-	Off: The system is not running.
		Green	<ul style="list-style-type: none"> Fast blinking: The system is starting. Slow blinking: The system is running properly.

Number	Indicator	Color	Description
		Red	Steady on: The system does not work normally after registration, or a fan or temperature alarm has been generated.
2	MST: stack master/slave indicator NOTE Versions prior to V200R005C03 do not support the stacking function.	-	Off: The switch is the standby or slave switch in a stack or a standalone switch with the stacking function disabled.
		Green	Steady on: The switch is the master switch in a stack or a standalone switch with the stacking function enabled.
3	STAT: status indicator	Green	<ul style="list-style-type: none"> Off: The status mode is not selected. Steady on: The service port indicators are in the status mode (default).
4	SPED: speed indicator	Green	<ul style="list-style-type: none"> Off: The speed mode is not selected. Steady on: The service port indicators show the port speed. After 45 seconds, the service port indicators automatically restore to the status mode.
5	STCK: stack indicator NOTE Versions prior to V200R005C03 do not support the stacking function.	Green	If you are not changing the indicator mode (default state): <ul style="list-style-type: none"> Off: The switch is the standby or slave switch in a stack or a standalone switch with the stacking function disabled. Blinking: The switch is the master switch in a stack or a standalone switch with the stacking function enabled.

Number	Indicator	Color	Description
			<p>If you are changing the indicator mode:</p> <ul style="list-style-type: none">• Off: The stack mode is not selected.• Steady on: The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.• Blinking: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
6	PoE: PoE indicator	Green	<ul style="list-style-type: none">• Off: The PoE mode is not selected.• Steady on: The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.

Number	Indicator	Color	Description
7	MODE: mode switch button	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to PoE mode and show the PoE status of ports. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
	ID: ID indicator NOTE The S5710-108C-PWR-HI of V200R003 does not support the ID indicator.	Blue	<ul style="list-style-type: none"> Off: The ID indicator is not used (default state). Steady on: The indicator identifies the device for maintenance. The ID indicator can be turned on or off remotely to help onsite engineers find the device to maintain.
8	Service port indicator (GE electrical port)	Meanings of service port indicators vary in different modes. For details, see Table 5-1015 .	
9	Service port indicator (10GE optical port)		

Number	Indicator	Color	Description
10	USB-based deployment indicator: ACT	-	Off: <ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The ACT indicator is damaged. The USB flash drive connected to the switch does not contain any configuration file. The switch is restarting after a USB-based upgrade.
		Green	<ul style="list-style-type: none"> Steady on: A USB-based deployment has been completed. Blinking: The system is reading data from the USB flash drive.
		Yellow NOTE This indicator state is available in V200R005C00 and later versions.	Steady on: The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
		Red	Blinking: An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.
11	Management port indicator: L/A	Green	<ul style="list-style-type: none"> Off: No link is established on the management port. Steady on: A link is established on the management port. Blinking: The management port is sending or receiving data.

Table 5-1015 Description of service port indicators in different modes

Display Mode	Color	Description
Status	-	Off: No link is established on the port or the port has been shut down.

Display Mode	Color	Description
	Green (electrical port)	<ul style="list-style-type: none">Steady on: A link is established on the port.Blinking: The port is sending or receiving data.
	Green (optical port)	Steady on: A link is established on the port.
	Yellow (optical port)	Blinking: The port is sending or receiving data.
Speed	Green	<ul style="list-style-type: none">Off: No link is established on the port or the port has been shut down.Steady on:<ul style="list-style-type: none">10M/100M/1000M port: The port is operating at 10/100 Mbit/s.1000M/10GE port: The port is operating at 1000 Mbit/s.Blinking:<ul style="list-style-type: none">10M/100M/1000M port: The port is operating at 1000 Mbit/s.1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	Green	<ul style="list-style-type: none">Off: The port is not providing power to a powered device (PD).Steady on: The port is providing PoE power.Blinking: The PD connected to the port is not a standard PD or its power exceeds the maximum power or power threshold of the port.

Display Mode	Color	Description
Stack	Green	<ul style="list-style-type: none"> • Off: Port indicators do not show the stack ID of the switch. • If the indicator is steady on, the switch is not a master switch: <ul style="list-style-type: none"> - If the indicator of a port is steady on, the number of this port is the stack ID of the switch. - If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0. • If the indicator is blinking, the switch is a master switch: <ul style="list-style-type: none"> - If the indicator of a port is blinking, the number of this port is the stack ID of the switch. - If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5710-108C-PWR-HI is a PoE switch and uses 1150 W AC PoE power modules. It has two power module slots. [Table 5-1016](#) lists its power supply configurations.

Table 5-1016 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1150 W (220 V)	-	785.4 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 26
1150 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 48
1150 W (110 V)	-	446.6 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 29 • 802.3at (30 W per port): 14

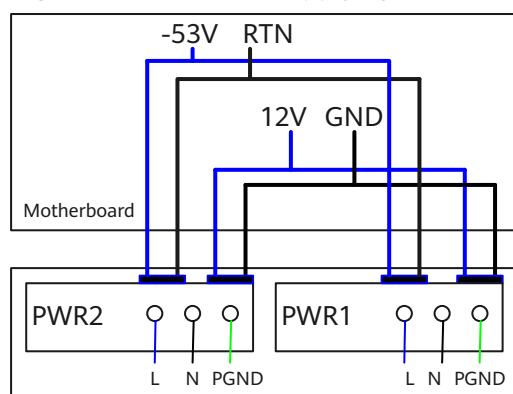
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1150 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 5-405 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 5-405 Power supply by dual AC PoE power modules

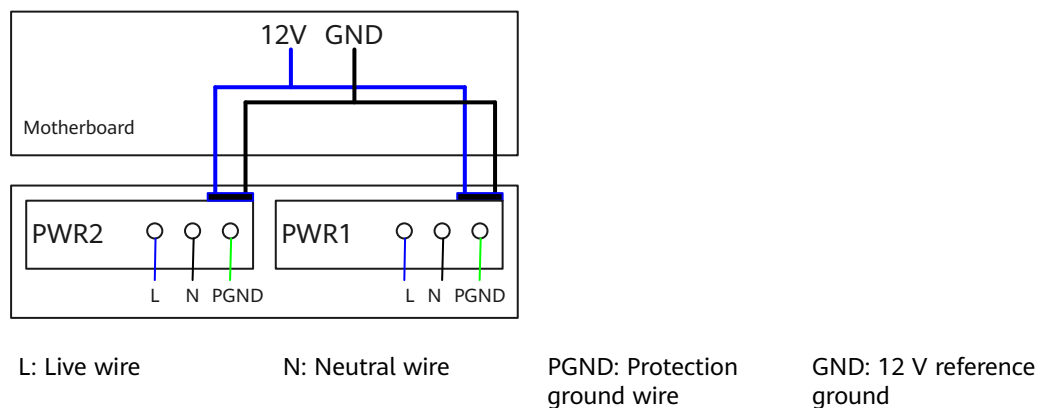


L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

When using non-PoE power modules, the S5710-108C-PWR-HI can be configured with a single power module or double power modules for 1+1 power redundancy. Currently, only one non-PoE power module model, a 350 W AC power module, is supported.

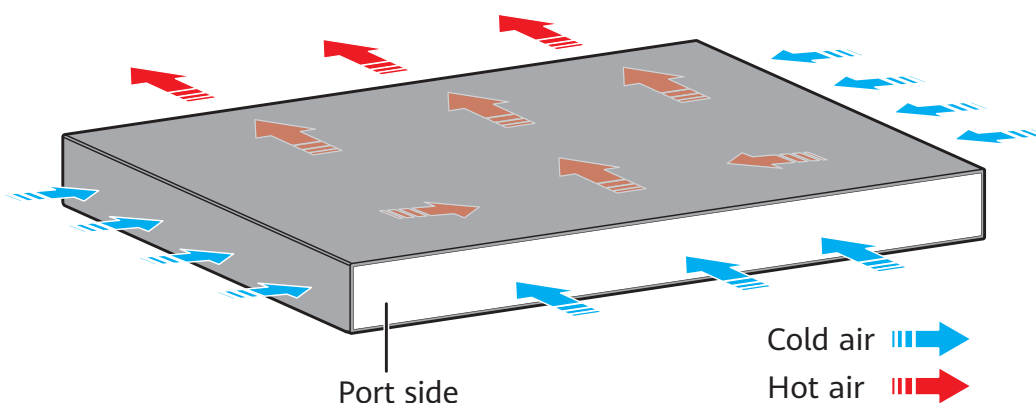
Figure 5-406 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-406 Power supply connections of dual AC power modules



Heat Dissipation

The S5710-108C-PWR-HI uses pluggable fan modules for forced air cooling. The airflow direction is front-to-rear.



NOTE

A little air also enters the chassis from both sides of the chassis.

Technical Specifications

Table 5-1017 lists technical specifications of the S5710-108C-PWR-HI.

Table 5-1017 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	200 MB

Item	Description
Mean time between failures (MTBF)	28.16 years when no interface card is configured, 27 years when a 16-port GE optical card is configured, 25.98 years when a 16-port GE electrical card is configured, 26.95 years when a 4-port 10GE card is configured, 26.69 years when a 4-port 40GE card is configured.
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 1 kV
Power supply surge protection	± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	86.1 mm x 442.0 mm x 470.0 mm (3.4 in. x 17.4 in. x 18.5 in.) When 1150 W power modules are installed, they stretch out from the chassis. Therefore, the total depth of the switch changes to 557.3 mm (21.94 in.).
Weight	<ul style="list-style-type: none"> Empty: ≤ 12 kg (26.46 lb) Fully configured: ≤ 18 kg (39.68 lb)
Stack ports	<ul style="list-style-type: none"> V200R005C03 and earlier version: not supported V200R005C03: 8-port 10GE SFP+ ports on the front panel
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	<ul style="list-style-type: none"> Using 350 W power modules: 240 W Using two 1150 W power modules: 1680 W (system power consumption: 240 W, PoE: 1440 W)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).

Item	Description
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 67.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02354043

5.21 S5720-HI

NOTE

The S5720-HI switches manufactured after August 31, 2016 cannot be downgraded to V200R007. Use either of the following methods to check the manufacturing date of a switch:

- Run the **display elabel** command in the system view and check the **Manufactured** field.
- Check the manufacturing date on the certificate label attached at the bottom of the switch.

5.21.1 S5720-32C-HI-24S-AC

Version Mapping

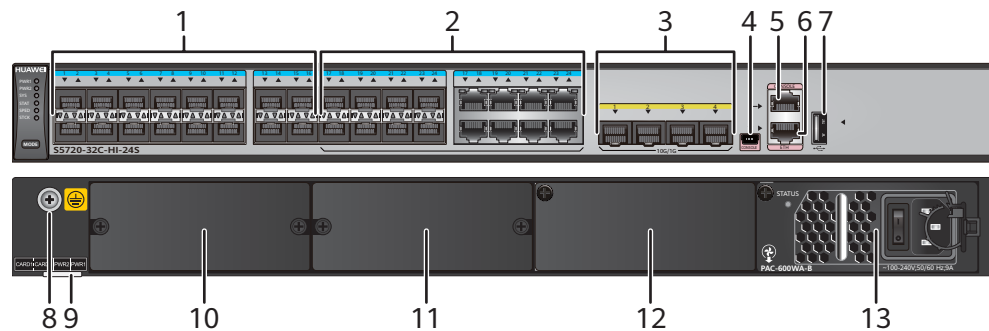
Table 5-1018 lists the mapping between the S5720-32C-HI-24S-AC chassis and software versions.

Table 5-1018 Version mapping

Series	Model	Software Version
S5720-HI	S5720-32C-HI-24S-AC	V200R006C00 to V200R019C10 versions

Appearance and Structure

Figure 5-407 S5720-32C-HI-24S-AC appearance



1	<p>Sixteen 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Eight combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario and supported in V200R012C00 and later versions)
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions) 	4	One mini USB port
5	One console port	6	One ETH management port
7	One USB port	8	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>
9	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>	10	<p>Rear card slot 1</p> <p>NOTE This slot is reserved for future use.</p>
11	<p>Rear card slot 2</p> <p>NOTE Card supported: 9.19 ES5D21X04S01 (4-Port 10 GE SFP+ Rear Interface Card)</p>	12	<p>Power module slot 2</p> <p>NOTE Applicable power modules:</p> <ul style="list-style-type: none"> • 350 W DC power module • 600 W AC power module

1	Power module slot 1	-	-
3	NOTE Applicable power modules: <ul style="list-style-type: none">• 350 W DC power module• 600 W AC power module		

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-1019](#) describes the attributes of a 100/1000BASE-X port.

Table 5-1019 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

 NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1020](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1020 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1021](#).

Table 5-1021 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1022](#) describes the attributes of an ETH management port.

Table 5-1022 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

NOTE

In V200R007 and later versions, you can hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore to the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-408 Indicators on the S5720-32C-HI-24S-AC

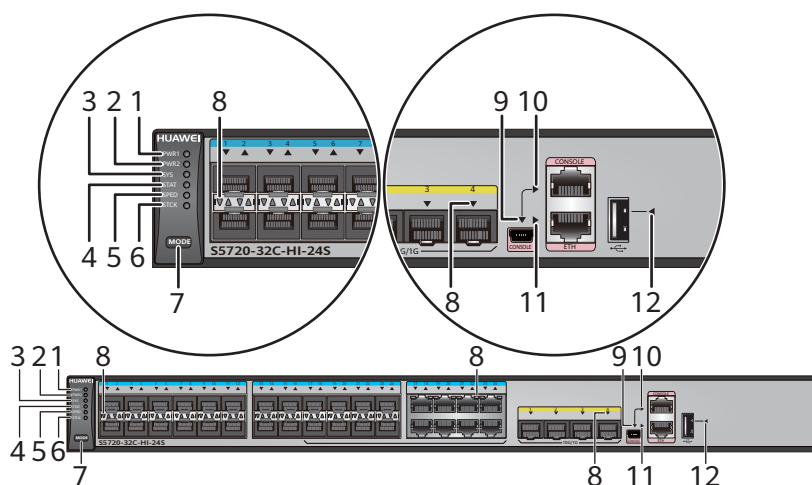


Table 5-1023 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-1024 and Table 5-1025 .		
9	-	Mini USB indicator	-	Off	The Mini USB port is disabled, and the console port is enabled.
			Green	Steady on	The Mini USB port is enabled. When the Mini USB indicator is steady green, the console indicator is off.
10	-	Console indicator	-	Off	The console port is disabled, and the Mini USB port is enabled.
			Green	Steady on	The console port is enabled (default state). When the console indicator is steady green, the Mini USB indicator is off.
11	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.

No.	Indicator	Name	Color	Status	Description
12	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-1024 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green and yellow	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 100M/1000M port: The port is operating at 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green and yellow	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green and yellow	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Table 5-1025 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.

Display Mode	Color	Status	Description
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none">• If the indicator of a port is steady on, the number of this port is the stack ID of the switch.• If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none">• If the indicator of a port is blinking, the number of this port is the stack ID of the switch.• If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-32C-HI-24S-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 5-409 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-409 Power supply connections of dual DC power modules

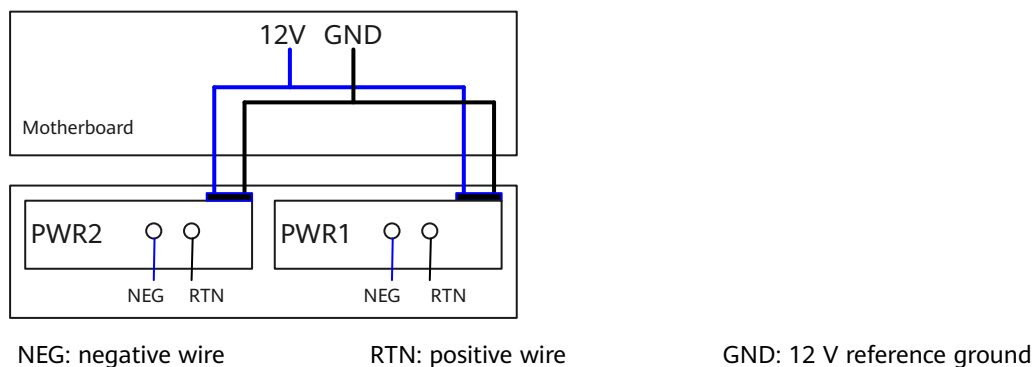
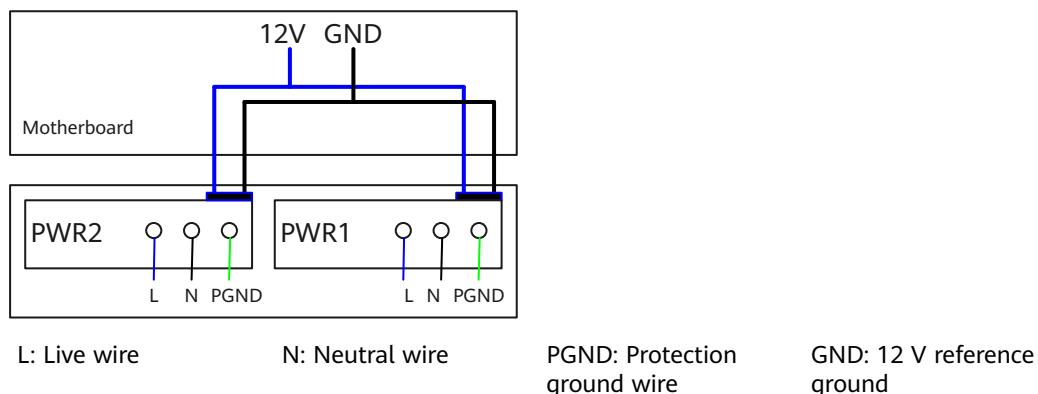


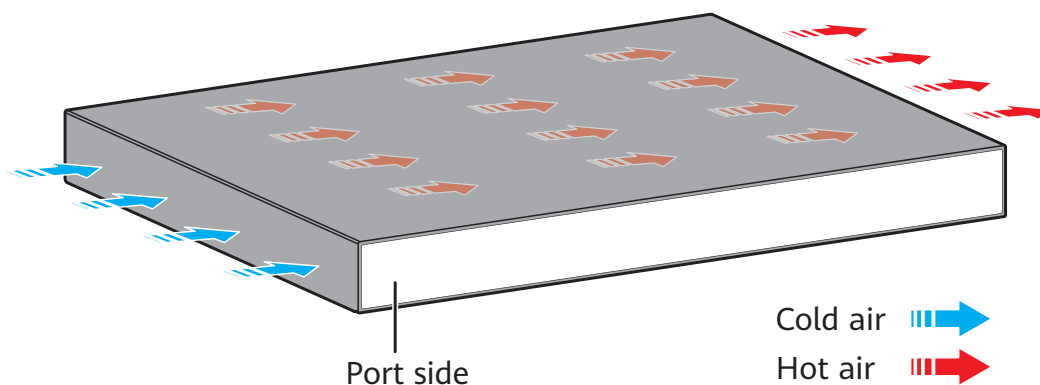
Figure 5-410 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-410 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-32C-HI-24S-AC has five built-in fans for forced air cooling. The airflow direction is left-to-right.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1026 lists technical specifications of the S5720-32C-HI-24S-AC.

Table 5-1026 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	56.21 years when no interface card is configured, 52.63 years when a 4-port 10GE interface card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 2 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	10.4 kg (22.93 lb)
Stack ports	Four fixed 10GE SFP+ ports on the front panel or ports on the 4-port 10GE SFP+ rear interface card NOTE The switch supports service port stacking since V200R009C00.
RTC	Supported
RPS	Not supported
PoE	Not supported

Item	Description
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	172.7 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	122.12 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.

Item	Description
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 60 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02358600

5.21.2 S5720-56C-HI-AC

Version Mapping

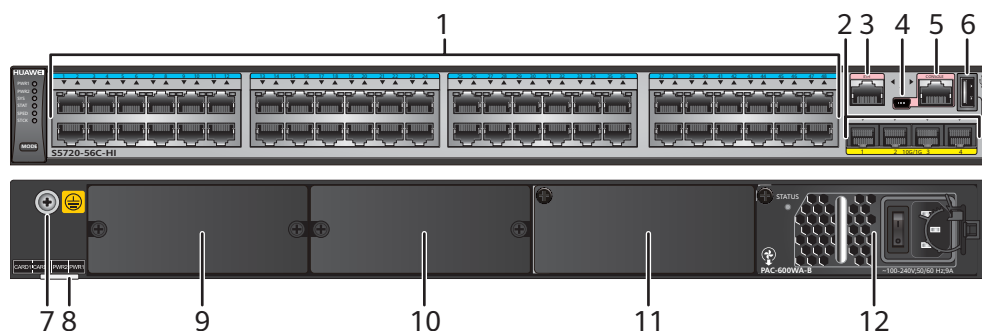
Table 5-1027 lists the mapping between the S5720-56C-HI-AC chassis and software versions.

Table 5-1027 Version mapping

Series	Model	Software Version
S5720-HI	S5720-56C-HI-AC	V200R006C00 to V200R019C10 versions

Appearance and Structure

Figure 5-411 S5720-56C-HI-AC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One ETH management port	4	One mini USB port
5	One console port	6	One USB port
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>
9	<p>Rear card slot 1</p> <p>NOTE This slot is reserved for future use.</p>	10	<p>Rear card slot 2</p> <p>NOTE Card supported: 9.19 ES5D21X04S01 (4-Port 10 GE SFP+ Rear Interface Card)</p>

1	Power module slot 2	1	Power module slot 1
1	<p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 350 W DC power module • 600 W AC power module 	2	<p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 350 W DC power module • 600 W AC power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1028](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1028 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1029](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1029 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1030](#).

Table 5-1030 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1031](#) describes the attributes of an ETH management port.

Table 5-1031 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see

"First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

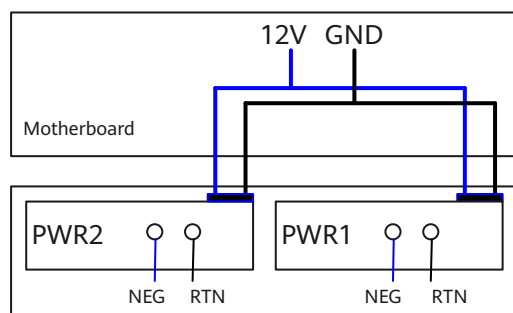
The S5720-56C-HI-AC has similar indicators to S5720-56C-PWR-HI-AC except that the S5720-56C-HI-AC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-56C-HI-AC uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 5-412 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-412 Power supply connections of dual DC power modules



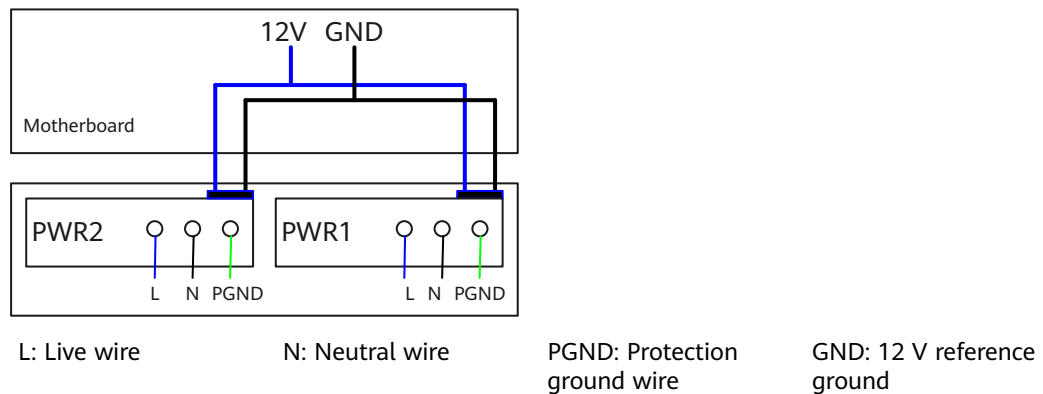
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

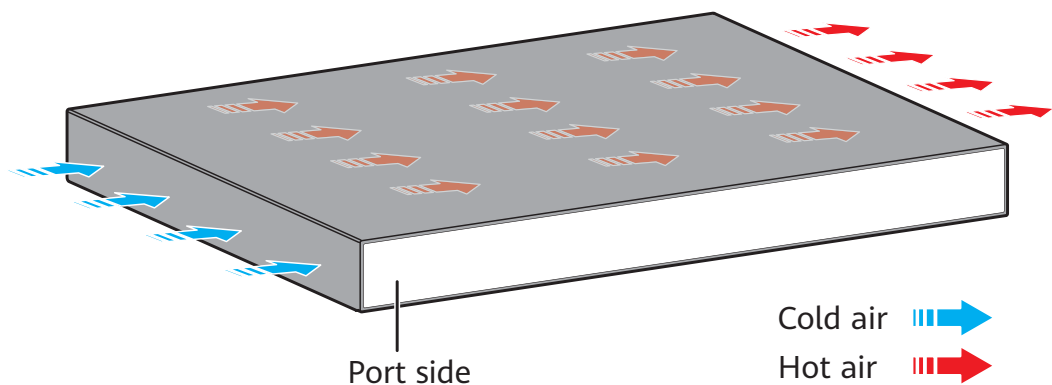
Figure 5-413 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-413 Power supply connections of dual AC power modules



Heat Dissipation

The S5720-56C-HI-AC has five built-in fans for forced air cooling. The airflow direction is left-to-right.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1032 lists technical specifications of the S5720-56C-HI-AC.

Table 5-1032 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	53.05 years when no interface card is configured, 49.85 years when a 4-port 10GE interface card is configured

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 2 kV
Power supply surge protection	<ul style="list-style-type: none">Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common modeUsing DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	10 kg (22.05 lb)
Stack ports	Four fixed 10GE SFP+ ports on the front panel or ports on the 4-port 10GE SFP+ rear interface card NOTE The switch supports service port stacking since V200R009C00.
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	183.3 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	128.93 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 60.1 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02358598

5.21.3 S5720-56C-PWR-HI-AC

Version Mapping

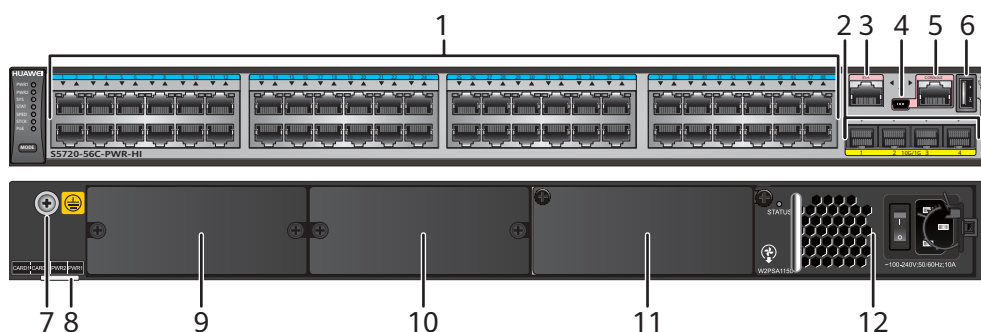
Table 5-1033 lists the mapping between the S5720-56C-PWR-HI-AC chassis and software versions.

Table 5-1033 Version mapping

Series	Model	Software Version
S5720-HI	S5720-56C-PWR-HI-AC	V200R006C00 to V200R019C10 versions

Appearance and Structure

Figure 5-414 S5720-56C-PWR-HI-AC appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One ETH management port	4	One mini USB port
5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot 1 NOTE This slot is reserved for future use.	10	Rear card slot 2 NOTE Card supported: 9.19 ES5D21X04S01 (4-Port 10 GE SFP+ Rear Interface Card)
11	Power module slot 2 NOTE Applicable power module: 1150 W AC PoE power module	12	Power module slot 1 NOTE Applicable power module: 1150 W AC PoE power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1034](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1034 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1035](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1035 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1036](#).

Table 5-1036 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1037](#) describes the attributes of an ETH management port.

Table 5-1037 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

NOTE

In V200R007 and later versions, you can hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore to the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-415 Indicators on the S5720-56C-PWR-HI-AC

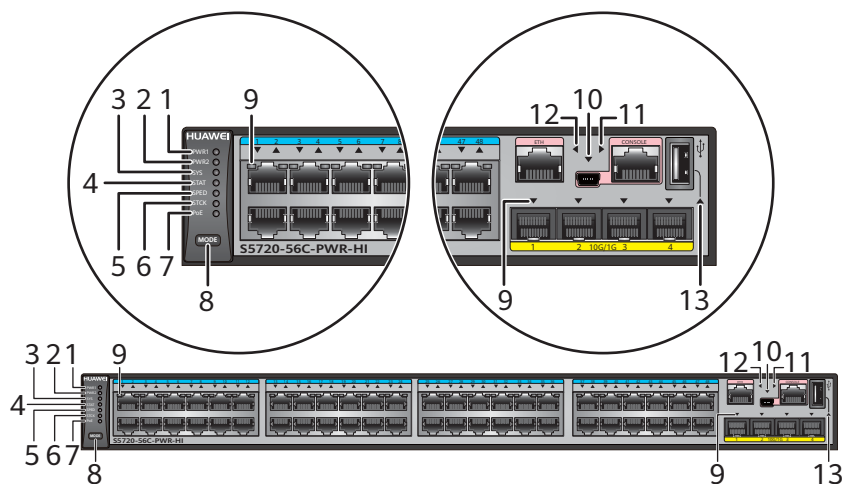


Table 5-1038 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	PoE	PoE indicator	-	Off	The PoE mode is not selected.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.
8	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
9	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-1039 .		
10	-	Mini USB indicator	-	Off	The Mini USB port is disabled, and the console port is enabled.
			Green	Steady on	The Mini USB port is enabled. When the Mini USB indicator is steady green, the console indicator is off.
11	-	Console indicator	-	Off	The console port is disabled, and the Mini USB port is enabled.
			Green	Steady on	The console port is enabled (default state). When the console indicator is steady green, the Mini USB indicator is off.

No.	Indicator	Name	Color	Status	Description
12	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
13	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-1039 Description of service port indicators in different modes

Display Mode	Color	Description
Status	Green	<ul style="list-style-type: none"> Off: The port is not connected or has been shut down. Steady on: The port is connected. Blinking: The port is sending or receiving data.

Display Mode	Color	Description
Speed	Green	<ul style="list-style-type: none">• Off: The port is not connected or has been shut down.• Steady on: 10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.• Blinking: 10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE	Green	<ul style="list-style-type: none">• Off: The port does not provide PoE power.• Steady on: The port is providing PoE power.• Blinking: The PD connected to the port is not a standard PD or its power exceeds the maximum power or power threshold of the port.
Stack	Green	<ul style="list-style-type: none">• Off: The STCK mode is not selected.• If the indicator is steady on, the switch is not a master switch:<ul style="list-style-type: none">– If the indicator of a port is steady on, the number of this port is the stack ID of the switch.– If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.• If the indicator is blinking, the switch is a master switch:<ul style="list-style-type: none">– If the indicator of a port is blinking, the number of this port is the stack ID of the switch.– If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5720-56C-PWR-HI-AC is a PoE switch and uses 1150 W AC PoE power modules. It has two power module slots. [Table 5-1040](#) lists its power supply configurations.

Table 5-1040 Power supply configurations

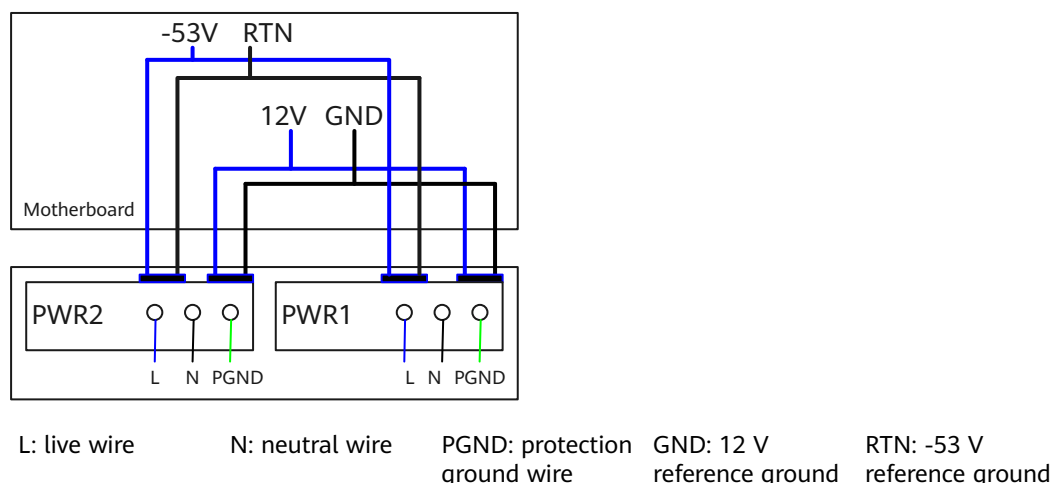
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1150 W (220 V)	-	785.4 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 26
1150 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 48
1150 W (110 V)	-	446.6 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 29• 802.3at (30 W per port): 14
1150 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 29

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

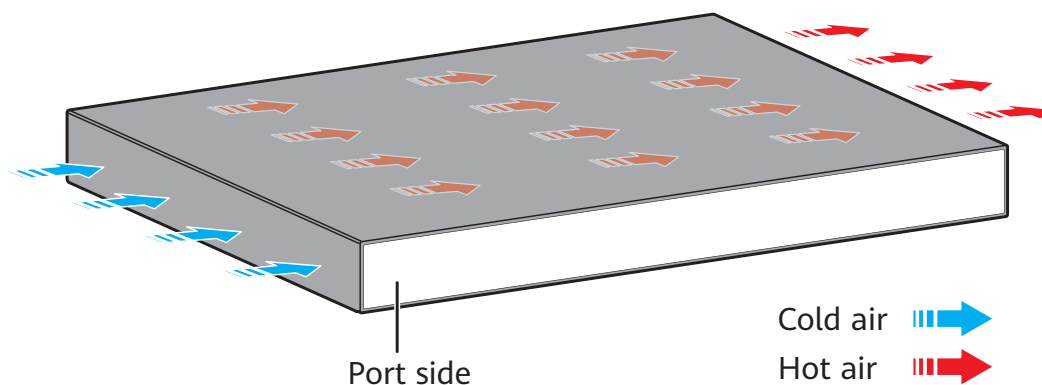
[Figure 5-416](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 5-416 Power supply by dual AC PoE power modules



Heat Dissipation

The S5720-56C-PWR-HI-AC has five built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1041 lists technical specifications of the S5720-56C-PWR-HI-AC.

Table 5-1041 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	39.31 years when no interface card is configured; 37.53 years when a 4-port 10GE interface card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 1 kV
Power supply surge protection	± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 510.5 mm (1.75 in. x 17.4 in. x 20.1 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 541.1 mm (1.75 in. x 17.4 in. x 21.3 in.)
Weight (with packaging)	10.9 kg (24.03 lb)
Stack ports	Four fixed 10GE SFP+ ports on the front panel or ports on the 4-port 10GE SFP+ rear interface card NOTE The switch supports service port stacking since V200R009C00.
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	1739 W (system power consumption: 299 W, PoE: 1440 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	132.35 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 69.8 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02358599

5.21.4 S5720-56C-PWR-HI-AC1

Version Mapping

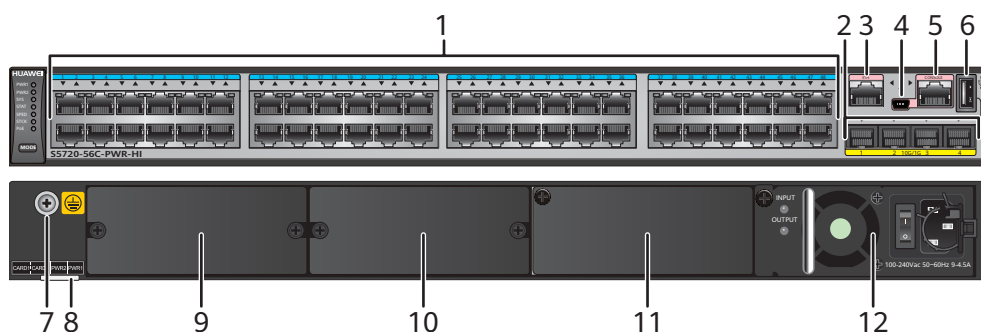
[Table 5-1042](#) lists the mapping between the S5720-56C-PWR-HI-AC1 chassis and software versions.

Table 5-1042 Version mapping

Series	Model	Software Version
S5720-HI	S5720-56C-PWR-HI-AC1	V200R009C00 to V200R019C10 versions

Appearance and Structure

Figure 5-417 S5720-56C-PWR-HI-AC1 appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module (applicable in V200R009C00 and later versions) • 1 m, 3 m, and 10 m SFP+ high-speed copper cables • 5 m SFP+ high-speed copper cable (applicable in V200R009C00 and later versions) • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, supported in V200R011C10 and later versions)
3	One ETH management port	4	One mini USB port
5	One console port	6	One USB port
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>
9	<p>Rear card slot 1</p> <p>NOTE This slot is reserved for future use.</p>	10	<p>Rear card slot 2</p> <p>NOTE Card supported: 9.19 ES5D21X04S01 (4-Port 10 GE SFP+ Rear Interface Card)</p>
11	<p>Power module slot 2</p> <p>NOTE Applicable power module: 580 W AC PoE power module</p>	12	<p>Power module slot 1</p> <p>NOTE Applicable power module: 580 W AC PoE power module</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1043](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1043 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1044](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1044 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1045](#).

Table 5-1045 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

Mini USB port

The mini USB port is connected to a console for on-site configuration. When both the Mini USB and console port have a cable connected, only the Mini USB port works.

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1046](#) describes the attributes of an ETH management port.

Table 5-1046 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5720-56C-PWR-HI-AC1 has the same types of indicators as the S5720-56C-PWR-HI-AC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5720-56C-PWR-HI-AC1 is a PoE switch and uses 580 W AC PoE power modules. It has two power module slots. [Table 5-1047](#) lists its power supply configurations.

Table 5-1047 Power supply configurations

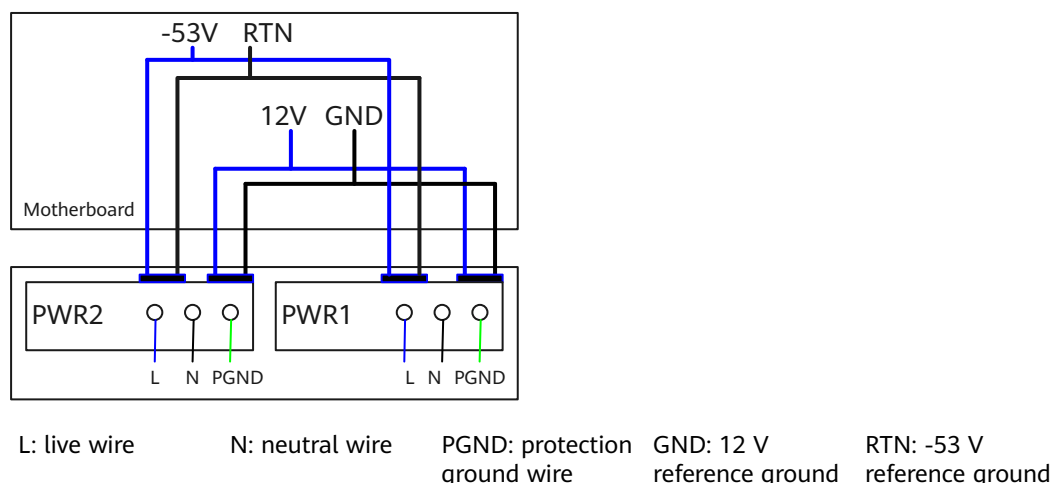
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
580 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12
580 W	580 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

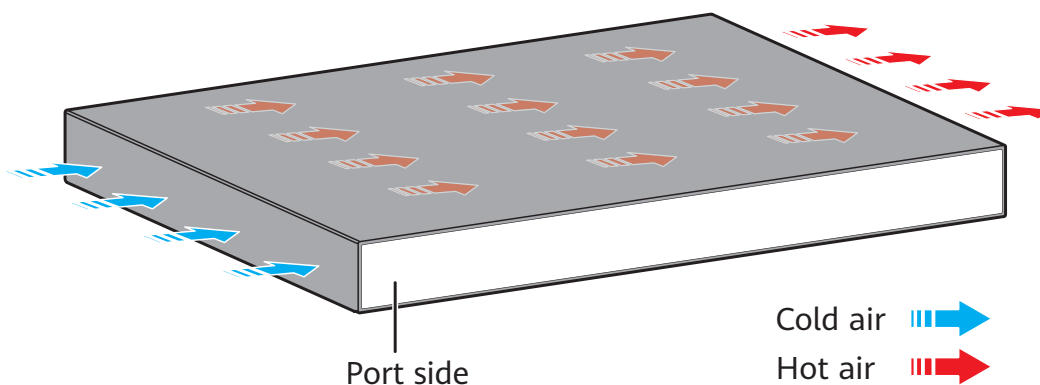
[Figure 5-418](#) shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 5-418 Power supply by dual AC PoE power modules



Heat Dissipation

The S5720-56C-PWR-HI-AC1 has five built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1048 lists technical specifications of the S5720-56C-PWR-HI-AC1.

Table 5-1048 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	39.31 years when no interface card is configured; 37.53 years when a 4-port 10GE interface card is configured
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 1 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	10.6 kg (23.37 lb)
Stack ports	Four fixed 10GE SFP+ ports on the front panel or ports on the 4-port 10GE SFP+ rear interface card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz
Maximum power consumption (100% throughput, 100% PoE loads, full speed of fans)	Not providing the PoE function: 188.74 W 100% PoE loads: 1036 W (system power consumption: 296 W, PoE: 740 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	137.8 W
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 64.6 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)

Item	Description
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02350MTQ

5.22 S5730-HI

5.22.1 S5730-36C-HI

Version Mapping

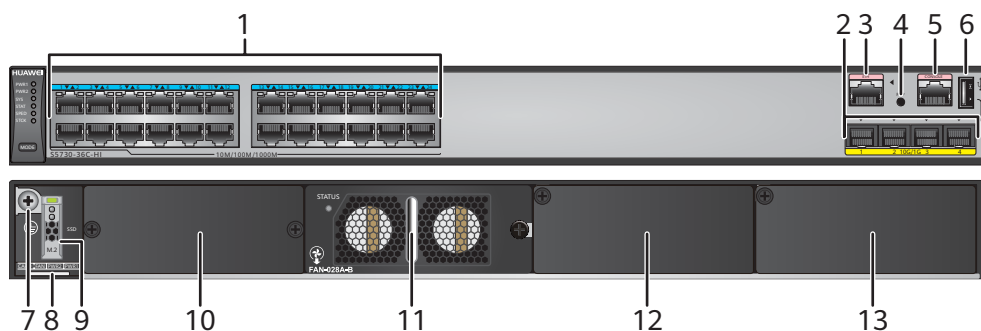
[Table 5-1049](#) lists the mapping between the S5730-36C-HI chassis and software versions.

Table 5-1049 Version mapping

Series	Model	Software Version
S5730-HI	S5730-36C-HI	V200R012C00 to V200R019C10 versions

Appearance and Structure

Figure 5-419 S5730-36C-HI appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One ETH management port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	SSD card slot NOTE Pluggable SSD card supported: SSD-240GB	10	Rear card slot NOTE Cards supported: <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00

1	Fan slot	1	Power module slot 2
1	NOTE Applicable fan module: FAN-028A-B	2	NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
1	Power module slot 1	-	-
3	NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1050](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1050 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1051](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1051 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1052](#).

Table 5-1052 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1053](#) describes the attributes of an ETH management port.

Table 5-1053 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5730-36C-HI has similar indicators to those of the S5730-44C-PWH-HI except that the S5730-36C-HI does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-36C-HI uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

[Figure 5-420](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-420 Power supply connections of dual DC power modules

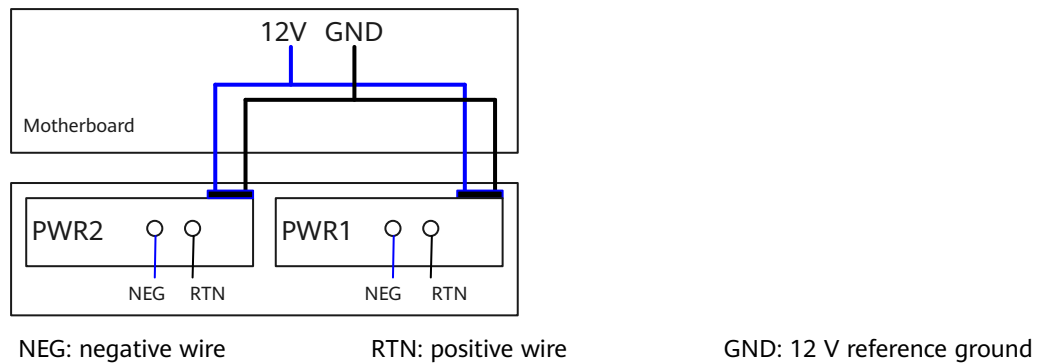
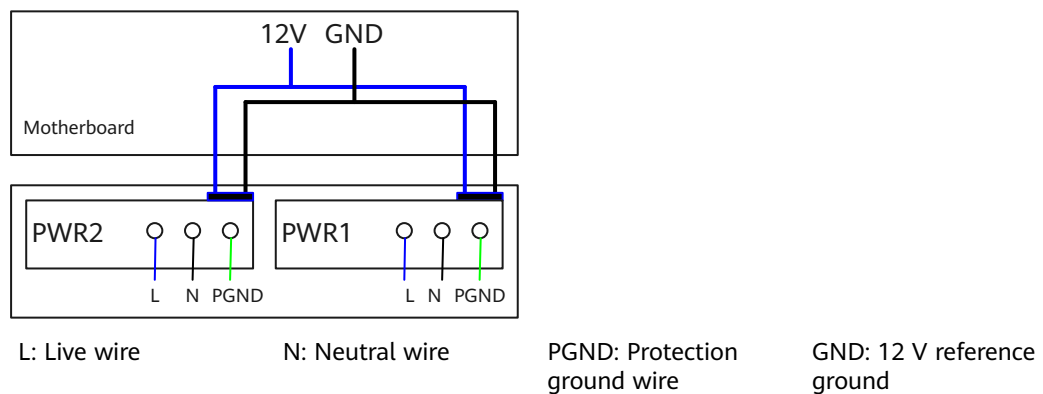


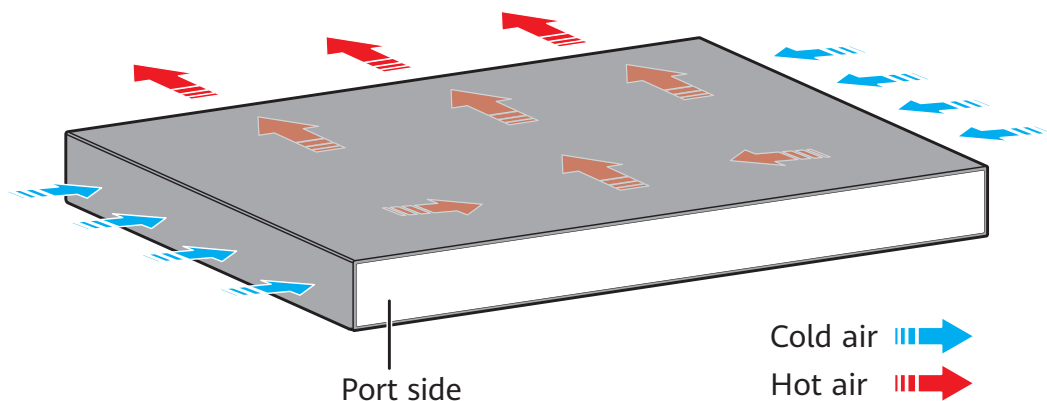
Figure 5-421 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-421 Power supply connections of dual AC power modules



Heat Dissipation

The S5730-36C-HI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1054](#) lists technical specifications of the S5730-36C-HI.

Table 5-1054 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	47.53 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	8.6 kg (18.96 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC

Item	Description
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	74 W (without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	58 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 52.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> • AC power modules configured: 0-5000 m (0-16404 ft.) • DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02351MQJ

5.22.2 S5730-36C-PWH-HI

Version Mapping

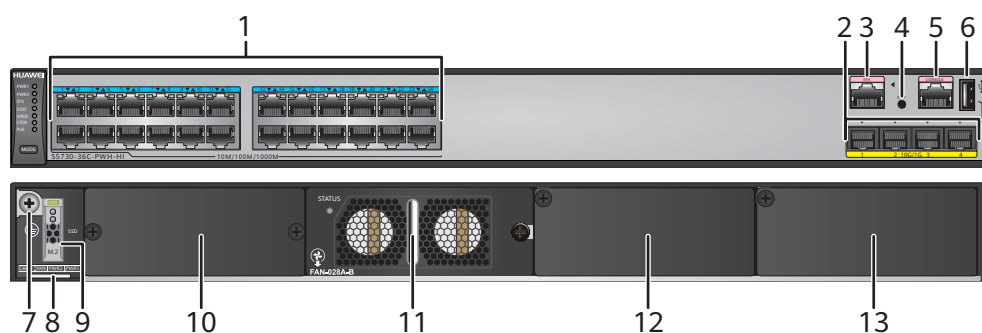
Table 5-1055 lists the mapping between the S5730-36C-PWH-HI chassis and software versions.

Table 5-1055 Version mapping

Series	Model	Software Version
S5730-HI	S5730-36C-PWH-HI	V200R012C00 to V200R019C10 versions

Appearance and Structure

Figure 5-422 S5730-36C-PWH-HI appearance



1	Twenty-four PoE+ + 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
---	--	---	---

3	One ETH management port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	SSD card slot NOTE Pluggable SSD card supported: SSD-240GB	10	Rear card slot NOTE Cards supported: <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00
11	Fan slot NOTE Applicable fan module: FAN-028A-B	12	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE Power Module • 650 W DC PoE Power Module • 1150 W AC PoE Power Module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions)
13	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE Power Module • 650 W DC PoE Power Module • 1150 W AC PoE Power Module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1056](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1056 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1057](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1057 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1058](#).

Table 5-1058 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1059](#) describes the attributes of an ETH management port.

Table 5-1059 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5730-36C-PWH-HI has the same types of indicators as the S5730-44C-PWH-HI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-36C-PWH-HI is a PoE switch. It has two power module slots, each of which can have a 500 W, 650 W, 1150 W, or 1000 W (applicable in V200R013C00 and later versions) power module installed. A 500 W AC power module and a 650 W DC power module can be used together in the switch. A 1150 W AC power module and a 1000 W AC power module can be used together in the switch.

[Table 5-1060](#) lists its power supply configurations.

Table 5-1060 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 12802.3bt (60 W per port): 6
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 24802.3bt (60 W per port): 12
1150 W (220 V)	-	785.4 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 24802.3bt (60 W per port): 13

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1150 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 24• 802.3at (30 W per port): 24• 802.3bt (60 W per port): 24
1150 W (110 V)	-	446.6 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 24• 802.3at (30 W per port): 14• 802.3bt (60 W per port): 7
1150 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 24• 802.3at (30 W per port): 24• 802.3bt (60 W per port): 14
1000 W (220 V)	-	754.6 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 24• 802.3at (30 W per port): 24• 802.3bt (60 W per port): 12
1000 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 24• 802.3at (30 W per port): 24• 802.3bt (60 W per port): 24
1000 W (110 V)	-	754.6 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 24• 802.3at (30 W per port): 24• 802.3bt (60 W per port): 12

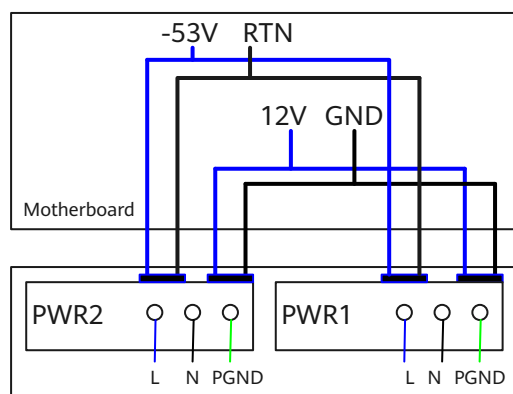
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (110 V)	1000 W (110 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 24
1000 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 24
1150 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 24
1000 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 14
1150 W (110 V)	1000 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 14

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 5-423 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

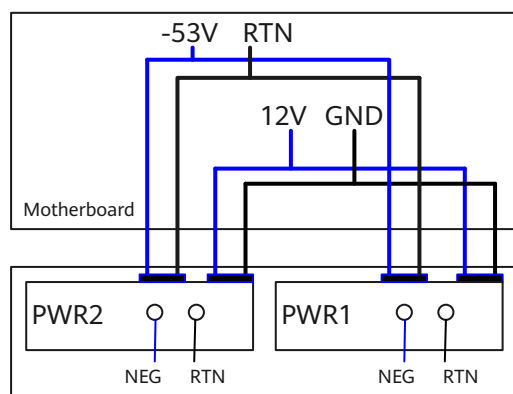
Figure 5-423 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 5-424 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

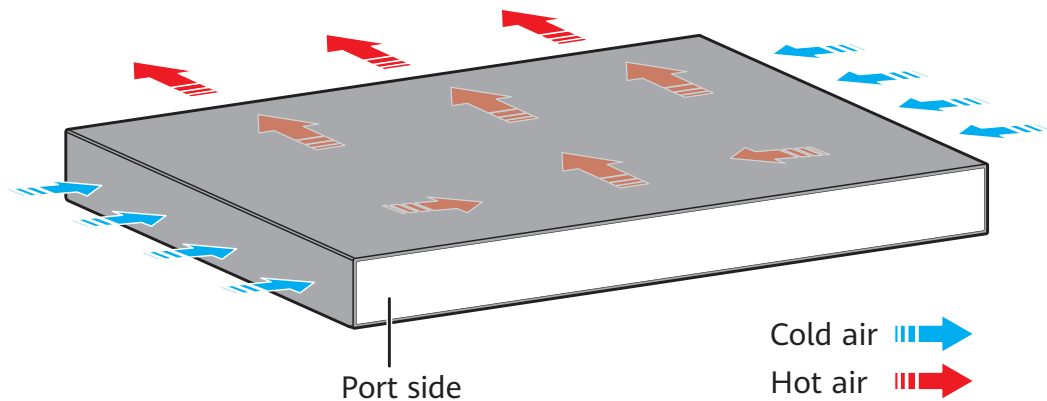
Figure 5-424 Power supply connections of dual DC PoE power modules



NEG: negative wire RTN: positive wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5730-36C-PWH-HI uses pluggable fan modules for forced air cooling. Air flows in from the left and right sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1061 lists technical specifications of the S5730-36C-PWH-HI.

Table 5-1061 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	53.93 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC or 1000 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC or 1150 W AC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> ● Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) ● Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.) <p>When 1150 W power modules are installed, they stretch out from the chassis. Therefore, the total depth of the switch changes to 541.1 mm (21.3 in.).</p>
Weight (with packaging)	8.8 kg (19.40 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> ● Using 650 W DC or 500 W AC power modules: <ul style="list-style-type: none"> - Not providing the PoE function: 90 W (without card) - 100% PoE loads: 815 W (system power consumption: 75.8 W, PoE: 739.2 W, without card) ● Using 1150 W AC or 1000 W AC power modules: <ul style="list-style-type: none"> - Not providing the PoE function: 105.9 W (without card) - 100% PoE loads: 1595 W (system power consumption: 155 W, PoE: 1440 W, without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	Using 650 W DC or 500 W AC power modules: 66 W (without card) Using 1150 W AC or 1000 W AC power modules: 73 W (without card)

Item	Description
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 69 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02351MQN

5.22.3 S5730-36C-HI-24S

Version Mapping

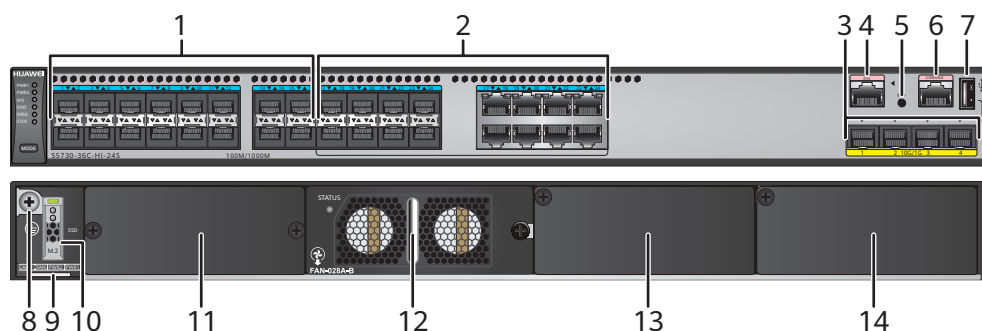
Table 5-1062 lists the mapping between the S5730-36C-HI-24S chassis and software versions.

Table 5-1062 Version mapping

Series	Model	Software Version
S5730-HI	S5730-36C-HI-24S	V200R013C00 to V200R019C10 versions

Appearance and Structure

Figure 5-425 S5730-36C-HI-24S appearance



1	<p>Sixteen 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • GE-CWDM optical module (used only in the OADM scenario) 	<p>2</p> <p>Eight combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario)
3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking) 	<p>4</p> <p>One ETH management port</p>

5	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	6	<p>One console port</p>
7	<p>One USB port</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
9	<p>ESN label</p> <p>NOTE</p> <p>You can draw it out to view the ESN and MAC address of the switch.</p>	10	<p>SSD card slot</p> <p>NOTE</p> <p>Pluggable SSD card supported: SSD-240GB</p>
11	<p>Rear card slot</p> <p>NOTE</p> <p>Cards supported:</p> <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00 	12	<p>Fan slot</p> <p>NOTE</p> <p>Applicable fan module: FAN-028A-B</p>
13	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	14	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-1063](#) describes the attributes of a 100/1000BASE-X port.

Table 5-1063 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1064](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1064 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1065](#).

Table 5-1065 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1066](#) describes the attributes of an ETH management port.

Table 5-1066 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

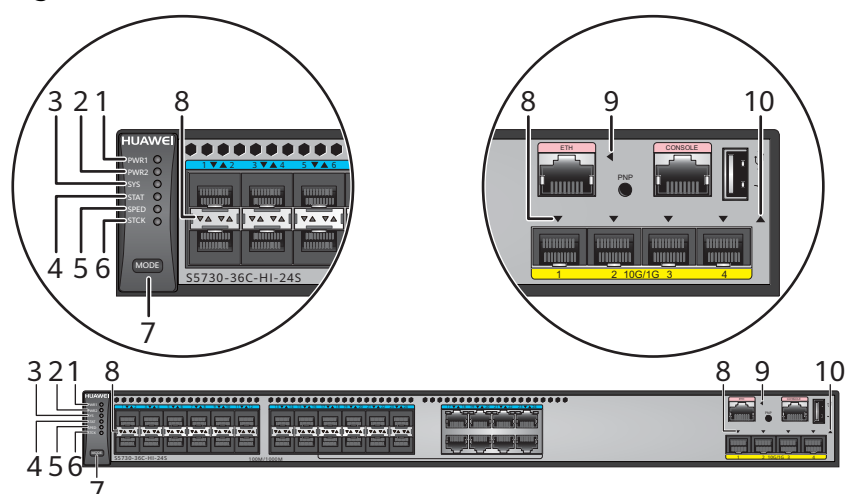
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-426 Indicators on the S5730-36C-HI-24S



 NOTE

The S5730-HI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, and STCK) are used as fault indicators. When an S5730-HI switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 5-1067 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.

No.	Indicator	Name	Color	Status	Description
			Yellow	Steady on	<p>The switch has two power modules installed. Any of the following situations occurs in power module slot 2:</p> <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	In the system startup preparation phase, the SYS indicator is steady green for no more than 15 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-1068 and Table 5-1069 .		
9	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.

No.	Indicator	Name	Color	Status	Description
10	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-1068 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green and yellow	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 100M/1000M port: The port is operating at 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green and yellow	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green and yellow	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Table 5-1069 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.

Display Mode	Color	Status	Description
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none">• If the indicator of a port is steady on, the number of this port is the stack ID of the switch.• If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none">• If the indicator of a port is blinking, the number of this port is the stack ID of the switch.• If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5730-36C-HI-24S uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 5-427 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-427 Power supply connections of dual DC power modules

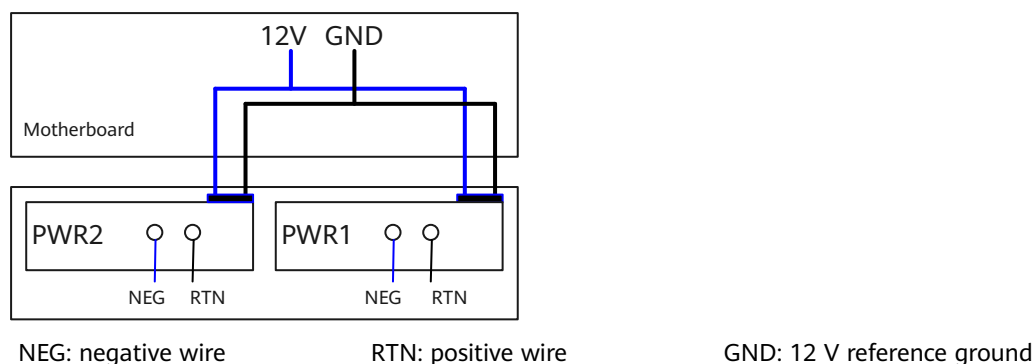
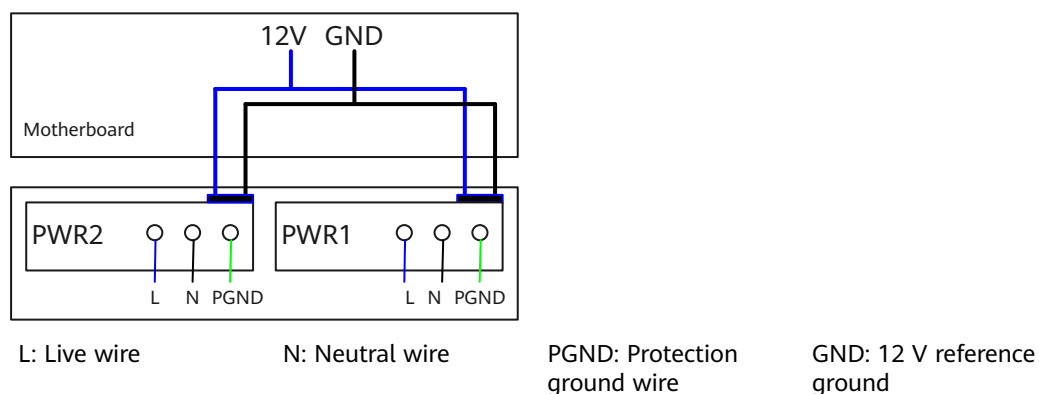


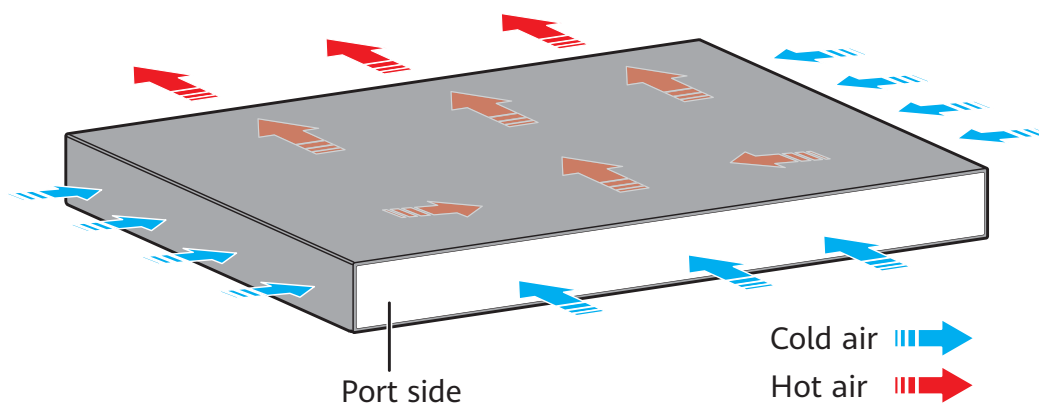
Figure 5-428 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-428 Power supply connections of dual AC power modules



Heat Dissipation

The S5730-36C-HI-24S uses pluggable fan modules for forced air cooling. Air flows in from the left side, right side, and front panel, and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1070 lists specifications of the S5730-36C-HI-24S.

Table 5-1070 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	48.12 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.49 kg (20.92 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC

Item	Description
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	79 W (without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	66 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 62 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02351XFQ

5.22.4 S5730-44C-HI

Version Mapping

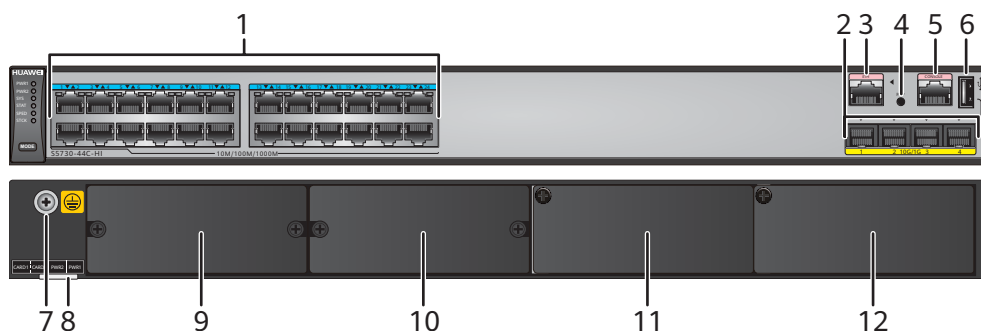
Table 5-1071 lists the mapping between the S5730-44C-HI chassis and software versions.

Table 5-1071 Version mapping

Series	Model	Software Version
S5730-HI	S5730-44C-HI	V200R012C00 to V200R019C10 versions

Appearance and Structure

Figure 5-429 S5730-44C-HI appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One ETH management port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot 1 NOTE Cards supported: <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00 	10	Rear card slot 2 NOTE This slot is reserved for future use.

1	Power module slot 2	1	Power module slot 1
1	NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	2	NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1072](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1072 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1073](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1073 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1074](#).

Table 5-1074 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1075](#) describes the attributes of an ETH management port.

Table 5-1075 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

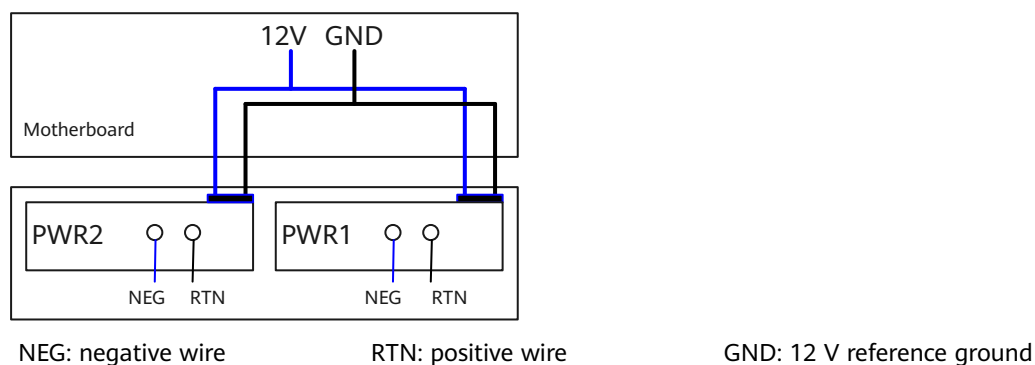
The S5730-44C-HI has similar indicators to those of the S5730-44C-PWH-HI except that the S5730-44C-HI does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-44C-HI uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

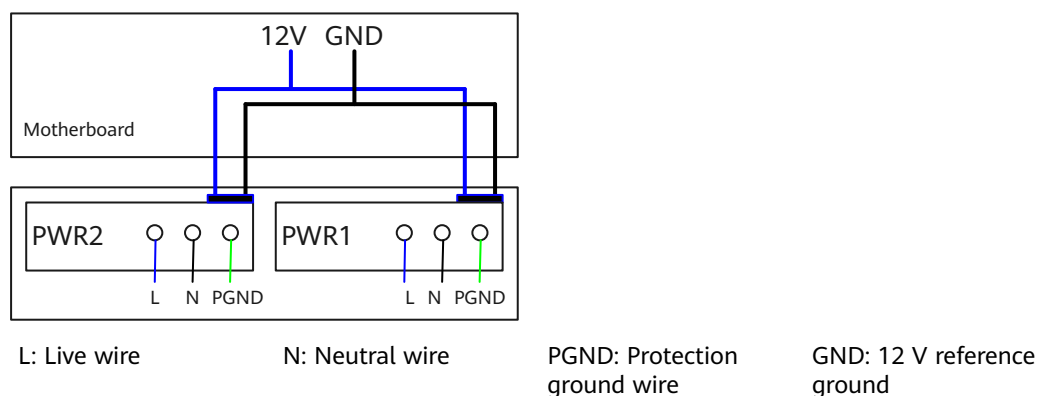
[Figure 5-430](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-430 Power supply connections of dual DC power modules



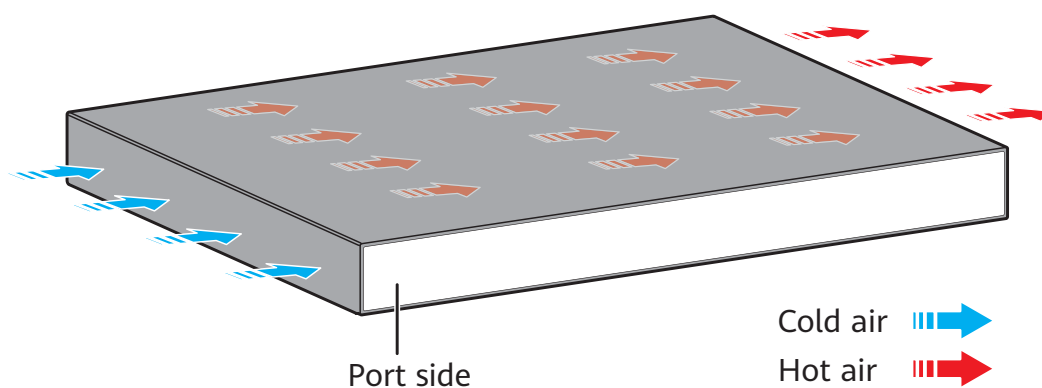
[Figure 5-431](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-431 Power supply connections of dual AC power modules



Heat Dissipation

The S5730-44C-HI has three built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1076 lists technical specifications of the S5730-44C-HI.

Table 5-1076 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	50.95 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	8.5 kg (18.74 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	76.5 W (without card)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	54 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 55.6 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none">• AC power modules configured: 0-5000 m (0-16404 ft.)• DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02351MQG

5.22.5 S5730-44C-PWH-HI

Version Mapping

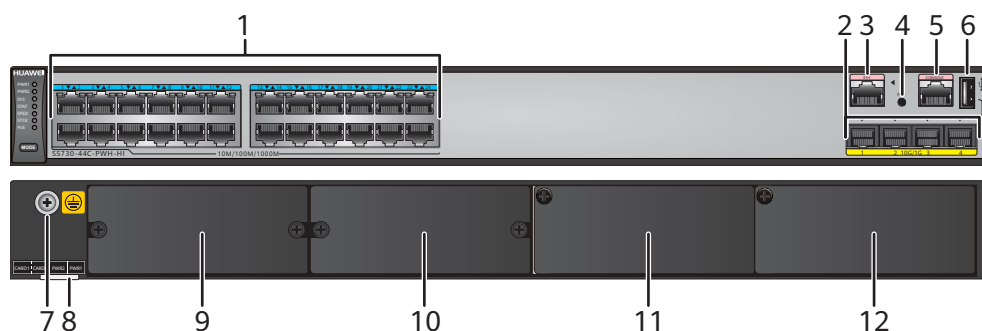
[Table 5-1077](#) lists the mapping between the S5730-44C-PWH-HI chassis and software versions.

Table 5-1077 Version mapping

Series	Model	Software Version
S5730-HI	S5730-44C-PWH-HI	V200R012C00 to V200R019C10 versions

Appearance and Structure

Figure 5-432 S5730-44C-PWH-HI appearance



1	Twenty-four PoE+ + 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
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3	One ETH management port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot 1 NOTE Cards supported: <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00 	10	Rear card slot 2 NOTE This slot is reserved for future use.
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE Power Module • 650 W DC PoE Power Module • 1150 W AC PoE Power Module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions) 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE Power Module • 650 W DC PoE Power Module • 1150 W AC PoE Power Module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions)

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1078](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1078 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1079](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1079 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1080](#).

Table 5-1080 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. **Table 5-1081** describes the attributes of an ETH management port.

Table 5-1081 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

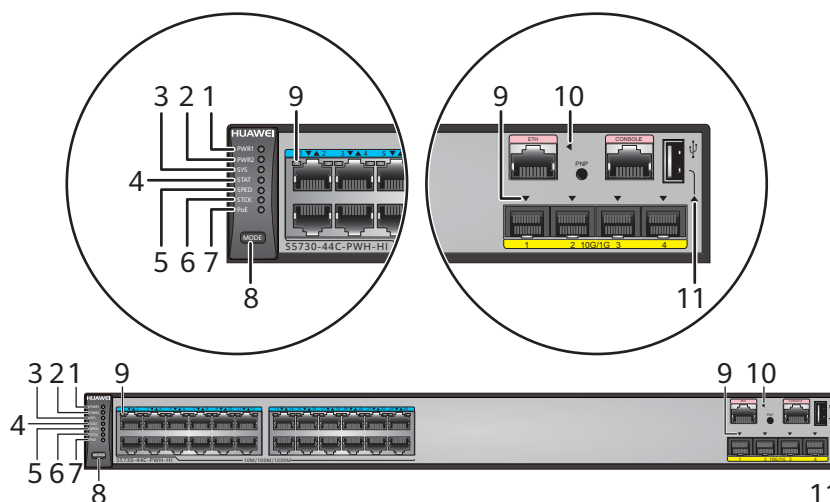
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-433 Indicators on the S5730-44C-PWH-HI



NOTE

The S5730-HI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, STCK, and PoE) are used as fault indicators. When an S5730-HI switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 5-1082 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but its power switch is in the OFF position. A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	In the system startup preparation phase, the SYS indicator is steady green for no more than 15 seconds.
			Green	Slow blinking	The system is running normally.

No.	Indicator	Name	Color	Status	Description
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>
7	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The service port indicators show the PoE status. After 45 seconds, the service port indicators automatically restore to the status mode.

No.	Indicator	Name	Color	Status	Description
8	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED and PoE indicators are off, and the STCK indicator is off or blinking green.</p>
9	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-1083 .		
10	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
11	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-1083 Description of service port indicators in different modes

Display Mode	Color	Description
Status	Green	<ul style="list-style-type: none"> Off: The port is not connected or has been shut down. Steady on: The port is connected. Blinking: The port is sending or receiving data.
Speed	Green	<ul style="list-style-type: none"> Off: The port is not connected or has been shut down. Steady on: <ul style="list-style-type: none"> 10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s. Blinking: <ul style="list-style-type: none"> 10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.

Display Mode	Color	Description
PoE	Green	<ul style="list-style-type: none">• Off: The port does not provide PoE power.• Steady on: The port is providing PoE power.• Blinking: The PD connected to the port is not a standard PD or its power exceeds the maximum power or power threshold of the port.
Stack	Green	<ul style="list-style-type: none">• Off: The STCK mode is not selected.• If the indicator is steady on, the switch is not a master switch:<ul style="list-style-type: none">- If the indicator of a port is steady on, the number of this port is the stack ID of the switch.- If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.• If the indicator is blinking, the switch is a master switch:<ul style="list-style-type: none">- If the indicator of a port is blinking, the number of this port is the stack ID of the switch.- If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5730-44C-PWH-HI is a PoE switch. It has two power module slots, each of which can have a 500 W, 650 W, 1150 W, or 1000 W (applicable in V200R013C00 and later versions) power module installed. A 500 W AC power module and a 650 W DC power module can be used together in the switch. A 1150 W AC power module and a 1000 W AC power module can be used together in the switch.

[Table 5-1084](#) lists its power supply configurations.

Table 5-1084 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W	-	369.6 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 12 ● 802.3bt (60 W per port): 6
500 W	500 W	739.2 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 12
650 W	-	350 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 22 ● 802.3at (30 W per port): 11 ● 802.3bt (60 W per port): 5
650 W	500 W or 650 W	700 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 23 ● 802.3bt (60 W per port): 11
500 W or 650 W	650 W		
1150 W (220 V)	-	785.4 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 13
1150 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1150 W (110 V)	-	446.6 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 14 ● 802.3bt (60 W per port): 7
1150 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 14
1000 W (220 V)	-	754.6 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 12
1000 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24
1000 W (110 V)	-	754.6 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 12
1000 W (110 V)	1000 W (110 V)	1440 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24

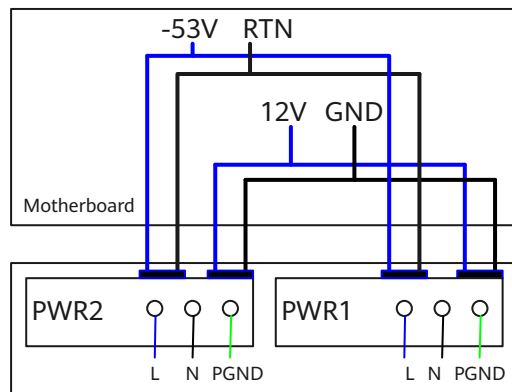
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 24
1150 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 24
1000 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 14
1150 W (110 V)	1000 W (110 V)	893.2 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 14

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 5-434 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

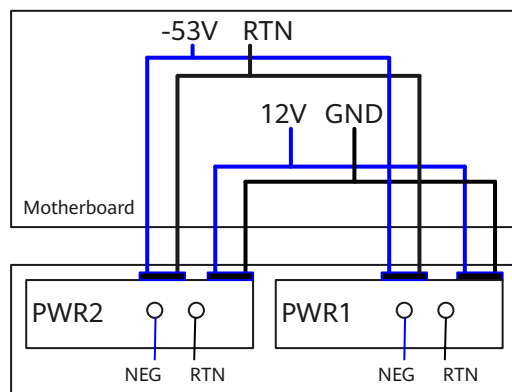
Figure 5-434 Power supply by dual AC PoE power modules



L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 5-435 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

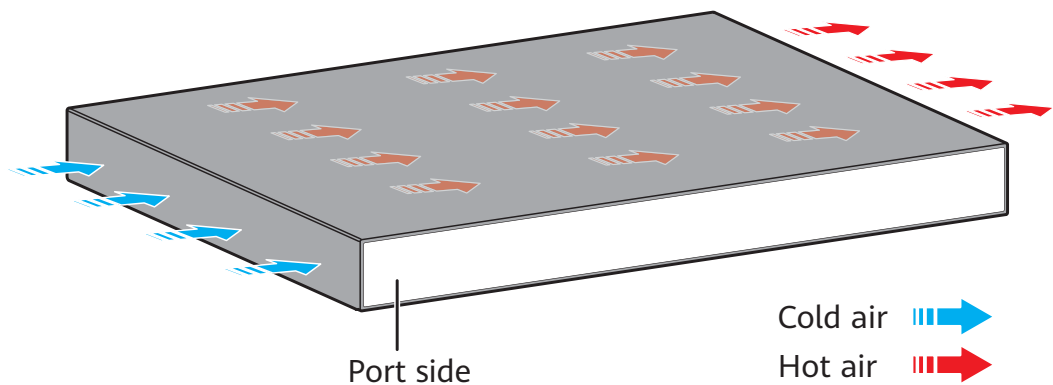
Figure 5-435 Power supply connections of dual DC PoE power modules



NEG: negative wire RTN: positive wire GND: 12 V reference ground RTN: -53 V reference ground

Heat Dissipation

The S5730-44C-PWH-HI has three built-in fans for forced air cooling. The airflow direction is left-to-right.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1085 lists technical specifications of the S5730-44C-PWH-HI.

Table 5-1085 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	49.48 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using 500 W AC or 1000 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using 650 W DC or 1150 W AC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> ● Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) ● Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.) <p>When 1150 W power modules are installed, they stretch out from the chassis. Therefore, the total depth of the switch changes to 541.1 mm (21.3 in.).</p>
Weight (with packaging)	8.5 kg (18.74 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> ● Using 650 W DC power modules: <ul style="list-style-type: none"> - Not providing the PoE function: 94 W (without card) - 100% PoE loads: 830 W (system power consumption: 130 W, PoE: 700 W, without card) ● Using 500 W AC power modules: <ul style="list-style-type: none"> - Not providing the PoE function: 94 W (without card) - 100% PoE loads: 830 W (system power consumption: 90.8 W, PoE: 739.2 W, without card) ● Using 1150 W AC power modules or 1000 W AC power modules: <ul style="list-style-type: none"> - Not providing the PoE function: 107.6 W (without card) - 100% PoE loads: 1596 W (system power consumption: 156 W, PoE: 1440 W, without card)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	Using 650 W DC or 500 W AC power modules: 65 W (without card) Using 1150 W AC or 1000 W AC power modules: 71 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 69.6 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02351LKB

5.22.6 S5730-44C-HI-24S

Version Mapping

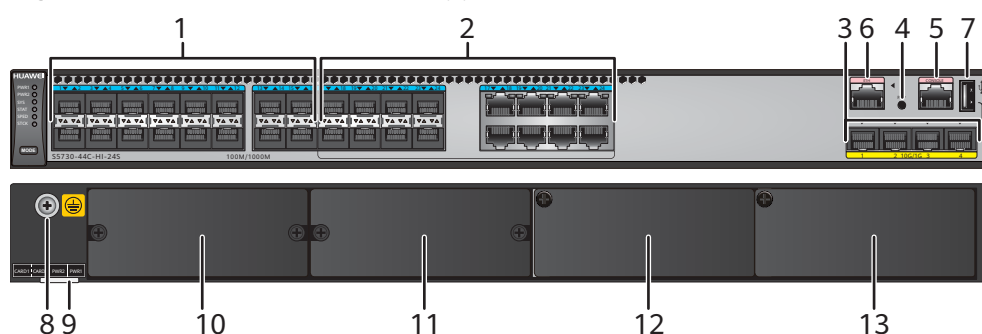
[Table 5-1086](#) lists the mapping between the S5730-44C-HI-24S chassis and software versions.

Table 5-1086 Version mapping

Series	Model	Software Version
S5730-HI	S5730-44C-HI-24S	V200R012C00SPC110, V200R013C00 to V200R019C10 versions

Appearance and Structure

Figure 5-436 S5730-44C-HI-24S appearance



1	<p>Sixteen 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • GE-CWDM optical module (used only in the OADM scenario) 	2	<p>Eight combo ports (10/100/1000BASE-T + 100/1000BASE-X)</p> <p>Modules applicable to combo optical ports:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-CWDM optical module (used only in the OADM scenario)
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking) 	4	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	One console port	6	One ETH management port
7	One USB port	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
9	<p>ESN label</p> <p>NOTE</p> <p>You can draw it out to view the ESN and MAC address of the switch.</p>	10	<p>Rear card slot 1</p> <p>NOTE</p> <p>Cards supported:</p> <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00
11	<p>Rear card slot 2</p> <p>NOTE</p> <p>This slot is reserved for future use.</p>	12	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
13	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	-	-

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-1087](#) describes the attributes of a 100/1000BASE-X port.

Table 5-1087 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

Combo port

A combo port consists of an optical Ethernet port and an electrical Ethernet port on the panel. Each combo port matches only one internal forwarding port. The electrical and optical ports of a combo port are multiplexed, and only one of them can work at a time. When one of the Ethernet ports is working, the other port is shut down.

NOTE

By default, a combo port works in auto mode, in which the port type is determined as follows:

- If the optical port has no optical module installed and the electrical port has no Ethernet cable connected, the port type depends on which port is connected first. If the electrical port is connected by an Ethernet cable first, the electrical port is used for data switching. If the optical port has an optical module installed first, the optical port is used for data switching.
- If the electrical port has an Ethernet cable connected and is in Up state, the electrical port is still used for data switching when the optical port has an optical module installed.
- If the optical port, no matter in Up or Down state, has an optical module installed, the optical port is still used for data switching when the electrical port has an Ethernet cable connected.
- If the optical port has an optical module installed and the electrical port has an Ethernet cable connected, the optical port is used for data switching after the switch restarts.

You can configure a combo port as an electrical or optical port using the **combo-port** command.

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1088](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1088 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1089](#).

Table 5-1089 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1090](#) describes the attributes of an ETH management port.

Table 5-1090 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

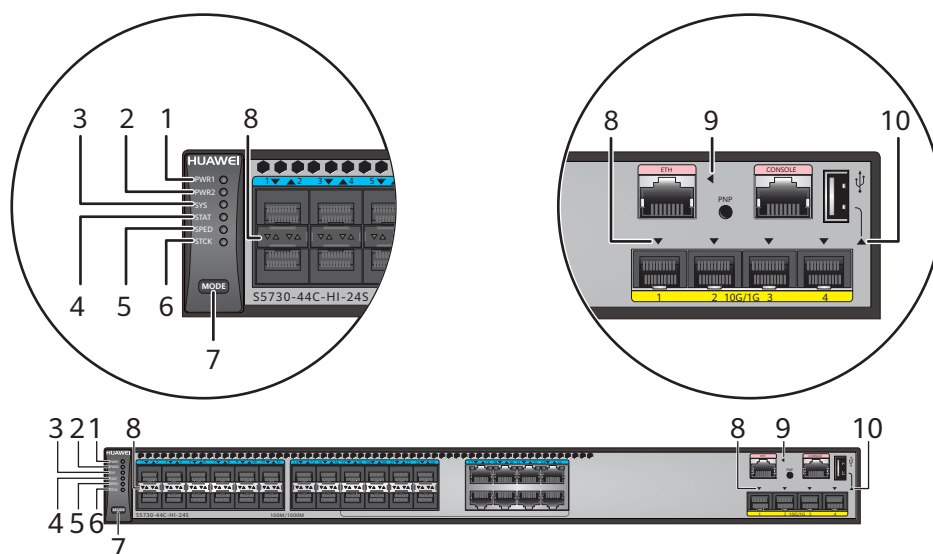
Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-437 Indicators on the S5730-44C-HI-24S



NOTE

The S5730-HI series switches provide a command for setting fault indicators, which help field maintenance personnel find a faulty switch quickly.

The SYS indicator and mode indicators (STAT, SPED, and STCK) are used as fault indicators. When an S5730-HI switch is faulty, you can run the command to turn on the fault indicators. Then the SYS indicator and mode indicators fast blink red to help field maintenance personnel quickly find the faulty switch.

Table 5-1091 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.

No.	Indicator	Name	Color	Status	Description
			Yellow	Steady on	<p>The switch has two power modules installed. Any of the following situations occurs in power module slot 1:</p> <ul style="list-style-type: none"> • A power module is available in this slot but its power switch is in the OFF position. • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	<p>The switch has two power modules installed. Any of the following situations occurs in power module slot 2:</p> <ul style="list-style-type: none"> • A power module is available in this slot but its power switch is in the OFF position. • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	In the system startup preparation phase, the SYS indicator is steady green for no more than 15 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
4	STAT	Status indicator	-	Off	The status mode is not selected.
			Green	Steady on	The status mode (default mode) is selected. If the status mode is selected, the service port indicator shows the port link or activity state.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The service port indicators show the port speeds. After 45 seconds, the service port indicators automatically restore to the status mode.
6	STCK	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is in stack standby or slave state or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a stack master switch or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. <p>After 45 seconds, the service port indicators automatically restore to the status mode.</p>

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a second time, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a third time, the service port indicators restore to the default mode, and the STAT indicator turns green. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the STAT indicator is steady green, the SPED indicator is off, and the STCK indicator is off or blinking green.</p>
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-1092 and Table 5-1093 .		
9	-	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
10	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from the USB flash drive.

No.	Indicator	Name	Color	Status	Description
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-1092 Description of service port indicators in different modes (two indicators for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Yellow	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green and yellow	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 100M/1000M port: The port is operating at 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green and yellow	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green and yellow	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Table 5-1093 Description of service port indicators in different modes (one indicator for each port)

Display Mode	Color	Status	Description
Status	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
Speed	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10/100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
Stack	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green	Steady on	<p>The switch is not the master switch in a stack.</p> <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	<p>The switch is the master switch in a stack.</p> <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.

Power Supply Configuration

The S5730-44C-HI-24S uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 5-438 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-438 Power supply connections of dual DC power modules

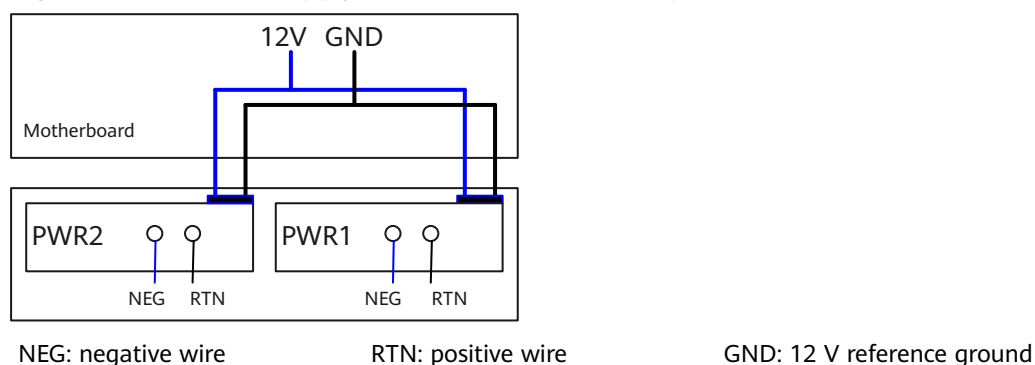
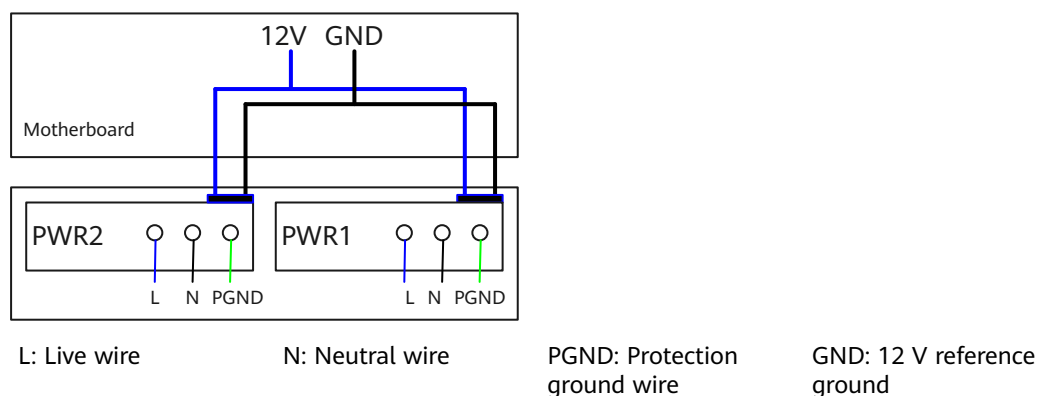


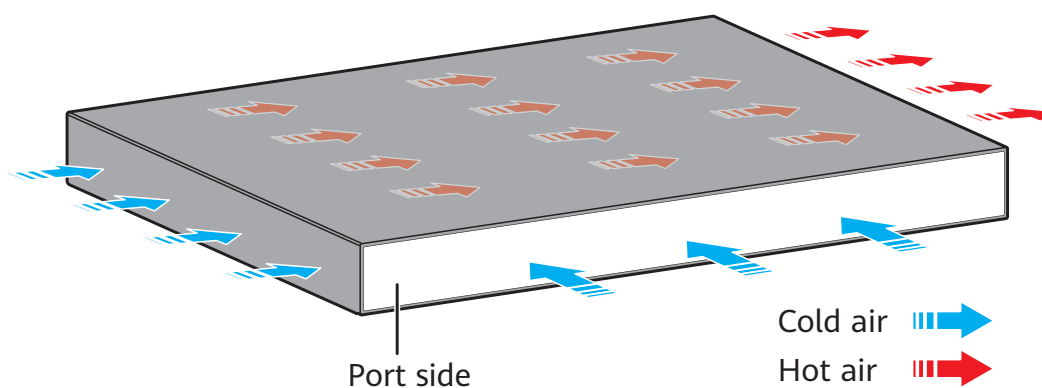
Figure 5-439 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-439 Power supply connections of dual AC power modules



Heat Dissipation

The S5730-44C-HI-24S has three built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1094 lists technical specifications of the S5730-44C-HI-24S.

Table 5-1094 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	51.12 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.72 kg (21.43 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	78 W (without card)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	64 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 56.1 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none">• AC power modules configured: 0-5000 m (0-16404 ft.)• DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02351XFR

5.22.7 S5730-60C-HI

Version Mapping

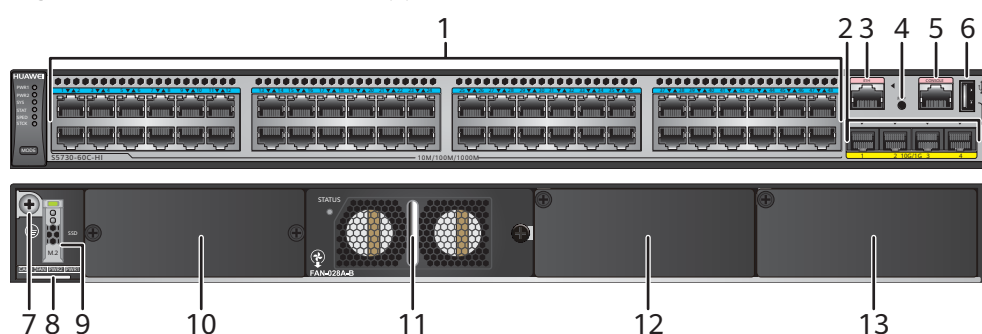
[Table 5-1095](#) lists the mapping between the S5730-60C-HI chassis and software versions.

Table 5-1095 Version mapping

Series	Model	Software Version
S5730-HI	S5730-60C-HI	V200R012C00 to V200R019C10 versions

Appearance and Structure

Figure 5-440 S5730-60C-HI appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
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3	One ETH management port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	SSD card slot NOTE Pluggable SSD card supported: SSD-240GB	10	Rear card slot NOTE Cards supported: <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00
11	Fan slot NOTE Applicable fan module: FAN-028A-B	12	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module
13	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1096](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1096 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1097](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1097 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1098](#).

Table 5-1098 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1099](#) describes the attributes of an ETH management port.

Table 5-1099 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

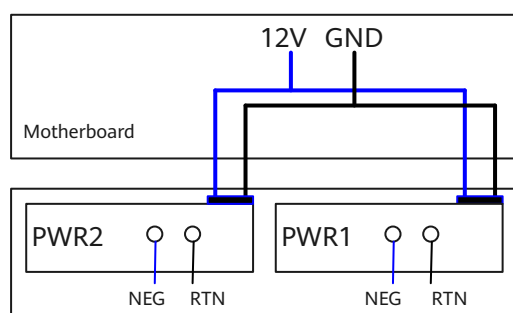
The S5730-60C-HI has similar indicators to those of the S5730-44C-PWH-HI except that the S5730-60C-HI does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-60C-HI uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

[Figure 5-441](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-441 Power supply connections of dual DC power modules



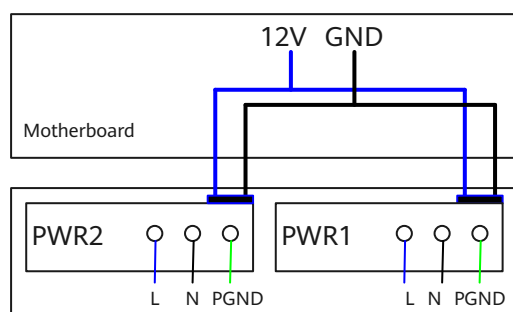
NEG: negative wire

RTN: positive wire

GND: 12 V reference ground

[Figure 5-442](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-442 Power supply connections of dual AC power modules



L: Live wire

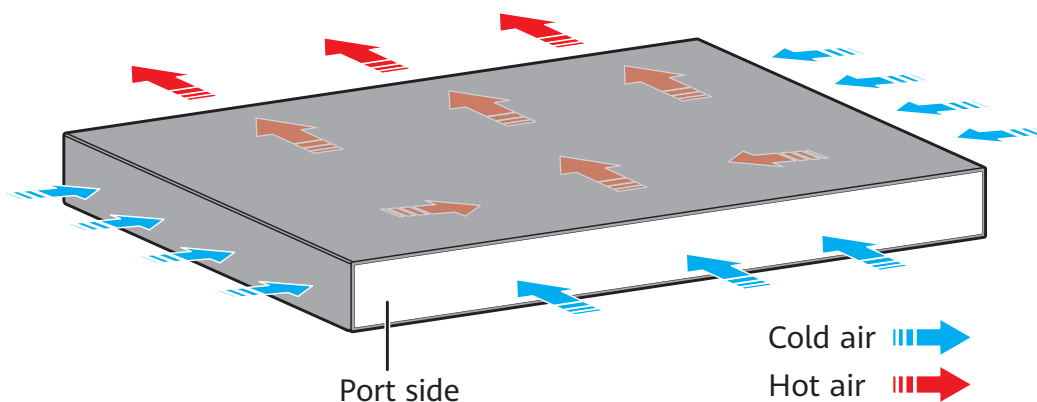
N: Neutral wire

PGND: Protection ground wire

GND: 12 V reference ground

Heat Dissipation

The S5730-60C-HI uses a pluggable fan module for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1100](#) lists technical specifications of the S5730-60C-HI.

Table 5-1100 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	47.28 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	8.8 kg (19.40 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	87.7 W (without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	70 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 52.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02351MQR

5.22.8 S5730-60C-PWH-HI

Version Mapping

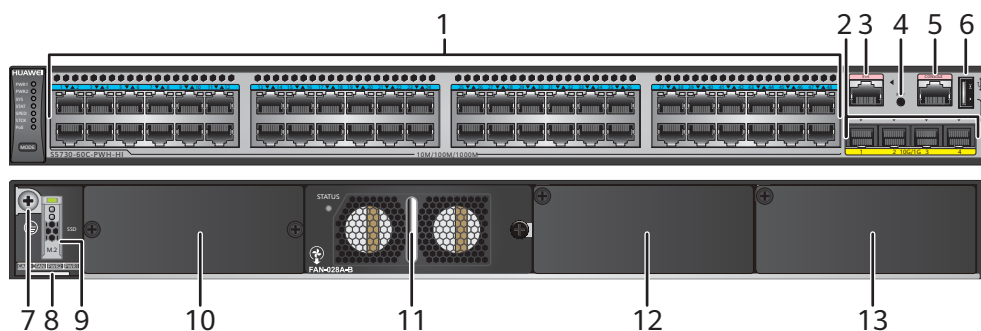
Table 5-1101 lists the mapping between the S5730-60C-PWH-HI chassis and software versions.

Table 5-1101 Version mapping

Series	Model	Software Version
S5730-HI	S5730-60C-PWH-HI	V200R012C00 to V200R019C10 versions

Appearance and Structure

Figure 5-443 S5730-60C-PWH-HI appearance



1	Forty-eight PoE+ + 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One ETH management port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	SSD card slot NOTE Pluggable SSD card supported: SSD-240GB	10	Rear card slot NOTE Cards supported: <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00

1 1	Fan slot NOTE Applicable fan module: FAN-028A-B	1 2	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE Power Module • 650 W DC PoE Power Module • 1150 W AC PoE Power Module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions)
1 3	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 500 W AC PoE Power Module • 650 W DC PoE Power Module • 1150 W AC PoE Power Module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1102](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1102 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1103](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1103 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1104](#).

Table 5-1104 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1105](#) describes the attributes of an ETH management port.

Table 5-1105 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5730-60C-PWH-HI has the same types of indicators as the S5730-44C-PWH-HI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-60C-PWH-HI is a PoE switch. It has two power module slots, each of which can have a 500 W, 650 W, 1150 W, or 1000 W (applicable in V200R013C00 and later versions) power module installed. A 500 W AC power module and a 650 W DC power module can be used together in the switch. A 1150 W AC power module and a 1000 W AC power module can be used together in the switch. [Table 5-1106](#) lists its power supply configurations.

Table 5-1106 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W or 650 W	-	369.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 12 802.3bt (60 W per port): 6
500 W or 650 W	500 W or 650 W	739.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 24 802.3bt (60 W per port): 12
1150 W (220 V)	-	785.4 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 26 802.3bt (60 W per port): 13
1150 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48 802.3bt (60 W per port): 24
1150 W (110 V)	-	446.6 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 29 802.3at (30 W per port): 14 802.3bt (60 W per port): 7
1150 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29 802.3bt (60 W per port): 14

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	-	754.6 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 25 ● 802.3bt (60 W per port): 12
1000 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 48 ● 802.3bt (60 W per port): 24
1000 W (110 V)	-	754.6 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 25 ● 802.3bt (60 W per port): 12
1000 W (110 V)	1000 W (110 V)	1440 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 48 ● 802.3bt (60 W per port): 24
1000 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 48 ● 802.3bt (60 W per port): 24
1150 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 48 ● 802.3bt (60 W per port): 24

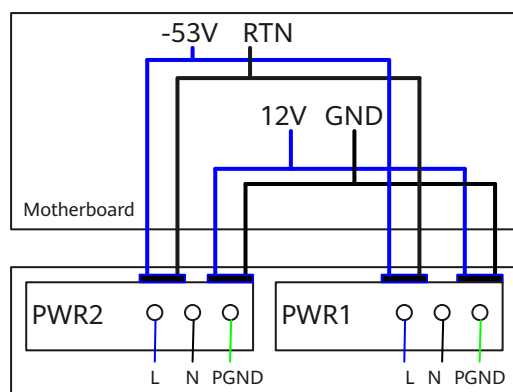
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29 802.3bt (60 W per port): 14
1150 W (110 V)	1000 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29 802.3bt (60 W per port): 14

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 5-444 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 5-444 Power supply by dual AC PoE power modules

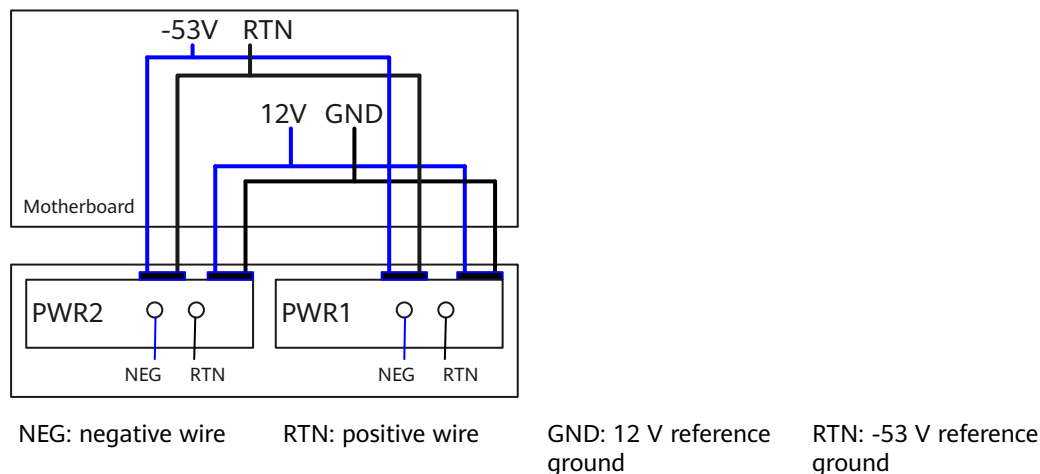


L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 5-445 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V

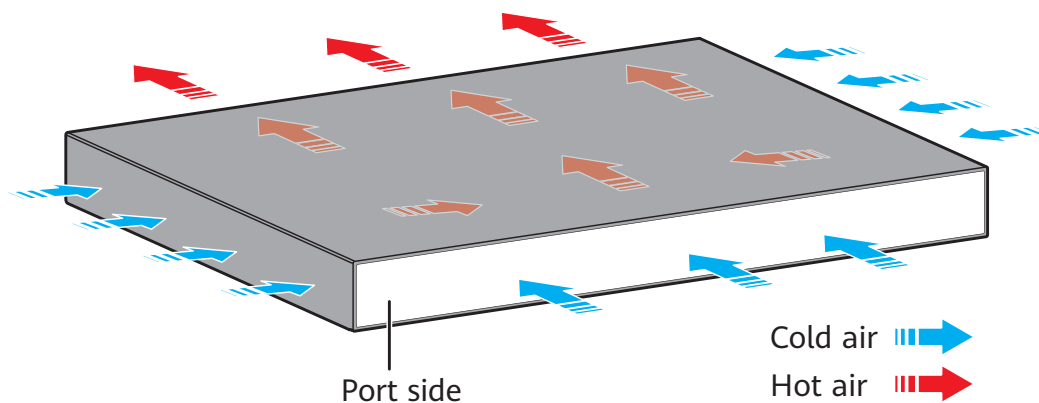
and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

Figure 5-445 Power supply connections of dual DC PoE power modules



Heat Dissipation

The S5730-60C-PWH-HI uses a pluggable fan module for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1107 lists technical specifications of the S5730-60C-PWH-HI.

Table 5-1107 Technical specifications

Item	Description
Memory (RAM)	4 GB

Item	Description
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	46.09 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none">Using 500 W AC or 1000 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common modeUsing 650 W DC or 1150 W AC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.) <p>When 1150 W power modules are installed, they stretch out from the chassis. Therefore, the total depth of the switch changes to 541.1 mm (21.3 in.).</p>
Weight (with packaging)	9 kg (19.84 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> ● Using 650 W DC or 500 W AC power modules: <ul style="list-style-type: none"> - Not providing the PoE function: 106 W (without card) - 100% PoE loads: 830 W (system power consumption: 90.8 W, PoE: 739.2 W, without card) ● Using 1150 W AC or 1000 W AC power modules: <ul style="list-style-type: none"> - Not providing the PoE function: 119.7 W (without card) - 100% PoE loads: 1610 W (system power consumption: 170 W, PoE: 1440 W, without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	Using 650 W DC or 500 W AC power modules: 80 W (without card) Using 1150 W AC or 1000 W AC power modules: 83 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 69 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> ● EMC certification ● Safety certification ● Manufacturing certification
Part number	02351MQV

5.22.9 S5730-60C-HI-48S

Version Mapping

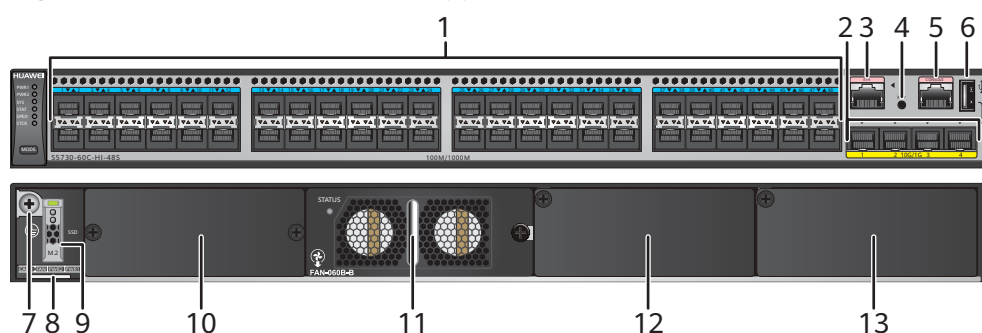
Table 5-1108 lists the mapping between the S5730-60C-HI-48S chassis and software versions.

Table 5-1108 Version mapping

Series	Model	Software Version
S5730-HI	S5730-60C-HI-48S	V200R013C00 to V200R019C10 versions

Appearance and Structure

Figure 5-446 S5730-60C-HI-48S appearance



1	<p>Forty-eight 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • GE-CWDM optical module (used only in the OADM scenario) 	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	<p>One ETH management port</p>	4	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	<p>One console port</p>	6	<p>One USB port</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>
9	<p>SSD card slot</p> <p>NOTE Pluggable SSD card supported: SSD-240GB</p>	10	<p>Rear card slot</p> <p>NOTE Cards supported:</p> <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00

1 1	Fan slot NOTE Applicable fan module: FAN-060B-B	1 2	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 350 W DC power module • 600 W AC power module
1 3	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 350 W DC power module • 600 W AC power module 	-	-

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-1109](#) describes the attributes of a 100/1000BASE-X port.

Table 5-1109 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1110](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1110 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1111](#).

Table 5-1111 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1112](#) describes the attributes of an ETH management port.

Table 5-1112 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5730-60C-HI-48S has the same types of indicators as the S5730-36C-HI-24S. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-60C-HI-48S uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

[Figure 5-447](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-447 Power supply connections of dual DC power modules

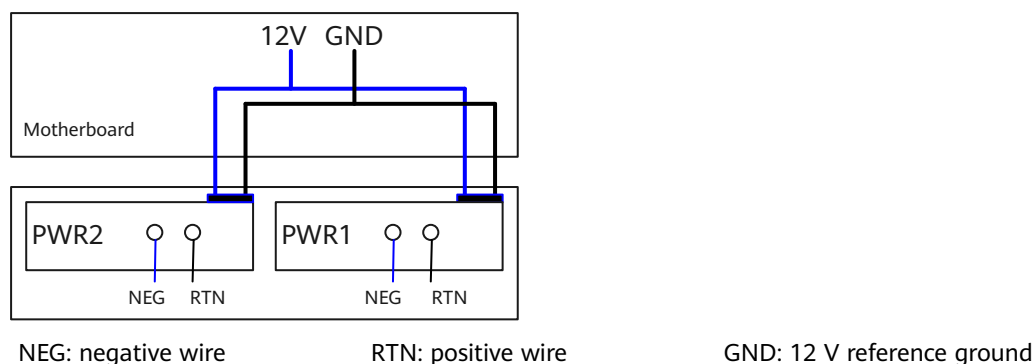
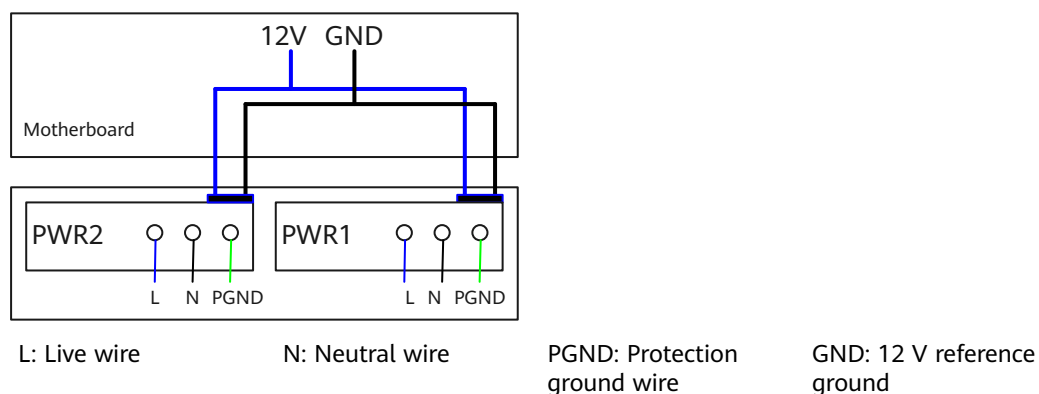


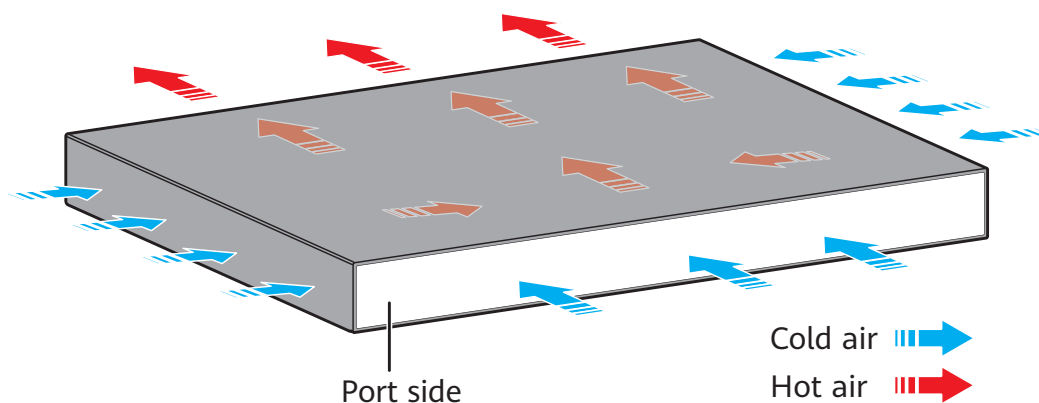
Figure 5-448 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-448 Power supply connections of dual AC power modules



Heat Dissipation

The S5730-60C-HI-48S uses pluggable fan modules for forced air cooling. Air flows in from the left side, right side, and front panel, and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1113](#) lists specifications of the S5730-60C-HI-48S.

Table 5-1113 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	45.53 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	N/A
Power supply surge protection	<ul style="list-style-type: none">Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common modeUsing DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.71 kg (21.41 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC

Item	Description
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	136 W (without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	100 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 67.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02351XFS

5.22.10 S5730-68C-HI

Version Mapping

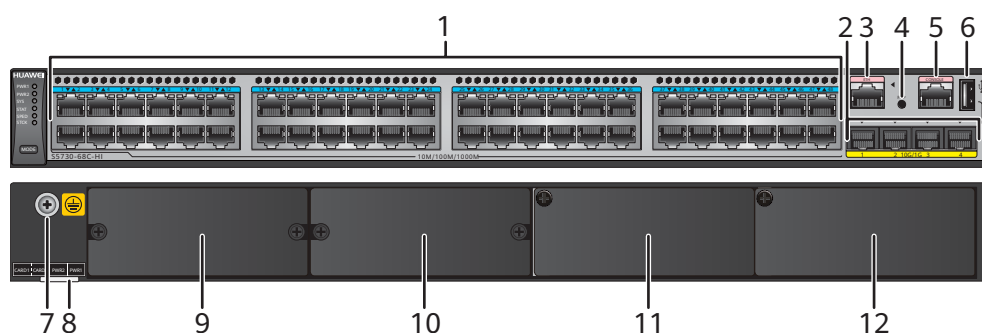
Table 5-1114 lists the mapping between the S5730-68C-HI chassis and software versions.

Table 5-1114 Version mapping

Series	Model	Software Version
S5730-HI	S5730-68C-HI	V200R012C00 to V200R019C10 versions

Appearance and Structure

Figure 5-449 S5730-68C-HI appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
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3	One ETH management port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot 1 NOTE Cards supported: <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00 	10	Rear card slot 2 NOTE This slot is reserved for future use.
11	Power module slot 2 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module 	12	Power module slot 1 NOTE Applicable power modules: <ul style="list-style-type: none"> • 150 W AC power module • 150 W DC power module

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1115](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1115 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1116](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1116 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1117](#).

Table 5-1117 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. **Table 5-1118** describes the attributes of an ETH management port.

Table 5-1118 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5730-68C-HI has similar indicators to those of the S5730-44C-PWH-HI except that the S5730-68C-HI does not have a PoE mode indicator. For details, see **Indicator Description**.

Power Supply Configuration

The S5730-68C-HI uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Figure 5-450 shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-450 Power supply connections of dual DC power modules

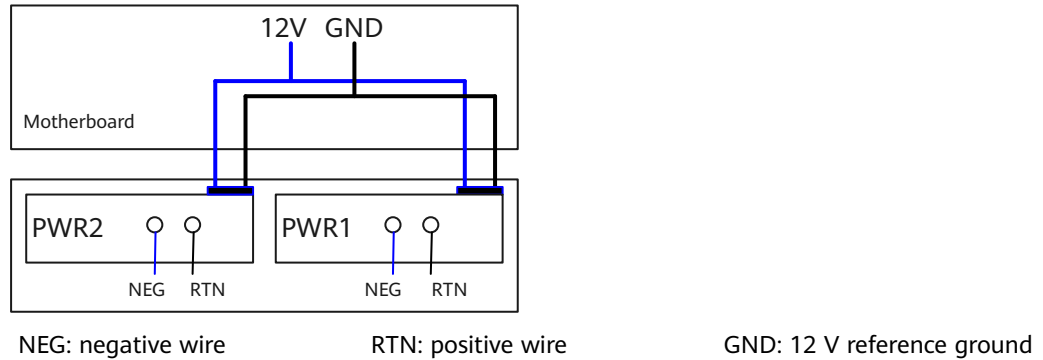
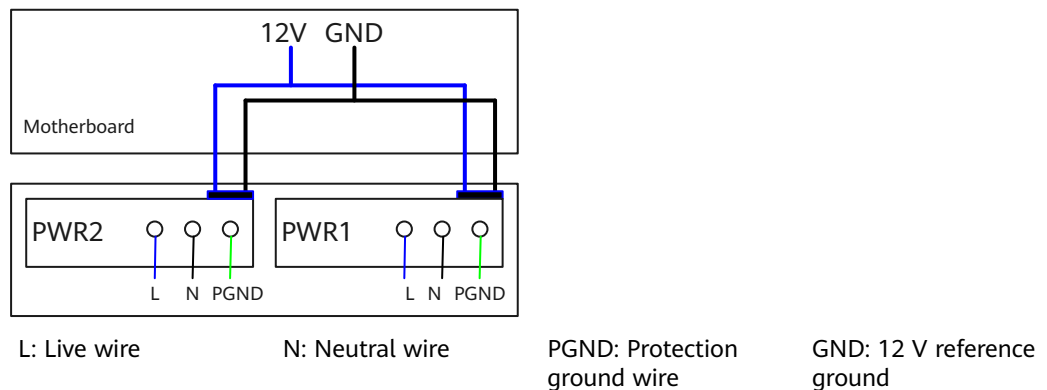


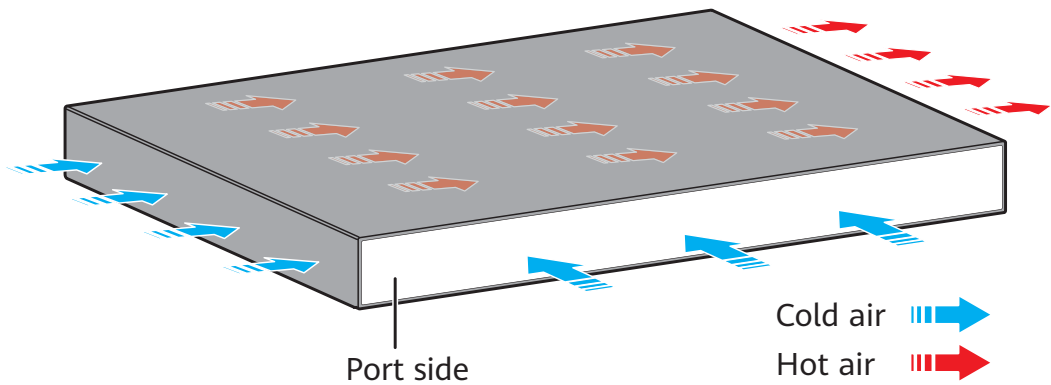
Figure 5-451 shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-451 Power supply connections of dual AC power modules



Heat Dissipation

The S5730-68C-HI has three built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1119 lists technical specifications of the S5730-68C-HI.

Table 5-1119 Technical specifications

Item	Description
Memory (RAM)	2 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	49.29 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)

Item	Description
Weight (with packaging)	8.5 kg (18.74 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -36 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	88.05 W (without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	62 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 55.6 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	<ul style="list-style-type: none"> AC power modules configured: 0-5000 m (0-16404 ft.) DC power modules configured: 0-2000 m (0-6562 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02351MQT

5.22.11 S5730-68C-PWH-HI

Version Mapping

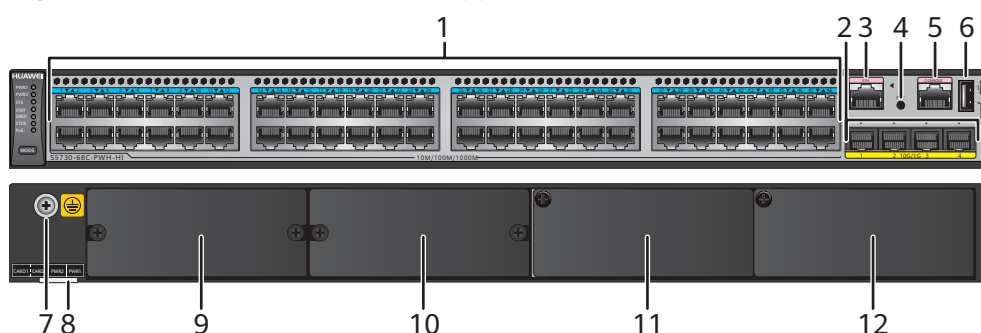
Table 5-1120 lists the mapping between the S5730-68C-PWH-HI chassis and software versions.

Table 5-1120 Version mapping

Series	Model	Software Version
S5730-HI	S5730-68C-PWH-HI	V200R012C00 to V200R019C10 versions

Appearance and Structure

Figure 5-452 S5730-68C-PWH-HI appearance



1	Forty-eight PoE+ + 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One ETH management port	4	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
5	One console port	6	One USB port
7	Ground screw NOTE It is used with a ground cable .	8	ESN label NOTE You can draw it out to view the ESN and MAC address of the switch.
9	Rear card slot 1 NOTE Cards supported: <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00 	10	Rear card slot 2 NOTE This slot is reserved for future use.

1	Power module slot 2	1	Power module slot 1
1	<p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 500 W AC PoE Power Module • 650 W DC PoE Power Module • 1150 W AC PoE Power Module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions) 	2	<p>NOTE</p> <p>Applicable power modules:</p> <ul style="list-style-type: none"> • 500 W AC PoE Power Module • 650 W DC PoE Power Module • 1150 W AC PoE Power Module • 1000 W AC PoE power module (applicable in V200R013C00 and later versions)

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1121](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1121 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1122](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1122 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1123](#).

Table 5-1123 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1124](#) describes the attributes of an ETH management port.

Table 5-1124 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5730-68C-PWH-HI has the same types of indicators as the S5730-44C-PWH-HI. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-68C-PWH-HI is a PoE switch. It has two power module slots, each of which can have a 500 W, 650 W, 1150 W, or 1000 W (applicable in V200R013C00 and later versions) power module installed. A 500 W AC power module and a 650 W DC power module can be used together in the switch. A 1150 W AC power module and a 1000 W AC power module can be used together in the switch. [Table 5-1125](#) lists its power supply configurations.

Table 5-1125 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
500 W	-	369.6 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 12802.3bt (60 W per port): 6
500 W	500 W	739.2 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 48802.3at (30 W per port): 24802.3bt (60 W per port): 12

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
650 W	-	350 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 22 • 802.3at (30 W per port): 11 • 802.3bt (60 W per port): 5
650 W	500 W or 650 W	700 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 45 • 802.3at (30 W per port): 23 • 802.3bt (60 W per port): 11
500 W or 650 W	650 W		
1150 W (220 V)	-	785.4 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 26 • 802.3bt (60 W per port): 13
1150 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 48 • 802.3bt (60 W per port): 24
1150 W (110 V)	-	446.6 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 29 • 802.3at (30 W per port): 14 • 802.3bt (60 W per port): 7
1150 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 29 • 802.3bt (60 W per port): 14

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	-	754.6 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 25• 802.3bt (60 W per port): 12
1000 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 48• 802.3bt (60 W per port): 24
1000 W (110 V)	-	754.6 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 25• 802.3bt (60 W per port): 12
1000 W (110 V)	1000 W (110 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 48• 802.3bt (60 W per port): 24
1000 W (220 V)	1150 W (220 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 48• 802.3bt (60 W per port): 24
1150 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 48• 802.3at (30 W per port): 48• 802.3bt (60 W per port): 24

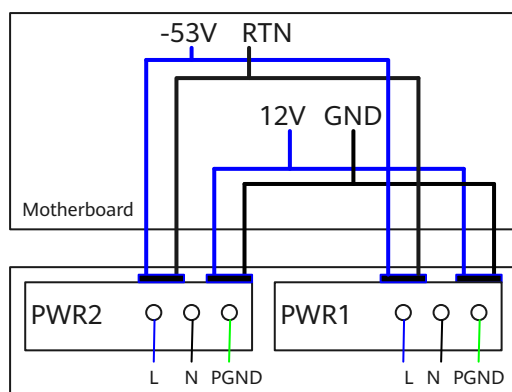
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (110 V)	1150 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29 802.3bt (60 W per port): 14
1150 W (110 V)	1000 W (110 V)	893.2 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29 802.3bt (60 W per port): 14

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Figure 5-453 shows the power supply mode of dual AC PoE power modules (PWR1 and PWR2). After AC power is transmitted to the PWR modules, the PWR modules provide 12 V and -53 V outputs. The outputs are combined on the motherboard, which then provides 12 V voltage for the switch and -53 V voltage for the PDs.

Figure 5-453 Power supply by dual AC PoE power modules

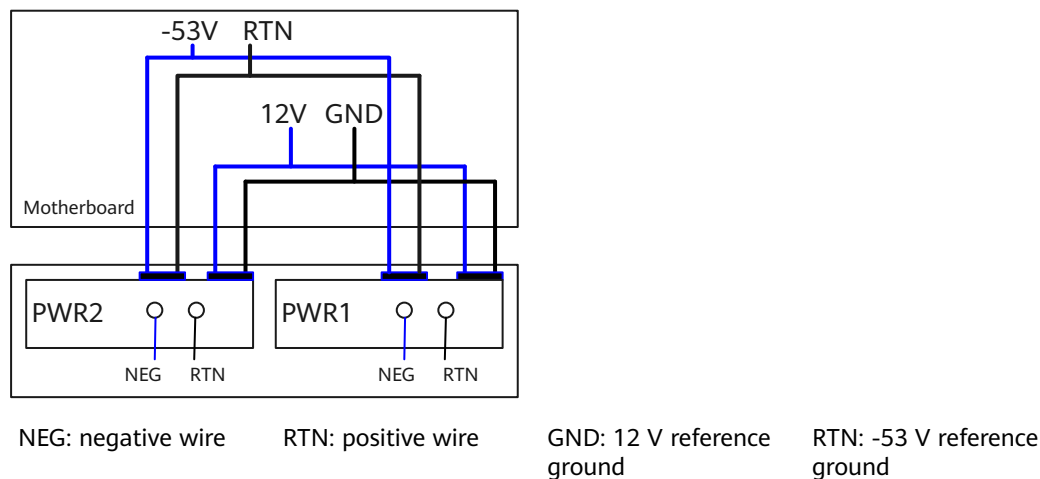


L: live wire N: neutral wire PGND: protection ground wire GND: 12 V reference ground RTN: -53 V reference ground

Figure 5-454 shows the power supply connections of dual DC PoE power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V

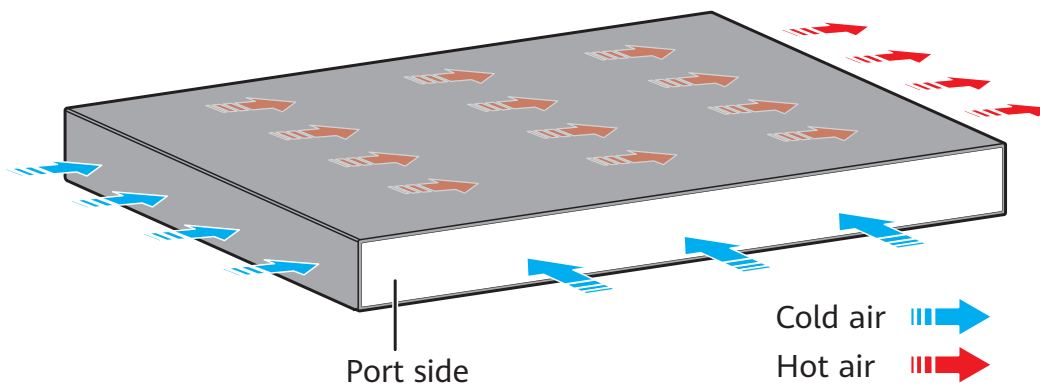
and -53 V output voltages, and the motherboard provides 12 V voltage for the entire device and -53 V voltage for the PDs.

Figure 5-454 Power supply connections of dual DC PoE power modules



Heat Dissipation

The S5730-68C-PWH-HI has three built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1126 lists technical specifications of the S5730-68C-PWH-HI.

Table 5-1126 Technical specifications

Item	Description
Memory (RAM)	2 GB

Item	Description
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	48.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none">Using 500 W AC or 1000 W AC power modules: ± 6 kV in differential mode, ± 6 kV in common modeUsing 650 W DC or 1150 W AC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.) <p>When 1150 W power modules are installed, they stretch out from the chassis. Therefore, the total depth of the switch changes to 541.1 mm (21.3 in.).</p>
Weight (with packaging)	8.7 kg (19.18 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> ● Using 650 W DC power modules: <ul style="list-style-type: none"> - Not providing the PoE function: 106 W (without card) - 100% PoE loads: 830 W (system power consumption: 130 W, PoE: 700 W, without card) ● Using 500 W AC power modules: <ul style="list-style-type: none"> - Not providing the PoE function: 106 W (without card) - 100% PoE loads: 830 W (system power consumption: 90.8 W, PoE: 739.2 W, without card) ● Using 1150 W AC or 1000 W AC power modules: <ul style="list-style-type: none"> - Not providing the PoE function: 116.3 W (without card) - 100% PoE loads: 1608 W (system power consumption: 168 W, PoE: 1440 W, without card)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	Using 650 W DC or 500 W AC power modules: 72 W (without card) Using 1150 W AC or 1000 W AC power modules: 76 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 69.6 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> ● EMC certification ● Safety certification ● Manufacturing certification

Item	Description
Part number	02351LKE

5.22.12 S5730-68C-HI-48S

Version Mapping

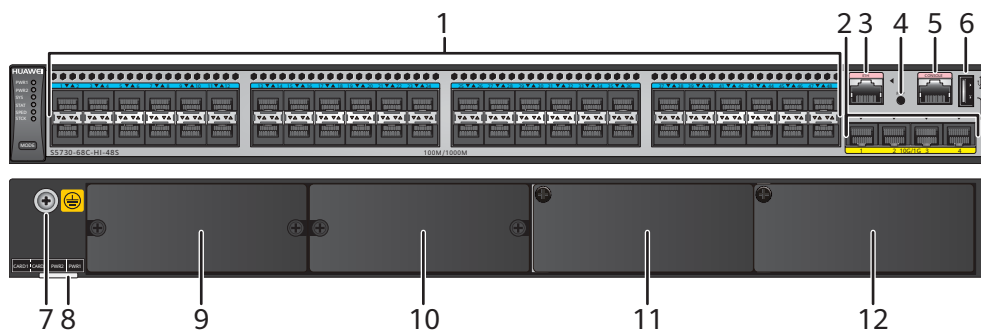
Table 5-1127 lists the mapping between the S5730-68C-HI-48S chassis and software versions.

Table 5-1127 Version mapping

Series	Model	Software Version
S5730-HI	S5730-68C-HI-48S	V200R013C00 to V200R019C10 versions

Appearance and Structure

Figure 5-455 S5730-68C-HI-48S appearance



1	<p>Forty-eight 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) • GE-CWDM optical module (used only in the OADM scenario) 	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	<p>One ETH management port</p>	4	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
5	<p>One console port</p>	6	<p>One USB port</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>ESN label</p> <p>NOTE You can draw it out to view the ESN and MAC address of the switch.</p>
9	<p>Rear card slot 1</p> <p>NOTE Cards supported:</p> <ul style="list-style-type: none"> • ES5D21Q02Q00 • ES5D21X08T00 • ES5D21X08S00 	10	<p>Rear card slot 2</p> <p>NOTE This slot is reserved for future use.</p>

1	Power module slot 2	1	Power module slot 1
1	NOTE Applicable power modules: <ul style="list-style-type: none"> • 350 W DC power module • 600 W AC power module 	2	NOTE Applicable power modules: <ul style="list-style-type: none"> • 350 W DC power module • 600 W AC power module

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-1128](#) describes the attributes of a 100/1000BASE-X port.

Table 5-1128 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1129](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1129 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1130](#).

Table 5-1130 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1131](#) describes the attributes of an ETH management port.

Table 5-1131 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

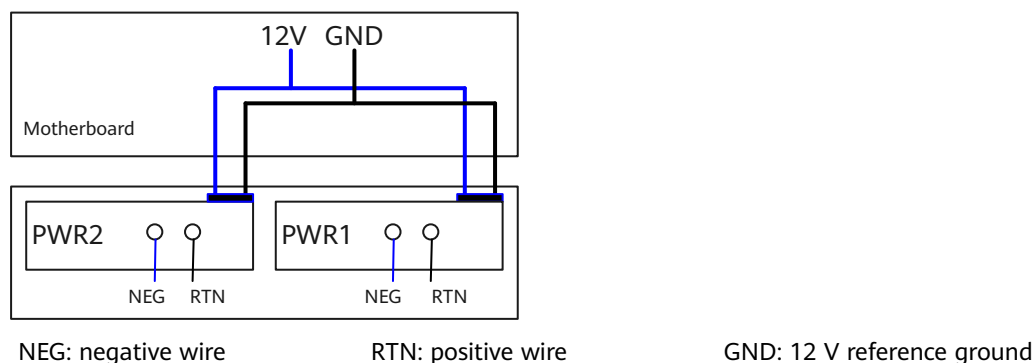
The S5730-68C-HI-48S has the same types of indicators as the S5730-36C-HI-24S. For details, see [Indicator Description](#).

Power Supply Configuration

The S5730-68C-HI-48S uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

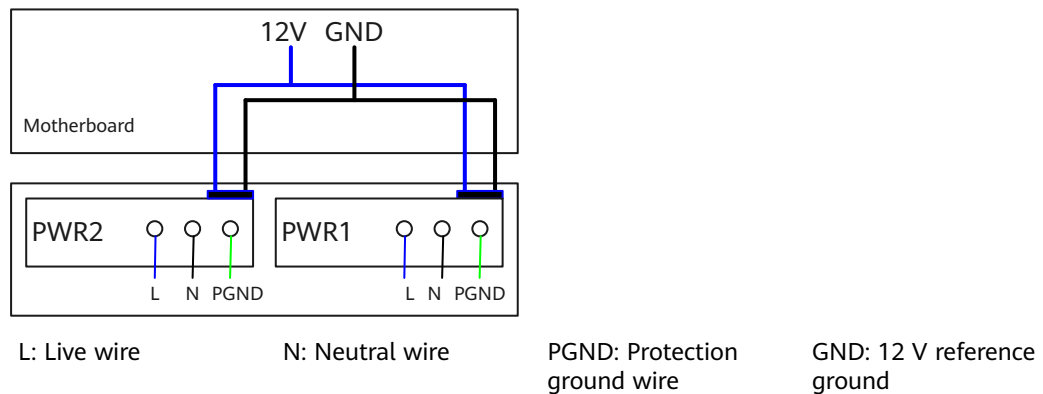
[Figure 5-456](#) shows the power supply connections of dual DC power modules. After DC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-456 Power supply connections of dual DC power modules



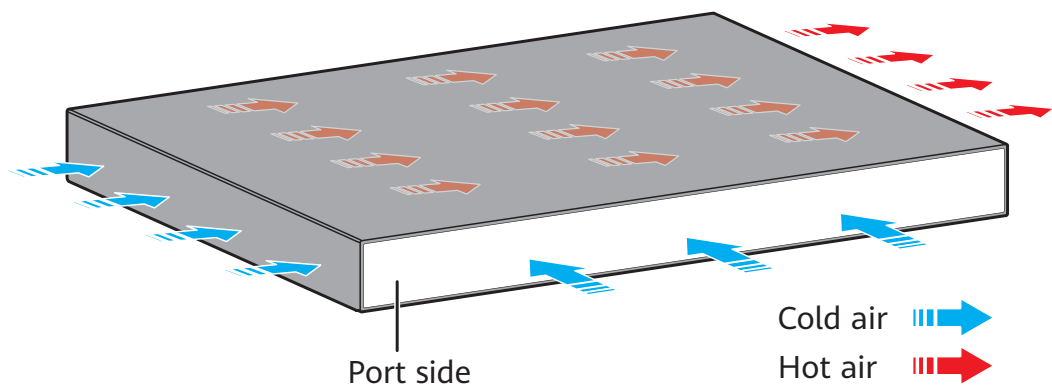
[Figure 5-457](#) shows the power supply connections of dual AC power modules. After AC power is transmitted to the PWR module, the PWR module provides 12 V output voltage, and the motherboard provides power for the entire device.

Figure 5-457 Power supply connections of dual AC power modules



Heat Dissipation

The S5730-68C-HI-48S has three built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1132 lists specifications of the S5730-68C-HI-48S.

Table 5-1132 Technical specifications

Item	Parameter
Memory (RAM)	2 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	46.49 years

Item	Parameter
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	N/A
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 1 kV in differential mode, ± 2 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 44.4 mm x 442.0 mm x 424.7 mm (1.75 in. x 17.4 in. x 16.72 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 44.4 mm x 442.0 mm x 451.8 mm (1.75 in. x 17.4 in. x 17.79 in.)
Weight (with packaging)	9.39 kg (20.7 lb)
Stack ports	10GE SFP+ ports on the front panel, or 10GE ports or 40GE QSFP+ ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	100 V AC to 240 V AC, 50/60 Hz -48 V DC to -60 V DC
Maximum voltage range	90 V AC to 264 V AC, 47 Hz to 63 Hz -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	124 W (without card)

Item	Parameter
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	100 W (without card)
Operating temperature	0°C to 45°C (32°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 64.7 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02351XFT

5.23 S5731-S

5.23.1 S5731-S24T4X

Version Mapping

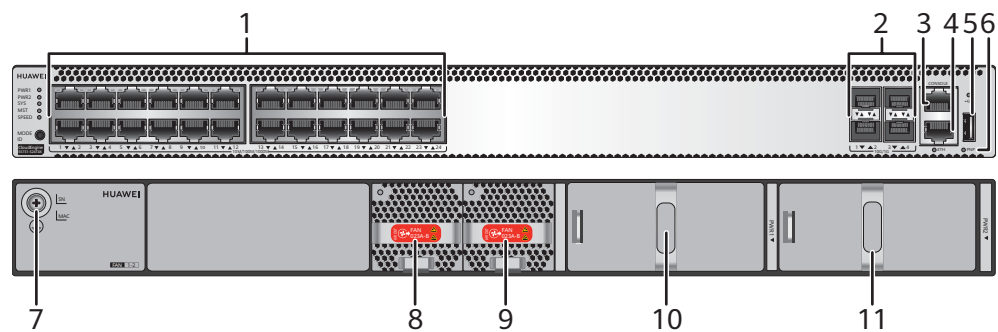
[Table 5-1133](#) lists the mapping between the S5731-S24T4X chassis and software versions.

Table 5-1133 Version mapping

Series	Model	Software Version
S5731-S	S5731-S24T4X	V200R019C00 and later versions

Appearance and Structure

Figure 5-458 S5731-S24T4X appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port

5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module
9	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions)
11	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1134](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1134 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1135](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1135 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1136](#).

Table 5-1136 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1137](#) describes the attributes of an ETH management port.

Table 5-1137 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

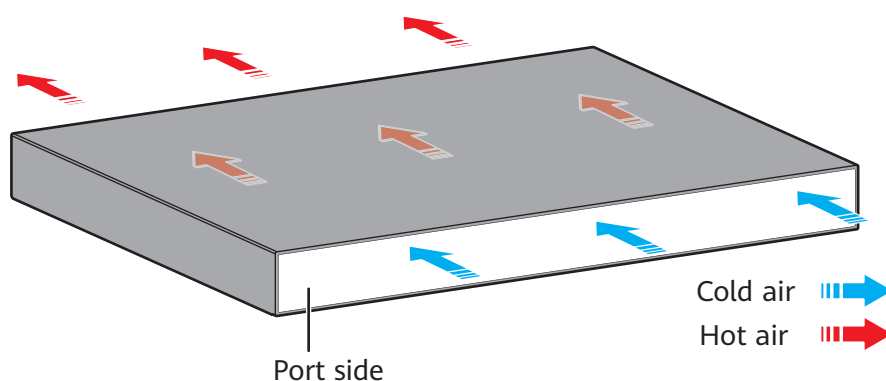
The S5731-S24T4X has similar indicators to those on the S5731-S48P4X except that the S5731-S24T4X does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5731-S24T4X can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5731-S24T4X uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1138](#) lists technical specifications of the S5731-S24T4X.

Table 5-1138 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	57.73 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999

Item	Description
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	8.4 kg (18.52 lb)
Stack ports	10GE SFP+ ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	114 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	88 W

Item	Description
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353AHU

5.23.2 S5731-S24P4X

Version Mapping

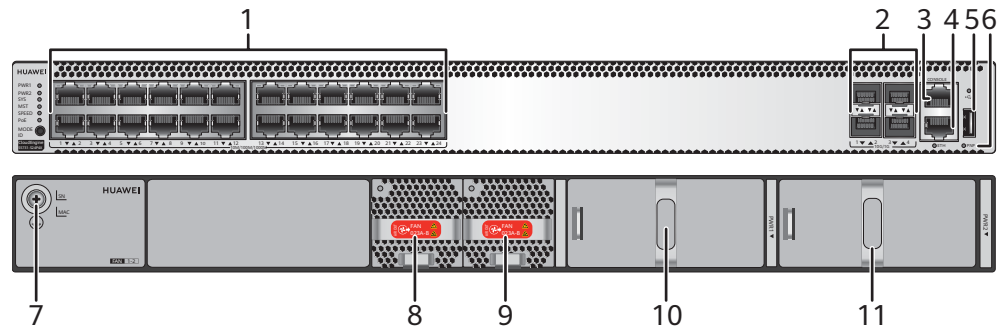
[Table 5-1139](#) lists the mapping between the S5731-S24P4X chassis and software versions.

Table 5-1139 Version mapping

Series	Model	Software Version
S5731-S	S5731-S24P4X	V200R019C00 and later versions

Appearance and Structure

Figure 5-459 S5731-S24P4X appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	Ground screw NOTE It is used with a ground cable .	8	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module
9	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Power module slot 1 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)
11	Power module slot 2 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1140](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1140 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1141](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1141 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1142](#).

Table 5-1142 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1143](#) describes the attributes of an ETH management port.

Table 5-1143 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5731-S24P4X has the same types of indicators as the S5731-S48P4X. For details, see [Indicator Description](#).

Power Supply Configuration

The S5731-S24P4X is a PoE switch. It has two power module slots, each of which can have a 1000 W PoE power module installed. [Table 5-1144](#) lists its power supply configurations.

Table 5-1144 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	–	760 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 24

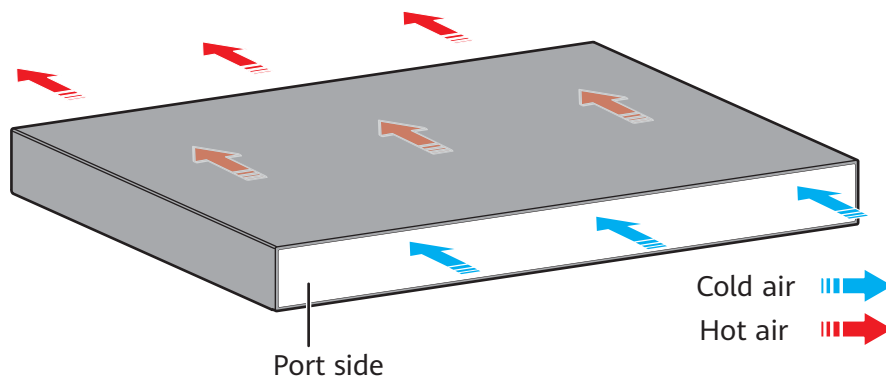
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (110 V)	–	665 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 22
1000 W (220 V)	1000 W (220 V)	1600 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24
1000 W (110 V)	1000 W (110 V)	1330 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5731-S24P4X uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



Technical Specifications

[Table 5-1145](#) lists technical specifications of the S5731-S24P4X.

Table 5-1145 Technical specifications

Item	Description
Memory (RAM)	4 GB

Item	Description
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	57.21 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	8.6 kg (18.96 lb)
Stack ports	10GE SFP+ ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 121 W 100% PoE loads: 977 W (PoE: 720 W)

Item	Description
Typical power consumption (30% of traffic load, tested according to ATIS standard)	95 W
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 62.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02353AHX

5.23.3 S5731-S48T4X

Version Mapping

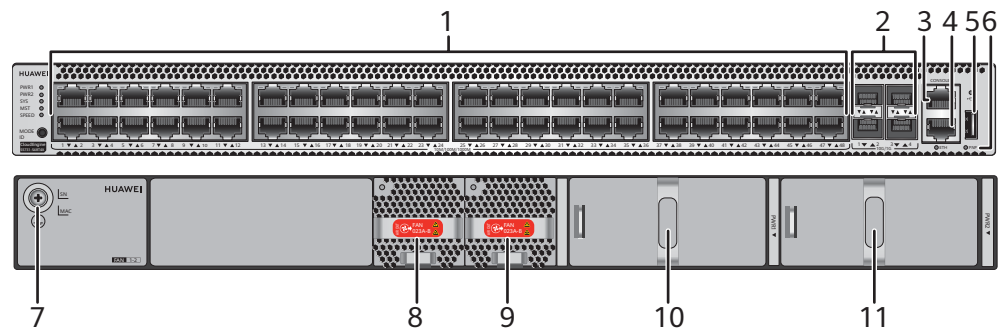
[Table 5-1146](#) lists the mapping between the S5731-S48T4X chassis and software versions.

Table 5-1146 Version mapping

Series	Model	Software Version
S5731-S	S5731-S48T4X	V200R019C00 and later versions

Appearance and Structure

Figure 5-460 S5731-S48T4X appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	Ground screw NOTE It is used with a ground cable .	8	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module
9	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions)
11	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1147](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1147 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1148](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1148 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1149](#).

Table 5-1149 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1150](#) describes the attributes of an ETH management port.

Table 5-1150 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

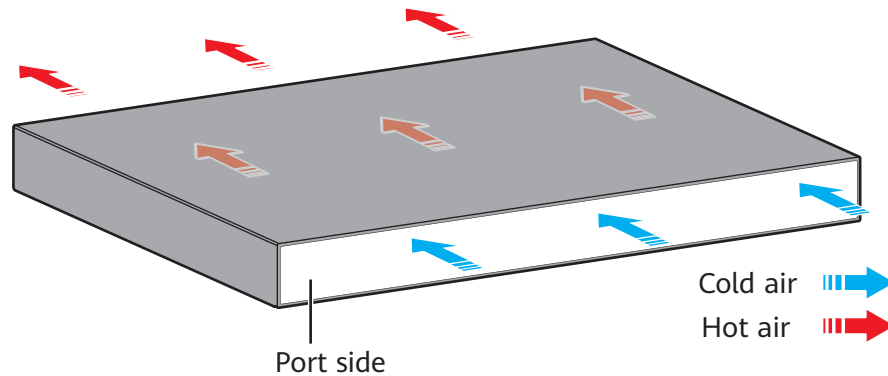
The S5731-S48T4X has similar indicators to those on the S5731-S48P4X except that the S5731-S48T4X does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5731-S48T4X can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5731-S48T4X uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1151](#) lists technical specifications of the S5731-S48T4X.

Table 5-1151 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	55.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	8.55 kg (18.85 lb)
Stack ports	10GE SFP+ ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • High-Voltage DC input: 240 V DC • DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> • AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz • High-Voltage DC input: 190 V DC to 290 V DC • DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	124 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	101 W
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353AJB

5.23.4 S5731-S48P4X

Version Mapping

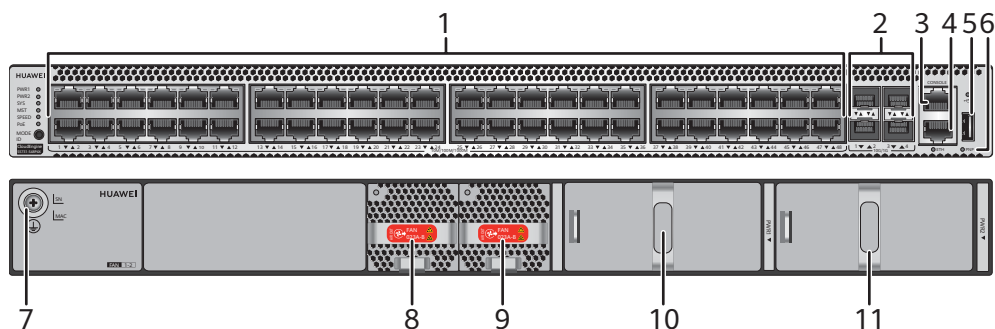
[Table 5-1152](#) lists the mapping between the S5731-S48P4X chassis and software versions.

Table 5-1152 Version mapping

Series	Model	Software Version
S5731-S	S5731-S48P4X	V200R019C00 and later versions

Appearance and Structure

Figure 5-461 S5731-S48P4X appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module
9	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Power module slot 1 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)

1	Power module slot 2	-	-
1	NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1153](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1153 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1154](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1154 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1155](#).

Table 5-1155 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1156](#) describes the attributes of an ETH management port.

Table 5-1156 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-462 Indicators on the S5731-S48P4X

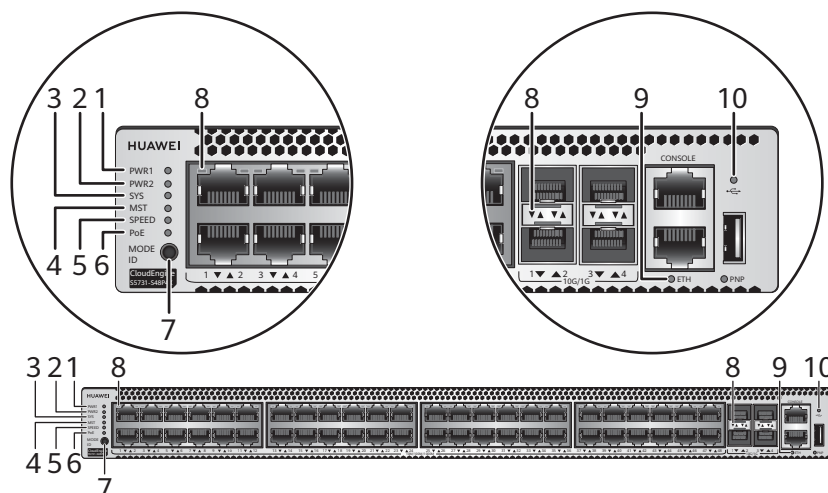


Table 5-1157 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.

No.	Indicator	Name	Color	Status	Description		
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.		
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.		
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p>		
			ID	ID indicator	-	Off	The ID indicator is not used (default state).
					Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-1158 .				
9	ETH	ETH port indicator	-	Off	The ETH port is not connected.		
			Green	Steady on	The ETH port is connected.		

No.	Indicator	Name	Color	Status	Description
			Green	Blinking	The ETH port is sending or receiving data.
10	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-1158 Description of service port indicators in different modes

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	Green	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
		Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
		Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10 Mbit/s or 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Power Supply Configuration

The S5731-S48P4X is a PoE switch. It has two power module slots, each of which can have a 1000 W PoE power module installed. [Table 5-1159](#) lists its power supply configurations.

Table 5-1159 Power supply configurations

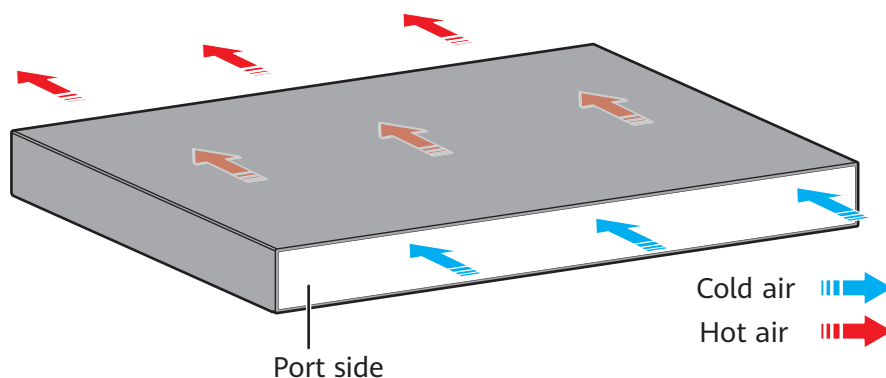
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	-	760 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25
1000 W (110 V)	-	665 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 43 802.3at (30 W per port): 22
1000 W (220 V)	1000 W (220 V)	1600 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W (110 V)	1000 W (110 V)	1330 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 44

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5731-S48P4X uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1160 lists technical specifications of the S5731-S48P4X.

Table 5-1160 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	54.96 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	8.8 kg (19.40 lb)
Stack ports	10GE SFP+ ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none">• AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz• High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none">• AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz• High-Voltage DC input: 190 V DC to 290 V DC

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Not providing the PoE function: 132 W • 100% PoE loads: 1750 W (PoE: 1440 W)
Typical power consumption (30% of traffic load, tested according to ATIS standard)	108 W
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 62.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353AJH

5.24 S5731S-S

5.24.1 S5731S-S24T4X-A

Version Mapping

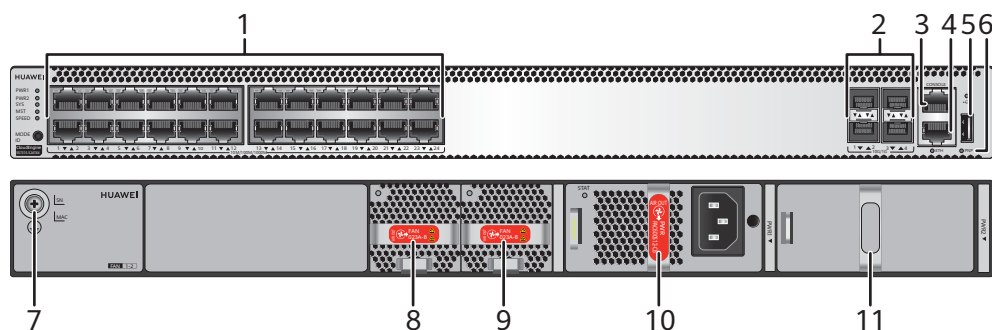
Table 5-1161 lists the mapping between the S5731S-S24T4X-A chassis and software versions.

Table 5-1161 Version mapping

Series	Model	Software Version
S5731S-S	S5731S-S24T4X-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-463 S5731S-S24T4X-A appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
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3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module
9	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions)
11	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1162](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1162 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1163](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1163 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1164](#).

Table 5-1164 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1165](#) describes the attributes of an ETH management port.

Table 5-1165 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

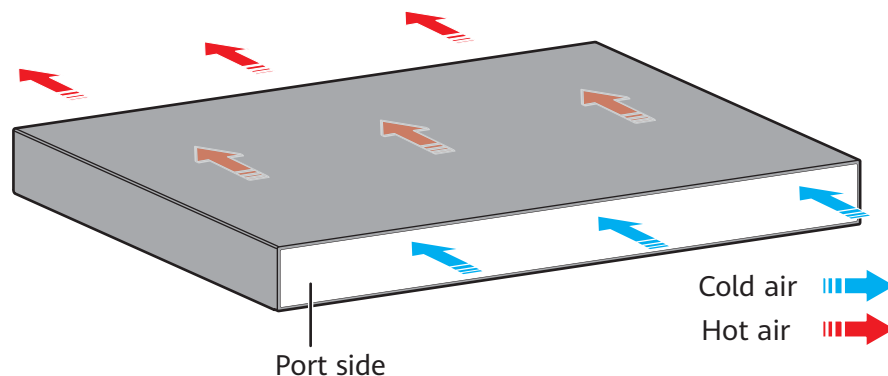
The S5731S-S24T4X-A has similar indicators to those on the S5731S-S48P4X-A except that the S5731S-S24T4X-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5731S-S24T4X-A can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5731S-S24T4X-A uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1166](#) lists technical specifications of the S5731S-S24T4X-A.

Table 5-1166 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	57.73 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999

Item	Description
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	9.35 kg (20.61 lb)
Stack ports	10GE SFP+ ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	114 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	88 W

Item	Description
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02353AHV

5.24.2 S5731S-S24P4X-A

Version Mapping

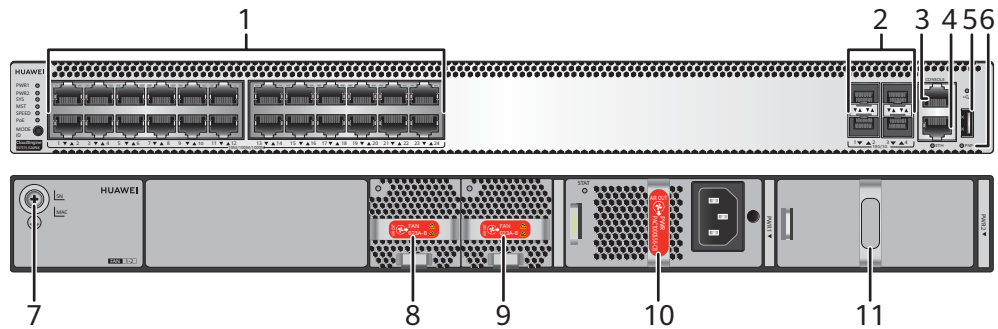
[Table 5-1167](#) lists the mapping between the S5731S-S24P4X-A chassis and software versions.

Table 5-1167 Version mapping

Series	Model	Software Version
S5731S-S	S5731S-S24P4X-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-464 S5731S-S24P4X-A appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	Ground screw NOTE It is used with a ground cable .	8	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module
9	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Power module slot 1 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)
11	Power module slot 2 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1168](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1168 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1169](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1169 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1170](#).

Table 5-1170 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1171](#) describes the attributes of an ETH management port.

Table 5-1171 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5731S-S24P4X-A has the same types of indicators as the S5731S-S48P4X-A. For details, see [Indicator Description](#).

Power Supply Configuration

The S5731S-S24P4X-A is a PoE switch. It has two power module slots, each of which can have a 1000 W PoE power module installed. [Table 5-1172](#) lists its power supply configurations.

Table 5-1172 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	-	760 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 24

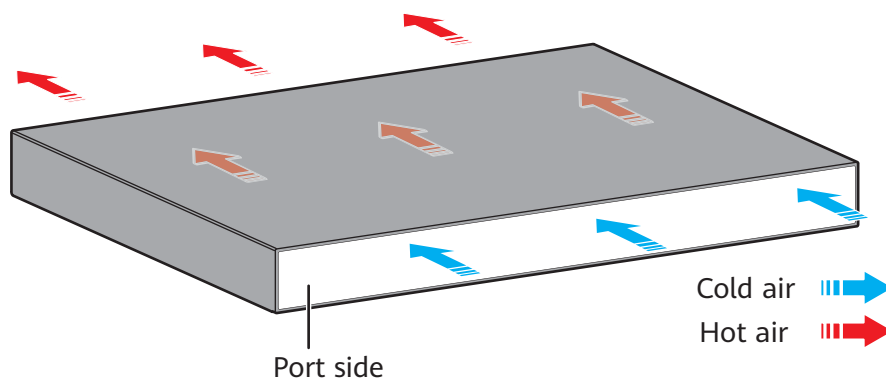
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (110 V)	–	665 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 22
1000 W (220 V)	1000 W (220 V)	1600 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24
1000 W (110 V)	1000 W (110 V)	1330 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5731S-S24P4X-A uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



Technical Specifications

[Table 5-1173](#) lists technical specifications of the S5731S-S24P4X-A.

Table 5-1173 Technical specifications

Item	Description
Memory (RAM)	4 GB

Item	Description
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	57.21 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	9.7 kg (21.38 lb)
Stack ports	10GE SFP+ ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 121 W 100% PoE loads: 977 W (PoE: 720 W)

Item	Description
Typical power consumption (30% of traffic load, tested according to ATIS standard)	95 W
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 62.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353AHY

5.24.3 S5731S-S48T4X-A

Version Mapping

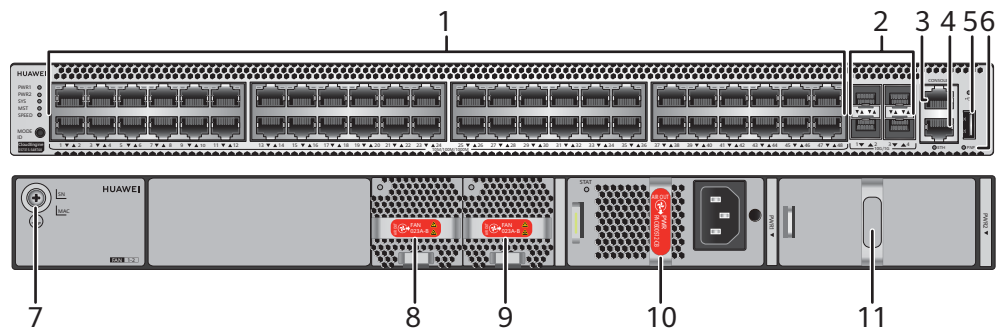
Table 5-1174 lists the mapping between the S5731S-S48T4X-A chassis and software versions.

Table 5-1174 Version mapping

Series	Model	Software Version
S5731S-S	S5731S-S48T4X-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-465 S5731S-S48T4X-A appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	Ground screw NOTE It is used with a ground cable .	8	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module
9	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions)
11	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1175](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1175 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1176](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1176 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1177](#).

Table 5-1177 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. **Table 5-1178** describes the attributes of an ETH management port.

Table 5-1178 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

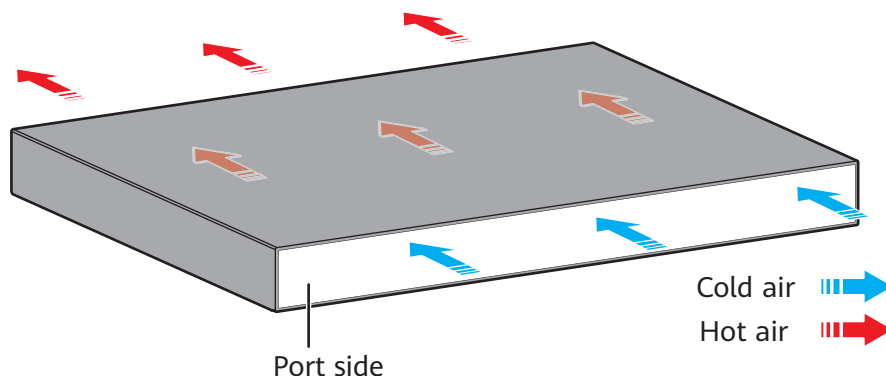
The S5731S-S48T4X-A has similar indicators to those on the S5731S-S48P4X-A except that the S5731S-S48T4X-A does not have a PoE mode indicator. For details, see **Indicator Description**.

Power Supply Configuration

The S5731S-S48T4X-A can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5731S-S48T4X-A uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1179](#) lists technical specifications of the S5731S-S48T4X-A.

Table 5-1179 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	55.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	9.5 kg (20.94 lb)
Stack ports	10GE SFP+ ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • High-Voltage DC input: 240 V DC • DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> • AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz • High-Voltage DC input: 190 V DC to 290 V DC • DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	124 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	101 W
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353AJC

5.24.4 S5731S-S48P4X-A

Version Mapping

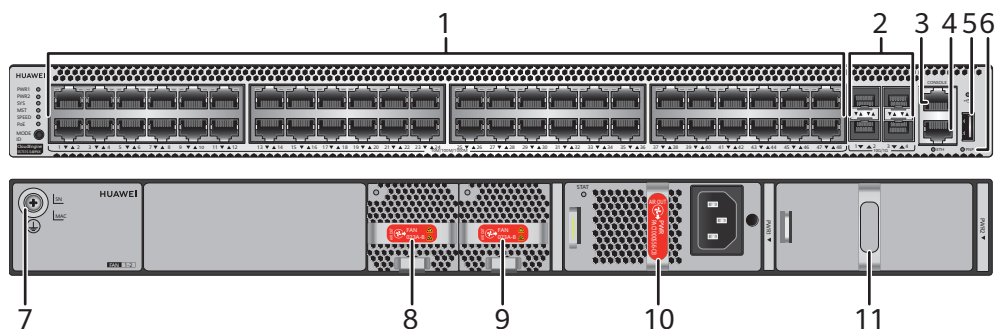
Table 5-1180 lists the mapping between the S5731S-S48P4X-A chassis and software versions.

Table 5-1180 Version mapping

Series	Model	Software Version
S5731S-S	S5731S-S48P4X-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-466 S5731S-S48P4X-A appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module
9	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Power module slot 1 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)

1	Power module slot 2	-	-
1	NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1181](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1181 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1182](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1182 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1183](#).

Table 5-1183 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1184](#) describes the attributes of an ETH management port.

Table 5-1184 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-467 Indicators on the S5731S-S48P4X-A

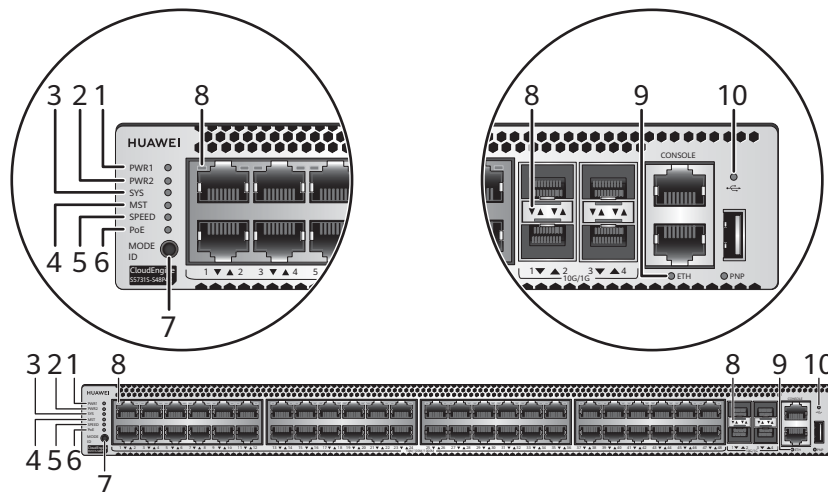


Table 5-1185 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.

No.	Indicator	Name	Color	Status	Description		
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.		
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.		
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p>		
			ID	ID indicator	-	Off	The ID indicator is not used (default state).
					Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-1186 .				
9	ETH	ETH port indicator	-	Off	The ETH port is not connected.		
			Green	Steady on	The ETH port is connected.		

No.	Indicator	Name	Color	Status	Description
			Green	Blinking	The ETH port is sending or receiving data.
10	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-1186 Description of service port indicators in different modes

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	Green	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
		Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
		Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10 Mbit/s or 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Power Supply Configuration

The S5731S-S48P4X-A is a PoE switch. It has two power module slots, each of which can have a 1000 W PoE power module installed. [Table 5-1187](#) lists its power supply configurations.

Table 5-1187 Power supply configurations

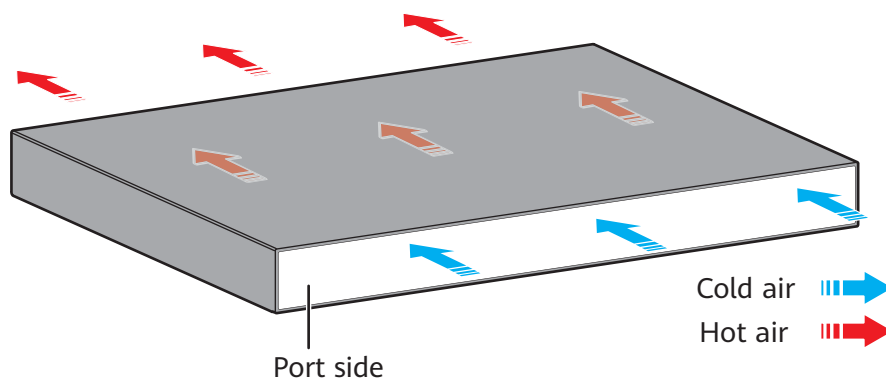
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	-	760 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25
1000 W (110 V)	-	665 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 43 802.3at (30 W per port): 22
1000 W (220 V)	1000 W (220 V)	1600 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W (110 V)	1000 W (110 V)	1330 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 44

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5731S-S48P4X-A uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1188 lists technical specifications of the S5731S-S48P4X-A.

Table 5-1188 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	54.96 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	9.9 kg (21.83 lb)
Stack ports	10GE SFP+ ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">• Not providing the PoE function: 132 W• 100% PoE loads: 1750 W (PoE: 1440 W)
Typical power consumption (30% of traffic load, tested according to ATIS standard)	108 W
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 62.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02353AJJ

5.25 S5731-H

5.25.1 S5731-H24T4XC

Version Mapping

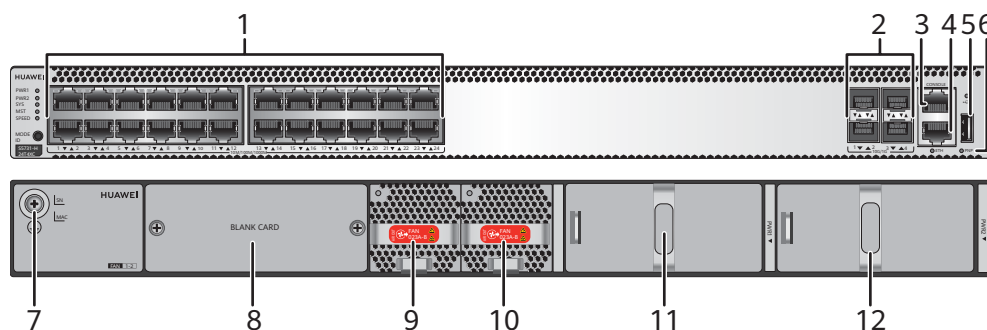
Table 5-1189 lists the mapping between the S5731-H24T4XC chassis and software versions.

Table 5-1189 Version mapping

Series	Model	Software Version
S5731-H	S5731-H24T4XC	V200R013C02 and later versions

Appearance and Structure

Figure 5-468 S5731-H24T4XC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
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3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot NOTE Applicable card: <ul style="list-style-type: none"> • ES5D21X08T00 • ES5D21Q02Q00 • S7X08000 (applicable in V200R019C10 and later versions)
9	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module
11	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions) 	12	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions)

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1190](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1190 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1191](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1191 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1192](#).

Table 5-1192 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1193](#) describes the attributes of an ETH management port.

Table 5-1193 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

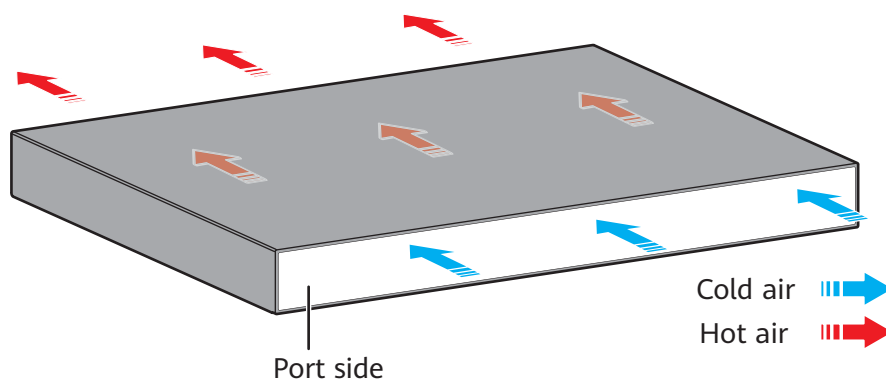
The S5731-H24T4XC has similar indicators to those on the S5731-H48P4XC except that the S5731-H24T4XC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5731-H24T4XC can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5731-H24T4XC uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1194](#) lists technical specifications of the S5731-H24T4XC.

Table 5-1194 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	57.73 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999

Item	Description
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	8.4 kg (18.52 lb)
Stack ports	10GE SFP+ ports on the front panel, or ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	114 W (without card)
Typical power consumption (30% of traffic load, tested according to ATIS standard)	88 W (without card)

Item	Description
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352QPP

5.25.2 S5731-H24P4XC

Version Mapping

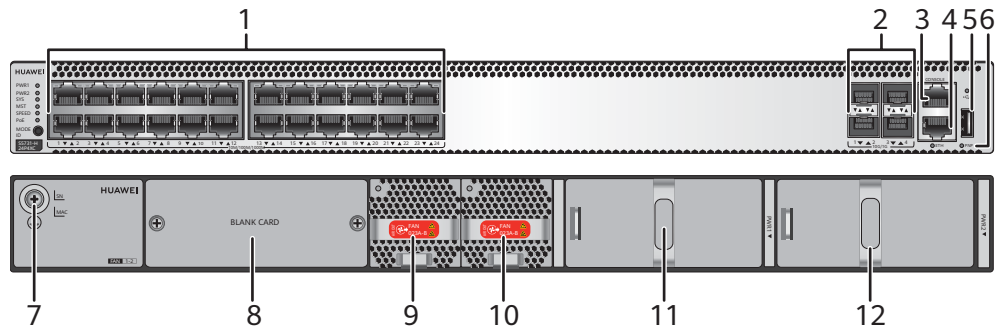
Table 5-1195 lists the mapping between the S5731-H24P4XC chassis and software versions.

Table 5-1195 Version mapping

Series	Model	Software Version
S5731-H	S5731-H24P4XC	V200R013C02 and later versions

Appearance and Structure

Figure 5-469 S5731-H24P4XC appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot NOTE Applicable card: <ul style="list-style-type: none"> • ES5D21X08T00 • ES5D21Q02Q00 • S7X08000 (applicable in V200R019C10 and later versions)
9	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module
11	Power module slot 1 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)	12	Power module slot 2 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1196](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1196 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1197](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1197 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1198](#).

Table 5-1198 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1199](#) describes the attributes of an ETH management port.

Table 5-1199 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5731-H24P4XC has the same types of indicators as the S5731-H48P4XC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5731-H24P4XC is a PoE switch. It has two power module slots, each of which can have a 1000 W PoE power module installed. [Table 5-1200](#) lists its power supply configurations.

Table 5-1200 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	–	760 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 24

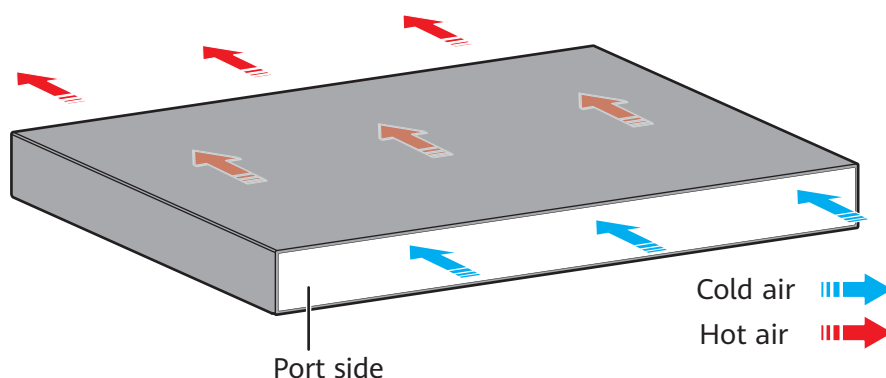
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (110 V)	–	665 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 22
1000 W (220 V)	1000 W (220 V)	1600 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24
1000 W (110 V)	1000 W (110 V)	1330 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5731-H24P4XC uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1201](#) lists technical specifications of the S5731-H24P4XC.

Table 5-1201 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	57.21 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	8.6 kg (18.96 lb)
Stack ports	10GE SFP+ ports on the front panel, or ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 121 W (without card) 100% PoE loads: 977 W (PoE: 720 W, without card)

Item	Description
Typical power consumption (30% of traffic load, tested according to ATIS standard)	95 W (without card)
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 62.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02352QPV

5.25.3 S5731-H48T4XC

Version Mapping

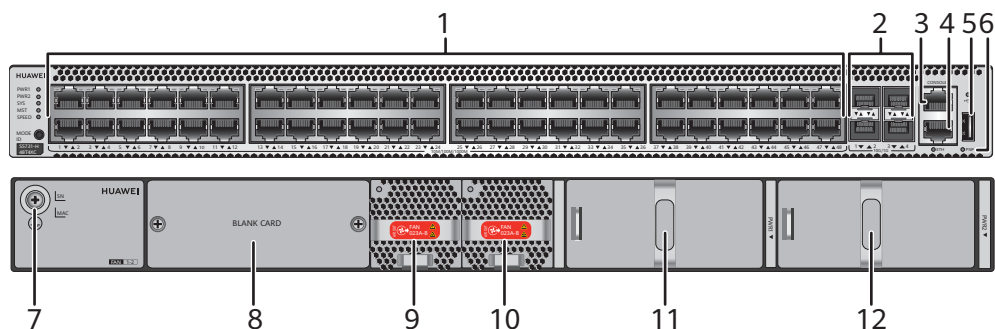
[Table 5-1202](#) lists the mapping between the S5731-H48T4XC chassis and software versions.

Table 5-1202 Version mapping

Series	Model	Software Version
S5731-H	S5731-H48T4XC	V200R013C02 and later versions

Appearance and Structure

Figure 5-470 S5731-H48T4XC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot NOTE Applicable card: <ul style="list-style-type: none"> • ES5D21X08T00 • ES5D21Q02Q00 • S7X08000 (applicable in V200R019C10 and later versions)
9	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module
11	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions) 	12	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions)

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1203](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1203 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1204](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1204 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1205](#).

Table 5-1205 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1206](#) describes the attributes of an ETH management port.

Table 5-1206 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

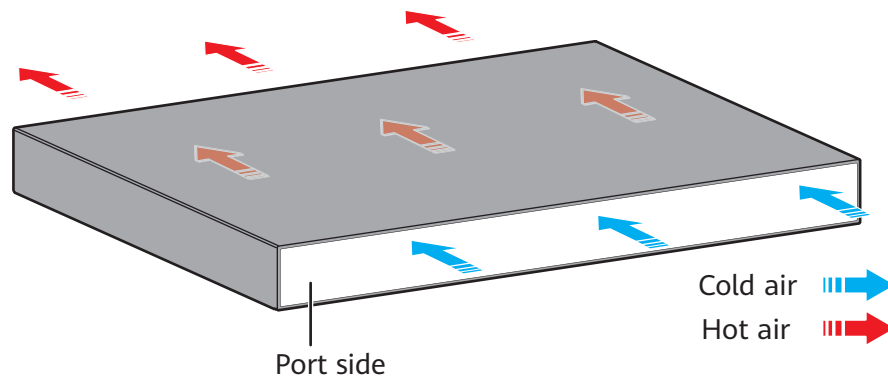
The S5731-H48T4XC has similar indicators to those on the S5731-H48P4XC except that the S5731-H48T4XC does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5731-H48T4XC can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5731-H48T4XC uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1207 lists technical specifications of the S5731-H48T4XC.

Table 5-1207 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	55.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)

Item	Description
Weight (with packaging)	8.55 kg (18.85 lb)
Stack ports	10GE SFP+ ports on the front panel, or ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	124 W (without card)
Typical power consumption (30% of traffic load, tested according to ATIS standard)	101 W (without card)
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02352QPT

5.25.4 S5731-H48P4XC

Version Mapping

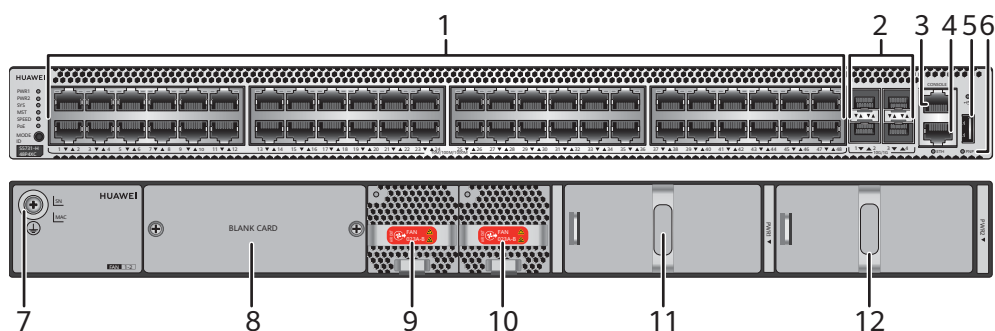
Table 5-1208 lists the mapping between the S5731-H48P4XC chassis and software versions.

Table 5-1208 Version mapping

Series	Model	Software Version
S5731-H	S5731-H48P4XC	V200R013C02 and later versions

Appearance and Structure

Figure 5-471 S5731-H48P4XC appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot NOTE Applicable card: <ul style="list-style-type: none"> • E55D21X08T00 • E55D21Q02Q00 • S7X08000 (applicable in V200R019C10 and later versions)
9	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module

1	Power module slot 1	1	Power module slot 2
1	NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)	2	NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1209](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1209 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1210](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1210 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1211](#).

Table 5-1211 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1212](#) describes the attributes of an ETH management port.

Table 5-1212 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-472 Indicators on the S5731-H48P4XC

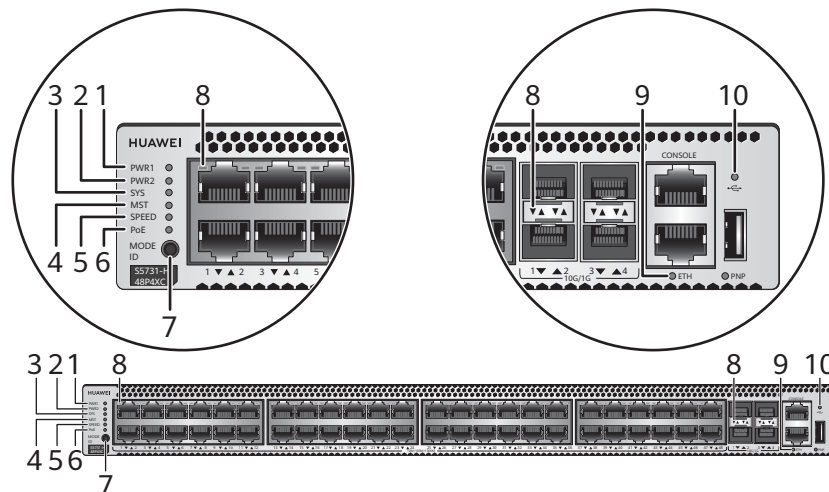


Table 5-1213 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.

No.	Indicator	Name	Color	Status	Description		
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.		
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.		
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p>		
			ID	ID indicator	-	Off	The ID indicator is not used (default state).
					Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-1214 .				
9	ETH	ETH port indicator	-	Off	The ETH port is not connected.		
			Green	Steady on	The ETH port is connected.		

No.	Indicator	Name	Color	Status	Description
			Green	Blinking	The ETH port is sending or receiving data.
10	-	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-1214 Description of service port indicators in different modes

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	Green	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
		Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
		Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	10M/100M/1000M port: The port is operating at 10 Mbit/s or 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Power Supply Configuration

The S5731-H48P4XC is a PoE switch. It has two power module slots, each of which can have a 1000 W PoE power module installed. [Table 5-1215](#) lists its power supply configurations.

Table 5-1215 Power supply configurations

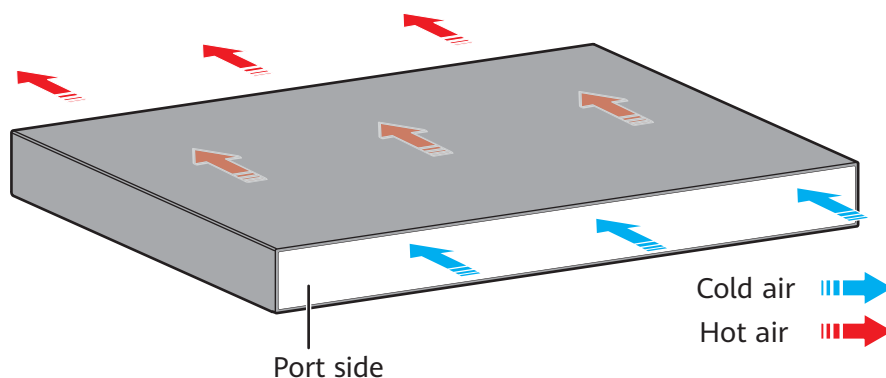
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	-	760 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25
1000 W (110 V)	-	665 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 43 802.3at (30 W per port): 22
1000 W (220 V)	1000 W (220 V)	1600 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W (110 V)	1000 W (110 V)	1330 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 44

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5731-H48P4XC uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1216 lists technical specifications of the S5731-H48P4XC.

Table 5-1216 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	54.96 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	8.8 kg (19.40 lb)
Stack ports	10GE SFP+ ports on the front panel, or ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">• Not providing the PoE function: 132 W (without card)• 100% PoE loads: 1750 W (PoE: 1440 W, without card)
Typical power consumption (30% of traffic load, tested according to ATIS standard)	108 W (without card)
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 62.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	02352SVD

5.25.5 S5731-H48T4XC-B

Version Mapping

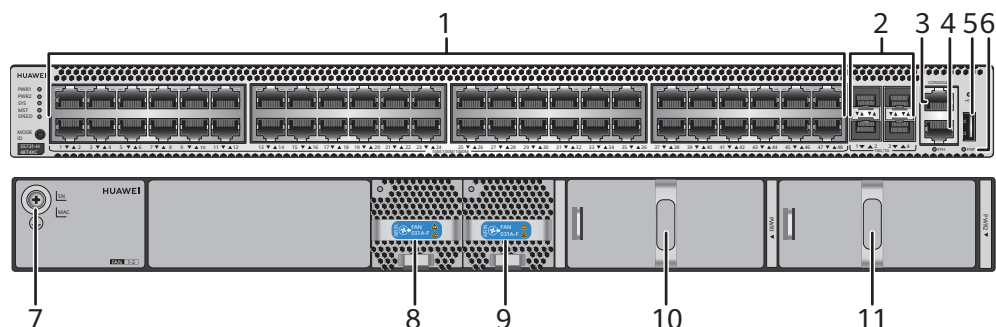
[Table 5-1217](#) lists the mapping between the S5731-H48T4XC-B chassis and software versions.

Table 5-1217 Version mapping

Series	Model	Software Version
S5731-H	S5731-H48T4XC-B	V200R020C00 and later versions

Appearance and Structure

Figure 5-473 S5731-H48T4XC-B appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port

5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Fan module slot 1 NOTE Applicable fan module: 8.7 FAN-031A-F Fan Module
9	Fan module slot 2 NOTE Applicable fan module: 8.7 FAN-031A-F Fan Module	10	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR)
11	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1218](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1218 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1219](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1219 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1220](#).

Table 5-1220 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1221](#) describes the attributes of an ETH management port.

Table 5-1221 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

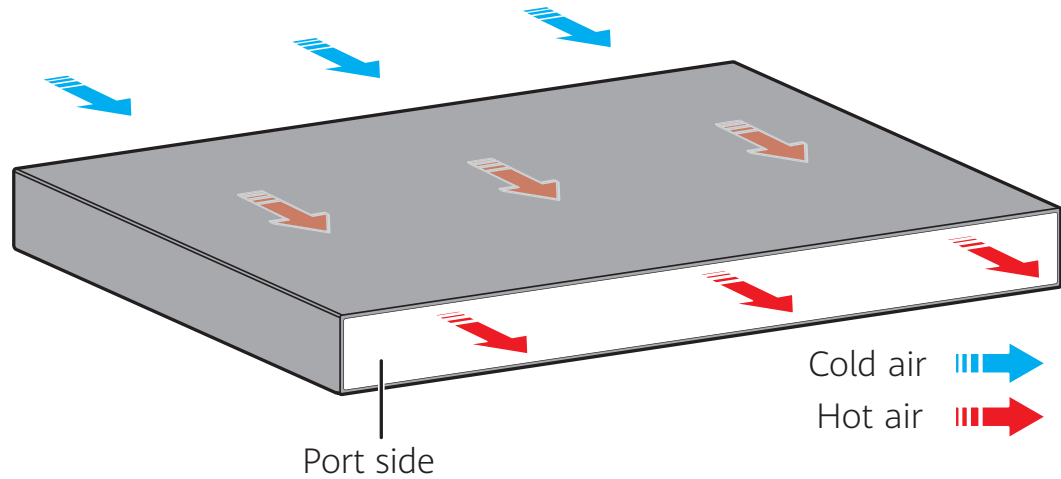
The S5731-H48T4XC-B has similar indicators to those on the S5731-H48P4XC except that the S5731-H48T4XC-B does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5731-H48T4XC-B can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5731-H48T4XC-B uses pluggable fan modules for forced air cooling. Air flows in from the rear panel and exhausts from the front side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1222](#) lists technical specifications of the S5731-H48T4XC-B.

Table 5-1222 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	55.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	8.55 kg (18.85 lb)
Stack ports	10GE SFP+ ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none">AC input: 100 V AC to 240 V AC, 50/60 HzDC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none">AC input: 90 V AC to 290 V AC, 45 Hz to 65 HzDC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	130 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	82.89 W
Operating temperature	-5°C to +40°C (23°F to 104°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 59.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353VAD

5.26 S5731S-H

5.26.1 S5731S-H24T4XC-A

Version Mapping

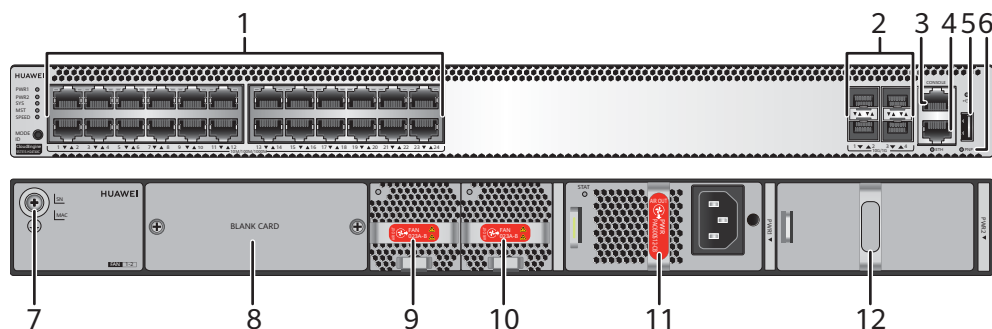
[Table 5-1223](#) lists the mapping between the S5731S-H24T4XC-A chassis and software versions.

Table 5-1223 Version mapping

Series	Model	Software Version
S5731S-H	S5731S-H24T4XC-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-474 S5731S-H24T4XC-A appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot NOTE Applicable card: <ul style="list-style-type: none"> • E55D21X08T00 • E55D21Q02Q00 • S7X08000 (applicable in V200R019C10 and later versions)
9	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module

1	Power module slot 1	1	Power module slot 2
1	<p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions) 	2	<p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions)

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1224](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1224 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1225](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1225 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1226](#).

Table 5-1226 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1227](#) describes the attributes of an ETH management port.

Table 5-1227 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

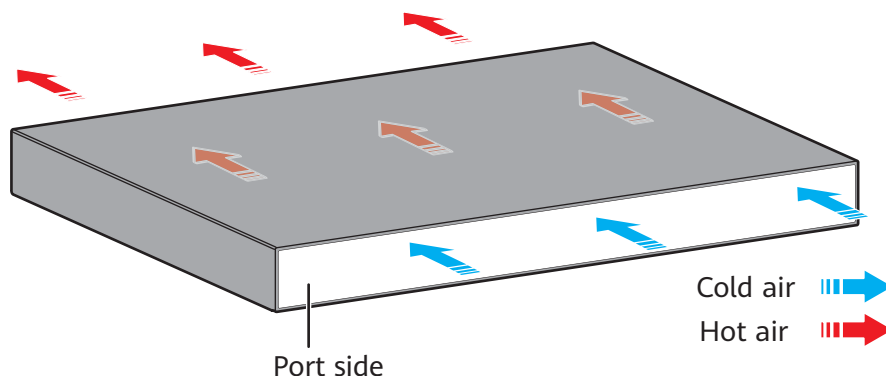
The S5731S-H24T4XC-A has similar indicators to those on the S5731-H48P4XC except that the S5731S-H24T4XC-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5731S-H24T4XC-A can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5731S-H24T4XC-A uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1228](#) lists technical specifications of the S5731S-H24T4XC-A.

Table 5-1228 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	57.73 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	9.35 kg (20.61 lb)
Stack ports	10GE SFP+ ports on the front panel, or ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported

Item	Description
Rated voltage range	<ul style="list-style-type: none">AC input: 100 V AC to 240 V AC, 50/60 HzHigh-Voltage DC input: 240 V DCDC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none">AC input: 90 V AC to 290 V AC, 45 Hz to 65 HzHigh-Voltage DC input: 190 V DC to 290 V DCDC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	114 W (without card)
Typical power consumption (30% of traffic load, tested according to ATIS standard)	88 W (without card)
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">EMC certificationSafety certificationManufacturing certification
Part number	02352YRG

5.26.2 S5731S-H48T4XC-A

Version Mapping

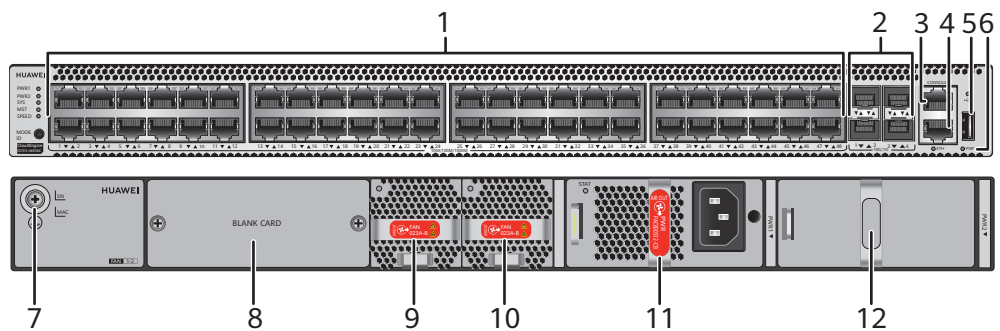
Table 5-1229 lists the mapping between the S5731S-H48T4XC-A chassis and software versions.

Table 5-1229 Version mapping

Series	Model	Software Version
S5731S-H	S5731S-H48T4XC-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-475 S5731S-H48T4XC-A appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot NOTE Applicable card: <ul style="list-style-type: none"> • E55D21X08T00 • E55D21Q02Q00 • S7X08000 (applicable in V200R019C10 and later versions)
9	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module

1	Power module slot 1	1	Power module slot 2
1	<p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions) 	2	<p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions)

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1230](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1230 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1231](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1231 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used

Attribute	Description
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1232](#).

Table 5-1232 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1233](#) describes the attributes of an ETH management port.

Table 5-1233 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

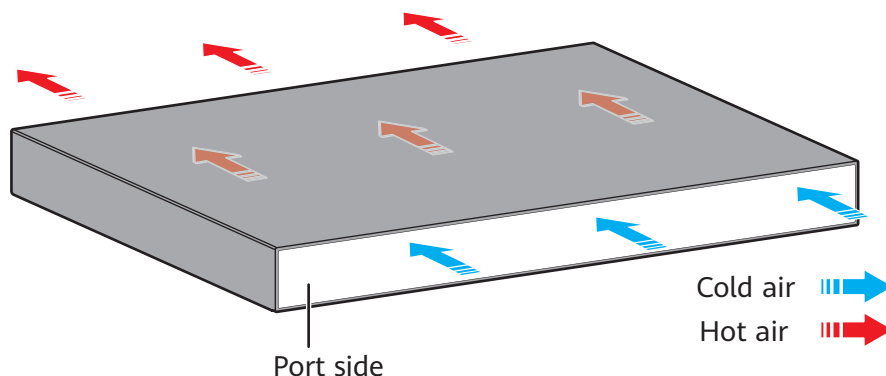
The S5731S-H48T4XC-A has similar indicators to those on the S5731-H48P4XC except that the S5731S-H48T4XC-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5731S-H48T4XC-A can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5731S-H48T4XC-A uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1234](#) lists technical specifications of the S5731S-H48T4XC-A.

Table 5-1234 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	55.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)
Weight (with packaging)	9.5 kg (20.94 lb)
Stack ports	10GE SFP+ ports on the front panel, or ports on the rear card
RTC	Supported
RPS	Not supported
PoE	Not supported

Item	Description
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	124 W (without card)
Typical power consumption (30% of traffic load, tested according to ATIS standard)	101 W (without card)
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02352YRF

5.26.3 S5731S-H24T4S-A

Version Mapping

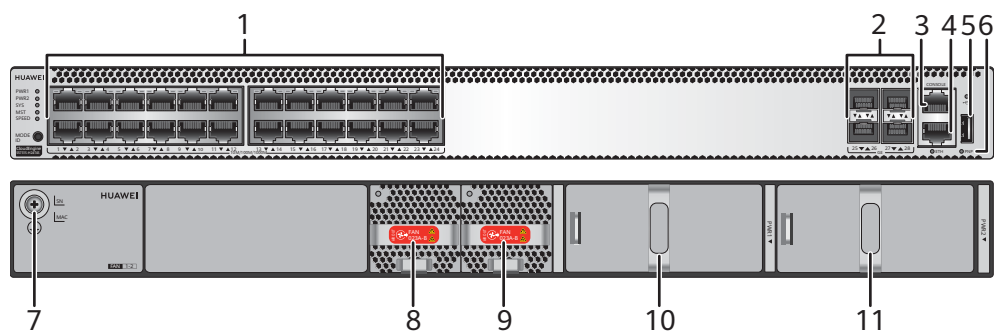
Table 5-1235 lists the mapping between the S5731S-H24T4S-A chassis and software versions.

Table 5-1235 Version mapping

Series	Model	Software Version
S5731S-H	S5731S-H24T4S-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-476 S5731S-H24T4S-A appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only applicable to stack ports, OSXD22N00 not supported) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 3 m and 10 m SFP+ AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module</p>

9	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	1 0	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions)
1 1	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1236](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1236 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-1237](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-1237 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1238](#).

Table 5-1238 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1239](#) describes the attributes of an ETH management port.

Table 5-1239 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

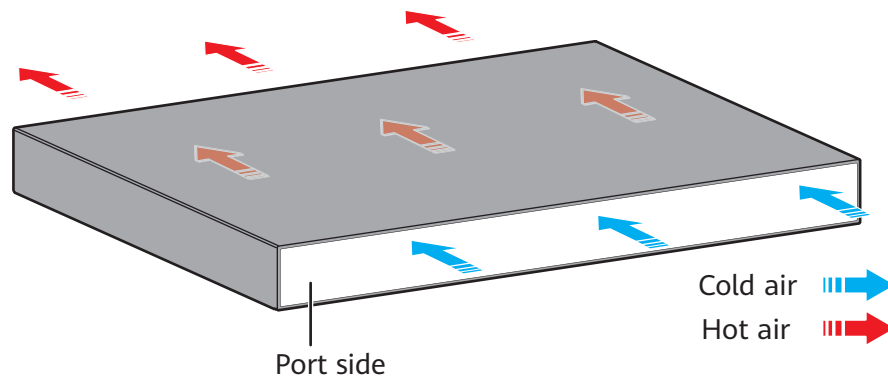
The S5731S-H24T4S-A has similar indicators to those on the S5731-H48P4XC except that the S5731S-H24T4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5731S-H24T4S-A can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5731S-H24T4S-A uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1240 lists technical specifications of the S5731S-H24T4S-A.

Table 5-1240 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	57.73 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)

Item	Description
Weight (with packaging)	9.35 kg (20.61 lb)
Stack ports	1000BASE-X ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none">AC input: 100 V AC to 240 V AC, 50/60 HzHigh-Voltage DC input: 240 V DCDC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none">AC input: 90 V AC to 290 V AC, 45 Hz to 65 HzHigh-Voltage DC input: 190 V DC to 290 V DCDC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	91 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	70 W
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353DJE

5.26.4 S5731S-H48T4S-A

Version Mapping

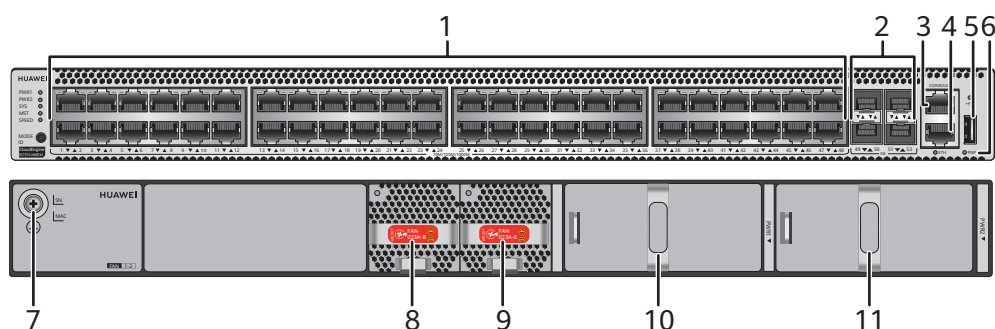
Table 5-1241 lists the mapping between the S5731S-H48T4S-A chassis and software versions.

Table 5-1241 Version mapping

Series	Model	Software Version
S5731S-H	S5731S-H48T4S-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-477 S5731S-H48T4S-A appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only applicable to stack ports, OSXD22N00 not supported) • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables (only applicable to stack ports) • 3 m and 10 m SFP+ AOC cables (only applicable to stack ports) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module</p>

9	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module</p>	1 0	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions)
1 1	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1242](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1242 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-1243](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-1243 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1244](#).

Table 5-1244 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1245](#) describes the attributes of an ETH management port.

Table 5-1245 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

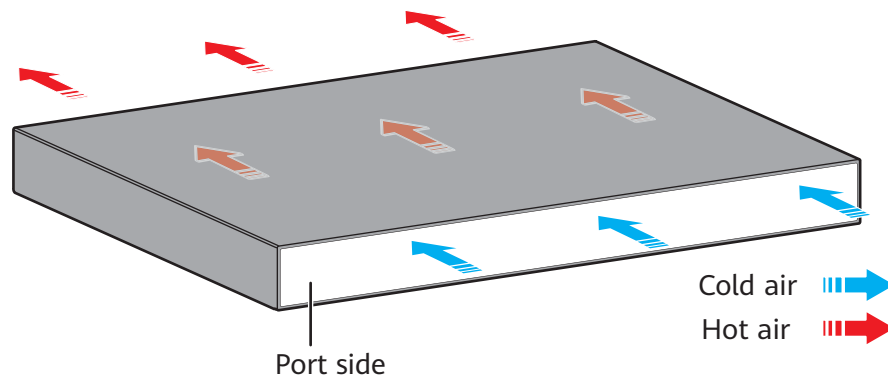
The S5731S-H48T4S-A has similar indicators to those on the S5731-H48P4XC except that the S5731S-H48T4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5731S-H48T4S-A can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5731S-H48T4S-A uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1246](#) lists technical specifications of the S5731S-H48T4S-A.

Table 5-1246 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	55.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)

Item	Description
Weight (with packaging)	9.5 kg (20.94 lb)
Stack ports	1000BASE-X ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	113 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	85 W
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353DJG

5.26.5 S5731S-H24T4X-A

Version Mapping

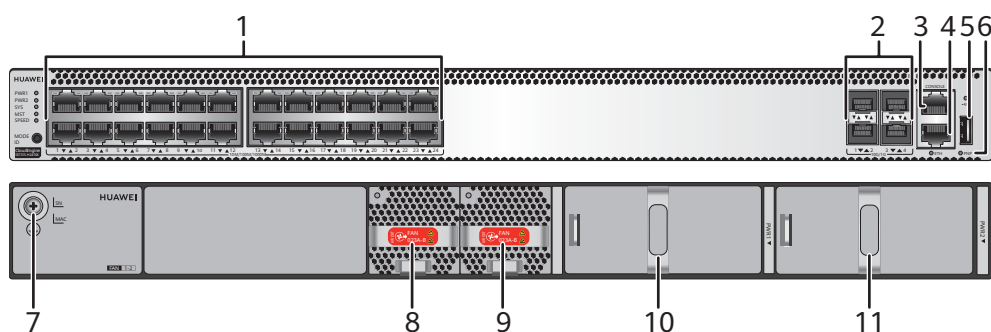
[Table 5-1247](#) lists the mapping between the S5731S-H24T4X-A chassis and software versions.

Table 5-1247 Version mapping

Series	Model	Software Version
S5731S-H	S5731S-H24T4X-A	V200R019C10 and later versions

Appearance and Structure

Figure 5-478 S5731S-H24T4X-A appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module</p>

9	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module</p>	1 0	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions)
1 1	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1248](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1248 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1249](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1249 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1250](#).

Table 5-1250 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1251](#) describes the attributes of an ETH management port.

Table 5-1251 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

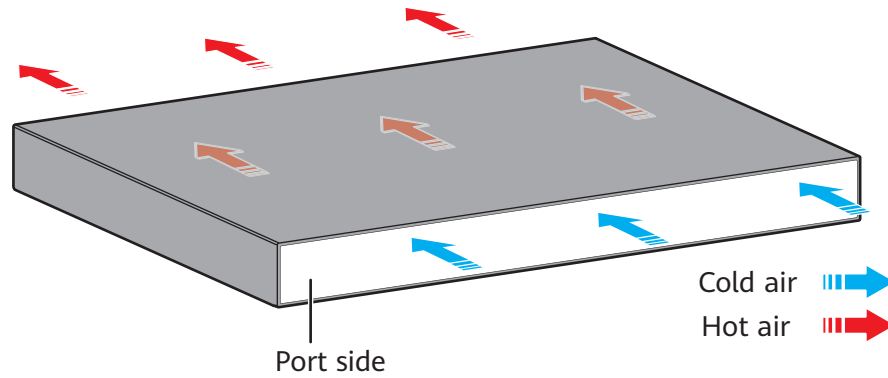
The S5731S-H24T4X-A has similar indicators to those on the S5731-H48P4XC except that the S5731S-H24T4X-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5731S-H24T4X-A can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5731S-H24T4X-A uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1252](#) lists technical specifications of the S5731S-H24T4X-A.

Table 5-1252 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	57.73 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)

Item	Description
Weight (with packaging)	9.35 kg (20.61 lb)
Stack ports	10GE SFP+ ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • High-Voltage DC input: 240 V DC • DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> • AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz • High-Voltage DC input: 190 V DC to 290 V DC • DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	114 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	88 W
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353HVH

5.26.6 S5731S-H48T4X-A

Version Mapping

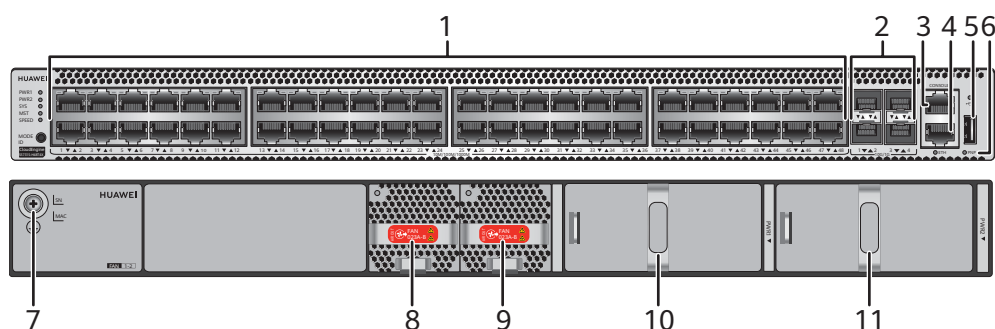
Table 5-1253 lists the mapping between the S5731S-H48T4X-A chassis and software versions.

Table 5-1253 Version mapping

Series	Model	Software Version
S5731S-H	S5731S-H48T4X-A	V200R019C10 and later versions

Appearance and Structure

Figure 5-479 S5731S-H48T4X-A appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module</p>

9	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	1 0	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions)
1 1	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1254](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1254 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1255](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1255 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1256](#).

Table 5-1256 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1257](#) describes the attributes of an ETH management port.

Table 5-1257 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

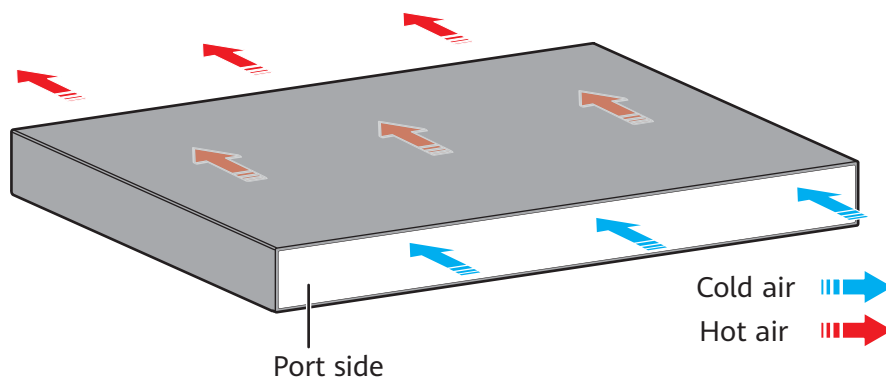
The S5731S-H48T4X-A has similar indicators to those on the S5731-H48P4XC except that the S5731S-H48T4X-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5731S-H48T4X-A can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5731S-H48T4X-A uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1258 lists technical specifications of the S5731S-H48T4X-A.

Table 5-1258 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	1 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	55.31 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 448.0 mm (1.72 in. x 17.4 in. x 17.7 in.)

Item	Description
Weight (with packaging)	9.5 kg (20.94 lb)
Stack ports	10GE SFP+ ports on the front panel
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • High-Voltage DC input: 240 V DC • DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> • AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz • High-Voltage DC input: 190 V DC to 290 V DC • DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	124 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	101 W
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.5 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353HVJ

5.27 S5732-H

5.27.1 S5732-H24S6Q

Version Mapping

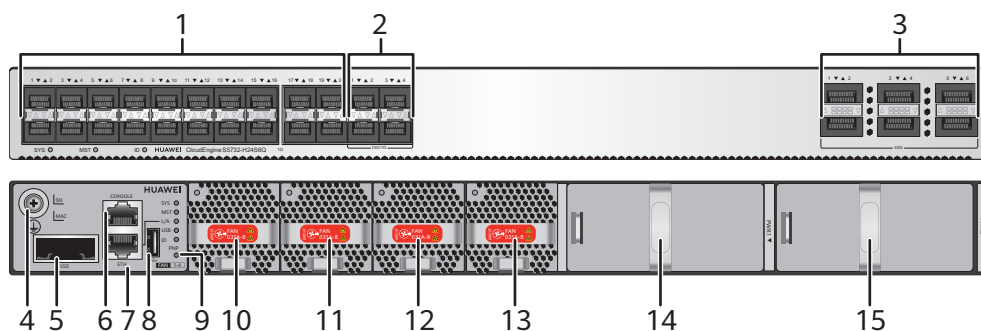
[Table 5-1259](#) lists the mapping between the S5732-H24S6Q chassis and software versions.

Table 5-1259 Version mapping

Series	Model	Software Version
S5732-H	S5732-H24S6Q	V200R019C00 and later versions

Appearance and Structure

Figure 5-480 S5732-H24S6Q appearance



1	Twenty 1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables
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3	<p>Six 40GE/100GE QSFP+ optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module • 1 m, 3 m, and 5 m QSFP+ to QSFP+ high-speed copper cables • 10 m QSFP+ to QSFP+ AOC cable • QSFP28 optical module (supported in V200R020C00 and later versions, with a license loaded) • 1 m QSFP28 to QSFP28 high-speed copper cable (supported in V200R020C00 and later versions, with a license loaded) • 10 m QSFP28 to QSFP28 AOC cable (supported in V200R020C00 and later versions, with a license loaded) <p>NOTE</p> <p>A QSFP+ optical port cannot be split into four 10GE ports, regardless of whether the port uses a QSFP28 or QSFP+ optical module.</p> <p>By default, a QSFP+ optical port is a 40GE port. In V200R020C00 and later versions, a license can be loaded to increase the port rate to 100 Gbit/s. After the license is activated, run the assign port-type 100GE command and restart the switch to configure the port as a 100GE port.</p>	4	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
5	<p>SSD card slot</p> <p>NOTE</p> <p>This slot is reserved for future use.</p>	6	One console port
7	One ETH management port	8	One USB port

9	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	1 0	<p>Fan module slot 1</p> <p>NOTE</p> <p>Applicable fan module: 8.6 FAN-031A-B Fan Module</p>
1 1	<p>Fan module slot 2</p> <p>NOTE</p> <p>Applicable fan module: 8.6 FAN-031A-B Fan Module</p>	1 2	<p>Fan module slot 3</p> <p>NOTE</p> <p>Applicable fan module: 8.6 FAN-031A-B Fan Module</p>
1 3	<p>Fan module slot 4</p> <p>NOTE</p> <p>Applicable fan module: 8.6 FAN-031A-B Fan Module</p>	1 4	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB)
1 5	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) 	-	-

Port Description

1000BASE-X Ethernet Optical Port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-1260](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-1260 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1261](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1261 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

40GE QSFP+ optical port

A 40GE QSFP+ optical port sends and receives service traffic at 40 Gbit/s. [Table 5-1262](#) describes the attributes of a QSFP+ optical port.

Table 5-1262 Attributes of a QSFP+ optical port

Attribute	Description
Connector type	MPO/LC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ba

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1263](#).

Table 5-1263 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1264](#) describes the attributes of an ETH management port.

Table 5-1264 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 5-481 Indicators on the S5732-H24S6Q

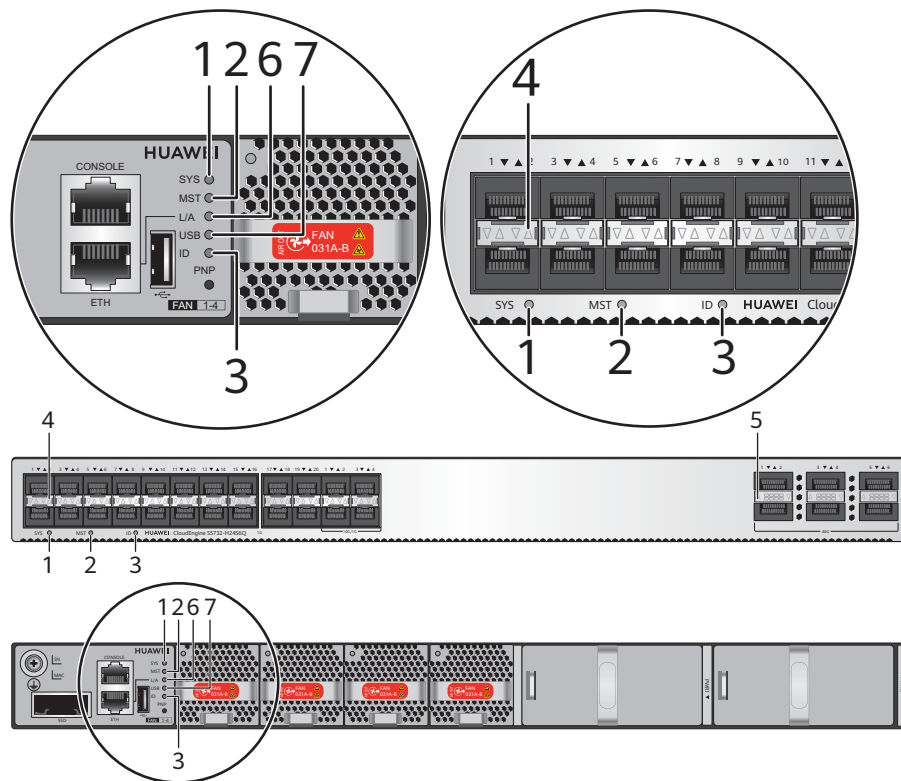


Table 5-1265 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.

No.	Indicator	Name	Color	Status	Description
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
2	MST	Stack indicator	-	Off	The switch is not the master switch in a stack.
			Green	Steady on	The switch is the master switch in a stack or a standalone switch.
3	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
4	-	Service port indicator (GE/10GE optical port)	-	Off	The port is not connected or has been shut down.
			Green	Steady on	A link has been established on the port.
			-	Off	The port is not sending or receiving data.
			Yellow	Blinking	The port is sending or receiving data.
5	-	Service port indicator (40GE/100GE optical port)	-	Off	The port is not connected or has been shut down.
			Green	Steady on	A link has been established on the port.
				Blinking	The port is sending or receiving data.
6	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The Eth port is sending or receiving data.

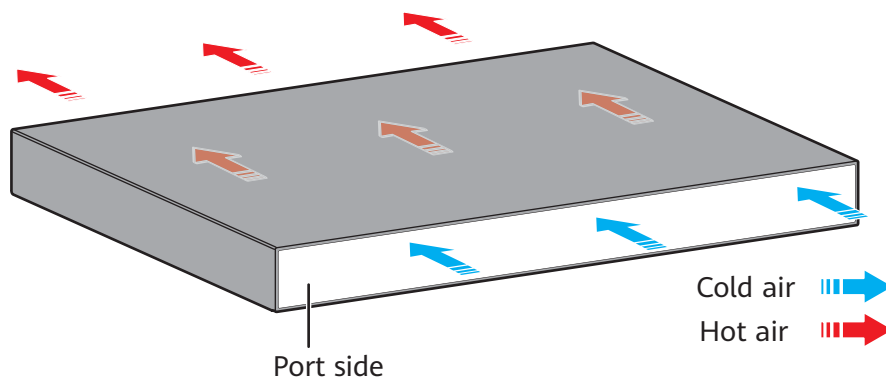
No.	Indicator	Name	Color	Status	Description
7	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Power Supply Configuration

The S5732-H24S6Q can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5732-H24S6Q uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel. Fan modules support 3+1 backup.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1266](#) lists technical specifications of the S5732-H24S6Q.

Table 5-1266 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	2 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	62.27 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	N/A
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 446.0 mm (1.72 in. x 17.4 in. x 17.6 in.)
Weight (with packaging)	8.9 kg (19.62 lb)
Stack ports	Any QSFP+ ports
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC

Item	Description
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	229 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	126 W
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 65 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	02353AJS

5.27.2 S5732-H48S6Q

Version Mapping

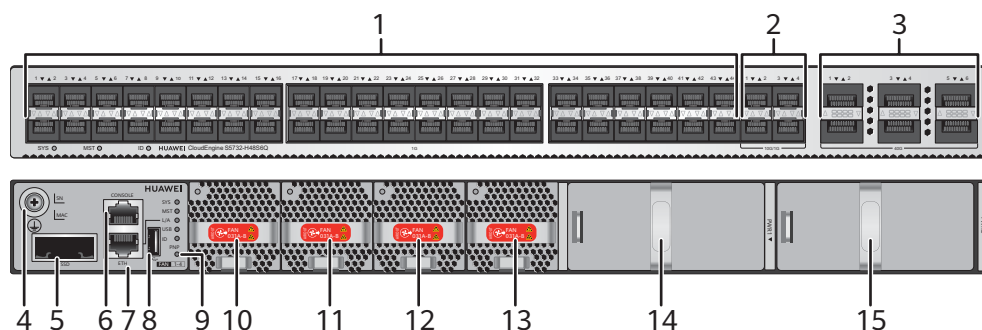
Table 5-1267 lists the mapping between the S5732-H48S6Q chassis and software versions.

Table 5-1267 Version mapping

Series	Model	Software Version
S5732-H	S5732-H48S6Q	V200R019C00 and later versions

Appearance and Structure

Figure 5-482 S5732-H48S6Q appearance



1	<p>Forty-four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables
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3	<p>Six 40GE/100GE QSFP+ optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module • 1 m, 3 m, and 5 m QSFP+ to QSFP+ high-speed copper cables • 10 m QSFP+ to QSFP+ AOC cable • QSFP28 optical module (supported in V200R020C00 and later versions, with a license loaded) • 1 m QSFP28 to QSFP28 high-speed copper cable (supported in V200R020C00 and later versions, with a license loaded) • 10 m QSFP28 to QSFP28 AOC cable (supported in V200R020C00 and later versions, with a license loaded) <p>NOTE</p> <p>A QSFP+ optical port cannot be split into four 10GE ports, regardless of whether the port uses a QSFP28 or QSFP+ optical module.</p> <p>By default, a QSFP+ optical port is a 40GE port. In V200R020C00 and later versions, a license can be loaded to increase the port rate to 100 Gbit/s. After the license is activated, run the assign port-type 100GE command and restart the switch to configure the port as a 100GE port.</p>	4	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
5	<p>SSD card slot</p> <p>NOTE</p> <p>This slot is reserved for future use.</p>	6	One console port
7	One ETH management port	8	One USB port

9	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	1 0	<p>Fan module slot 1</p> <p>NOTE</p> <p>Applicable fan module: 8.6 FAN-031A-B Fan Module</p>
1 1	<p>Fan module slot 2</p> <p>NOTE</p> <p>Applicable fan module: 8.6 FAN-031A-B Fan Module</p>	1 2	<p>Fan module slot 3</p> <p>NOTE</p> <p>Applicable fan module: 8.6 FAN-031A-B Fan Module</p>
1 3	<p>Fan module slot 4</p> <p>NOTE</p> <p>Applicable fan module: 8.6 FAN-031A-B Fan Module</p>	1 4	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB)
1 5	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) 	-	-

Port Description

1000BASE-X Ethernet Optical Port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-1268](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-1268 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1269](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1269 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

40GE QSFP+ optical port

A 40GE QSFP+ optical port sends and receives service traffic at 40 Gbit/s. [Table 5-1270](#) describes the attributes of a QSFP+ optical port.

Table 5-1270 Attributes of a QSFP+ optical port

Attribute	Description
Connector type	MPO/LC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ba

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1271](#).

Table 5-1271 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1272](#) describes the attributes of an ETH management port.

Table 5-1272 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

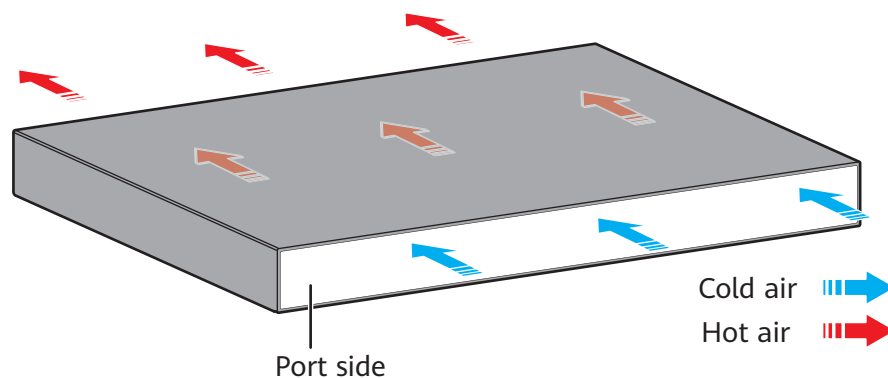
The S5732-H48S6Q has the same types of indicators as the S5732-H24S6Q. For details, see [Indicator Description](#).

Power Supply Configuration

The S5732-H48S6Q can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5732-H48S6Q uses pluggable fan modules for forced air cooling. Air flows in from the front side and exhausts from the rear panel. Fan modules support 3+1 backup.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1273](#) lists technical specifications of the S5732-H48S6Q.

Table 5-1273 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	2 GB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	56.87 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	N/A
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 446.0 mm (1.72 in. x 17.4 in. x 17.6 in.)
Weight (with packaging)	9.2 kg (20.28 lb)
Stack ports	Any QSFP+ ports
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	255 W

Item	Description
Typical power consumption (30% of traffic load, tested according to ATIS standard)	142 W
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 65 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> ● EMC certification ● Safety certification ● Manufacturing certification
Part number	02353AJU

5.27.3 S5732-H24UM2CC

Version Mapping

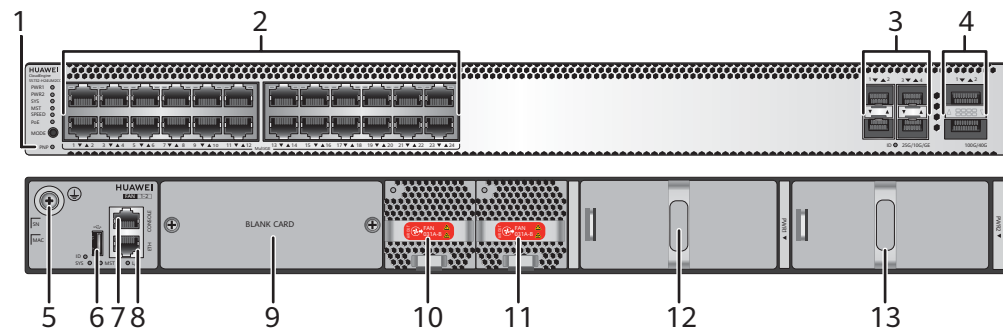
Table 5-1274 lists the mapping between the S5732-H24UM2CC chassis and software versions.

Table 5-1274 Version mapping

Series	Model	Software Version
S5732-H	S5732-H24UM2CC	V200R019C10SPC500 and later versions

Appearance and Structure

Figure 5-483 S5732-H24UM2CC appearance



1	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	2	<p>Twenty-four 100M/1000M/2.5GE/5GE/10GE BASE-T PoE++ ports (multi-GE ports)</p>
3	<p>Four 1GE/10GE/25GE SFP28 optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 25GE SFP28 Optical Module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 1 m, 3 m, and 5 m SFP28 high-speed copper cables • 3 m, 5 m, 7 m, and 10 m SFP28 AOC cables 	4	<p>Two 40GE/100GE QSFP28 optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module • QSFP28 optical module • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables • 10 m QSFP+ AOC cable • 1 m, 3 m, and 5 m QSFP28 high-speed copper cables • 10 m QSFP28 AOC cable <p>NOTE</p> <p>You can run the set device port-config-mode enable command to change the working mode of SFP28 and QSFP28 optical ports. By default, the working mode of SFP28 and QSFP28 optical ports is "4 x 25GE + 2 x 40GE".</p> <p>If any QSFP28 optical port is configured to work at 100 Gbit/s or split into four 25GE ports, the four SFP28 optical ports become unavailable.</p>

5	Ground screw NOTE It is used with a ground cable .	6	One USB port
7	One console port	8	One ETH management port
9	Rear card slot NOTE Applicable card: <ul style="list-style-type: none"> • S7X08000 • S7Y08000 	10	Fan module slot 1 NOTE Applicable fan module: 8.6 FAN-031A-B Fan Module
11	Fan module slot 2 NOTE Applicable fan module: 8.6 FAN-031A-B Fan Module	12	Power module slot 1 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)
13	Power module slot 2 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)	-	-

Port Description

100M/1000M/2.5GE/5GE/10GE BASE-T port (multi-GE port)

A 100M/1000M/2.5GE/5GE/10GE BASE-T port (multi-GE port) sends and receives service data at 100 Mbit/s, 1 Gbit/s, 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s, and must use an [Ethernet cable](#). If the 2.5 Gbit/s or 5 Gbit/s speed is required, the port must use an Ethernet cable of Cat5e or higher category. If the 10 Gbit/s speed is required, the port must use an Ethernet cable of Cat6A F/UTP or higher category. [Table 5-1275](#) describes the attributes of a 100M/1000M/2.5GE/5GE/10GE BASE-T port.

Table 5-1275 Attributes of a 100M/1000M/2.5GE/5GE/10GE BASE-T port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3u, IEEE802.3ab, IEEE802.3bz, IEEE802.3an
Working Mode	100/1000/2500/5000/10000 Mbit/s auto-sensing

There are several S5732-H24UM2CC bundles, which consist of different power supplies and ports, as listed in [Table 5-1276](#).

Table 5-1276 S5732-H24UM2CC bundles

Part Number	Description	Remarks
02353HUC	S5732-H24UM2CC Premium(24*100M/1G/2.5G/5G/10G Ethernet ports, 4*25GE SFP28 + 2*40GE or 2*100GE QSFP28 ports, 1*expansion slot, PoE++, without power module)	By default, no power supply is configured. By default, multi-GE ports support 100 Mbit/s, 1000 Mbit/s, 2.5 Gbit/s, 5 Gbit/s, and 10 Gbit/s.
02353SJY	S5732-H24UM2CC Base(24*100M/1G Ethernet ports, Optional RTU upgrade to 2.5/5/10G, 4*25GE SFP28 + 2*40GE or 2*100GE QSFP28 ports, 1*expansion slot, PoE++, without power module)	By default, no power supply is configured. By default, multi-GE ports support 100 Mbit/s and 1000 Mbit/s. You can purchase an RTU license to increase the port rate to 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s.
02353SJY-001	S5732-H24UM2CC 2.5&10G Bundle(12*100M/1G/2.5G, 12*100M/1G/2.5G/5G/10G Ethernet ports, Optional RTU upgrade to 5/10G, 4*25GE + 2*40GE or 2*100GE, 1*expansion slot, PoE++, 1*1000W AC power)	By default, one 1000 W AC power module is configured. By default, the first 12 multi-GE ports support 100 Mbit/s, 1000 Mbit/s, and 2.5 Gbit/s. You can purchase an RTU license to increase the port rate to 5 Gbit/s or 10 Gbit/s. By default, the last 12 multi-GE ports support 100 Mbit/s, 1000 Mbit/s, 2.5 Gbit/s, 5 Gbit/s, and 10 Gbit/s. There is a label on the rear side of the device, which contains the default rate "12*2.5GE +12*10GE" supported by the multi-GE ports.

Part Number	Description	Remarks
02353SJY-004	S5732-H24UM2CC 10G Bundle(24*100M/1G/2.5G/5G/10G Ethernet ports, 4*25GE SFP28 + 2*40GE or 2*100GE QSFP28 ports, 1*expansion slot, PoE++, 1*1000W AC power)	<p>By default, one 1000 W AC power module is configured.</p> <p>By default, multi-GE ports support 100 Mbit/s, 1000 Mbit/s, 2.5 Gbit/s, 5 Gbit/s, and 10 Gbit/s.</p> <p>There is a label on the rear side of the device, which contains the default rate "24*10GE" supported by the multi-GE ports.</p>

NOTE

A pre-configured or loaded RTU (right to use) license of a device is bound to the device ESN and cannot be unbound or transferred to other devices.

For details about the RTU licenses supported by the device and how to load them, see the *License Usage Guide*.

A switch with part number 02353SJY-001 is as an example. The switch has a label on its real panel, which shows the default rate of multi-GE ports on the switch.

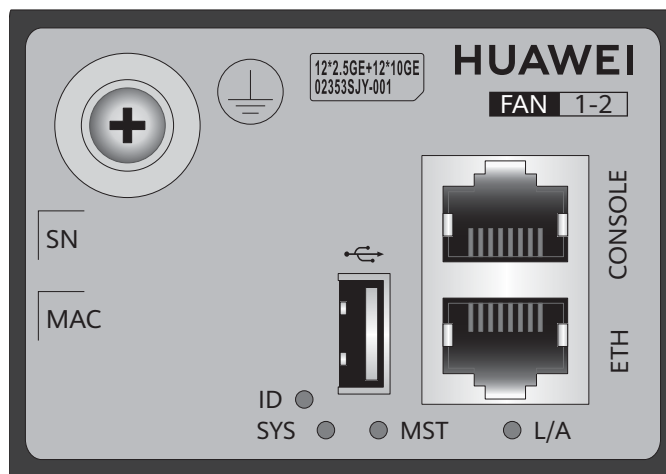


Table 5-1277 lists the maximum transmission distances of different cables on multi-GE ports.

Table 5-1277 Maximum transmission distances of different cables on multi-GE ports

Cable Type (6-a-1 Bundle)	Multi-GE Port (Different Rates)			
	100M/1000M	2.5GE	5GE	10GE
Category 5e unshielded twisted pair (Cat5e UTP)	100 m	100 m	<ul style="list-style-type: none"> • 55 m • 100 m (6-a-1 bundle only for the first 30 m) Not recommended due to high risk	Not supported
Category 5e shielded twisted pair (Cat5e STP)	100 m	100 m	100 m	Not supported
Category 6 unshielded twisted pair (Cat6 UTP)	100 m	100 m	100 m Not recommended due to high risk	Not supported
Category 6 shielded twisted pair (Cat6 STP)	100 m	100 m	100 m	Not supported
Category 6A unshielded twisted pair (Cat6A U/UTP)	100 m	100 m	100 m Not recommended due to high risk	Not supported
Category 6A foiled/unshielded twisted pair (Cat6A F/UTP)	100 m	100 m	100 m	100 m
Category 6A shielded twisted pair (Cat6A STP)	100 m	100 m	100 m	100 m
Category 7 twisted pair (Cat7)	100 m	100 m	100 m	100 m

 NOTE

6-a-1 stands for the six-around-one cable bundle mode, with one cable in the center and six cables bundled evenly around it.

Some cables pose high risks and are not recommended for the following reasons:

- 802.3bz requires that the ALSNR value for alien crosstalk between Ethernet cables be greater than 0, but the standards for Cat5e and Cat6 unshielded twisted pairs do not specify the required ALSNR value. Therefore, such cables may not meet the crosstalk requirement in 802.3bz, causing severe problems such as continuous packet loss.
- According the cabling specification TIA TSB-5021, using Cat5e and Cat6 cables for 5G poses high risks.
- Currently, no clear onsite testing or evaluation method is available for checking whether ALSNR of cables conforms to 802.3bz.

If Cat5e and Cat6 unshielded twisted pairs do not meet the 5G requirement, you are advised to replace them with shielded twisted pairs or reduce the rate of ports to 2.5G.

1GE/10GE/25GE SFP28 optical port

A 1GE/10GE/25GE SFP28 optical port sends and receives service data at 1 Gbit/s, 10 Gbit/s, or 25 Gbit/s. [Table 5-1278](#) describes the attributes of a 1GE/10GE/25GE SFP28 optical port.

Table 5-1278 Attributes of a 1GE/10GE/25GE SFP28 optical port

Attribute	Description
Connector Type	LC/PC
Optical port attributes	Depending on the optical module or cable in use
Standards compliance	IEEE802.3z, IEEE802.3ae, and IEEE802.3by
Working mode	<ul style="list-style-type: none">• When a 25GE optical module or cable is connected to a port, the port can automatically adjust its rate to 25 Gbit/s.• When a 10GE optical module or cable is connected to a port, the port can automatically adjust its rate to 10 Gbit/s.• Before installing a GE optical module or copper module on a port, run the port mode ge command to configure the port to work at 1 Gbit/s.

40GE/100GE QSFP28 optical port

A 40GE/100GE QSFP28 optical port sends and receives service traffic at 40 Gbit/s or 100 Gbit/s. [Table 5-1279](#) describes the attributes of a QSFP28 optical port.

Table 5-1279 Attributes of a QSFP28 optical port

Attribute	Description
Connector type	MPO/LC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ba

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1280](#).

Table 5-1280 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1281](#) describes the attributes of an ETH management port.

Table 5-1281 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3

Attribute	Description
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-484 Indicators on the S5732-H24UM2CC

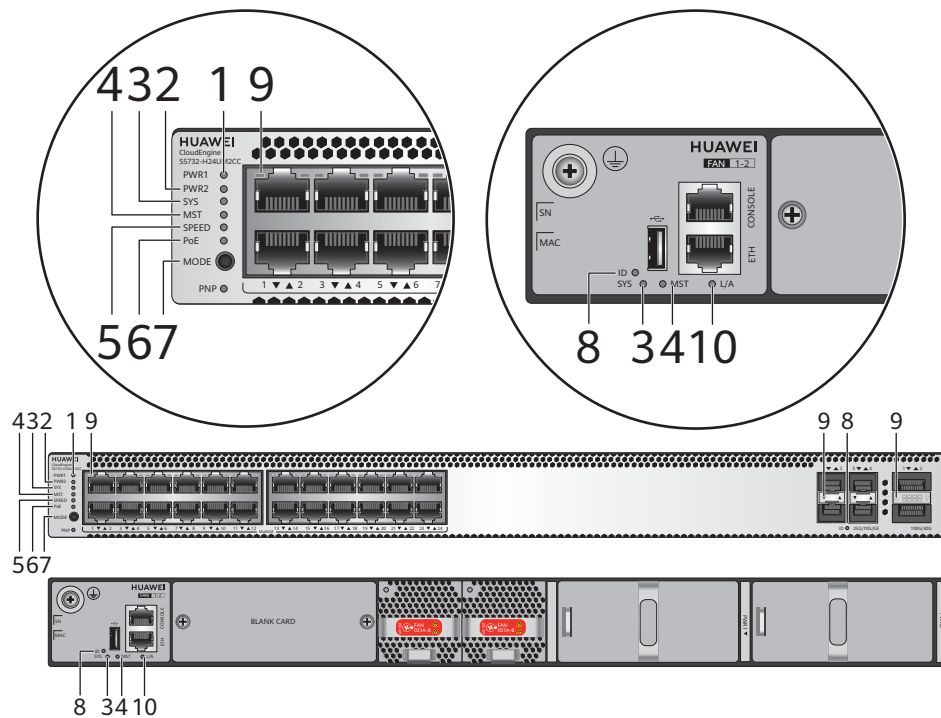


Table 5-1282 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.

No.	Indicator	Name	Color	Status	Description
			Red	Steady on	The switch has two power modules installed. An unsupported power module is installed in power module slot 1. NOTE Only the S5732-H48XUM2CC has this indicator status.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
			Red	Steady on	The switch has two power modules installed. An unsupported power module is installed in power module slot 2. NOTE Only the S5732-H48XUM2CC has this indicator status.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.

No.	Indicator	Name	Color	Status	Description
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore the status mode.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p>
8	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
9	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-1283 .		
10	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.

Table 5-1283 Description of service port indicators in different modes

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
	Yellow	Blinking	The port is sending or receiving data. NOTE Only the S5732-H48XUM2CC has this indicator status.
	Yellow	Steady on	The port is supplying PoE power remotely and is not transmitting data. NOTE This port status is supported by the multi-GE ports on the S5732-H48XUM2CC.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.

Display Mode	Color	Status	Description
	Green	Steady on	<ul style="list-style-type: none"> 100M/1000M/2.5GE/5GE/10GE BASE-T port: The port is operating at 100 Mbit/s or 1000 Mbit/s. 1GE/10GE/25GE SFP28 port: The port is operating at 1 Gbit/s or 10 Gbit/s. 40GE/100GE QSFP28 port: The port is operating at 40 Gbit/s.
	Green and yellow	Steady on	1GE/10GE SFP+ port: The port is operating at 1 Gbit/s. NOTE Only the S5732-H48XUM2CC has this indicator status.
	Green	Blinking	<ul style="list-style-type: none"> 100M/1000M/2.5GE/5GE/10GE BASE-T port: The port is operating at 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s. 1GE/10GE/25GE SFP28 port: The port is operating at 25 Gbit/s. 40GE/100GE QSFP28 port: The port is operating at 100 Gbit/s.
	Green and yellow	Blinking	1GE/10GE SFP+ port: The port is operating at 10 Gbit/s. NOTE Only the S5732-H48XUM2CC has this indicator status.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).

Display Mode	Color	Status	Description
	Green and yellow	Blinking green and yellow alternately	<p>The port fails to supply power to a PD due to one of the following reasons:</p> <ul style="list-style-type: none"> • The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. • The total power consumption of PDs has reached the maximum power of the switch. • The manual power management mode is used and the port is not enabled to provide power to the PD.

Power Supply Configuration

The S5732-H24UM2CC is a PoE switch. It has two power module slots, each of which can have a 1000 W PoE power module installed. [Table 5-1284](#) lists its power supply configurations.

Table 5-1284 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	-	675 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 22 • 802.3bt (60 W per port): 11
1000 W (110 V)	-	580 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 19 • 802.3bt (60 W per port): 9
1000 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 24

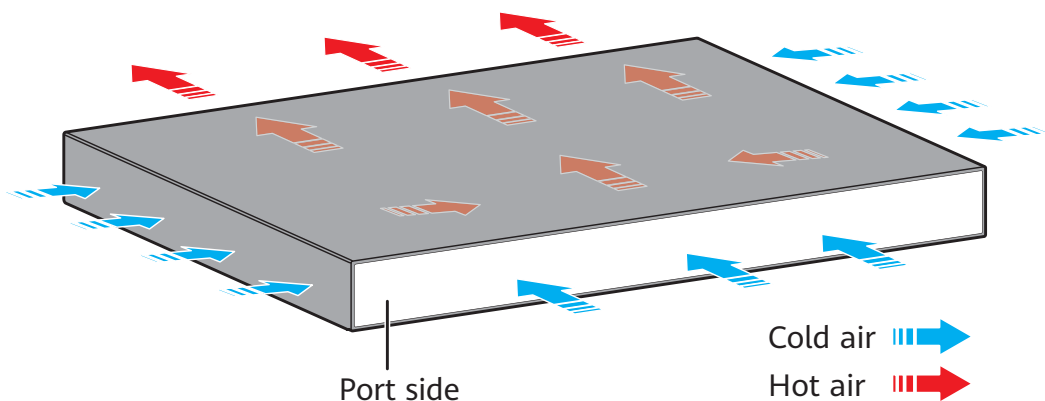
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (110 V)	1000 W (110 V)	1435 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 23

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5732-H24UM2CC uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1285](#) lists technical specifications of the S5732-H24UM2CC.

Table 5-1285 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	2 GB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	38.05 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 446.0 mm (1.72 in. x 17.4 in. x 17.6 in.)
Weight (including package)	8 kg (17.64 lb)
Stack ports	Any Ethernet electrical port (10GE) or optical port (10GE/25GE/40GE/100GE)
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 285 W (without card) 100% PoE loads: 1933 W (PoE: 1440 W, without card)

Item	Description
Typical power consumption (30% of traffic load, tested according to ATIS standard)	161 W (without card)
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 59.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> ● EMC certification ● Safety certification ● Manufacturing certification
Part number	<ul style="list-style-type: none"> ● 02353HUC ● 02353SJY ● 02353SJY-001 ● 02353SJY-004

5.27.4 S5732-H48UM2CC

Version Mapping

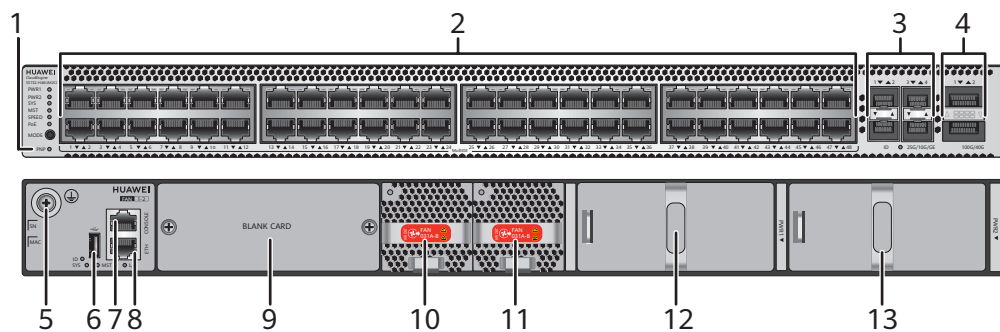
[Table 5-1286](#) lists the mapping between the S5732-H48UM2CC chassis and software versions.

Table 5-1286 Version mapping

Series	Model	Software Version
S5732-H	S5732-H48UM2CC	V200R019C10SPC500 and later versions

Appearance and Structure

Figure 5-485 S5732-H48UM2CC appearance



1	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	2	<p>Forty-eight 100M/1000M/2.5GE/5GE/10GE BASE-T PoE++ ports (multi-GE ports)</p>
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3	<p>Four 1GE/10GE/25GE SFP28 optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 25GE SFP28 Optical Module • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 1 m, 3 m, and 5 m SFP28 high-speed copper cables • 3 m, 5 m, 7 m, and 10 m SFP28 AOC cables 	4	<p>Two 40GE/100GE QSFP28 optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module • QSFP28 optical module • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables • 10 m QSFP+ AOC cable • 1 m, 3 m, and 5 m QSFP28 high-speed copper cables • 10 m QSFP28 AOC cable <p>NOTE</p> <p>You can run the set device port-config-mode enable command to change the working mode of SFP28 and QSFP28 optical ports. By default, the working mode of SFP28 and QSFP28 optical ports is "4 x 25GE + 2 x 40GE".</p> <p>If any QSFP28 optical port is configured to work at 100 Gbit/s or split into four 25GE ports, the four SFP28 optical ports become unavailable.</p>
5	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	6	<p>One USB port</p>
7	<p>One console port</p>	8	<p>One ETH management port</p>
9	<p>Rear card slot</p> <p>NOTE Applicable card:</p> <ul style="list-style-type: none"> • S7X08000 • S7Y08000 	10	<p>Fan module slot 1</p> <p>NOTE Applicable fan module: 8.6 FAN-031A-B Fan Module</p>
11	<p>Fan module slot 2</p> <p>NOTE Applicable fan module: 8.6 FAN-031A-B Fan Module</p>	12	<p>Power module slot 1</p> <p>NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)</p>

1	Power module slot 2	-	-
3	NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)		

Port Description

100M/1000M/2.5GE/5GE/10GE BASE-T port (multi-GE port)

A 100M/1000M/2.5GE/5GE/10GE BASE-T port (multi-GE port) sends and receives service data at 100 Mbit/s, 1 Gbit/s, 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s, and must use an **Ethernet cable**. If the 2.5 Gbit/s or 5 Gbit/s speed is required, the port must use an Ethernet cable of Cat5e or higher category. If the 10 Gbit/s speed is required, the port must use an Ethernet cable of Cat6A F/UTP or higher category. [Table 5-1287](#) describes the attributes of a 100M/1000M/2.5GE/5GE/10GE BASE-T port.

Table 5-1287 Attributes of a 100M/1000M/2.5GE/5GE/10GE BASE-T port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3u, IEEE802.3ab, IEEE802.3bz, IEEE802.3an
Working Mode	100/1000/2500/5000/10000 Mbit/s auto-sensing

There are several S5732-H48UM2CC bundles, which consists of different power supplies and ports, as listed in [Table 5-1288](#).

Table 5-1288 S5732-H48UM2CC bundles

Part Number	Description	Remarks
02353HUB	S5732-H48UM2CC Premium(48*100M/1G/2.5G/5G/10G Ethernet ports, 4*25GE SFP28 + 2*40GE ports or 2*100GE QSFP28 ports, 1*expansion slot, PoE++, without power module)	By default, no power supply is configured. By default, multi-GE ports support 100 Mbit/s, 1000 Mbit/s, 2.5 Gbit/s, 5 Gbit/s, and 10 Gbit/s.

Part Number	Description	Remarks
02353SJT	S5732-H48UM2CC Base(48*100M/1G Ethernet ports,Optional RTU upgrade to 2.5/5/10G, 4*25GE SFP28 + 2*40GE or 2*100GE QSFP28 ports, 1*expansion slot, PoE++, without power module)	<p>By default, no power supply is configured.</p> <p>By default, multi-GE ports support 100 Mbit/s and 1000 Mbit/s. You can purchase an RTU license to increase the port rate to 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s.</p>
02353SJT-001	S5732-H48UM2CC 2.5&10G Bundle(36*100M/1G/2.5G, 12*100M/1G/2.5G/5G/10G Ethernet ports, Optional RTU upgrade to 5/10G, 4*25GE + 2*40GE or 2*100GE, 1*expansion slot, PoE++, 1*1000W AC power)	<p>By default, one 1000 W AC power module is configured.</p> <p>By default, the first 36 multi-GE ports support 100 Mbit/s, 1000 Mbit/s, and 2.5 Gbit/s. You can purchase an RTU license to increase the port rate to 5 Gbit/s or 10 Gbit/s.</p> <p>By default, the last 12 multi-GE ports support 100 Mbit/s, 1000 Mbit/s, 2.5 Gbit/s, 5 Gbit/s, and 10 Gbit/s.</p> <p>There is a label on the rear side of the device, which contains the default rate "36*2.5GE +12*10GE" supported by the multi-GE ports.</p>
02353SJT-003	S5732-H48UM2CC 5G Bundle(48*100M/1G/2.5G/5G Ethernet ports, Optional RTU upgrade to 10G, 4*25GE SFP28 + 2*40GE or 2*100GE QSFP28 ports, 1*expansion slot, PoE++, 1*1000W AC power)	<p>By default, one 1000 W AC power module is configured.</p> <p>By default, multi-GE ports support 100 Mbit/s, 1000 Mbit/s, 2.5 Gbit/s, and 5 Gbit/s. You can purchase an RTU license to increase the port rate to 10 Gbit/s.</p> <p>There is a label on the rear side of the device, which contains the default rate "48*5GE" supported by the multi-GE ports.</p>

Part Number	Description	Remarks
02353SJT-004	S5732-H48UM2CC 10G Bundle(48*100M/1G/2.5G/5G/10G Ethernet ports, 4*25GE SFP28 + 2*40GE or 2*100GE QSFP28 ports, 1*expansion slot, PoE++, 1*1000W AC power)	<p>By default, one 1000 W AC power module is configured.</p> <p>By default, multi-GE ports support 100 Mbit/s, 1000 Mbit/s, 2.5 Gbit/s, 5 Gbit/s, and 10 Gbit/s.</p> <p>There is a label on the rear side of the device, which contains the default rate "48*10GE" supported by the multi-GE ports.</p>

NOTE

A pre-configured or loaded RTU (right to use) license of a device is bound to the device ESN and cannot be unbound or transferred to other devices.

For details about the RTU licenses supported by the device and how to load them, see the *License Usage Guide*.

A switch with part number 02353SJT-003 is as an example. The switch has a label on its rear panel, which shows the default rate of multi-GE ports on the switch.

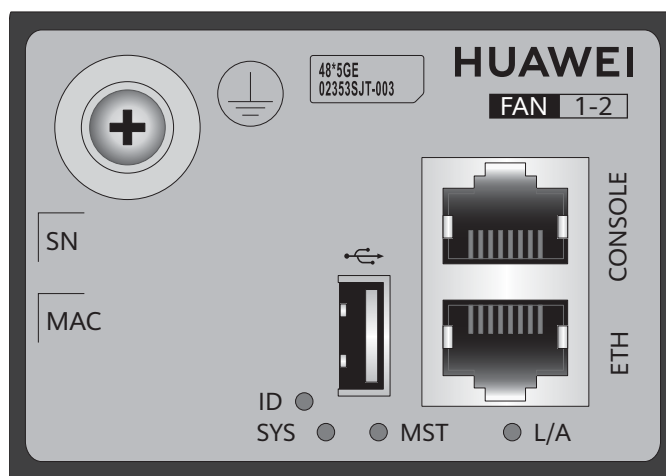


Table 5-1289 lists the maximum transmission distances of different cables on multi-GE ports.

Table 5-1289 Maximum transmission distances of different cables on multi-GE ports

Cable Type (6-a-1 Bundle)	Multi-GE Port (Different Rates)			
	100M/1000M	2.5GE	5GE	10GE
Category 5e unshielded twisted pair (Cat5e UTP)	100 m	100 m	<ul style="list-style-type: none"> • 55 m • 100 m (6-a-1 bundle only for the first 30 m) Not recommended due to high risk	Not supported
Category 5e shielded twisted pair (Cat5e STP)	100 m	100 m	100 m	Not supported
Category 6 unshielded twisted pair (Cat6 UTP)	100 m	100 m	100 m Not recommended due to high risk	Not supported
Category 6 shielded twisted pair (Cat6 STP)	100 m	100 m	100 m	Not supported
Category 6A unshielded twisted pair (Cat6A U/UTP)	100 m	100 m	100 m Not recommended due to high risk	Not supported
Category 6A foiled/unshielded twisted pair (Cat6A F/UTP)	100 m	100 m	100 m	100 m
Category 6A shielded twisted pair (Cat6A STP)	100 m	100 m	100 m	100 m
Category 7 twisted pair (Cat7)	100 m	100 m	100 m	100 m

 NOTE

6-a-1 stands for the six-around-one cable bundle mode, with one cable in the center and six cables bundled evenly around it.

Some cables pose high risks and are not recommended for the following reasons:

- 802.3bz requires that the ALSNR value for alien crosstalk between Ethernet cables be greater than 0, but the standards for Cat5e and Cat6 unshielded twisted pairs do not specify the required ALSNR value. Therefore, such cables may not meet the crosstalk requirement in 802.3bz, causing severe problems such as continuous packet loss.
- According the cabling specification TIA TSB-5021, using Cat5e and Cat6 cables for 5G poses high risks.
- Currently, no clear onsite testing or evaluation method is available for checking whether ALSNR of cables conforms to 802.3bz.

If Cat5e and Cat6 unshielded twisted pairs do not meet the 5G requirement, you are advised to replace them with shielded twisted pairs or reduce the rate of ports to 2.5G.

1GE/10GE/25GE SFP28 optical port

A 1GE/10GE/25GE SFP28 optical port sends and receives service data at 1 Gbit/s, 10 Gbit/s, or 25 Gbit/s. [Table 5-1278](#) describes the attributes of a 1GE/10GE/25GE SFP28 optical port.

Table 5-1290 Attributes of a 1GE/10GE/25GE SFP28 optical port

Attribute	Description
Connector Type	LC/PC
Optical port attributes	Depending on the optical module or cable in use
Standards compliance	IEEE802.3z, IEEE802.3ae, and IEEE802.3by
Working mode	<ul style="list-style-type: none">• When a 25GE optical module or cable is connected to a port, the port can automatically adjust its rate to 25 Gbit/s.• When a 10GE optical module or cable is connected to a port, the port can automatically adjust its rate to 10 Gbit/s.• Before installing a GE optical module or copper module on a port, run the port mode ge command to configure the port to work at 1 Gbit/s.

40GE/100GE QSFP28 optical port

A 40GE/100GE QSFP28 optical port sends and receives service traffic at 40 Gbit/s or 100 Gbit/s. [Table 5-1291](#) describes the attributes of a QSFP28 optical port.

Table 5-1291 Attributes of a QSFP28 optical port

Attribute	Description
Connector type	MPO/LC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ba

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1292](#).

Table 5-1292 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1293](#) describes the attributes of an ETH management port.

Table 5-1293 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3

Attribute	Description
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5732-H48UM2CC has the same types of indicators as the S5732-H24UM2CC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5732-H48UM2CC is a PoE switch. It has two power module slots, each of which can have a 1000 W PoE power module installed. [Table 5-1294](#) lists its power supply configurations.

Table 5-1294 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	-	621 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 40 • 802.3at (30 W per port): 20 • 802.3bt (60 W per port): 10

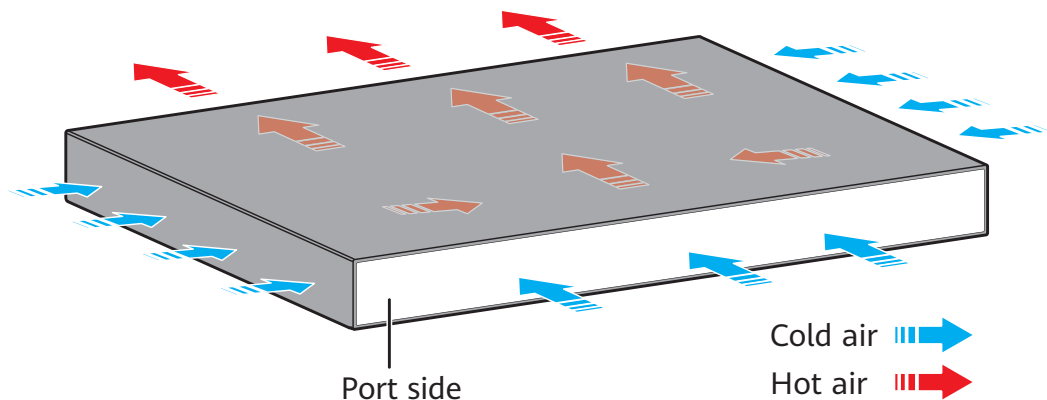
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (110 V)	–	526 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 34 • 802.3at (30 W per port): 17 • 802.3bt (60 W per port): 8
1000 W (220 V)	1000 W (220 V)	1571 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 48 • 802.3bt (60 W per port): 26
1000 W (110 V)	1000 W (110 V)	1381 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 46 • 802.3bt (60 W per port): 23

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5732-H48UM2CC uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1295 lists technical specifications of the S5732-H48UM2CC.

Table 5-1295 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	2 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	32.38 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 446.0 mm (1.72 in. x 17.4 in. x 17.6 in.)
Weight (including package)	8.4 kg (18.52 lb)
Stack ports	Any Ethernet electrical port (10GE) or optical port (10GE/25GE/40GE/100GE)
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">• Not providing the PoE function: 347 W (without card)• 100% PoE loads: 2043 W (PoE: 1571 W, without card)
Typical power consumption (30% of traffic load, tested according to ATIS standard)	215 W (without card)
Operating temperature	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 59.2 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	<ul style="list-style-type: none">• 02353HUB• 02353SJT• 02353SJT-001• 02353SJT-003• 02353SJT-004

5.27.5 S5732-H48XUM2CC

Version Mapping

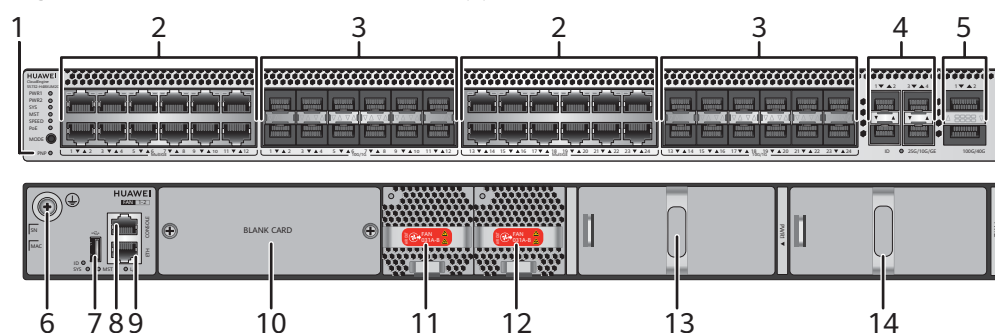
Table 5-1296 lists the mapping between the S5732-H48XUM2CC chassis and software versions.

Table 5-1296 Version mapping

Series	Model	Software Version
S5732-H	S5732-H48XUM2CC	V200R019C20 and later versions

Appearance and Structure

Figure 5-486 S5732-H48XUM2CC appearance



<p>1</p> <p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	<p>2</p> <p>Twenty-four PoE++ 100M/1000M/2.5GE/5GE/10GE BASE-T ports (multi-GE ports)</p> <p>NOTE</p> <p>The S5732-H48XUM2CC is a hybrid optical-electrical switch. You can use one multi-GE port and one 10GE SFP+ optical port together by connecting them through a hybrid cable. This cable is composed of copper cores terminated on RJ45 connectors and optical fibers terminated on LC connectors. The typical application scenario is as follows:</p> <ul style="list-style-type: none"> • The copper cores connect a multi-GE port of a switch to a PoE_IN port of an AP to allow the switch to supply power to the AP while no data is transmitted over this cable. • The optical fibers connect a SFP+ optical port on the switch to a SFP+ optical port of the AP to transmit data.
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3	<p>Twenty-four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module• 10GE SFP+ optical module (OSXD22N00 not supported)• 10GE-CWDM optical module• 10GE-DWDM optical module• 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack cables (supported by the last 16 SFP+ ports and used only for zero-configuration stacking)• Hybrid Cable• Optical Module Dedicated for Hybrid Cable <p>NOTE</p> <p>Optical fibers in a hybrid cable can be connected only to an SFP-10G-iLR-S optical module.</p>	4	<p>Four 1GE/10GE/25GE SFP28 optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module (100M/1000M auto-sensing)• 10GE SFP+ optical module (OSXD22N00 not supported)• 10GE-CWDM optical module• 10GE-DWDM optical module• 25GE SFP28 Optical Module• 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 1 m, 3 m, and 5 m SFP28 high-speed copper cables• 3 m, 5 m, 7 m, and 10 m SFP28 AOC cables
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5	<p>Two 40GE/100GE QSFP28 optical ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • QSFP+ optical module • QSFP28 optical module • 1 m, 3 m, and 5 m QSFP+ high-speed copper cables • 10 m QSFP+ AOC cable • 1 m, 3 m, and 5 m QSFP28 high-speed copper cables • 10 m QSFP28 AOC cable <p>NOTE</p> <p>You can run the set device port-config-mode enable command to change the working mode of SFP28 and QSFP28 optical ports. By default, the working mode of SFP28 and QSFP28 optical ports is "4 x 25GE + 2 x 40GE".</p> <p>If any QSFP28 optical port is configured to work at 100 Gbit/s or split into four 25GE ports, the four SFP28 optical ports become unavailable.</p>	6	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
7	One USB port	8	One console port
9	One ETH management port	10	<p>Rear card slot</p> <p>NOTE</p> <p>Applicable card:</p> <ul style="list-style-type: none"> • S7X08000 • S7Y08000
11	<p>Fan module slot 1</p> <p>NOTE</p> <p>Applicable fan module: 8.6 FAN-031A-B Fan Module</p>	12	<p>Fan module slot 2</p> <p>NOTE</p> <p>Applicable fan module: 8.6 FAN-031A-B Fan Module</p>
13	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)</p>	14	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)</p>

Port Description

100M/1000M/2.5GE/5GE/10GE BASE-T port (multi-GE port)

A 100M/1000M/2.5GE/5GE/10GE BASE-T port (multi-GE port) sends and receives service data at 100 Mbit/s, 1 Gbit/s, 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s, and must use an **Ethernet cable**. If the 2.5 Gbit/s or 5 Gbit/s speed is required, the port must use an Ethernet cable of Cat5e or higher category. If the 10 Gbit/s speed is required, the port must use an Ethernet cable of Cat6A F/UTP or higher category. **Table 5-1297** describes the attributes of a 100M/1000M/2.5GE/5GE/10GE BASE-T port.

Table 5-1297 Attributes of a 100M/1000M/2.5GE/5GE/10GE BASE-T port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3u, IEEE802.3ab, IEEE802.3bz, IEEE802.3an
Working Mode	100/1000/2500/5000/10000 Mbit/s auto-sensing

Table 5-1298 lists the maximum transmission distances of different cables on multi-GE ports.

Table 5-1298 Maximum transmission distances of different cables on multi-GE ports

Cable Type (6-a-1 Bundle)	Multi-GE Port (Different Rates)			
	100M/1000M	2.5GE	5GE	10GE
Category 5e unshielded twisted pair (Cat5e UTP)	100 m	100 m	<ul style="list-style-type: none"> • 55 m • 100 m (6-a-1 bundle only for the first 30 m) Not recommended due to high risk	Not supported
Category 5e shielded twisted pair (Cat5e STP)	100 m	100 m	100 m	Not supported
Category 6 unshielded twisted pair (Cat6 UTP)	100 m	100 m	100 m Not recommended due to high risk	Not supported

Cable Type (6-a-1 Bundle)	Multi-GE Port (Different Rates)			
	100M/1000M	2.5GE	5GE	10GE
Category 6 shielded twisted pair (Cat6 STP)	100 m	100 m	100 m	Not supported
Category 6A unshielded twisted pair (Cat6A U/UTP)	100 m	100 m	100 m Not recommended due to high risk	Not supported
Category 6A foiled/unshielded twisted pair (Cat6A F/UTP)	100 m	100 m	100 m	100 m
Category 6A shielded twisted pair (Cat6A STP)	100 m	100 m	100 m	100 m
Category 7 twisted pair (Cat7)	100 m	100 m	100 m	100 m

 **NOTE**

6-a-1 stands for the six-around-one cable bundle mode, with one cable in the center and six cables bundled evenly around it.

Some cables pose high risks and are not recommended for the following reasons:

- 802.3bz requires that the ALSNR value for alien crosstalk between Ethernet cables be greater than 0, but the standards for Cat5e and Cat6 unshielded twisted pairs do not specify the required ALSNR value. Therefore, such cables may not meet the crosstalk requirement in 802.3bz, causing severe problems such as continuous packet loss.
- According the cabling specification TIA TSB-5021, using Cat5e and Cat6 cables for 5G poses high risks.
- Currently, no clear onsite testing or evaluation method is available for checking whether ALSNR of cables conforms to 802.3bz.

If Cat5e and Cat6 unshielded twisted pairs do not meet the 5G requirement, you are advised to replace them with shielded twisted pairs or reduce the rate of ports to 2.5G.

The PoE power supply capability and distance of multi-GE ports on the S5732-H48XUM2CC vary depending on the power supply medium, as listed in [Table 5-1299](#).

Table 5-1299 PoE power supply capabilities of multi-GE ports when different power supply media are used

Power Supply Medium (Cable Diameter)	Power Received by an AP	AP-Side Voltage	Maximum Power Supply Distance
Category 5e Ethernet cable (AWG23)	53 W (class 6)	47.2 V	100 m
	51 W (class 6)	45.0 V	150 m
Category 6 or 6A Ethernet cable (AWG24)	55 W (class 6)	47.2 V	100 m
	52 W (class 6)	45.0 V	150 m
Hybrid cable (1.5 mm ²)	57 W (class 6)	52.2 V	100 m
	55 W (class 6)	50.8 V	150 m
	54 W (class 6)	50.0 V	180 m
	54 W (class 6)	49.4 V	200 m
	52 W (class 6)	48.0 V	250 m
	51 W (class 6)	46.5 V	300 m

NOTE

An AP can receive a maximum of 57 W power from a multi-GE port within the power supply distance of 100 m.

When a common Cat6A shielded cable is used for both PoE power supply and data transmission (10 Gbit/s), the maximum power supply distance is 100 m in compliance with 802.3bt.

When a common Cat5E, Cat6, or Cat6A Ethernet cable is used only for PoE power supply and optical fibers are used for data transmission, the maximum power supply distance is 150 m in compliance with 802.3bt.

A hybrid cable supplies PoE power to specific AP models through its copper cores and transmits data through its optical fibers. For details about the AP models to which hybrid cables can supply power, see the WLAN AP product documentation.

A hybrid cable cannot be used to supply power to dual-signature APs.

A hybrid cable can offer the power supply capabilities listed in [Table 5-1299](#) only when the impedance of its copper cores is within 12.8 ohms/km. If the impedance exceeds this value, the power supply capabilities (power received by and voltage of the AP) will decrease.

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1300](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1300 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

1GE/10GE/25GE SFP28 optical port

A 1GE/10GE/25GE SFP28 optical port sends and receives service data at 1 Gbit/s, 10 Gbit/s, or 25 Gbit/s. [Table 5-1278](#) describes the attributes of a 1GE/10GE/25GE SFP28 optical port.

Table 5-1301 Attributes of a 1GE/10GE/25GE SFP28 optical port

Attribute	Description
Connector Type	LC/PC
Optical port attributes	Depending on the optical module or cable in use
Standards compliance	IEEE802.3z, IEEE802.3ae, and IEEE802.3by
Working mode	<ul style="list-style-type: none">• When a 25GE optical module or cable is connected to a port, the port can automatically adjust its rate to 25 Gbit/s.• When a 10GE optical module or cable is connected to a port, the port can automatically adjust its rate to 10 Gbit/s.• Before installing a GE optical module or copper module on a port, run the port mode ge command to configure the port to work at 1 Gbit/s.

40GE/100GE QSFP28 optical port

A 40GE/100GE QSFP28 optical port sends and receives service traffic at 40 Gbit/s or 100 Gbit/s. [Table 5-1302](#) describes the attributes of a QSFP28 optical port.

Table 5-1302 Attributes of a QSFP28 optical port

Attribute	Description
Connector type	MPO/LC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ba

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1303](#).

Table 5-1303 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1304](#) describes the attributes of an ETH management port.

Table 5-1304 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3

Attribute	Description
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the device for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5732-H48XUM2CC has the same types of indicators as the S5732-H24UM2CC. For details, see [Indicator Description](#).

Power Supply Configuration

The S5732-H48XUM2CC is a PoE switch. It has two power module slots, each of which can have a 1000 W PoE power module installed. [Table 5-1305](#) lists its power supply configurations.

Table 5-1305 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	-	598 W	<ul style="list-style-type: none">802.3af (15.4 W per port): 24802.3at (30 W per port): 19802.3bt (60 W per port): 9

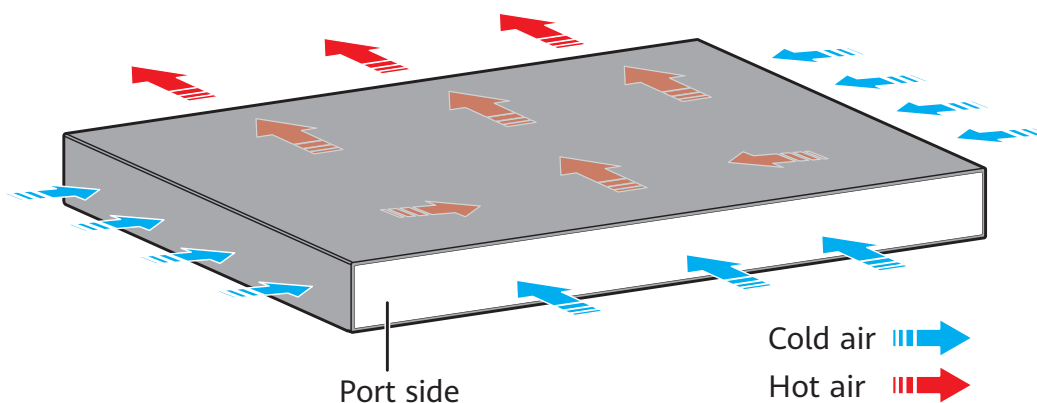
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (110 V)	–	503 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 16 802.3bt (60 W per port): 8
1000 W (220 V)	1000 W (220 V)	1440 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 24
1000 W (110 V)	1000 W (110 V)	1358 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 24 802.3at (30 W per port): 24 802.3bt (60 W per port): 22

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5732-H48XUM2CC uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1306 lists technical specifications of the S5732-H48XUM2CC.

Table 5-1306 Technical specifications

Item	Description
Memory (RAM)	4 GB
Flash	2 GB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	32.38 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 6 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 446.0 mm (1.72 in. x 17.4 in. x 17.6 in.)
Weight (including package)	8.2 kg (18.08 lb)
Stack ports	Any Ethernet electrical port (10GE) or optical port (10GE/25GE/40GE/100GE)
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC

Item	Description
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> • Not providing the PoE function: 338 W (without card) • 100% PoE loads: 1980 W (PoE: 1440 W, without card)
Typical power consumption (30% of traffic load, tested according to ATIS standard)	231 W (without card)
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 63.1 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02353MLH

5.28 S5735-L

5.28.1 S5735-L12T4S-A

Version Mapping

Table 5-1307 lists the mapping between the S5735-L12T4S-A chassis and software versions.

Table 5-1307 Version mapping

Series	Model	Software Version
S5735-L	S5735-L12T4S-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-487 S5735-L12T4S-A appearance



1	Twelve 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module• 10GE SFP+ optical module (only used for stack connection, a maximum transmission distance of 0.4 km, OSXD22N00 not supported, applicable in V200R019C10 and later versions)• 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions)• 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions)• 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1308](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1308 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-1309](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-1309 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1310](#).

Table 5-1310 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1311](#) describes the attributes of an ETH management port.

Table 5-1311 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735-L12T4S-A has similar indicators to those on the S5735-L12P4S-A except that the S5735-L12T4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-L12T4S-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735-L12T4S-A has no fans and uses natural heat dissipation.

Technical Specifications

[Table 5-1312](#) lists technical specifications of the S5735-L12T4S-A.

Table 5-1312 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	98.6 years
Mean time to repair (MTTR)	2 hours

Item	Description
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	3.83 kg (8.44 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput)	29 W
Typical power consumption (30% of traffic load)	23 W <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p> <p>The operating temperature of the switch is -5°C to +40°C (23°F to 104°F) when it uses GE SFP optical modules with 40 km or longer transmission distance.</p> <p>When SFP+ copper cables or dedicated stack cables are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none">• -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet, with the wind speed of at least 40 LFM) <p>When SFP+ AOC cables or 10GE SFP+ optical modules are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none">• -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet shipped with fans with a fan speed of at least 200 LFM)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010918

5.28.2 S5735-L12P4S-A

Version Mapping

Table 5-1313 lists the mapping between the S5735-L12P4S-A chassis and software versions.

Table 5-1313 Version mapping

Series	Model	Software Version
S5735-L	S5735-L12P4S-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-488 S5735-L12P4S-A appearance



1	Twelve PoE+ 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module• 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions)• 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions)• 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions)• 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.

9	AC socket	-	-
	NOTE It is used with an AC power cable .		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1314](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1314 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-1315](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-1315 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 5-1316](#).

Table 5-1316 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1317](#) describes the attributes of an ETH management port.

Table 5-1317 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-489 Indicators on the S5735-L12P4S-A

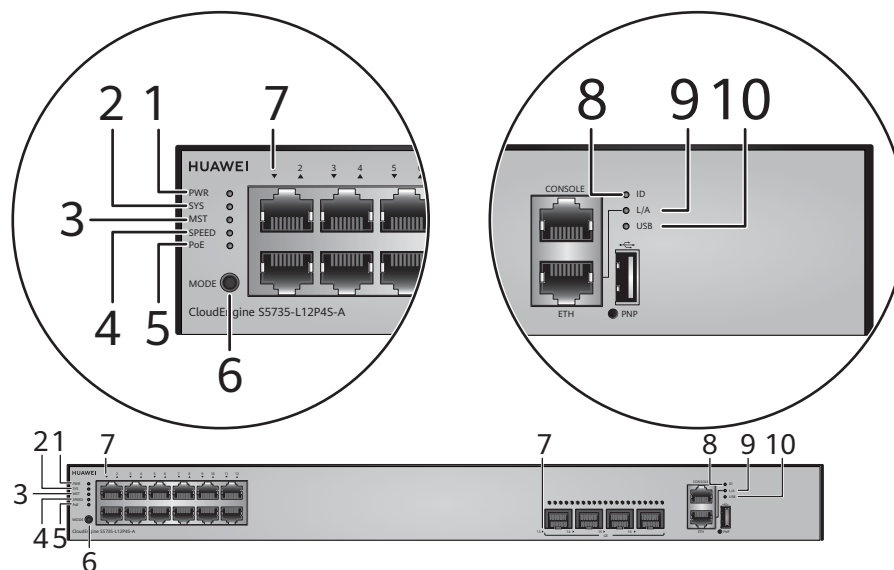


Table 5-1318 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.

No.	Indicator	Name	Color	Status	Description
			Yellow	Steady on	The built-in PoE power module has failed.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
3	MST	Stack indicator	-	Off	<ul style="list-style-type: none">If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch.If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.

No.	Indicator	Name	Color	Status	Description
			Green	Blinking	<ul style="list-style-type: none">If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled.If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.
5	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
6	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p>
7	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-1319 .		
8	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
9	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.

No.	Indicator	Name	Color	Status	Description
10	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-1319 Description of service port indicators in different modes

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green or yellow	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green or yellow	Steady on	10M/100M/1000M port: The port is operating at 10 Mbit/s or 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green or yellow	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).

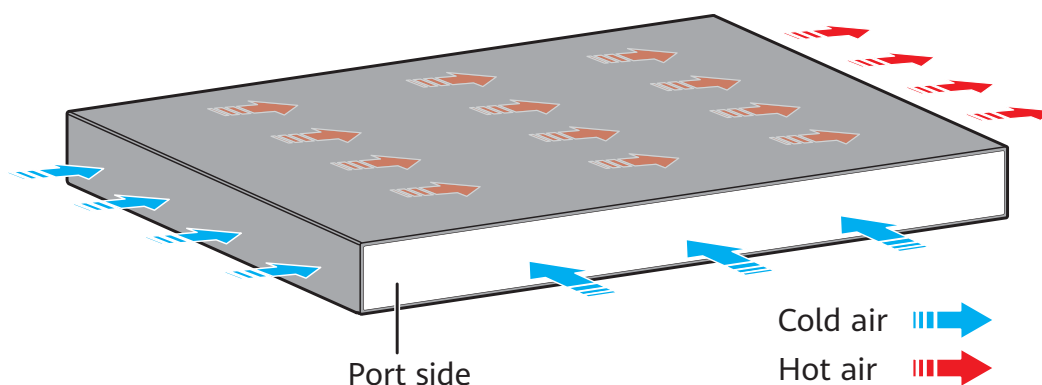
Display Mode	Color	Status	Description
	Green and yellow	Blinking green and yellow alternately	The port fails to supply power to a PD due to one of the following reasons: <ul style="list-style-type: none">• The power required by the connected PD exceeds the maximum power or the configured power threshold of the port.• The total power consumption of PDs has reached the maximum power of the switch.• The manual power management mode is used and the port is not enabled to provide power to the PD.

Power Supply Configuration

The S5735-L12P4S-A has a built-in power module and does not support pluggable power modules. The built-in power module can provide 360 W PoE power, which ensures full PoE power on 12 ports in compliance with 802.3af or 802.3at.

Heat Dissipation

The S5735-L12P4S-A has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1320](#) lists technical specifications of the S5735-L12P4S-A.

Table 5-1320 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	85.52 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.24 kg (9.35 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 49 W 100% PoE loads: 441 W (PoE: 360 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	38 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.7 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010922

5.28.3 S5735-L24T4S-A

Version Mapping

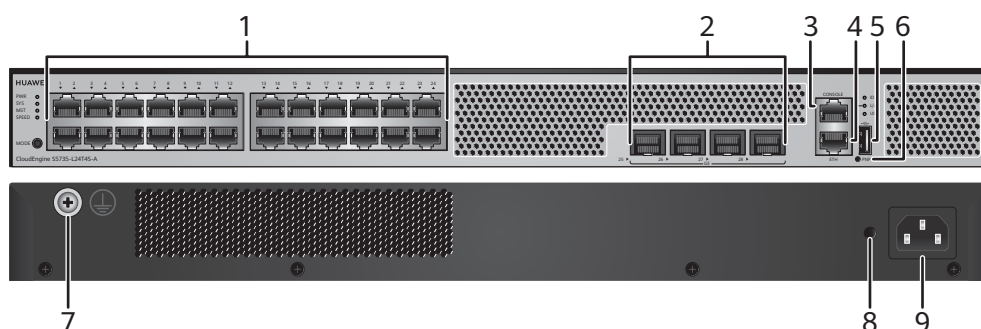
Table 5-1321 lists the mapping between the S5735-L24T4S-A chassis and software versions.

Table 5-1321 Version mapping

Series	Model	Software Version
S5735-L	S5735-L24T4S-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-490 S5735-L24T4S-A appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module• 10GE SFP+ optical module (only used for stack connection, a maximum transmission distance of 0.4 km, OSXD22N00 not supported, applicable in V200R019C10 and later versions)• 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions)• 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions)• 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1322](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1322 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-1323](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-1323 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1324](#).

Table 5-1324 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1325](#) describes the attributes of an ETH management port.

Table 5-1325 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735-L24T4S-A has similar indicators to those on the S5735-L12P4S-A except that the S5735-L24T4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-L24T4S-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735-L24T4S-A has no fans and uses natural heat dissipation.

Technical Specifications

[Table 5-1326](#) lists technical specifications of the S5735-L24T4S-A.

Table 5-1326 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	111.94 years
Mean time to repair (MTTR)	2 hours

Item	Description
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.08 kg (9 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput)	34 W
Typical power consumption (30% of traffic load)	28 W <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p> <p>The operating temperature of the switch is -5°C to +40°C (23°F to 104°F) when it uses GE SFP optical modules with 40 km or longer transmission distance.</p> <p>When SFP+ copper cables or dedicated stack cables are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none"> -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet, with the wind speed of at least 40 LFM) <p>When SFP+ AOC cables or 10GE SFP+ optical modules are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none"> -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet shipped with fans with a fan speed of at least 200 LFM)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	98010914

5.28.4 S5735-L24P4S-A

Version Mapping

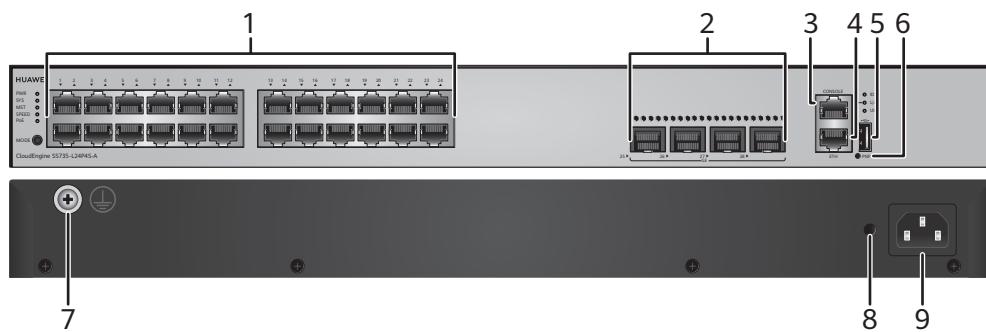
[Table 5-1327](#) lists the mapping between the S5735-L24P4S-A chassis and software versions.

Table 5-1327 Version mapping

Series	Model	Software Version
S5735-L	S5735-L24P4S-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-491 S5735-L24P4S-A appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>

9	AC socket	-	-
	NOTE It is used with an AC power cable .		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1328](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1328 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-1329](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-1329 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 5-1330](#).

Table 5-1330 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1331](#) describes the attributes of an ETH management port.

Table 5-1331 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 **NOTE**

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

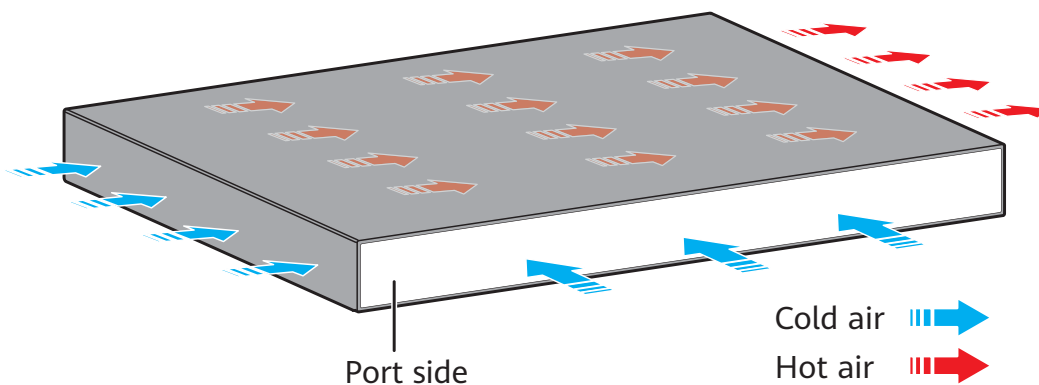
The S5735-L24P4S-A has the same types of indicators as the S5735-L12P4S-A. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-L24P4S-A has a built-in power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation

The S5735-L24P4S-A has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1332](#) lists technical specifications of the S5735-L24P4S-A.

Table 5-1332 Technical specifications

Item	Description
Memory (RAM)	1 GB

Item	Description
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	92.2 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.31 kg (9. lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 53 W 100% PoE loads: 451 W (PoE: 380 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	39 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.7 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010924

5.28.5 S5735-L24T4X-A

Version Mapping

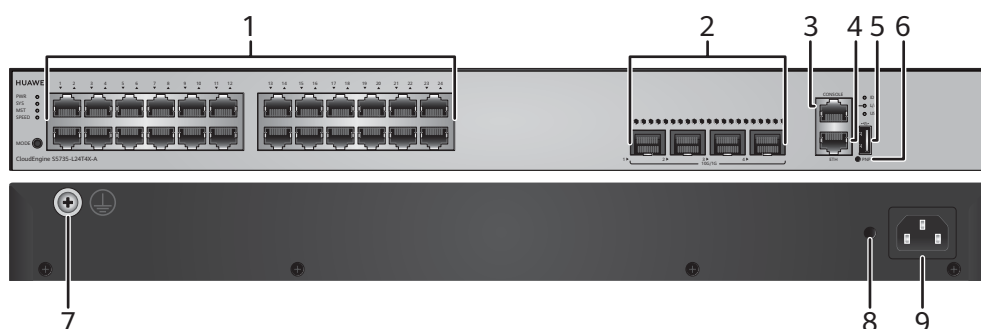
Table 5-1333 lists the mapping between the S5735-L24T4X-A chassis and software versions.

Table 5-1333 Version mapping

Series	Model	Software Version
S5735-L	S5735-L24T4X-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-492 S5735-L24T4X-A appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1334](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1334 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1335](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1335 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1336](#).

Table 5-1336 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1337](#) describes the attributes of an ETH management port.

Table 5-1337 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

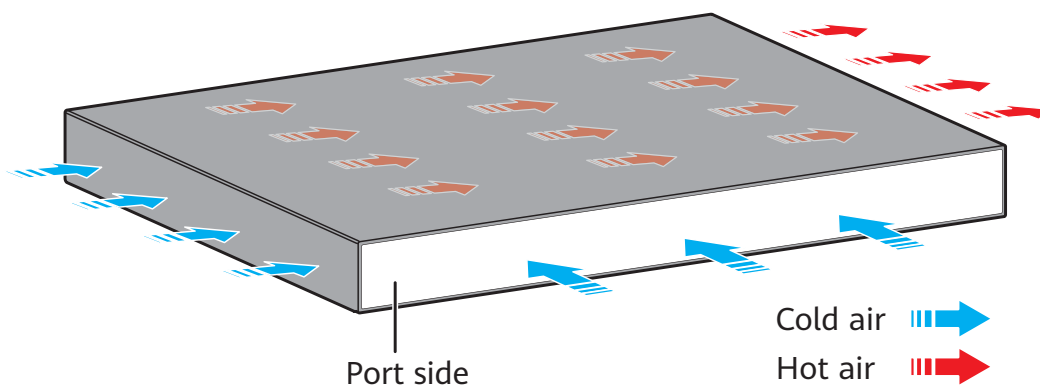
The S5735-L24T4X-A has similar indicators to those on the S5735-L12P4S-A except that the S5735-L24T4X-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-L24T4X-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735-L24T4X-A has one built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

**NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1338](#) lists technical specifications of the S5735-L24T4X-A.

Table 5-1338 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	50.68 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4 kg (8.82 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	43 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	27 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 47.3 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010920

5.28.6 S5735-L24T4X-D

Version Mapping

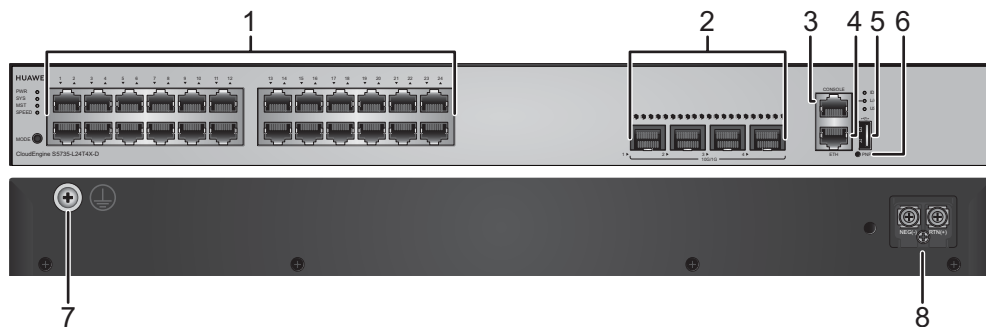
Table 5-1339 lists the mapping between the S5735-L24T4X-D chassis and software versions.

Table 5-1339 Version mapping

Series	Model	Software Version
S5735-L	S5735-L24T4X-D	V200R020C00 and later versions

Appearance and Structure

Figure 5-493 S5735-L24T4X-D appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	DC power terminal NOTE It is used with DC Power Cable .

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-1340** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1340 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1341](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1341 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1342](#).

Table 5-1342 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1343](#) describes the attributes of an ETH management port.

Table 5-1343 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

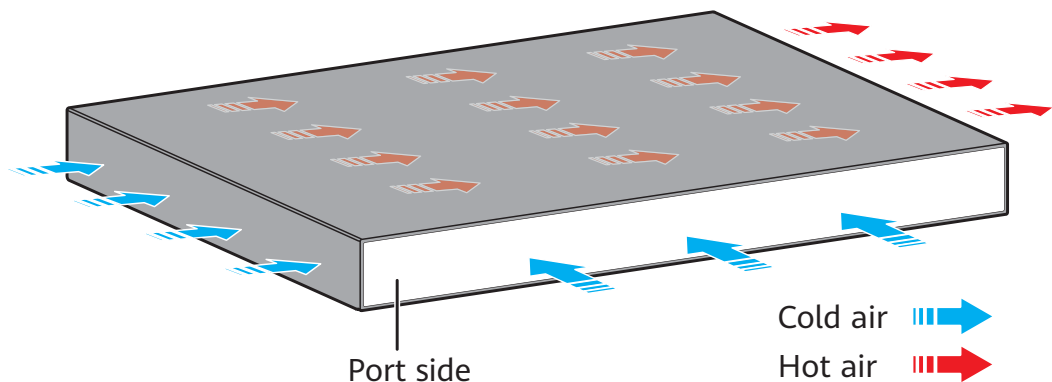
The S5735-L24T4X-D has similar indicators to those on the S5735-L12P4S-A except that the S5735-L24T4X-D does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-L24T4X-D has a built-in DC power module and does not support pluggable power modules.

Heat Dissipation

The S5735-L24T4X-D has one built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1344](#) lists technical specifications of the S5735-L24T4X-D.

Table 5-1344 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	50.68 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999

Item	Description
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4 kg (8.82 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	43 W
Typical power consumption (30% of traffic load)	27 W <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 47.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010961

5.28.7 S5735-L24P4X-A

Version Mapping

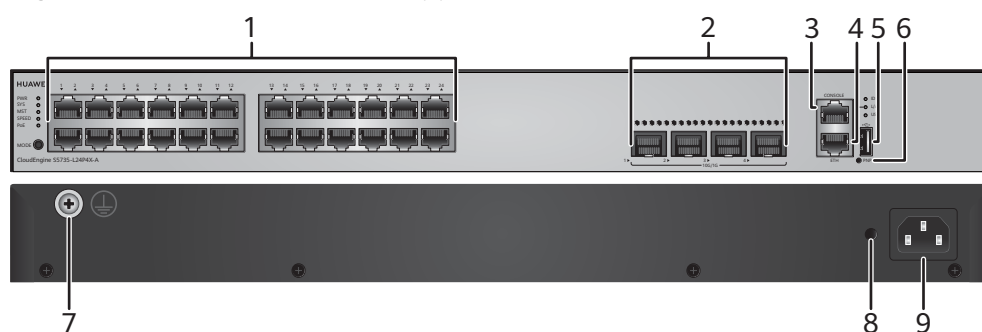
Table 5-1345 lists the mapping between the S5735-L24P4X-A chassis and software versions.

Table 5-1345 Version mapping

Series	Model	Software Version
S5735-L	S5735-L24P4X-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-494 S5735-L24P4X-A appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1346](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1346 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1347](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1347 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1348](#).

Table 5-1348 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1349](#) describes the attributes of an ETH management port.

Table 5-1349 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

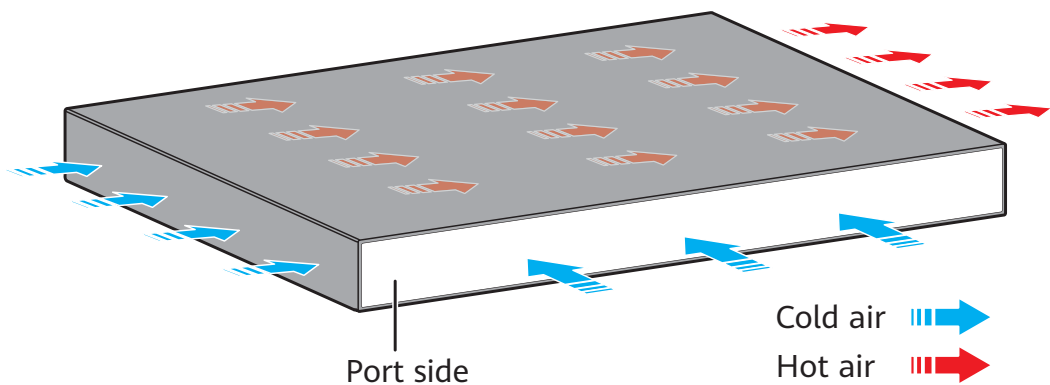
The S5735-L24P4X-A has the same types of indicators as the S5735-L12P4S-A. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-L24P4X-A has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation

The S5735-L24P4X-A has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1350](#) lists technical specifications of the S5735-L24P4X-A.

Table 5-1350 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	57.07 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.31 kg (9.5 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 56 W 100% PoE loads: 458 W (PoE: 380 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	43 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.7 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010927

5.28.8 S5735-L32ST4X-A

Version Mapping

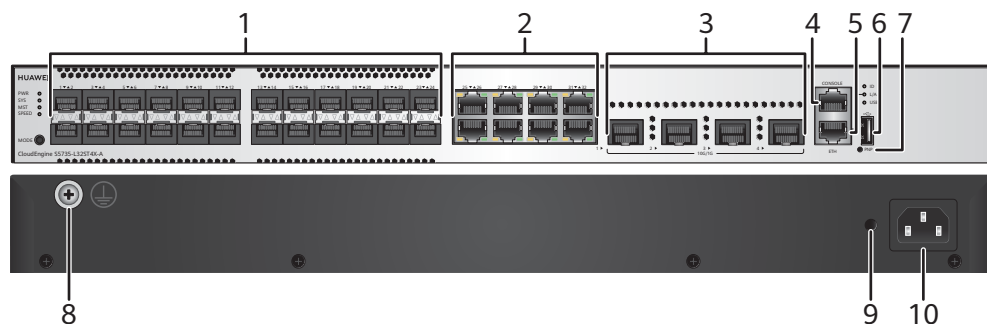
Table 5-1351 lists the mapping between the S5735-L32ST4X-A chassis and software versions.

Table 5-1351 Version mapping

Series	Model	Software Version
S5735-L	S5735-L32ST4X-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-495 S5735-L32ST4X-A appearance



1	Twenty-four 100/1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • FE optical module • GE optical module (maximum transmission distance ≤ 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	Eight 10/100/1000BASE-T ports
3	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions) 	4	One console port
5	One ETH management port	6	One USB port
7	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	8	Ground screw NOTE It is used with a ground cable .

9	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	1 0	AC socket NOTE It is used with an AC power cable .
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Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-1352](#) describes the attributes of a 100/1000BASE-X port.

Table 5-1352 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1353](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1353 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1354](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1354 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1355](#).

Table 5-1355 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1356](#) describes the attributes of an ETH management port.

Table 5-1356 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-496 Indicators on the S5735-L32ST4X-A

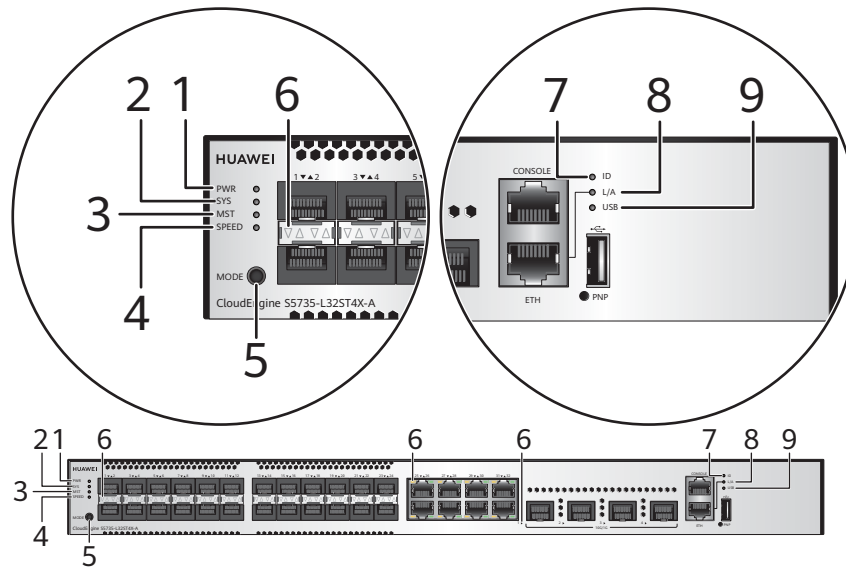


Table 5-1357 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR	Power module indicator	-	Off	The switch is powered off.
			Green	Steady on	The system power supply is normal.
2	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.

No.	Indicator	Name	Color	Status	Description
3	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
4	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.

No.	Indicator	Name	Color	Status	Description
5	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press the button a third time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED indicators are off.</p>
6	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-1358 .		
7	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
8	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.

No.	Indicator	Name	Color	Status	Description
9	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-1358 Description of service port indicators in different modes

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green or yellow	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.

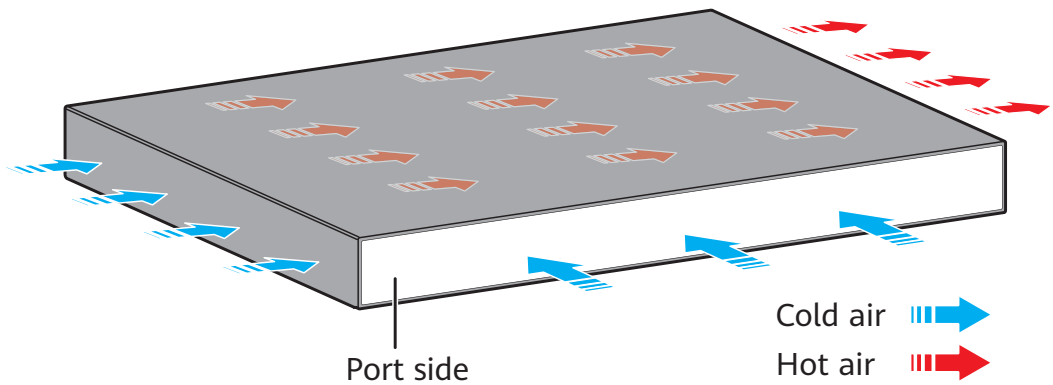
Display Mode	Color	Status	Description
	Green and yellow	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green or yellow	Steady on	10M/100M/1000M port: The port is operating at 10 Mbit/s or 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green or yellow	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.

Power Supply Configuration

The S5735-L32ST4X-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735-L32ST4X-A has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1359 lists technical specifications of the S5735-L32ST4X-A.

Table 5-1359 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	85.87 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.31 kg (9.5 lb)

Item	Description
Stack ports	Any 10/100/1000BASE-T ports, 100/1000BASE-X ports, or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz ● High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	65 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	46 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 53.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010929

5.28.9 S5735-L32ST4X-D

Version Mapping

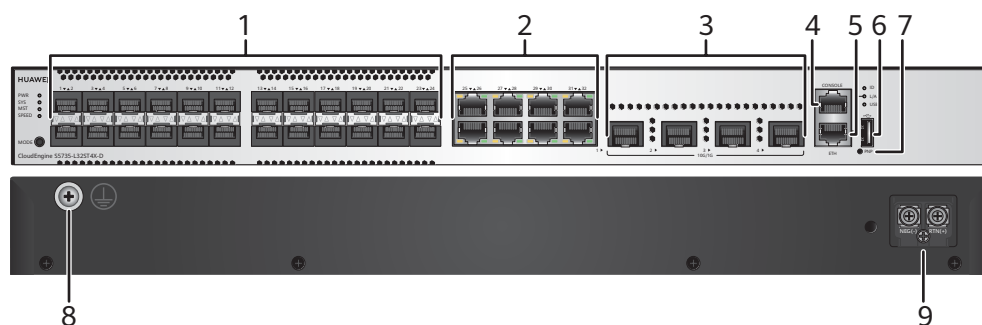
[Table 5-1360](#) lists the mapping between the S5735-L32ST4X-D chassis and software versions.

Table 5-1360 Version mapping

Series	Model	Software Version
S5735-L	S5735-L32ST4X-D	V200R020C00 and later versions

Appearance and Structure

Figure 5-497 S5735-L32ST4X-D appearance



1	<p>Twenty-four 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> ● FE optical module ● GE optical module (maximum transmission distance ≤ 40 km) ● GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Eight 10/100/1000BASE-T ports</p>
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3	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module (100M/1000M auto-sensing)• 10GE SFP+ optical module (OSXD22N00 not supported)• 10GE-CWDM optical module• 10GE-DWDM optical module• 1 m and 3 m SFP+ high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking)	4	One console port
5	One ETH management port	6	One USB port
7	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	8	Ground screw NOTE It is used with a ground cable .
9	Ground screw NOTE It is used with a ground cable .	-	-

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-1361](#) describes the attributes of a 100/1000BASE-X port.

Table 5-1361 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1362](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1362 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1363](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1363 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1364](#).

Table 5-1364 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1365](#) describes the attributes of an ETH management port.

Table 5-1365 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

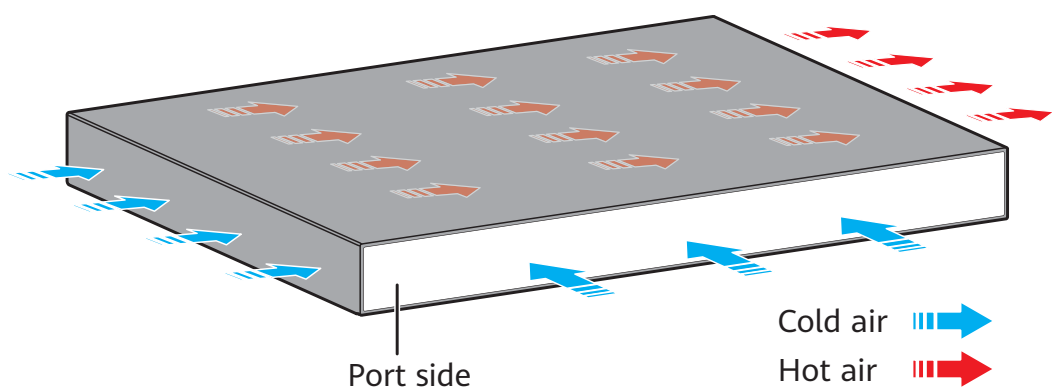
The S5735-L32ST4X-D has similar indicators to those on the S5735-L32ST4X-A. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-L32ST4X-D has a built-in DC power module and does not support pluggable power modules.

Heat Dissipation

The S5735-L32ST4X-D has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1366](#) lists technical specifications of the S5735-L32ST4X-D.

Table 5-1366 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	85.87 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.31 kg (9.5 lb)
Stack ports	Any 10/100/1000BASE-T ports, 100/1000BASE-X ports, or 10GE SFP+ ports
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	-48 V DC to -60 V DC
Maximum voltage range	-38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	65 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	46 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 53.3 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010965

5.28.10 S5735-L48T4S-A

Version Mapping

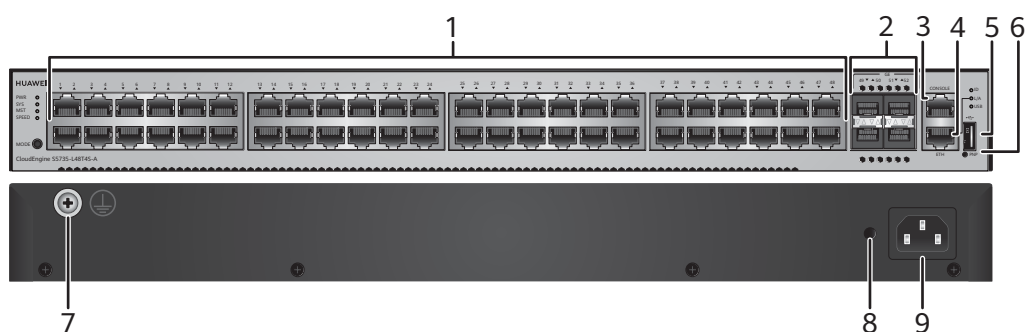
[Table 5-1367](#) lists the mapping between the S5735-L48T4S-A chassis and software versions.

Table 5-1367 Version mapping

Series	Model	Software Version
S5735-L	S5735-L48T4S-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-498 S5735-L48T4S-A appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>

9	AC socket	-	-
	NOTE It is used with an AC power cable .		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1368](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1368 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-1369](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-1369 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 5-1370](#).

Table 5-1370 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1371](#) describes the attributes of an ETH management port.

Table 5-1371 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

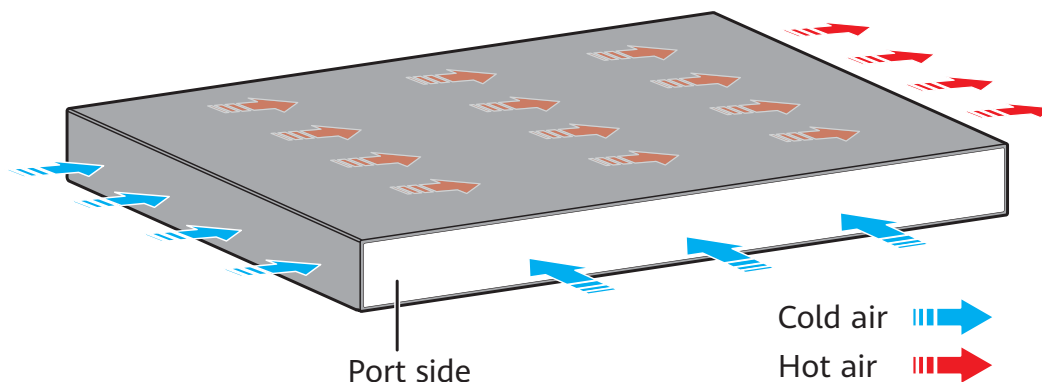
The S5735-L48T4S-A has similar indicators to those on the S5735-L12P4S-A except that the S5735-L48T4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-L48T4S-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735-L48T4S-A has one built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1372](#) lists technical specifications of the S5735-L48T4S-A.

Table 5-1372 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	46.36 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.42 kg (9.75 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	53 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	37 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 53.3 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010933

5.28.11 S5735-L48T4X-A

Version Mapping

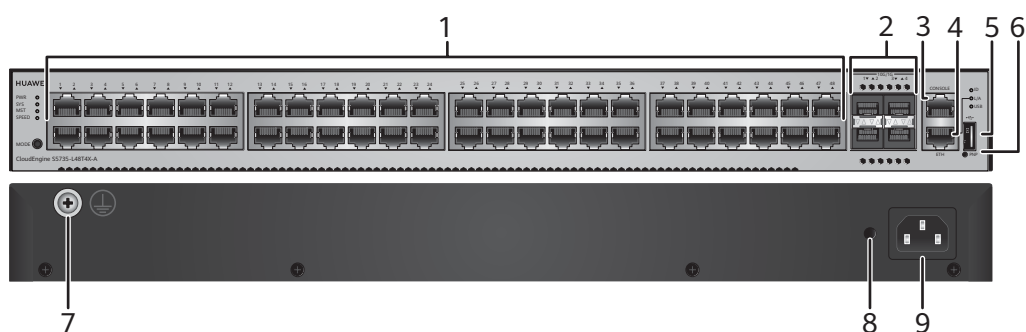
Table 5-1373 lists the mapping between the S5735-L48T4X-A chassis and software versions.

Table 5-1373 Version mapping

Series	Model	Software Version
S5735-L	S5735-L48T4X-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-499 S5735-L48T4X-A appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1374](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1374 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1375](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1375 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1376](#).

Table 5-1376 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1377](#) describes the attributes of an ETH management port.

Table 5-1377 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

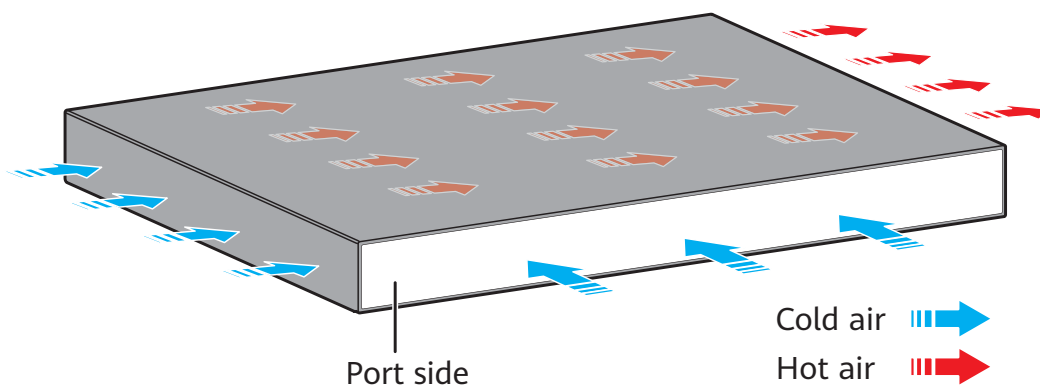
The S5735-L48T4X-A has similar indicators to those on the S5735-L12P4S-A except that the S5735-L48T4X-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-L48T4X-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735-L48T4X-A has one built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

**NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1378](#) lists technical specifications of the S5735-L48T4X-A.

Table 5-1378 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41.48 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.42 kg (9.75 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	54 W

Item	Description
<p>Typical power consumption (30% of traffic load)</p> <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	<p>39 W</p>
<p>Operating temperature</p>	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p> <p>The operating temperature of the switch is -5°C to +45°C (23°F to 113°F) when it uses 10GE SFP+ optical modules with 40 km or longer transmission distances.</p>
<p>Short-term operating temperature</p>	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
<p>Storage temperature</p>	<p>-40°C to +70°C (-40°F to +158°F)</p>

Item	Description
Noise under normal temperature (27°C, sound power)	< 53.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010936

5.28.12 S5735-L48P4X-A

Version Mapping

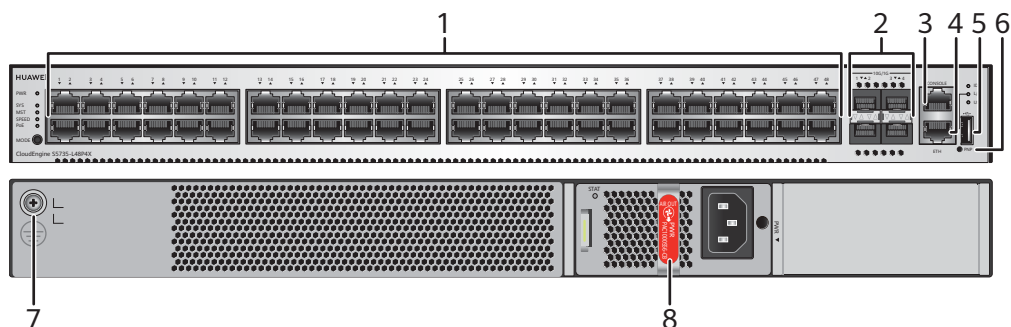
[Table 5-1379](#) lists the mapping between the S5735-L48P4X-A chassis and software versions.

Table 5-1379 Version mapping

Series	Model	Software Version
S5735-L	S5735-L48P4X-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-500 S5735-L48P4X-A appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Power module slot NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-1380** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1380 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1381](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1381 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1382](#).

Table 5-1382 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1383](#) describes the attributes of an ETH management port.

Table 5-1383 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735-L48P4X-A has the same types of indicators as the S5735-L12P4S-A. For details, see [Indicator Description](#).

Power Supply Configuration

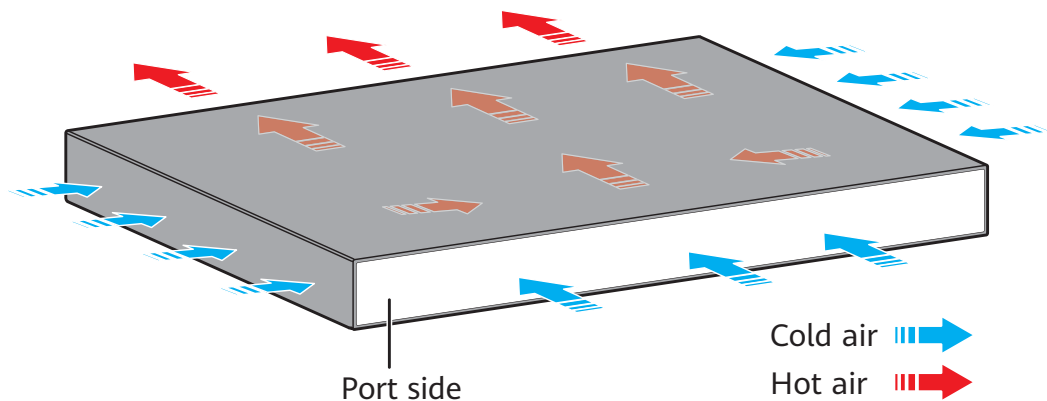
The S5735-L48P4X-A is a PoE switch. It has one power module slot, which can have a 1000 W PoE power module installed. [Table 5-1384](#) lists its power supply configurations.

Table 5-1384 Power supply configurations

Power Module	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	874 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29
1000 W (110 V)	779 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25

Heat Dissipation

The S5735-L48P4X-A has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1385](#) lists technical specifications of the S5735-L48P4X-A.

Table 5-1385 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	61.7 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	8.7 kg (19.18 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 80 W 100% PoE loads: 914 W (PoE: 874 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	59 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010944

5.29 S5735S-L

5.29.1 S5735S-L12T4S-A

Version Mapping

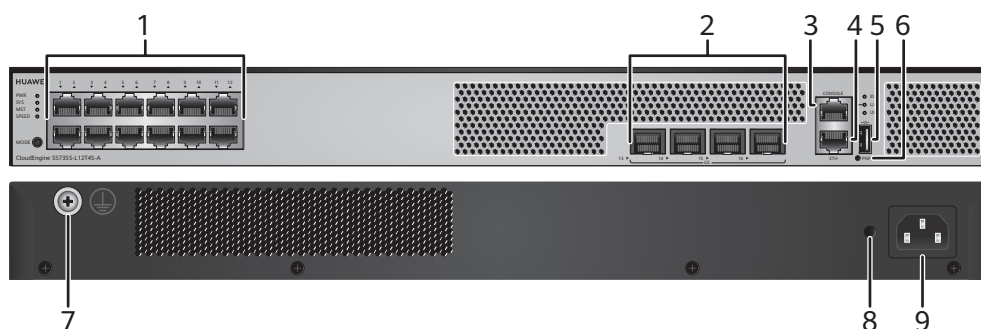
[Table 5-1386](#) lists the mapping between the S5735S-L12T4S-A chassis and software versions.

Table 5-1386 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L12T4S-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-501 S5735S-L12T4S-A appearance



1	Twelve 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, a maximum transmission distance of 0.4 km, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1387](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1387 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-1388](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-1388 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1389](#).

Table 5-1389 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1390](#) describes the attributes of an ETH management port.

Table 5-1390 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735S-L12T4S-A has similar indicators to those on the S5735-L12P4S-A except that the S5735S-L12T4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L12T4S-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735S-L12T4S-A has no fans and uses natural heat dissipation.

Technical Specifications

[Table 5-1391](#) lists technical specifications of the S5735S-L12T4S-A.

Table 5-1391 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	98.6 years
Mean time to repair (MTTR)	2 hours

Item	Description
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	3.83 kg (8.44 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput)	29 W
Typical power consumption (30% of traffic load)	23 W <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p> <p>The operating temperature of the switch is -5°C to +40°C (23°F to 104°F) when it uses GE SFP optical modules with 40 km or longer transmission distance.</p> <p>When SFP+ copper cables or dedicated stack cables are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none">• -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet, with the wind speed of at least 40 LFM) <p>When SFP+ AOC cables or 10GE SFP+ optical modules are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none">• -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet shipped with fans with a fan speed of at least 200 LFM)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010919

5.29.2 S5735S-L12P4S-A

Version Mapping

[Table 5-1392](#) lists the mapping between the S5735S-L12P4S-A chassis and software versions.

Table 5-1392 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L12P4S-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-502 S5735S-L12P4S-A appearance



1	Twelve PoE+ 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>

9	AC socket	-	-
	NOTE It is used with an AC power cable .		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1393](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1393 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-1394](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-1394 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 5-1395](#).

Table 5-1395 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1396](#) describes the attributes of an ETH management port.

Table 5-1396 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 **NOTE**

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

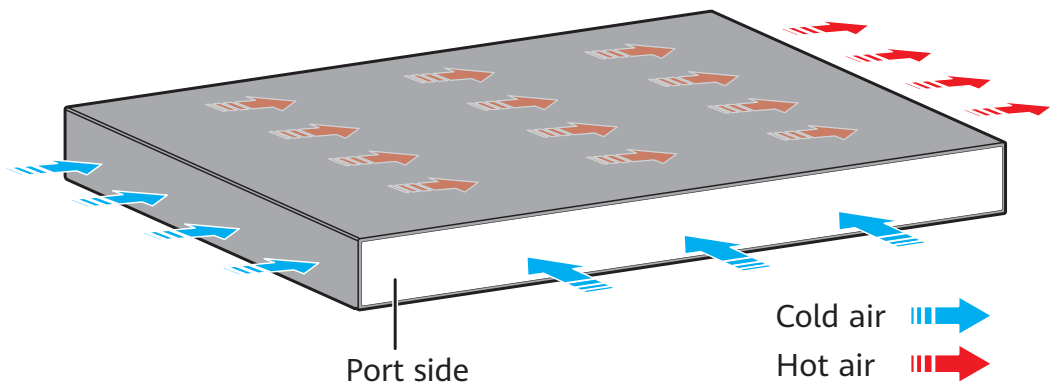
The S5735S-L12P4S-A has the same types of indicators as the S5735-L12P4S-A. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L12P4S-A has a built-in power module and does not support pluggable power modules. The built-in power module can provide 360 W PoE power, which ensures full PoE power on 12 ports in compliance with 802.3af or 802.3at.

Heat Dissipation

The S5735S-L12P4S-A has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1397](#) lists technical specifications of the S5735S-L12P4S-A.

Table 5-1397 Technical specifications

Item	Description
Memory (RAM)	1 GB

Item	Description
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	85.52 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.24 kg (9.35 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 49 W 100% PoE loads: 441 W (PoE: 360 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	38 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.7 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010923

5.29.3 S5735S-L24FT4S-A

Version Mapping

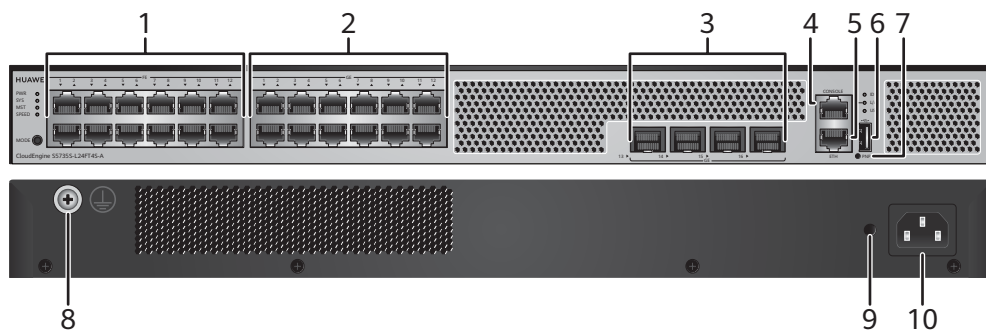
Table 5-1398 lists the mapping between the S5735S-L24FT4S-A chassis and software versions.

Table 5-1398 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L24FT4S-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-503 S5735S-L24FT4S-A appearance



1	Twelve 10/100BASE-TX ports	2	Twelve 10/100/1000BASE-T ports
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3	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, a maximum transmission distance of 0.4 km, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions) 	4	One console port
5	One ETH management port	6	One USB port
7	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>

9	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	1 0	AC socket NOTE It is used with an AC power cable .
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Port Description

10/100BASE-TX port

A 10/100BASE-TX Ethernet electrical port sends and receives service data at 10/100 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1399](#) lists the attributes of a 10/100BASE-TX Ethernet electrical port.

Table 5-1399 Attributes of a 10/100BASE-TX Ethernet electrical port

Attribute	Item
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1400](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1400 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-1401](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-1401 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1402](#).

Table 5-1402 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1403](#) describes the attributes of an ETH management port.

Table 5-1403 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735S-L24FT4S-A has similar indicators to those on the S5735-L12P4S-A except that the S5735S-L24FT4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L24FT4S-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735S-L24FT4S-A has no fans and uses natural heat dissipation.

Technical Specifications

[Table 5-1404](#) lists technical specifications of the S5735S-L24FT4S-A.

Table 5-1404 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	55.89 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.08 kg (9 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput)	32 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	26 W
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p> <p>The operating temperature of the switch is -5°C to +40°C (23°F to 104°F) when it uses GE SFP optical modules with 40 km or longer transmission distance.</p> <p>When SFP+ copper cables or dedicated stack cables are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none">• -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet, with the wind speed of at least 40 LFM) <p>When SFP+ AOC cables or 10GE SFP+ optical modules are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none">• -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet shipped with fans with a fan speed of at least 200 LFM)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification

Item	Description
Part number	98010917

5.29.4 S5735S-L24T4S-A

Version Mapping

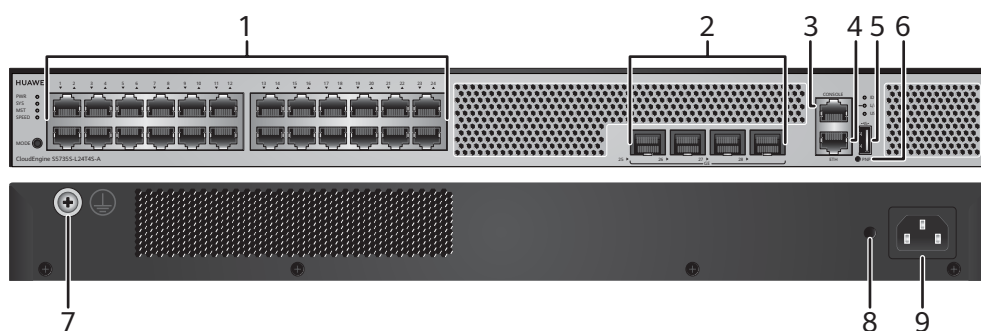
Table 5-1405 lists the mapping between the S5735S-L24T4S-A chassis and software versions.

Table 5-1405 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L24T4S-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-504 S5735S-L24T4S-A appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, a maximum transmission distance of 0.4 km, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1406](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1406 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-1407](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-1407 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1408](#).

Table 5-1408 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1409](#) describes the attributes of an ETH management port.

Table 5-1409 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735S-L24T4S-A has similar indicators to those on the S5735-L12P4S-A except that the S5735S-L24T4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L24T4S-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735S-L24T4S-A has no fans and uses natural heat dissipation.

Technical Specifications

[Table 5-1410](#) lists technical specifications of the S5735S-L24T4S-A.

Table 5-1410 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	92.82 years
Mean time to repair (MTTR)	2 hours

Item	Description
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.08 kg (9 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput)	34 W
Typical power consumption (30% of traffic load)	28 W <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p> <p>The operating temperature of the switch is -5°C to +40°C (23°F to 104°F) when it uses GE SFP optical modules with 40 km or longer transmission distance.</p> <p>When SFP+ copper cables or dedicated stack cables are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none"> -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet, with the wind speed of at least 40 LFM) <p>When SFP+ AOC cables or 10GE SFP+ optical modules are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none"> -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet shipped with fans with a fan speed of at least 200 LFM)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	98010915

5.29.5 S5735S-L24T4X-A

Version Mapping

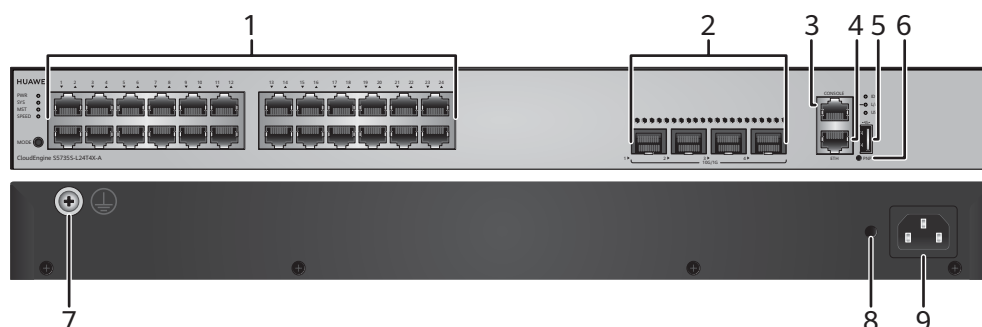
[Table 5-1411](#) lists the mapping between the S5735S-L24T4X-A chassis and software versions.

Table 5-1411 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L24T4X-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-505 S5735S-L24T4X-A appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port

5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1412](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1412 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1413](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1413 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1414](#).

Table 5-1414 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1415](#) describes the attributes of an ETH management port.

Table 5-1415 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

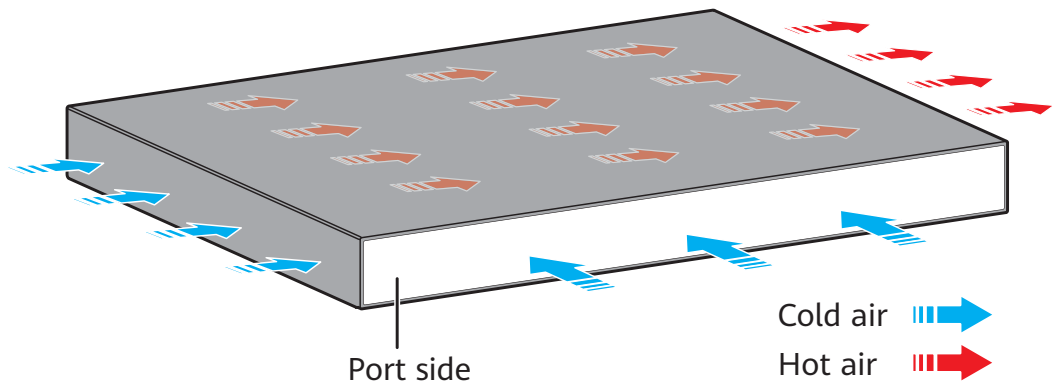
The S5735S-L24T4X-A has similar indicators to those on the S5735-L12P4S-A except that the S5735S-L24T4X-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L24T4X-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735S-L24T4X-A has one built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1416 lists technical specifications of the S5735S-L24T4X-A.

Table 5-1416 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	50.68 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4 kg (8.82 lb)

Item	Description
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz ● High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	43 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	27 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 47.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010921

5.29.6 S5735S-L24P4S-A

Version Mapping

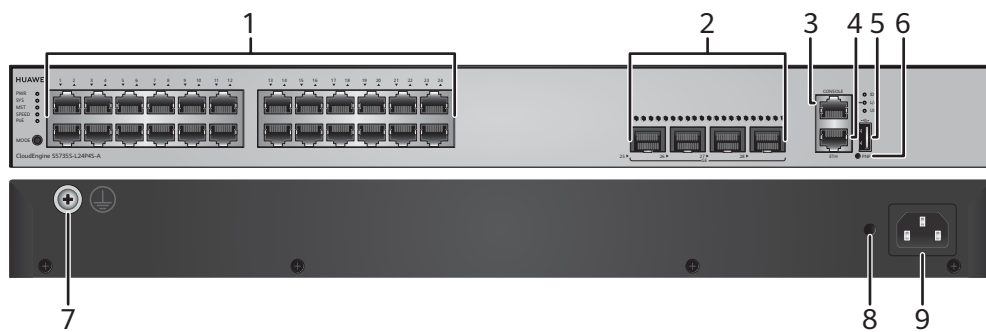
[Table 5-1417](#) lists the mapping between the S5735S-L24P4S-A chassis and software versions.

Table 5-1417 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L24P4S-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-506 S5735S-L24P4S-A appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module• 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions)• 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions)• 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions)• 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.

9	AC socket	-	-
	NOTE It is used with an AC power cable .		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1418](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1418 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-1419](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-1419 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 5-1420](#).

Table 5-1420 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1421](#) describes the attributes of an ETH management port.

Table 5-1421 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 **NOTE**

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

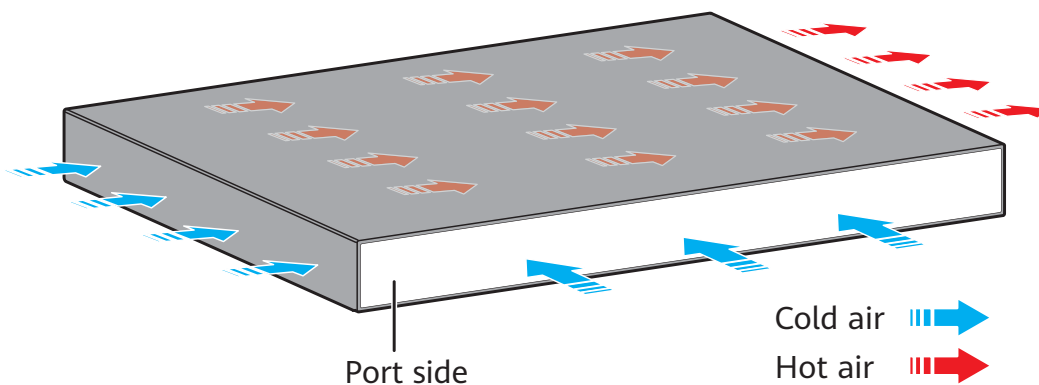
The S5735S-L24P4S-A has the same types of indicators as the S5735-L12P4S-A. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L24P4S-A has a built-in power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation

The S5735S-L24P4S-A has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1422](#) lists technical specifications of the S5735S-L24P4S-A.

Table 5-1422 Technical specifications

Item	Description
Memory (RAM)	1 GB

Item	Description
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	92.2 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.31 kg (9. lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 53 W 100% PoE loads: 451 W (PoE: 380 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	39 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.7 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010925

5.29.7 S5735S-L24P4X-A

Version Mapping

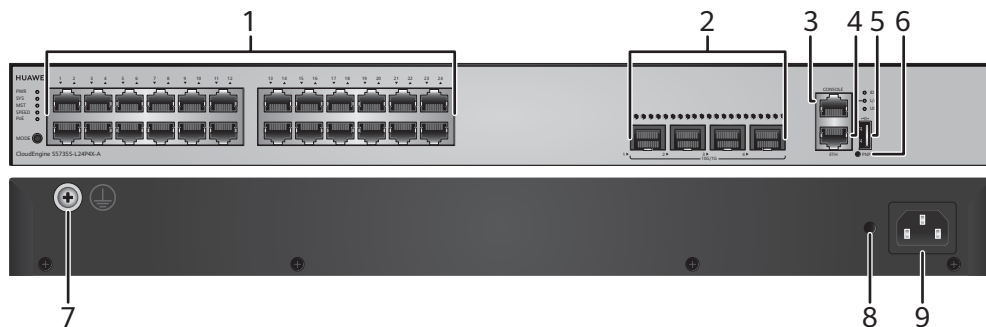
Table 5-1423 lists the mapping between the S5735S-L24P4X-A chassis and software versions.

Table 5-1423 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L24P4X-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-507 S5735S-L24P4X-A appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module (100M/1000M auto-sensing)• 10GE SFP+ optical module (OSXD22N00 not supported)• 10GE-CWDM optical module• 10GE-DWDM optical module• 1 m and 3 m SFP+ high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1424](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1424 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1425](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1425 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1426](#).

Table 5-1426 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1427](#) describes the attributes of an ETH management port.

Table 5-1427 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

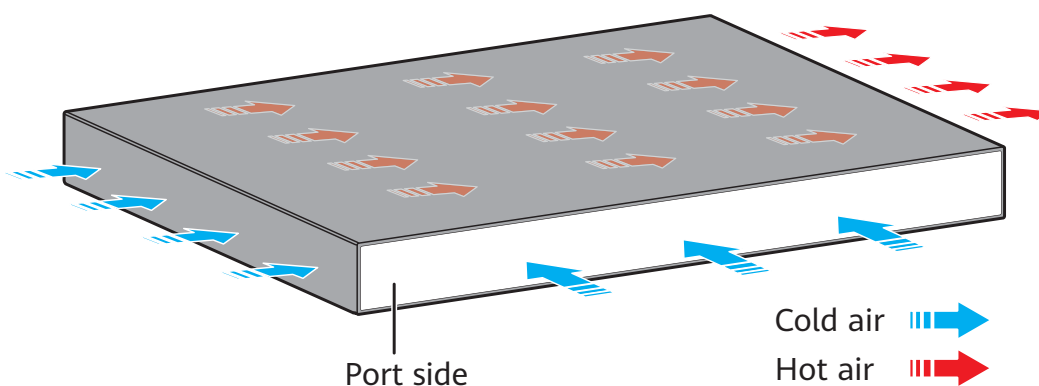
The S5735S-L24P4X-A has the same types of indicators as the S5735-L12P4S-A. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L24P4X-A has a built-in AC power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation

The S5735S-L24P4X-A has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.

**NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1428](#) lists technical specifications of the S5735S-L24P4X-A.

Table 5-1428 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	57.07 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.31 kg (9.5 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 56 W 100% PoE loads: 458 W (PoE: 380 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	43 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.7 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010928

5.29.8 S5735S-L32ST4X-A

Version Mapping

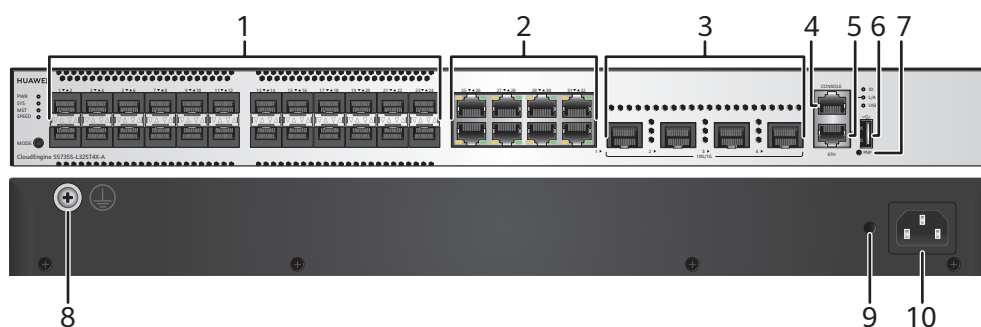
Table 5-1429 lists the mapping between the S5735S-L32ST4X-A chassis and software versions.

Table 5-1429 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L32ST4X-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-508 S5735S-L32ST4X-A appearance



1	Twenty-four 100/1000BASE-X ports Applicable modules: <ul style="list-style-type: none"> • FE optical module • GE optical module (maximum transmission distance ≤ 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	Eight 10/100/1000BASE-T ports
3	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions) 	4	One console port
5	One ETH management port	6	One USB port
7	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.	8	Ground screw NOTE It is used with a ground cable .

9	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.	1 0	AC socket NOTE It is used with an AC power cable .
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Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-1430](#) describes the attributes of a 100/1000BASE-X port.

Table 5-1430 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1431](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1431 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1432](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1432 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1433](#).

Table 5-1433 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1434](#) describes the attributes of an ETH management port.

Table 5-1434 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

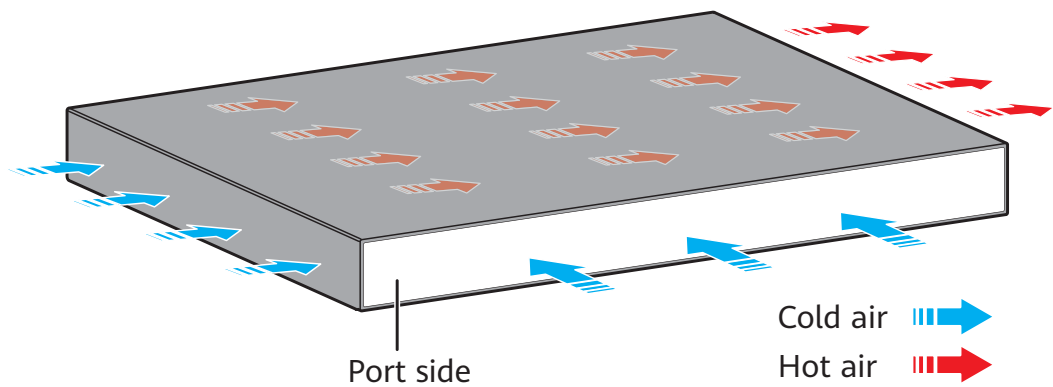
The S5735S-L32ST4X-A has the same types of indicators as the S5735-L32ST4X-A. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L32ST4X-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735S-L32ST4X-A has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1435 lists technical specifications of the S5735S-L32ST4X-A.

Table 5-1435 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	85.87 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.31 kg (9.5 lb)

Item	Description
Stack ports	Any 10/100/1000BASE-T ports, 100/1000BASE-X ports, or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> • AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz • High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	65 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	46 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 53.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010930

5.29.9 S5735S-L48FT4S-A

Version Mapping

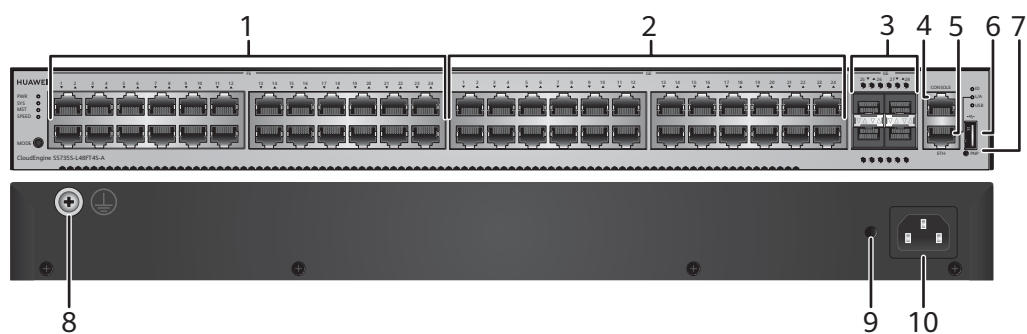
[Table 5-1436](#) lists the mapping between the S5735S-L48FT4S-A chassis and software versions.

Table 5-1436 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L48FT4S-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-509 S5735S-L48FT4S-A appearance



1	Twenty-four 10/100BASE-TX ports	2	Twenty-four 10/100/1000BASE-T ports
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3	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions) 	4	One console port
5	One ETH management port	6	One USB port
7	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
9	<p>Jack for AC power cable locking strap</p> <p>NOTE</p> <p>The AC power cable locking strap is not delivered with the switch.</p>	10	<p>AC socket</p> <p>NOTE</p> <p>It is used with an AC power cable.</p>

Port Description

10/100BASE-TX port

A 10/100BASE-TX Ethernet electrical port sends and receives service data at 10/100 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1437](#) lists the attributes of a 10/100BASE-TX Ethernet electrical port.

Table 5-1437 Attributes of a 10/100BASE-TX Ethernet electrical port

Attribute	Item
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1438](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1438 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-1439](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-1439 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1440](#).

Table 5-1440 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1441](#) describes the attributes of an ETH management port.

Table 5-1441 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3

Attribute	Description
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

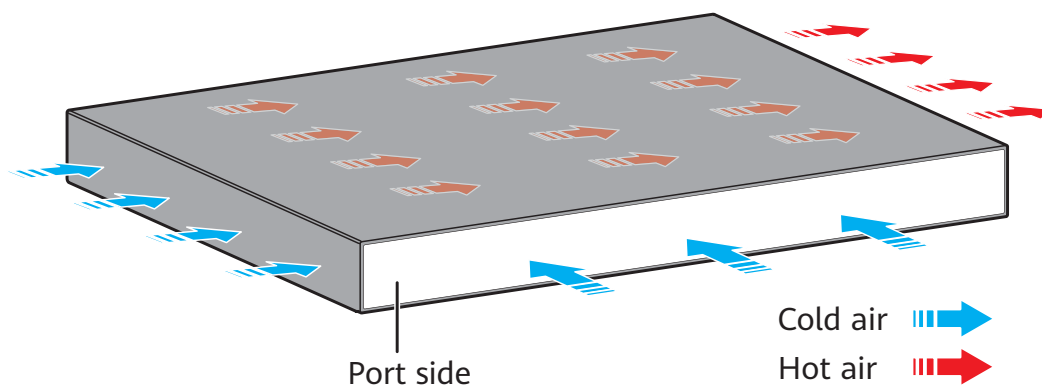
The S5735S-L48FT4S-A has similar indicators to those on the S5735-L12P4S-A except that the S5735S-L48FT4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L48FT4S-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735S-L48FT4S-A has one built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1442](#) lists technical specifications of the S5735S-L48FT4S-A.

Table 5-1442 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	50.68 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.42 kg (9.75 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC

Item	Description
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz ● High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	44 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	30 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> ● The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. ● The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. ● The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.

Item	Description
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 53.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010935

5.29.10 S5735S-L48T4S-A

Version Mapping

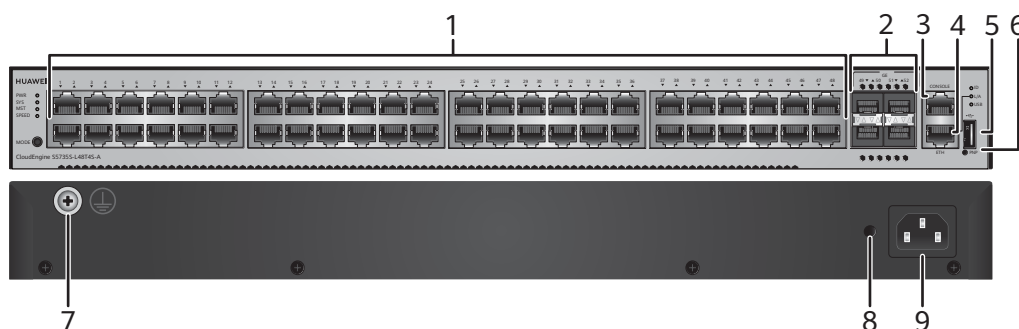
Table 5-1443 lists the mapping between the S5735S-L48T4S-A chassis and software versions.

Table 5-1443 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L48T4S-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-510 S5735S-L48T4S-A appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module• 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions)• 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions)• 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions)• 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.

9	AC socket	-	-
	NOTE It is used with an AC power cable .		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1444](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1444 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-1445](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-1445 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 5-1446](#).

Table 5-1446 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1447](#) describes the attributes of an ETH management port.

Table 5-1447 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 **NOTE**

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

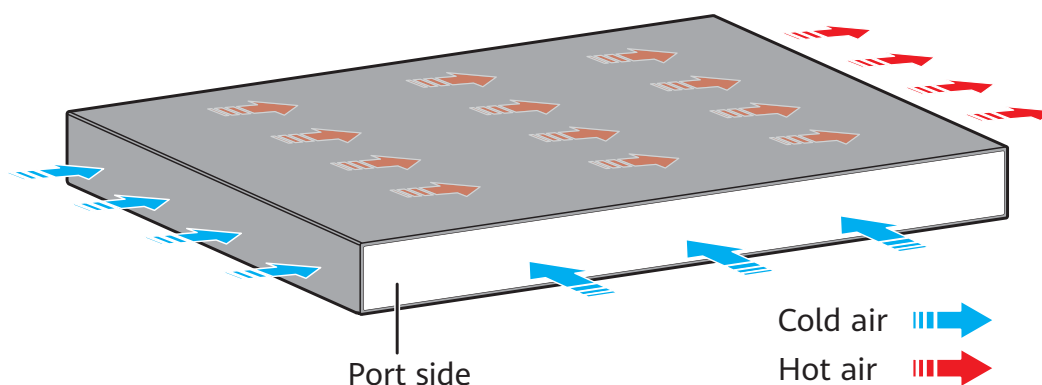
The S5735S-L48T4S-A has similar indicators to those on the S5735S-L12P4S-A except that the S5735S-L48T4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L48T4S-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735S-L48T4S-A has one built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1448](#) lists technical specifications of the S5735S-L48T4S-A.

Table 5-1448 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	46.36 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">• Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.)• Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.42 kg (9.75 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none">• AC input: 100 V AC to 240 V AC, 50/60 Hz• High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none">• AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz• High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	53 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	37 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 53.3 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010934

5.29.11 S5735S-L48T4X-A

Version Mapping

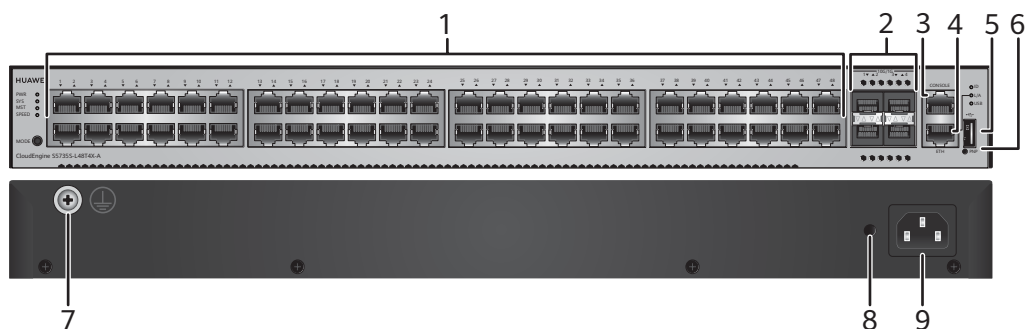
Table 5-1449 lists the mapping between the S5735S-L48T4X-A chassis and software versions.

Table 5-1449 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L48T4X-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-511 S5735S-L48T4X-A appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module (100M/1000M auto-sensing)• 10GE SFP+ optical module (OSXD22N00 not supported)• 10GE-CWDM optical module• 10GE-DWDM optical module• 1 m and 3 m SFP+ high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1450](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1450 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1451](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1451 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1452](#).

Table 5-1452 Attributes of a console port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1453](#) describes the attributes of an ETH management port.

Table 5-1453 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

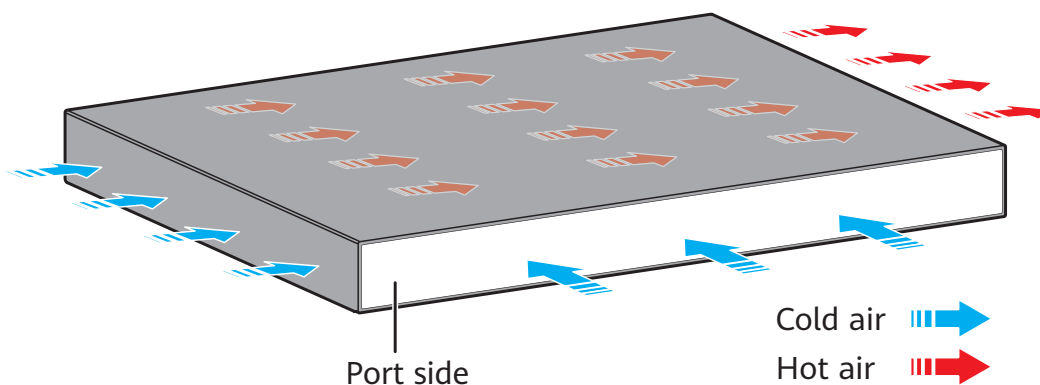
The S5735S-L48T4X-A has similar indicators to those on the S5735-L12P4S-A except that the S5735S-L48T4X-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L48T4X-A has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735S-L48T4X-A has one built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1454](#) lists technical specifications of the S5735S-L48T4X-A.

Table 5-1454 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	41.48 years

Item	Description
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.42 kg (9.75 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	54 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	39 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F). The operating temperature of the switch is -5°C to +45°C (23°F to 113°F) when it uses 10GE SFP+ optical modules with 40 km or longer transmission distances.
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Item	Description
Noise under normal temperature (27°C, sound power)	< 53.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010937

5.29.12 S5735S-L48P4S-A

Version Mapping

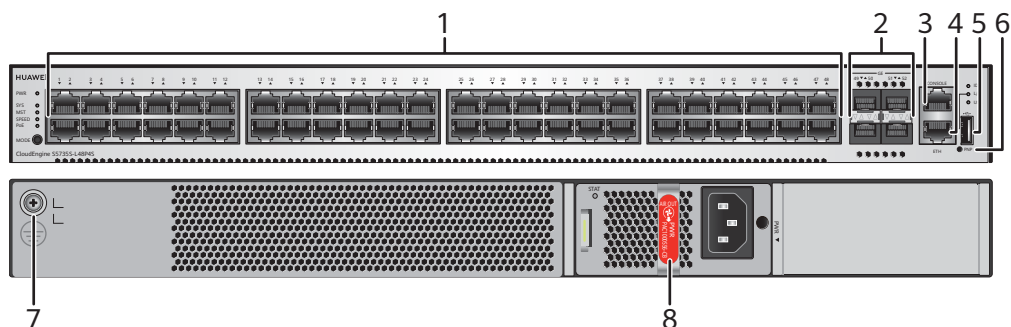
[Table 5-1455](#) lists the mapping between the S5735S-L48P4S-A chassis and software versions.

Table 5-1455 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L48P4S-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-512 S5735S-L48P4S-A appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Power module slot</p> <p>NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1456](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1456 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-1457](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-1457 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1458](#).

Table 5-1458 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1459](#) describes the attributes of an ETH management port.

Table 5-1459 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735S-L48P4S-A has the same types of indicators as the S5735-L12P4S-A. For details, see [Indicator Description](#).

Power Supply Configuration

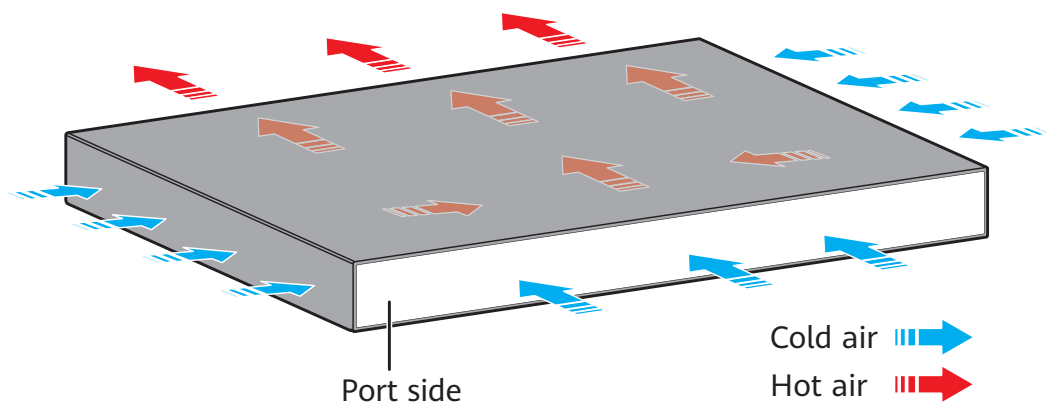
The S5735S-L48P4S-A is a PoE switch. It has one power module slot, which can have a 1000 W PoE power module installed. [Table 5-1460](#) lists its power supply configurations.

Table 5-1460 Power supply configurations

Power Module	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	874 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29
1000 W (110 V)	779 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25

Heat Dissipation

The S5735S-L48P4S-A has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1461](#) lists technical specifications of the S5735S-L48P4S-A.

Table 5-1461 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	61.7 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	8.7 kg (19.18 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 75 W 100% PoE loads: 911 W (PoE: 874 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	58 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010946

5.29.13 S5735S-L48P4X-A

Version Mapping

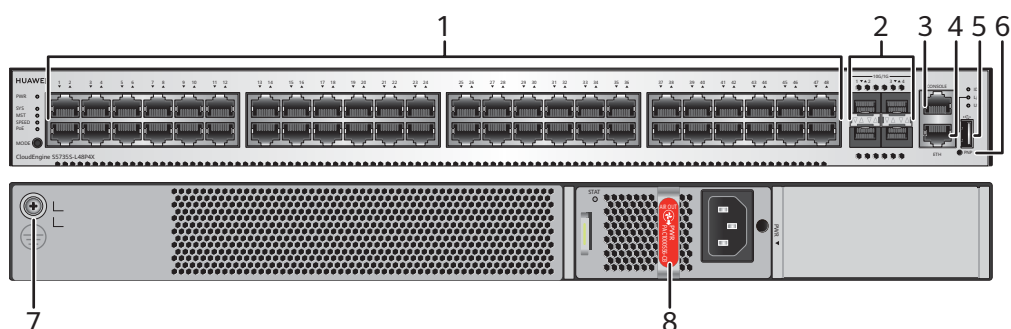
[Table 5-1462](#) lists the mapping between the S5735S-L48P4X-A chassis and software versions.

Table 5-1462 Version mapping

Series	Model	Software Version
S5735S-L	S5735S-L48P4X-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-513 S5735S-L48P4X-A appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Power module slot NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. [Table 5-1463](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1463 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ optical port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1464](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1464 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1465](#).

Table 5-1465 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1466](#) describes the attributes of an ETH management port.

Table 5-1466 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735S-L48P4X-A has the same types of indicators as the S5735-L12P4S-A. For details, see [Indicator Description](#).

Power Supply Configuration

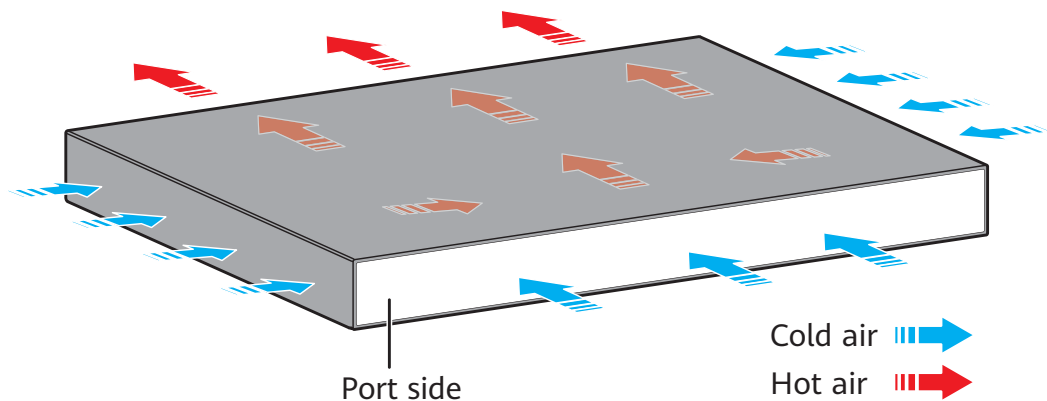
The S5735S-L48P4X-A is a PoE switch. It has one power module slot, which can have a 1000 W PoE power module installed. [Table 5-1467](#) lists its power supply configurations.

Table 5-1467 Power supply configurations

Power Module	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	874 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29
1000 W (110 V)	779 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25

Heat Dissipation

The S5735S-L48P4X-A has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1468](#) lists technical specifications of the S5735S-L48P4X-A.

Table 5-1468 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	61.7 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	8.7 kg (19.18 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 80 W 100% PoE loads: 914 W (PoE: 874 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	59 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010945

5.30 S5735S-L-M

5.30.1 S5735S-L24T4S-MA

Version Mapping

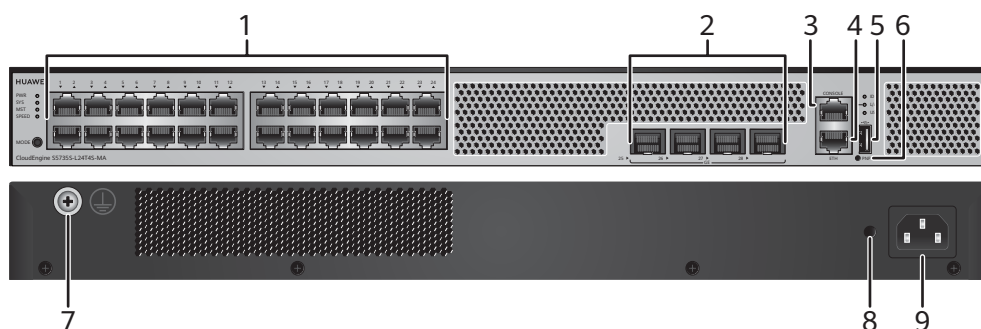
[Table 5-1469](#) lists the mapping between the S5735S-L24T4S-MA chassis and software versions.

Table 5-1469 Version mapping

Series	Model	Software Version
S5735S-L-M	S5735S-L24T4S-MA	V200R019C00 and later versions

Appearance and Structure

Figure 5-514 S5735S-L24T4S-MA appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module• 10GE SFP+ optical module (only used for stack connection, a maximum transmission distance of 0.4 km, OSXD22N00 not supported, applicable in V200R019C10 and later versions)• 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions)• 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions)• 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.
9	AC socket NOTE It is used with an AC power cable .	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1470](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1470 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-1471](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-1471 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used

Attribute	Description
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1472](#).

Table 5-1472 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1473](#) describes the attributes of an ETH management port.

Table 5-1473 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735S-L24T4S-MA has similar indicators to those on the S5735-L12P4S-A except that the S5735S-L24T4S-MA does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L24T4S-MA has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735S-L24T4S-MA has no fans and uses natural heat dissipation.

Technical Specifications

[Table 5-1474](#) lists technical specifications of the S5735S-L24T4S-MA.

Table 5-1474 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	92.82 years
Mean time to repair (MTTR)	2 hours

Item	Description
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.08 kg (9 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput)	34 W
Typical power consumption (30% of traffic load)	28 W <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption

Item	Description
Operating temperature	<p>-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p> <p>The operating temperature of the switch is -5°C to +40°C (23°F to 104°F) when it uses GE SFP optical modules with 40 km or longer transmission distance.</p> <p>When SFP+ copper cables or dedicated stack cables are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none"> -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet, with the wind speed of at least 40 LFM) <p>When SFP+ AOC cables or 10GE SFP+ optical modules are used to set up a stack, the switch can operate in the following temperature range:</p> <ul style="list-style-type: none"> -5°C to +45°C (23°F to 113°F) (installed in the ventilation cabinet shipped with fans with a fan speed of at least 200 LFM)
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification
Part number	98010916

5.30.2 S5735S-L24P4S-MA

Version Mapping

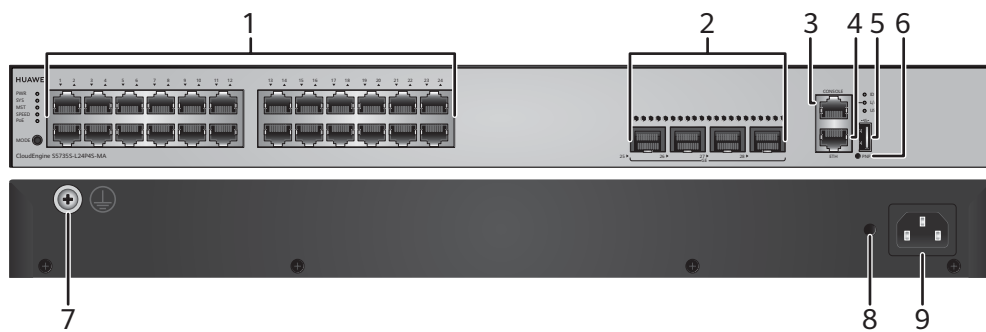
[Table 5-1475](#) lists the mapping between the S5735S-L24P4S-MA chassis and software versions.

Table 5-1475 Version mapping

Series	Model	Software Version
S5735S-L-M	S5735S-L24P4S-MA	V200R019C00 and later versions

Appearance and Structure

Figure 5-515 S5735S-L24P4S-MA appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Four 1000BASE-X ports Applicable modules: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module• 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions)• 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions)• 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions)• 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Jack for AC power cable locking strap NOTE The AC power cable locking strap is not delivered with the switch.

9	AC socket	-	-
	NOTE It is used with an AC power cable .		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1476](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1476 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-1477](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-1477 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 5-1478](#).

Table 5-1478 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1479](#) describes the attributes of an ETH management port.

Table 5-1479 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

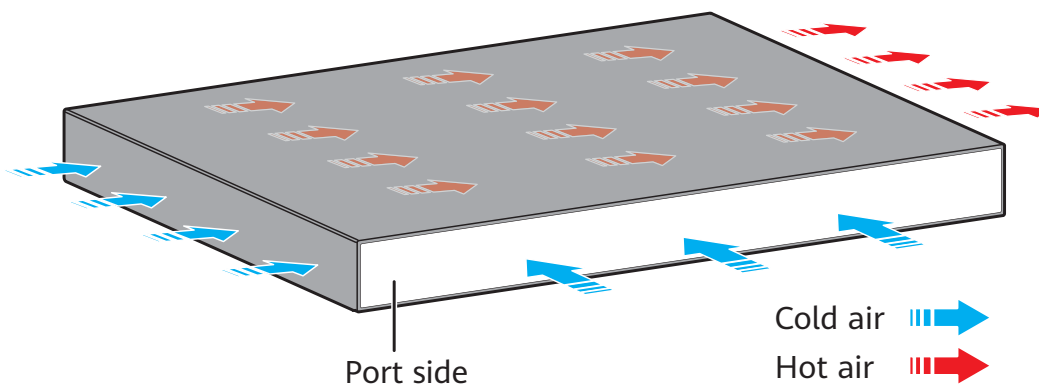
The S5735S-L24P4S-MA has the same types of indicators as the S5735-L12P4S-A. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L24P4S-MA has a built-in power module and does not support pluggable power modules. The built-in power module can provide 380 W PoE power, which ensures full PoE power on 24 ports in compliance with 802.3af or on 12 ports in compliance with 802.3at.

Heat Dissipation

The S5735S-L24P4S-MA has two built-in fans for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1480](#) lists technical specifications of the S5735S-L24P4S-MA.

Table 5-1480 Technical specifications

Item	Description
Memory (RAM)	1 GB

Item	Description
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	76.1 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.31 kg (9. lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 53 W 100% PoE loads: 451 W (PoE: 380 W)

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	39 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 57.7 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010926

5.30.3 S5735S-L48T4S-MA

Version Mapping

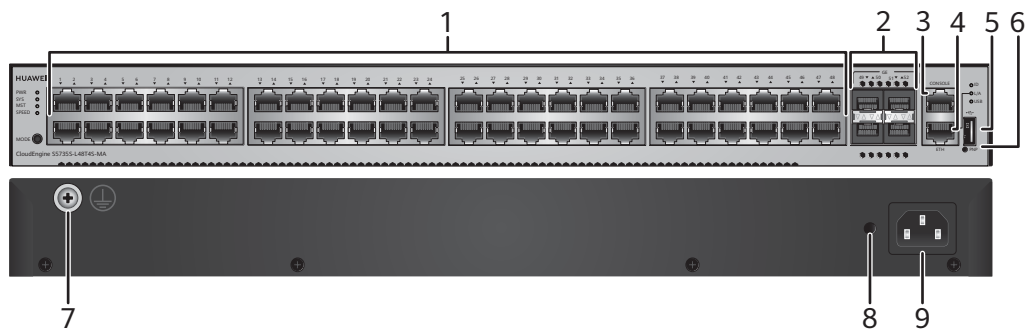
Table 5-1481 lists the mapping between the S5735S-L48T4S-MA chassis and software versions.

Table 5-1481 Version mapping

Series	Model	Software Version
S5735S-L-M	S5735S-L48T4S-MA	V200R019C10SPC500 and later versions

Appearance and Structure

Figure 5-516 S5735S-L48T4S-MA appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Jack for AC power cable locking strap</p> <p>NOTE The AC power cable locking strap is not delivered with the switch.</p>

9	AC socket	-	-
	NOTE It is used with an AC power cable .		

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1482](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1482 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-1483](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-1483 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on

for the first time. For details about the attributes of a console port, see [Table 5-1484](#).

Table 5-1484 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1485](#) describes the attributes of an ETH management port.

Table 5-1485 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 **NOTE**

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

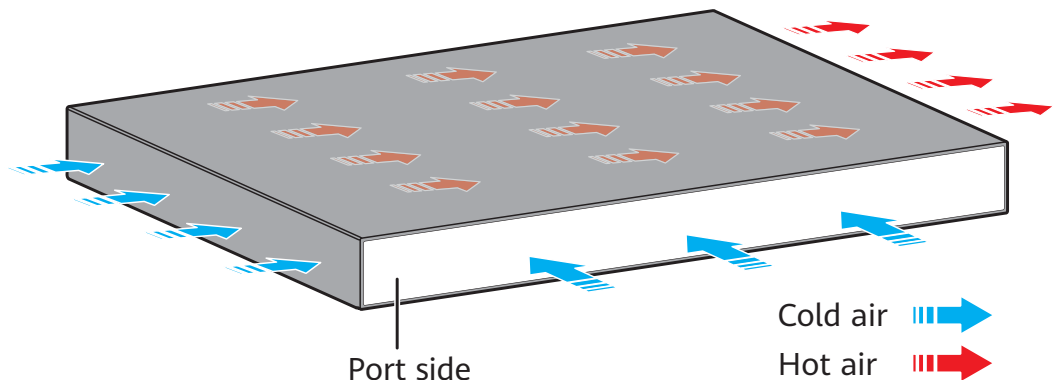
The S5735S-L48T4S-MA has similar indicators to those on the S5735-L12P4S-A except that the S5735S-L48T4S-MA does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-L48T4S-MA has a built-in AC power module and does not support pluggable power modules.

Heat Dissipation

The S5735S-L48T4S-MA has one built-in fan for forced air cooling. Air flows in from the left side and front panel, and exhausts from the right side.



 **NOTE**

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1486](#) lists technical specifications of the S5735S-L48T4S-MA.

Table 5-1486 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.

Item	Description
Mean time between failures (MTBF)	46.36 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.7 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the parts protruding from the rear panel): 43.6 mm x 442.0 mm x 227.0 mm (1.72 in. x 17.4 in. x 8.94 in.)
Weight (with packaging)	4.42 kg (9.75 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	53 W

Item	Description
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	37 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 53.3 dB(A)
Relative humidity	5% to 95%, noncondensing

Item	Description
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010971

5.31 S5735-S

5.31.1 S5735-S24T4X

Version Mapping

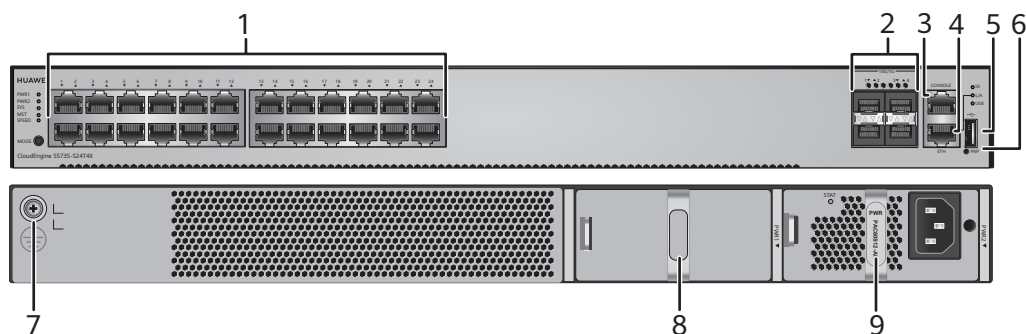
[Table 5-1487](#) lists the mapping between the S5735-S24T4X chassis and software versions.

Table 5-1487 Version mapping

Series	Model	Software Version
S5735-S	S5735-S24T4X	V200R019C00 and later versions

Appearance and Structure

Figure 5-517 S5735-S24T4X appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module (100M/1000M auto-sensing)• 10GE SFP+ optical module (OSXD22N00 not supported)• 10GE-CWDM optical module• 10GE-DWDM optical module• 1 m and 3 m SFP+ high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none">• 60 W AC Power Module (PAC60S12-AR)• 1000 W DC Power Module (PDC1000S12-DB)• 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions)

9	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 60 W AC Power Module (PAC60S12-AR) • 1000 W DC Power Module (PDC1000S12-DB) • 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions) 	-	-
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Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-1488** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1488 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. **Table 5-1489** describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1489 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae

Attribute	Description
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a **console cable**. The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1490](#).

Table 5-1490 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1491](#) describes the attributes of an ETH management port.

Table 5-1491 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

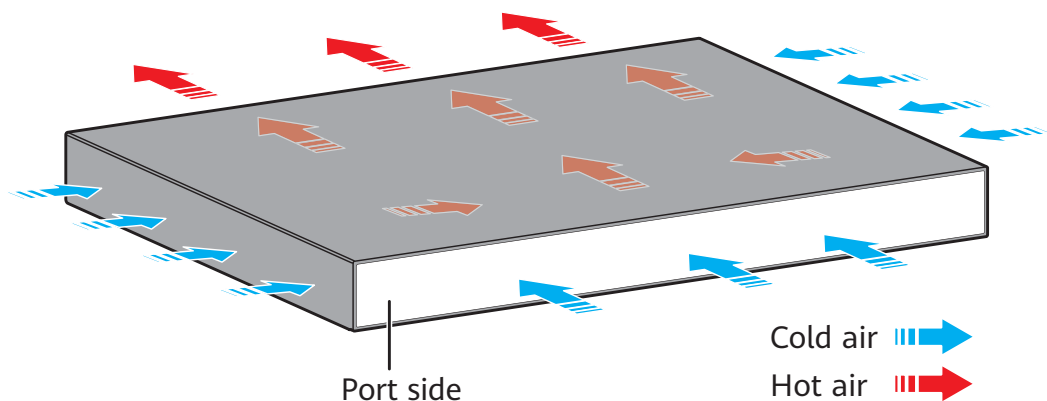
The S5735-S24T4X has similar indicators to those on the S5735-S24P4X except that the S5735-S24T4X does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-S24T4X can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5735-S24T4X has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1492 lists technical specifications of the S5735-S24T4X.

Table 5-1492 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	69.42 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none">Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common modeUsing DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none">Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.)Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	7.21 kg (15.9 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none">AC input: 100 V AC to 240 V AC, 50/60 HzHigh-Voltage DC input: 240 V DCDC input: -48 V DC to -60 V DC

Item	Description
Maximum voltage range	<ul style="list-style-type: none"> • AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz • High-Voltage DC input: 190 V DC to 290 V DC • DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	46 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	31 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
Short-term operating temperature	-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>

Item	Description
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010938

5.31.2 S5735-S24P4X

Version Mapping

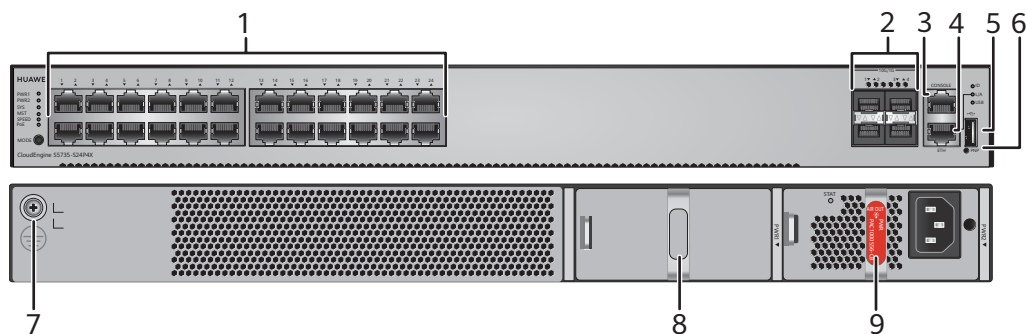
[Table 5-1493](#) lists the mapping between the S5735-S24P4X chassis and software versions.

Table 5-1493 Version mapping

Series	Model	Software Version
S5735-S	S5735-S24P4X	V200R019C00 and later versions

Appearance and Structure

Figure 5-518 S5735-S24P4X appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Power module slot 1 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)
9	Power module slot 2 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1494](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1494 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1495](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1495 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1496](#).

Table 5-1496 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1497](#) describes the attributes of an ETH management port.

Table 5-1497 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

NOTE

Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:

- If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows:
 - If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes.
 - If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status.
- If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.

Figure 5-519 Indicators on the S5735-S24P4X

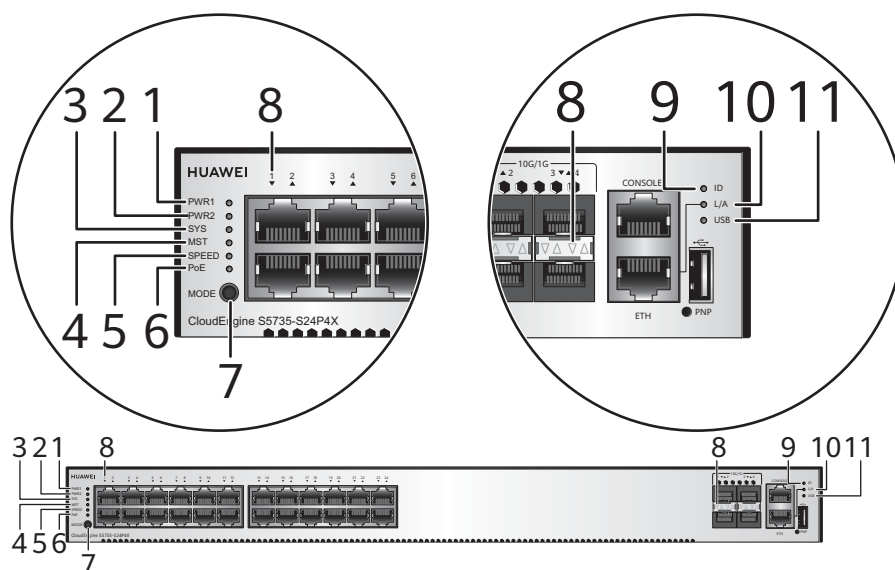


Table 5-1498 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> A power module is available in this slot but it is not connected to a power source. The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.

No.	Indicator	Name	Color	Status	Description
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p>
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-1499 .		
9	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
10	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.

No.	Indicator	Name	Color	Status	Description
11	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-1499 Description of service port indicators in different modes

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green or yellow	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.

Display Mode	Color	Status	Description
	Green	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green or yellow	Steady on	10M/100M/1000M port: The port is operating at 10 Mbit/s or 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green or yellow	Blinking	10M/100M/1000M port: The port is operating at 1000 Mbit/s. 1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.
	Yellow	Steady on	The PoE function is disabled on the port.
	Yellow	Blinking	The port stops providing PoE power because of an exception (for example, an incompatible PD is connected to the port).

Display Mode	Color	Status	Description
	Green and yellow	Blinking green and yellow alternately	<p>The port fails to supply power to a PD due to one of the following reasons:</p> <ul style="list-style-type: none"> • The power required by the connected PD exceeds the maximum power or the configured power threshold of the port. • The total power consumption of PDs has reached the maximum power of the switch. • The manual power management mode is used and the port is not enabled to provide power to the PD.

Power Supply Configuration

The S5735-S24P4X is a PoE switch. It has two power module slots, each of which can have a 1000 W PoE power module installed. [Table 5-1500](#) lists its power supply configurations.

Table 5-1500 Power supply configurations

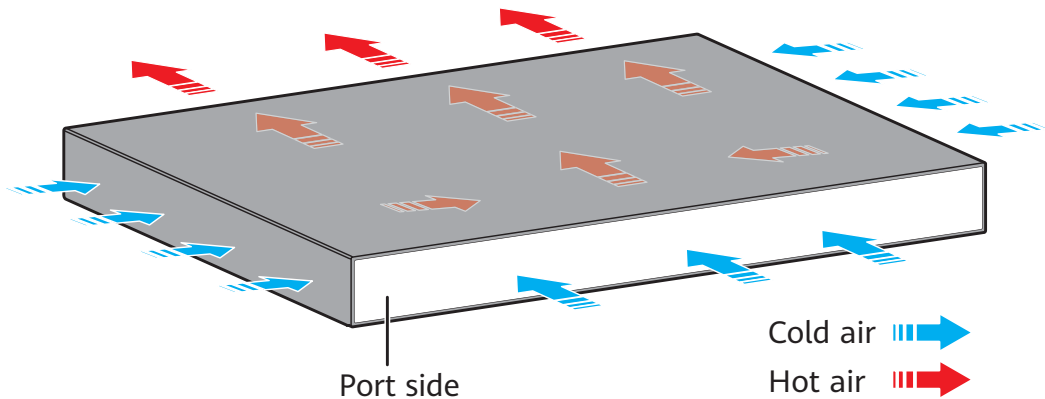
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	–	874 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24
1000 W (110 V)	–	779 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24
1000 W (220 V)	1000 W (220 V)	1600 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24
1000 W (110 V)	1000 W (110 V)	1558 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5735-S24P4X has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1501 lists technical specifications of the S5735-S24P4X.

Table 5-1501 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	59.88 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	7.39 kg (16.29 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> Not providing the PoE function: 65 W 100% PoE loads: 847 W (PoE: 720 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	51 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010940

5.31.3 S5735-S32ST4X

Version Mapping

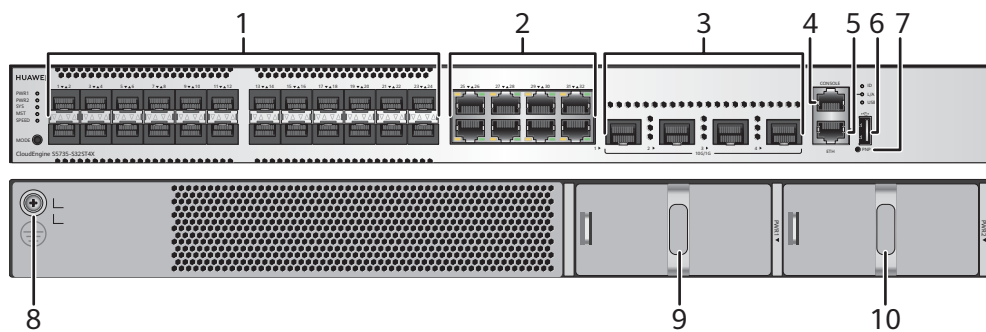
[Table 5-1502](#) lists the mapping between the S5735-S32ST4X chassis and software versions.

Table 5-1502 Version mapping

Series	Model	Software Version
S5735-S	S5735-S32ST4X	V200R019C00 and later versions

Appearance and Structure

Figure 5-520 S5735-S32ST4X appearance



1	<p>Twenty-four 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module (maximum transmission distance ≤ 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Eight 10/100/1000BASE-T ports</p>
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions) 	4	One console port
5	One ETH management port	6	One USB port
7	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
9	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 60 W AC Power Module (PAC60S12-AR) • 1000 W DC Power Module (PDC1000S12-DB) • 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions) 	10	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 60 W AC Power Module (PAC60S12-AR) • 1000 W DC Power Module (PDC1000S12-DB) • 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions)

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-1503](#) describes the attributes of a 100/1000BASE-X port.

Table 5-1503 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1504](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1504 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1505](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1505 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1506](#).

Table 5-1506 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1507](#) describes the attributes of an ETH management port.

Table 5-1507 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

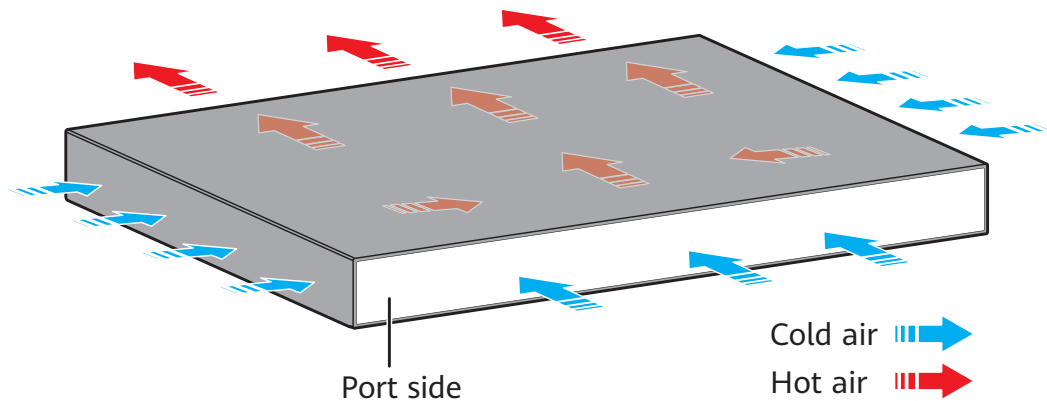
The S5735-S32ST4X has similar indicators to those on the S5735-S24P4X except that the S5735-S32ST4X does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-S32ST4X can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5735-S32ST4X has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1508 lists technical specifications of the S5735-S32ST4X.

Table 5-1508 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	68.59 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)

Item	Description
Weight (with packaging)	7.47 kg (16.47 lb)
Stack ports	Any 10/100/1000BASE-T ports, 100/1000BASE-X ports, or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	66 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	47 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) <p>NOTE</p> When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 59.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010931

5.31.4 S5735-S48T4X

Version Mapping

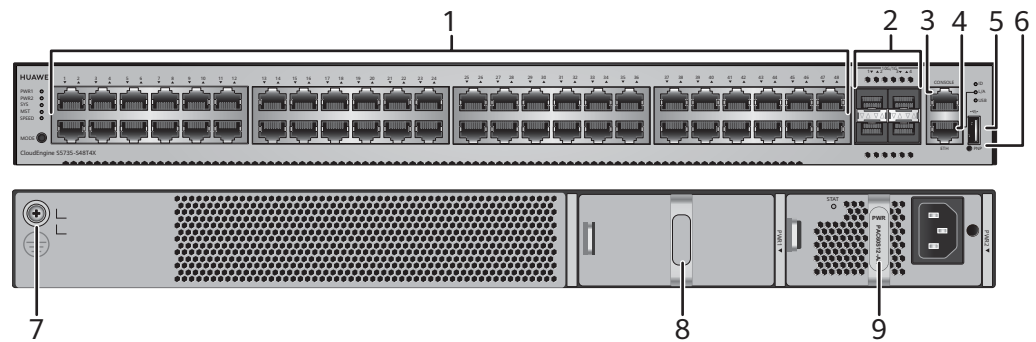
Table 5-1509 lists the mapping between the S5735-S48T4X chassis and software versions.

Table 5-1509 Version mapping

Series	Model	Software Version
S5735-S	S5735-S48T4X	V200R019C00 and later versions

Appearance and Structure

Figure 5-521 S5735-S48T4X appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port

5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 60 W AC Power Module (PAC60S12-AR) • 1000 W DC Power Module (PDC1000S12-DB) • 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions)
9	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 60 W AC Power Module (PAC60S12-AR) • 1000 W DC Power Module (PDC1000S12-DB) • 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1510](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1510 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1511](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1511 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1512](#).

Table 5-1512 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1513](#) describes the attributes of an ETH management port.

Table 5-1513 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

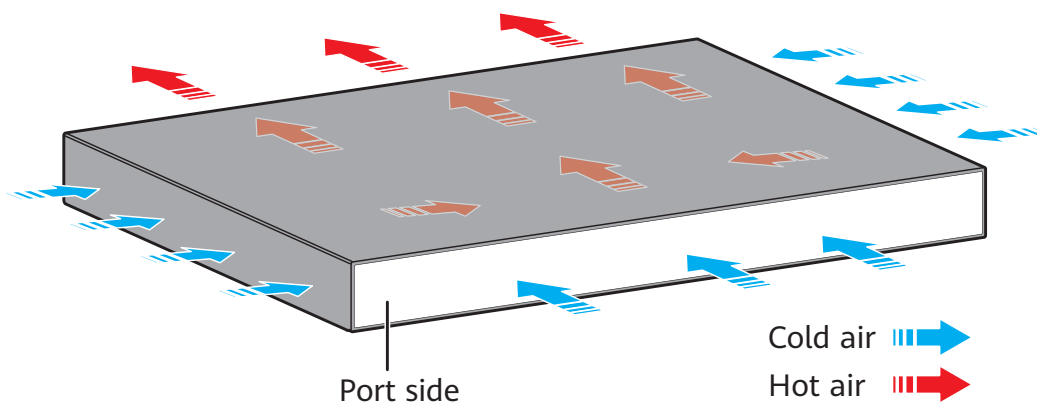
The S5735-S48T4X has similar indicators to those on the S5735-S24P4X except that the S5735-S48T4X does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-S48T4X can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5735-S48T4X has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1514](#) lists technical specifications of the S5735-S48T4X.

Table 5-1514 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	74.7 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	7.69 kg (16.95 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • High-Voltage DC input: 240 V DC • DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> • AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz • High-Voltage DC input: 190 V DC to 290 V DC • DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	59 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	40 W

Item	Description
Operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010941

5.31.5 S5735-S48P4X

Version Mapping

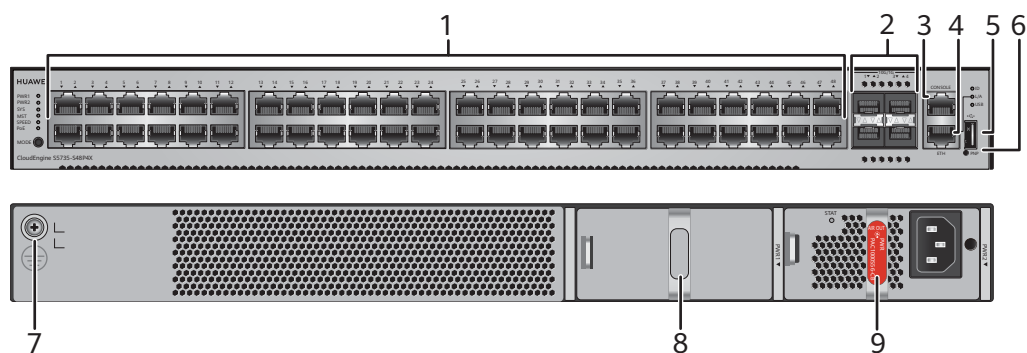
Table 5-1515 lists the mapping between the S5735-S48P4X chassis and software versions.

Table 5-1515 Version mapping

Series	Model	Software Version
S5735-S	S5735-S48P4X	V200R019C00 and later versions

Appearance and Structure

Figure 5-522 S5735-S48P4X appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>
7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Power module slot 1</p> <p>NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)</p>
9	<p>Power module slot 2</p> <p>NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1516](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1516 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1517](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1517 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1518](#).

Table 5-1518 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1519](#) describes the attributes of an ETH management port.

Table 5-1519 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 **NOTE**

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735-S48P4X has the same types of indicators as the S5735-S24P4X. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-S48P4X is a PoE switch. It has two power module slots, each of which can have a 1000 W PoE power module installed. [Table 5-1520](#) lists its power supply configurations.

Table 5-1520 Power supply configurations

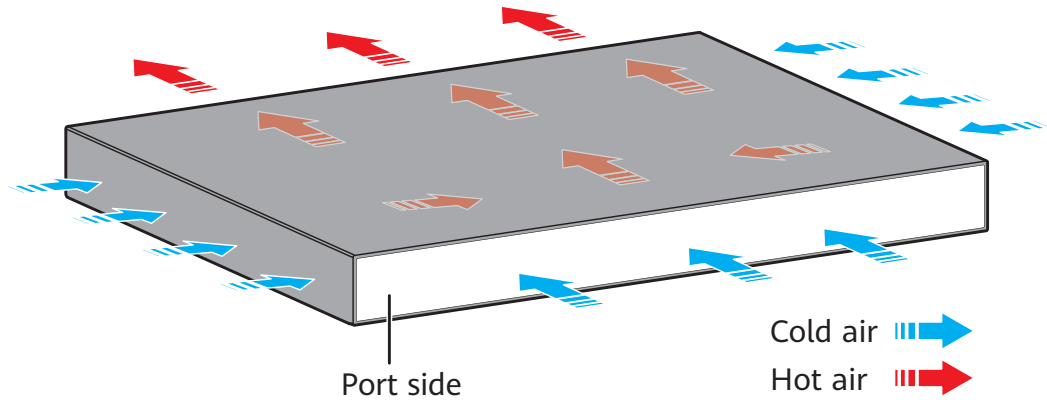
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	-	874 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29
1000 W (110 V)	-	779 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25
1000 W (220 V)	1000 W (220 V)	1600 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W (110 V)	1000 W (110 V)	1558 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48

 **NOTE**

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5735-S48P4X has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1521 lists technical specifications of the S5735-S48P4X.

Table 5-1521 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	54.88 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	7.64 kg (16.84 lb)

Item	Description
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none">AC input: 100 V AC to 240 V AC, 50/60 HzHigh-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none">AC input: 90 V AC to 290 V AC, 45 Hz to 65 HzHigh-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">Not providing the PoE function: 77 W100% PoE loads: 1661 W (PoE: 1440 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">Tested according to ATIS standardEEE enabledNo PoE power consumption	59 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010943

5.31.6 S5735-S48S4X

Version Mapping

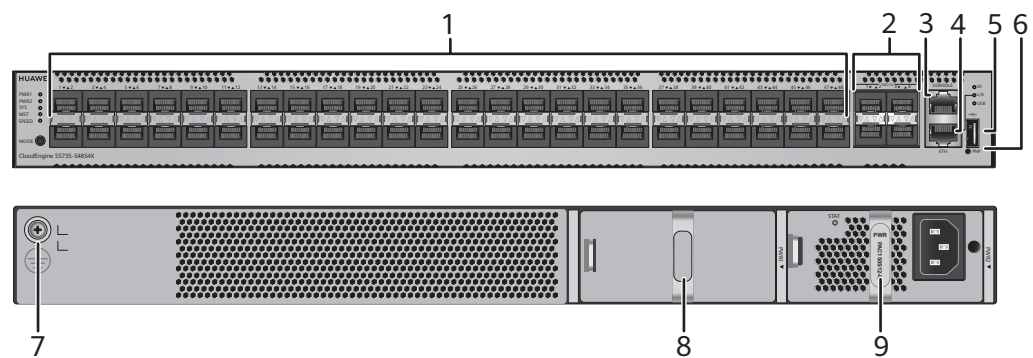
[Table 5-1522](#) lists the mapping between the S5735-S48S4X chassis and software versions.

Table 5-1522 Version mapping

Series	Model	Software Version
S5735-S	S5735-S48S4X	V200R019C00 and later versions

Appearance and Structure

Figure 5-523 S5735-S48S4X appearance



1	<p>Forty-eight 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port

5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 150 W AC Power Module (PAC150S12-R) • 1000 W DC Power Module (PDC1000S12-DB) • 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions)
9	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 150 W AC Power Module (PAC150S12-R) • 1000 W DC Power Module (PDC1000S12-DB) • 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions) 	-	-

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-1523](#) describes the attributes of a 100/1000BASE-X port.

Table 5-1523 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z

Attribute	Description
Working mode	100/1000 Mbit/s auto-sensing

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1524](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1524 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1525](#).

Table 5-1525 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or

remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1526](#) describes the attributes of an ETH management port.

Table 5-1526 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

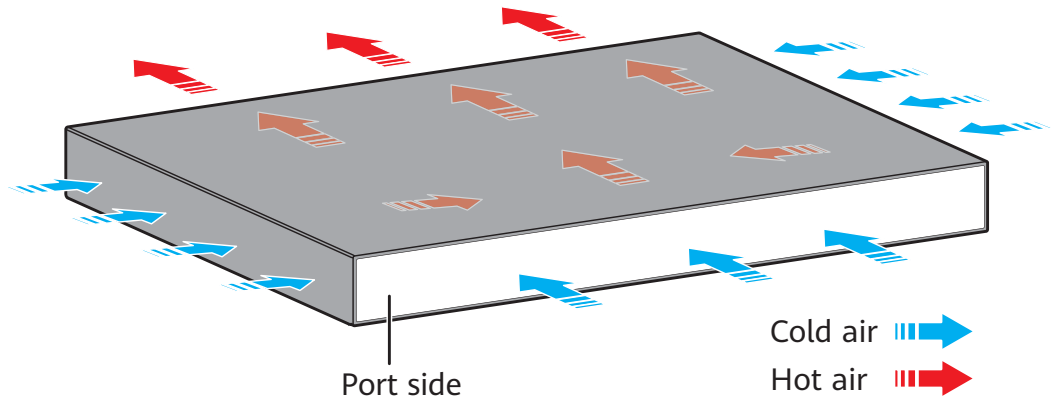
The S5735-S48S4X has similar indicators to those on the S5735-S24P4X except that the S5735-S48S4X does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-S48S4X can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5735-S48S4X has three built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1527](#) lists technical specifications of the S5735-S48S4X.

Table 5-1527 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	66.33 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	NA
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> • Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) • Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	8.27 kg (18.23 lb)
Stack ports	Any 100/1000BASE-X ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> • AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz • DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	89 W
Typical power consumption (30% of traffic load, tested according to ATIS standard)	67 W
Operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 61 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010947

5.32 S5735-S-I

5.32.1 S5735-S4T2X-IA150G1

Version Mapping

Table 5-1528 lists the mapping between the S5735-S4T2X-IA150G1 chassis and software versions.

Table 5-1528 Version mapping

Series	Model	Software Version
S5730-S-I	S5735-S4T2X-IA150G1	V200R019C10 and later versions

Appearance and Structure

Figure 5-524 S5735-S4T2X-IA150G1 appearance

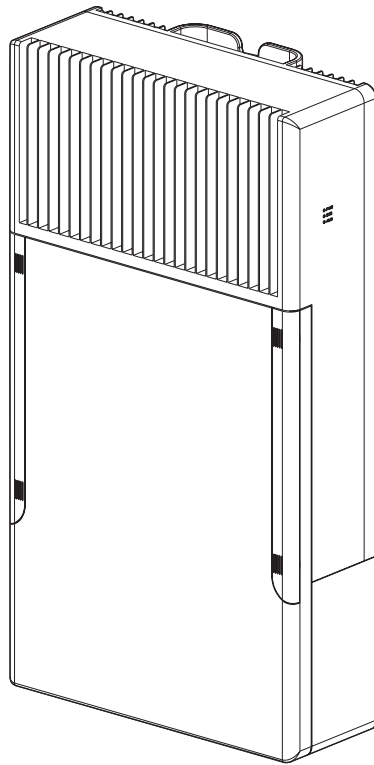
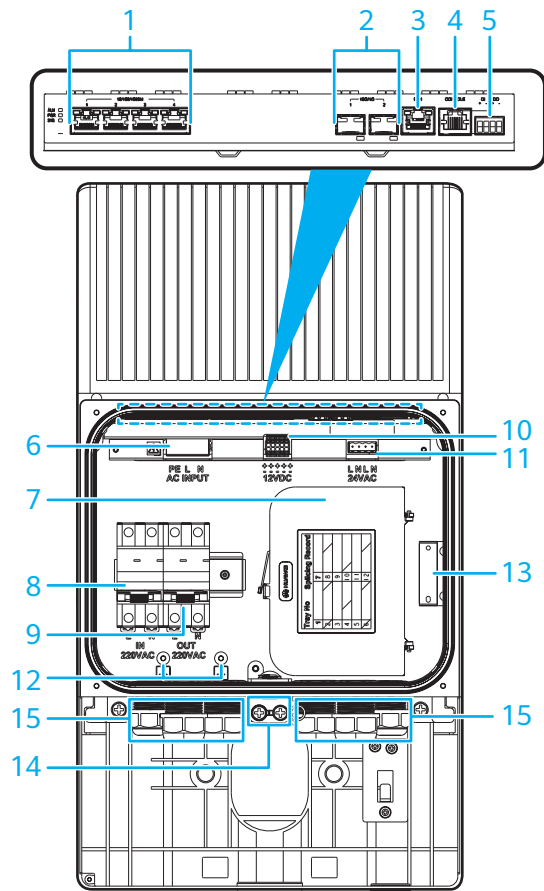


Figure 5-525 Interior of the S5735-S4T2X-IA150G1 maintenance compartment



1	Four 10/100/1000BASE-T ports	2 Two 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> ● Industrial optical module ● GPON optical module ● Third-party GPON optical modules (Hisense LTE3415-SH+ and CIG G-97S) NOTE If one port uses a GPON optical module, the other port cannot be used at the same time.
3	One ETH management port	4 One console port

5	<p>Monitoring port</p> <ul style="list-style-type: none"> • DI: signal input line, which connects to a door status sensor. • DO: signal output line, which connects to a camera alarm signal cable. <p>NOTE</p> <p>The monitoring port can be used to detect the status of a connected external device, such as the opening and closing of the maintenance compartment door.</p> <p>The monitoring port is used with a conductive cable. The minimum cross-sectional area of the conductor connected to a conductive cable is 0.3 mm² or 22 AWG, and the maximum cross-sectional area of the conductor is 1.3 mm² or 16 AWG.</p> <p>For details about how to use a monitoring port, see "Monitoring Interface Configuration" in the <i>Configuration Guide - Device Management Configuration</i>.</p>	6	220 V AC power input socket
7	<p>Fiber management tray (FMT)</p> <p>NOTE</p> <p>The FMT is optional.</p>	8	<p>220 V AC power input circuit breaker</p> <p>NOTICE</p> <p>This circuit breaker is optional.</p> <p>Connect an external power cable to the 220 V AC power input circuit breaker when it is in use.</p> <p>An external power cable needs to be prepared onsite. Ensure that the wires of the external cable are correctly connected to the L and N sockets of a plug.</p> <p>The circuit breaker supports a maximum of 32 A input current and provides two 220 V AC outputs.</p> <ul style="list-style-type: none"> • One output is connected to the AC power input socket of the switch to supply power to the switch. • The other output is connected to the 220 V AC power output circuit breaker of the switch to supply power to connected PDs (such as strobe lights and non-PoE PTZ dome cameras).

9	<p>220 V AC power output circuit breaker</p> <p>NOTICE</p> <p>This circuit breaker is optional.</p> <p>The 220 V AC power output circuit breaker provides overcurrent protection only, and is only used for external power conversion. It supports a maximum of 10 A output current.</p> <p>The connected external devices need to provide certain surge protection capabilities. It is recommended that the surge protection capabilities for both differential and common modes be 20 kA.</p>	10	<p>12 V DC power output socket</p> <p>NOTE</p> <p>The switch provides five 12 V DC outputs to external devices, such as strobe lights and non-PoE PTZ dome cameras.</p>
11	<p>24 V AC power output socket</p> <p>NOTE</p> <p>The switch provides two 24 V AC outputs to external devices, such as strobe lights and non-PoE PTZ dome cameras.</p>	12	<p>PE cable ground terminal</p> <p>NOTE</p> <p>It is used to ground a PE power cable for 220 V AC input or output.</p>
13	<p>Door status sensor</p> <p>NOTE</p> <p>It reports an alarm when the maintenance compartment door of the switch is opened.</p>	14	<p>Ground screw</p> <p>NOTE</p> <p>It is used to ground the switch. The ground cable needs to be purchased separately.</p>
15	<p>Cable outlet</p>	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1529](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1529 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1530](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1530 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1531](#).

Table 5-1531 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. **Table 5-1532** describes the attributes of an ETH management port.

Table 5-1532 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

Indicator Description

Figure 5-526 Indicators on the outside of the S5735-S4T2X-IA150G1

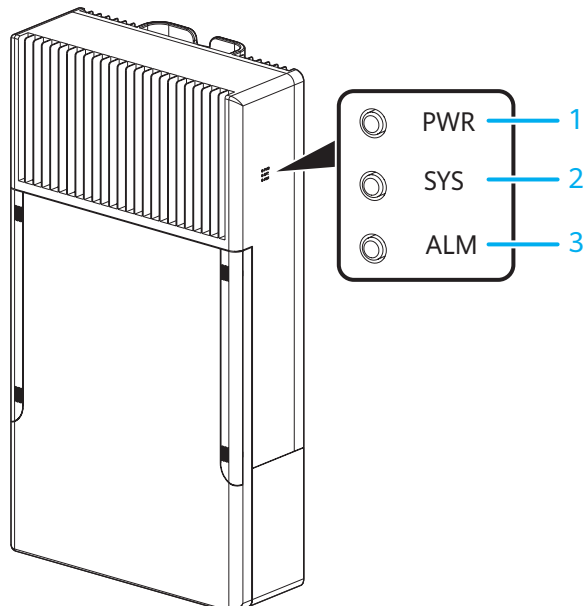


Figure 5-527 Indicators inside the maintenance compartment of the S5735-S4T2X-IA150G1

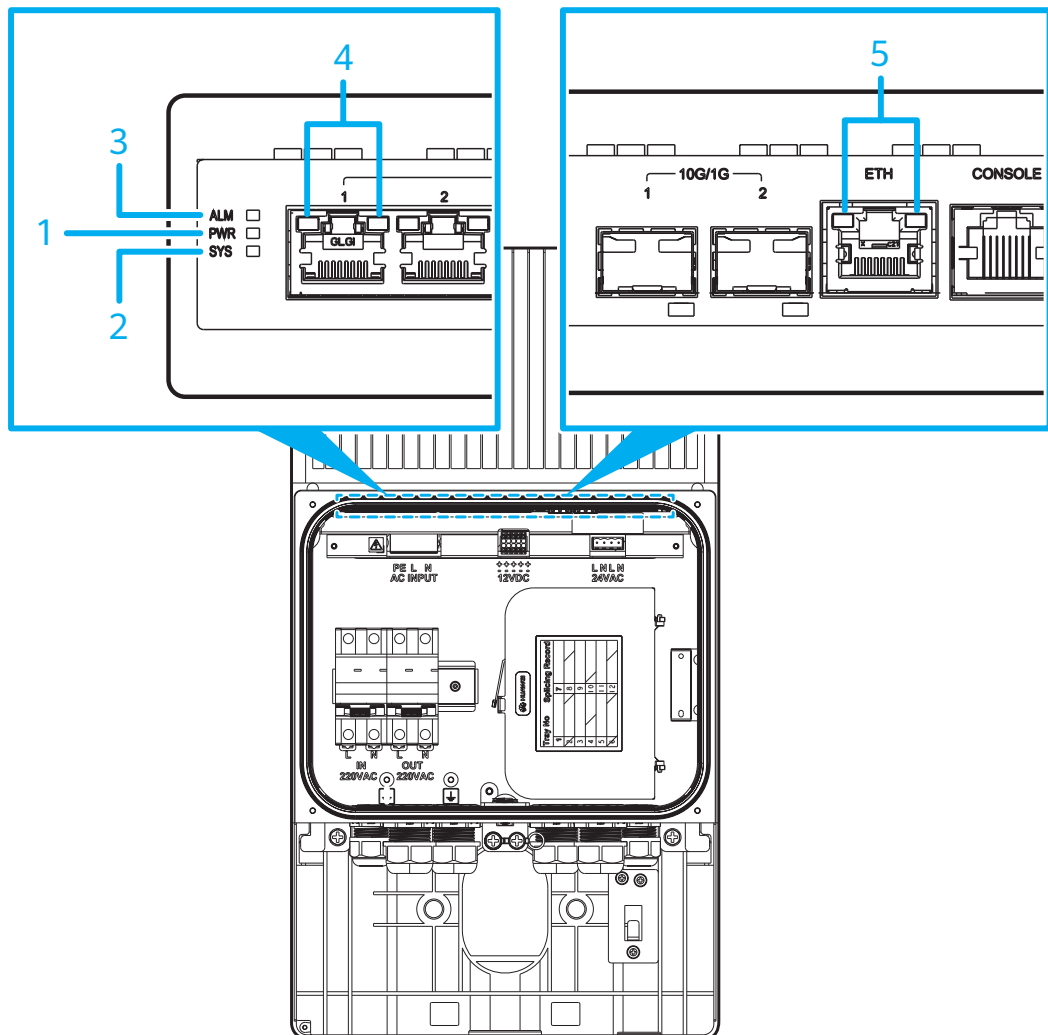


Table 5-1533 Description of indicators

No.	Indicator	Name	Color	Status	Description
1	PWR	Power indicator	-	Steady off	The switch is powered off.
			Green	Steady on	The switch is powered on and can communicate with the built-in power module properly.
			Yellow	Steady on	The switch is powered on but cannot communicate with the built-in power module properly.
2	SYS	System status indicator	-	Steady off	The system is not running.

No.	Indicator	Name	Color	Status	Description
			Green	Fast blinking	The system is starting.
			Green	Steady on	In the system startup preparation phase, the SYS indicator is steady green for no more than 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a temperature alarm has been generated.
3	ALM	Alarm indicator	-	Steady off	There is no AC input or power supply is normal.
			Red	Steady on	The power supply to the switch is abnormal.
4	-	Service port indicator	-	Steady off	The port is not connected or has been shut down.
			Green and yellow	Steady on	The port is connected.
			Green and yellow	Blinking	The port is sending or receiving data.
5	-	ETH port indicator	-	Steady off	The ETH port is not connected.
			Green and yellow	Steady on	The ETH port is connected.
			Green and yellow	Blinking	The port is sending or receiving data.

Power Supply Configuration

The S5735-S4T2X-IA150G1 has a built-in power module and does not support pluggable power modules. The S5735-S4T2X-IA150G1 can be directly connected to an external 220 V AC power supply and provide power for external devices. [Table 5-1534](#) lists the power supply configurations of the S5735-S4T2X-IA150G1.

Table 5-1534 Power supply configurations

Power Supply Mode	Available Power
12 V DC	Five 12 V DC outputs provide a total of 72 W power. The maximum power of a single output is 72 W.
24 V AC	Two 24 V AC outputs provide a total of 72 W power. The maximum power of a single output is 72 W.

 **NOTE**

The five 12 V DC outputs and two 24 V AC outputs provides a combined total power output of 144 W.

Heat Dissipation

The S5735-S4T2X-IA150G1 has no fans and uses natural heat dissipation.

Technical Specifications

[Table 5-1535](#) lists technical specifications of the S5735-S4T2X-IA150G1.

Table 5-1535 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	57.28 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±1.5 kV in differential mode, ±6 kV in common mode

Item	Description
Power supply surge protection	Surge current: <ul style="list-style-type: none">• AC input: 20 kA Surge: <ul style="list-style-type: none">• AC input: ± 6 kV in differential mode; ± 6 kV in common mode• 12 V DC output: ± 2 kV in differential mode; ± 4 kV in common mode• 24 V AC output: ± 2 kV in differential mode; ± 6 kV in common mode
Dimensions (H x W x D)	550 mm x 300 mm x 135 mm (21.65 in. x 11.81 in. x 5.31 in.)
Weight (including packaging)	12.2 kg (26.9 lb)
Stack ports	Not supported
RTC	Not supported
RPS	Not supported
PoE	Not supported
Rated voltage range	220 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	176 V AC to 264 V AC, 45 Hz to 66 Hz
Maximum power consumption (100% throughput)	29 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">• Tested according to ATIS standard• EEE enabled• No PoE power consumption	28 W

Item	Description
Operating temperature	<p>-40°C to +75°C (-40°F to 167°F)</p> <p>NOTE</p> <p>-25°C to +75°C (-13°F to +167°F): sunshade needed; 400 LFM air velocity (minimum); GPON optical modules not supported</p> <p>-25°C to +70°C (-13°F to +158°F): sunshade needed; 200 LFM air velocity (minimum); GPON optical modules supported</p> <p>-30°C to +60°C (-22°F to +140°F): sunshade needed; 40 LFM air velocity (minimum); GPON optical modules supported</p> <p>-35°C to +55°C (-31°F to +131°F): sunshade needed; no requirement on the air velocity; GPON optical modules supported</p> <p>-35°C to +45°C (-31°F to +113°F): 1120 W/m² solar radiation (maximum); no requirement on the air velocity</p> <p>-40°C to -35°C (-40°F to -31°F): At least four Ethernet electrical ports must be working.</p> <p>When the altitude is 1800-4000 m (5906-13123 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p>
Storage temperature	-40°C to +85°C (-40°F to +185°F)
IP rating	IP55
Salt spray protection	Supported, allowing the switch to be installed in areas more than 500 meters away from the sea
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-4000 m (0-13123 ft.)
Product certification	<ul style="list-style-type: none"> ● EMC certification ● Safety certification ● Manufacturing certification
Part number	02312NTA

5.32.2 S5735-S8P2X-IA200G1

Version Mapping

Table 5-1536 lists the mapping between the S5735-S8P2X-IA200G1 chassis and software versions.

Table 5-1536 Version mapping

Series	Model	Software Version
S5730-S-I	S5735-S8P2X-IA200G1	V200R019C10 and later versions

Appearance and Structure

Figure 5-528 S5735-S8P2X-IA200G1 appearance

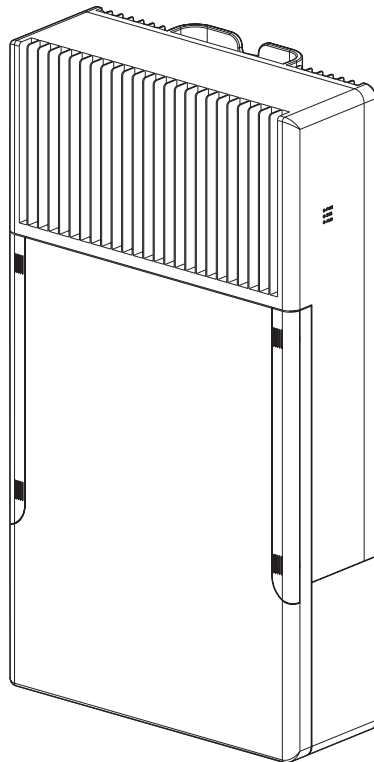
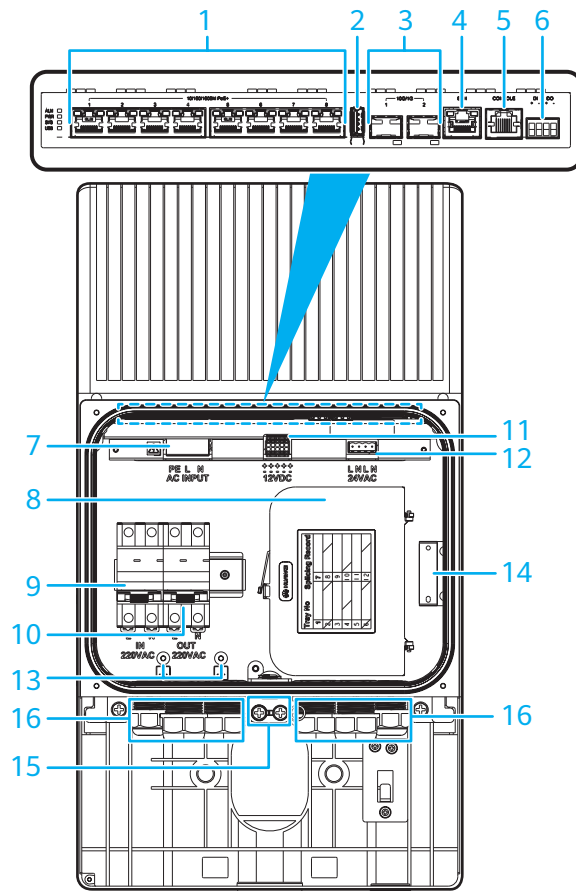


Figure 5-529 Interior of the S5735-S8P2X-IA200G1 maintenance compartment



1	Eight PoE+ 10/100/1000BASE-T ports	2	One USB port
3	Two 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> ● Industrial optical module ● GPON optical module ● Third-party GPON optical modules (Hisense LTE3415-SH+ and CIG G-97S) NOTE If one port uses a GPON optical module, the other port cannot be used at the same time.	4	One ETH management port

5	One console port	6	<p>Monitoring port</p> <ul style="list-style-type: none"> • DI: signal input line, which connects to a door status sensor. • DO: signal output line, which connects to a camera alarm signal cable. <p>NOTE</p> <p>The monitoring port can be used to detect the status of a connected external device, such as the opening and closing of the maintenance compartment door.</p> <p>The monitoring port is used with a conductive cable. The minimum cross-sectional area of the conductor connected to a conductive cable is 0.3 mm² or 22 AWG, and the maximum cross-sectional area of the conductor is 1.3 mm² or 16 AWG.</p> <p>For details about how to use a monitoring port, see "Monitoring Interface Configuration" in the <i>Configuration Guide - Device Management Configuration</i>.</p>
7	220 V AC power input socket	8	<p>Fiber management tray (FMT)</p> <p>NOTE</p> <p>The FMT is optional.</p>

9	<p>220 V AC power input circuit breaker</p> <p>NOTICE</p> <p>This circuit breaker is optional.</p> <p>Connect an external power cable to the 220 V AC power input circuit breaker when it is in use.</p> <p>An external power cable needs to be prepared onsite. Ensure that the wires of the external cable are correctly connected to the L and N sockets of a plug.</p> <p>The circuit breaker supports a maximum of 32 A input current and provides two 220 V AC outputs.</p> <ul style="list-style-type: none"> • One output is connected to the AC power input socket of the switch to supply power to the switch. • The other output is connected to the 220 V AC power output circuit breaker of the switch to supply power to connected PDs (such as strobe lights and non-PoE PTZ dome cameras). 	10	<p>220 V AC power output circuit breaker</p> <p>NOTICE</p> <p>This circuit breaker is optional.</p> <p>The 220 V AC power output circuit breaker provides overcurrent protection only, and is only used for external power conversion. It supports a maximum of 10 A output current.</p> <p>The connected external devices need to provide certain surge protection capabilities. It is recommended that the surge protection capabilities for both differential and common modes be 20 kA.</p>
11	<p>12 V DC power output socket</p> <p>NOTE</p> <p>The switch provides five 12 V DC outputs to external devices, such as strobe lights and non-PoE PTZ dome cameras.</p>	12	<p>24 V AC power output socket</p> <p>NOTE</p> <p>The switch provides two 24 V AC outputs to external devices, such as strobe lights and non-PoE PTZ dome cameras.</p>
13	<p>PE cable ground terminal</p> <p>NOTE</p> <p>It is used to ground a PE power cable for 220 V AC input or output.</p>	14	<p>Door status sensor</p> <p>NOTE</p> <p>It reports an alarm when the maintenance compartment door of the switch is opened.</p>
15	<p>Ground screw</p> <p>NOTE</p> <p>It is used to ground the switch. The ground cable needs to be purchased separately.</p>	16	<p>Cable outlet</p>

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1537](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1537 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1538](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1538 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1539](#).

Table 5-1539 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)

Attribute	Description
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1540](#) describes the attributes of an ETH management port.

Table 5-1540 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

Figure 5-530 Indicators on the outside of the S5735-S8P2X-IA200G1

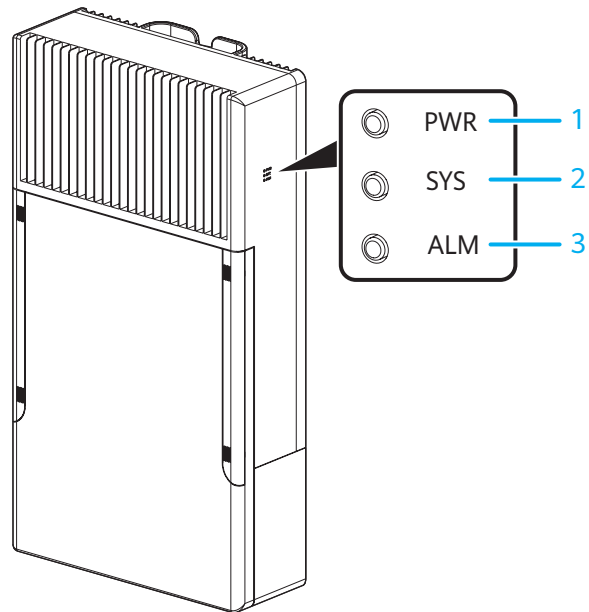


Figure 5-531 Indicators inside the maintenance compartment of the S5735-S8P2X-IA200G1

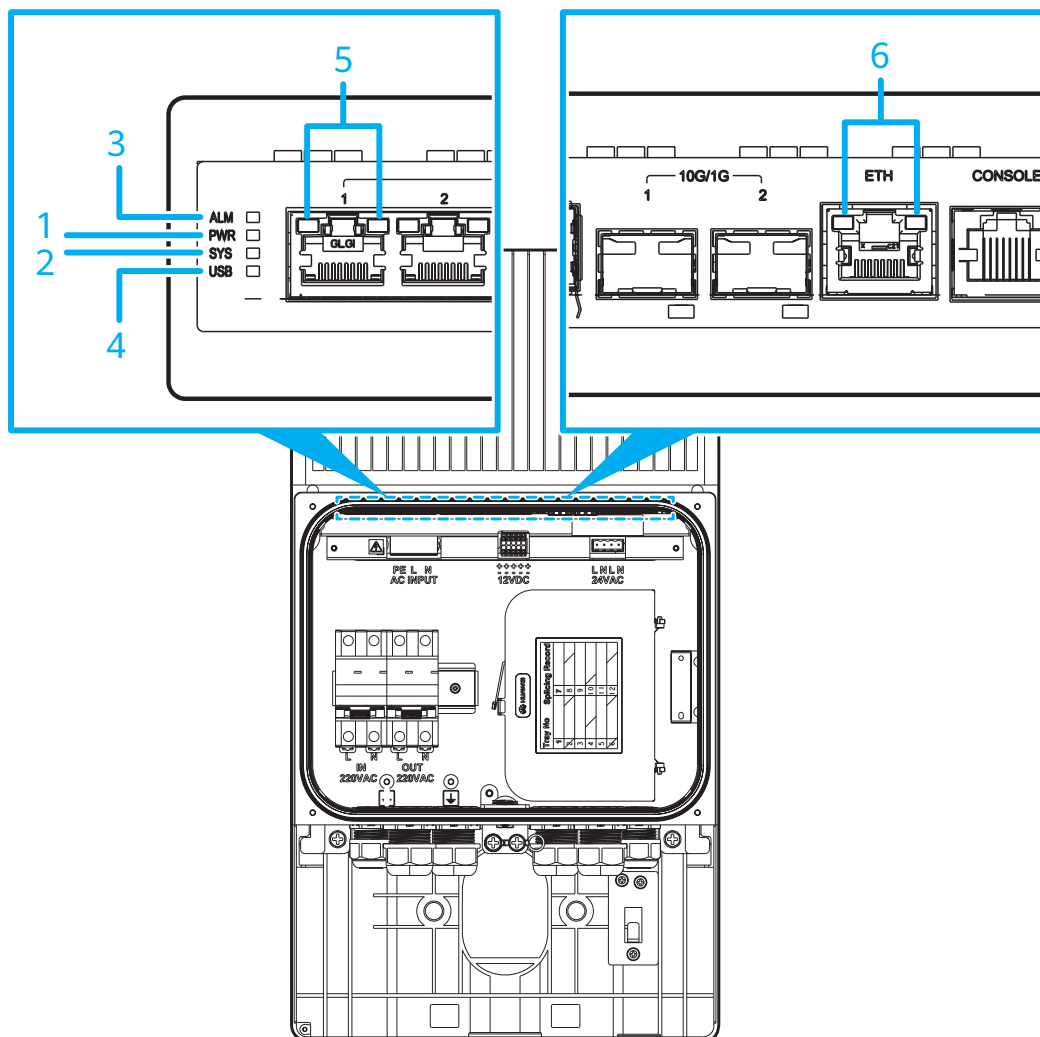


Table 5-1541 Description of indicators

No.	Indicator	Name	Color	Status	Description
1	PWR	Power indicator	-	Steady off	The switch is powered off.
			Green	Steady on	The switch is powered on and can communicate with the built-in power module properly.
			Yellow	Steady on	The switch is powered on but cannot communicate with the built-in power module properly.
2	SYS	System status indicator	-	Steady off	The system is not running.

No.	Indicator	Name	Color	Status	Description
			Green	Fast blinking	The system is starting.
			Green	Steady on	In the system startup preparation phase, the SYS indicator is steady green for no more than 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a temperature alarm has been generated.
3	ALM	Alarm indicator	-	Steady off	There is no AC input or power supply is normal.
			Red	Steady on	The power supply to the switch is abnormal.
4	USB	USB-based deployment indicator	-	Steady off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.
5	-	Service port indicator	Green	Steady off	The port is not connected or has been shut down.

No.	Indicator	Name	Color	Status	Description
				Steady on	The port is connected.
				Blinking	The port is sending or receiving data.
			Yellow	Steady off	The port does not supply power to any PD.
				Steady on	The port is supplying power to the connected PD.
				Blinking	The PD connected to the port is not a standard PD or its power exceeds the maximum power or power threshold of the port.
6	-	ETH port indicator	-	Steady off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
				Blinking	The port is sending or receiving data.

Power Supply Configuration

The S5735-S8P2X-IA200G1 has a built-in power module and does not support pluggable power modules. The S5735-S8P2X-IA200G1 can be directly connected to an external 220 V AC power supply and provide power for external devices. [Table 5-1542](#) lists the power supply configurations of the S5735-S8P2X-IA200G1.

Table 5-1542 Power supply configurations

Power Supply Mode	Available Power
PoE	160 W Maximum number of PoE ports (fully loaded): <ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 8 ● 802.3at (30 W per port): 5
12 V DC	Five 12 V DC outputs provide a total of 72 W power. The maximum power of a single output is 72 W.
24 V AC	Two 24 V AC outputs provide a total of 72 W power. The maximum power of a single output is 72 W.

 NOTE

The total maximum output power of PoE power output, five 12 V DC outputs, and two 24 V AC outputs is 160 W.

Heat Dissipation

The S5735-S8P2X-IA200G1 has no fans and uses natural heat dissipation.

Technical Specifications

[Table 5-1543](#) lists technical specifications of the S5735-S8P2X-IA200G1.

Table 5-1543 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	57.28 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	±1.5 kV in differential mode, ±6 kV in common mode
Power supply surge protection	Surge current: <ul style="list-style-type: none">AC input: 20 kA Surge: <ul style="list-style-type: none">AC input: ±6 kV in differential mode; ±6 kV in common mode12 V DC output: ±2 kV in differential mode; ±4 kV in common mode24 V AC output: ±2 kV in differential mode; ±6 kV in common mode
Dimensions (H x W x D)	550 mm x 300 mm x 135 mm (21.65 in. x 11.81 in. x 5.31 in.)
Weight (including packaging)	12.2 kg (26.9 lb)
Stack ports	Not supported
RTC	Not supported

Item	Description
RPS	Not supported
PoE	Supported
Rated voltage range	220 V AC to 240 V AC, 50/60 Hz
Maximum voltage range	176 V AC to 264 V AC, 45 Hz to 66 Hz
Maximum power consumption (100% throughput)	<ul style="list-style-type: none"> • With no output power: 34 W • With output power: 209 W (device power consumption: 49 W; output power: 160 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> • Tested according to ATIS standard • EEE enabled • No PoE power consumption 	31 W
Operating temperature	-40°C to +75°C (-40°F to 167°F) NOTE -25°C to +75°C (-13°F to +167°F): sunshade needed; 400 LFM air velocity (minimum); GPON optical modules not supported -25°C to +70°C (-13°F to +158°F): sunshade needed; 200 LFM air velocity (minimum); GPON optical modules supported -30°C to +60°C (-22°F to +140°F): sunshade needed; 40 LFM air velocity (minimum); GPON optical modules supported -35°C to +55°C (-31°F to +131°F): sunshade needed; no requirement on the air velocity; GPON optical modules supported -35°C to +45°C (-31°F to +113°F): 1120 W/m ² solar radiation (maximum); no requirement on the air velocity -40°C to -35°C (-40°F to -31°F): At least four Ethernet electrical ports must be working. When the altitude is 1800-4000 m (5906-13123 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Storage temperature	-40°C to +85°C (-40°F to +185°F)
IP rating	IP55
Salt spray protection	Supported, allowing the switch to be installed in areas more than 500 meters away from the sea

Item	Description
Noise under normal temperature (27°C, sound power)	Noise-free (no fans)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-4000 m (0-13123 ft.)
Product certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	02312NTA-001

5.32.3 S5735-S24T4X-I

Version Mapping

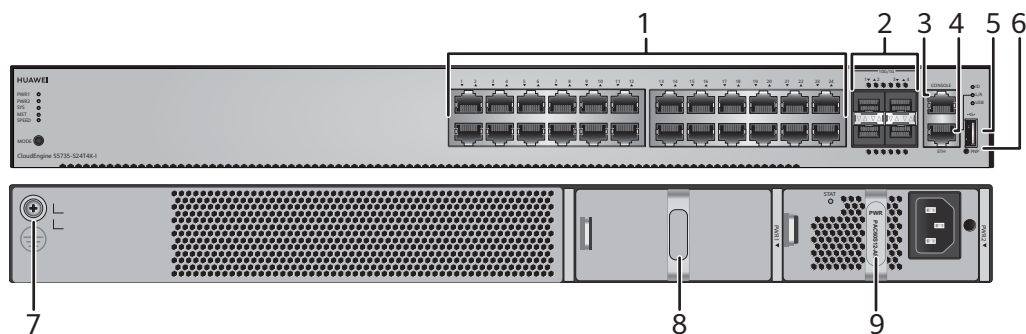
[Table 5-1544](#) lists the mapping between the S5735-S24T4X-I chassis and software versions.

Table 5-1544 Version mapping

Series	Model	Software Version
S5735-S-I	S5735-S24T4X-I	V200R019C10SPC500 and later versions

Appearance and Structure

Figure 5-532 S5735-S24T4X-I appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • Industrial optical module
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 60 W AC Power Module (PAC60S12-AR) • 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions)
9	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 60 W AC Power Module (PAC60S12-AR) • 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an **Ethernet cable**. **Table 5-1545** describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1545 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1546](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1546 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1547](#).

Table 5-1547 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1548](#) describes the attributes of an ETH management port.

Table 5-1548 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

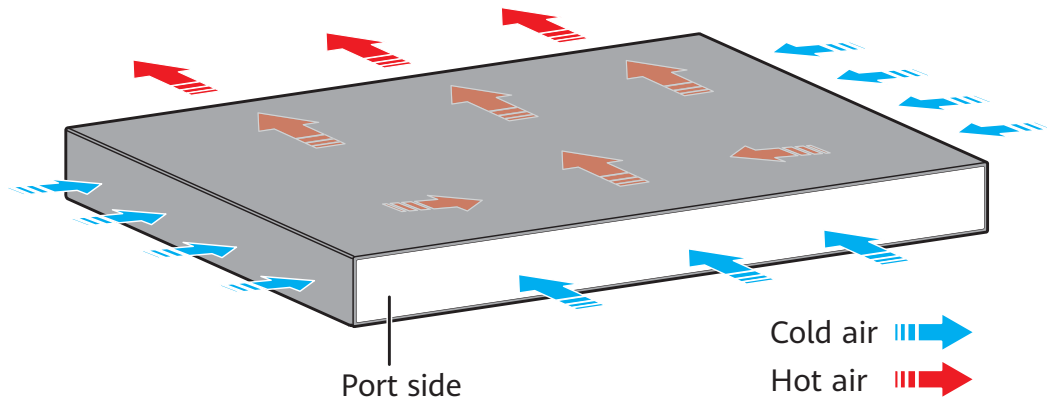
The S5735-S24T4X-I has similar indicators to those on the S5735-S24P4X except that the S5735-S24T4X-I does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735-S24T4X-I can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5735-S24T4X-I has three built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1549](#) lists technical specifications of the S5735-S24T4X-I.

Table 5-1549 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	62.88 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV

Item	Description
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	7.02 kg (15.48 lb)
Stack ports	Not supported
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	55.2 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	36.8 W

Item	Description
Operating temperature	-40°C to +65°C (-40°F to +149°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).
Short-term operating temperature	-40°C to +70°C (-40°F to 158°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met: <ul style="list-style-type: none"> • The equipment operates at a temperature of over 65°C (149°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 65°C (149°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 65°C (149°F) for no more in 15 times in one year. The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The maximum distance of optical modules used in these conditions cannot exceed 10 km.
Storage temperature	-40°C to +75°C (-40°F to +167°F)
Noise under normal temperature (27°C, sound power)	< 49.5 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010960

5.33 S5735S-S

5.33.1 S5735S-S24T4S-A

Version Mapping

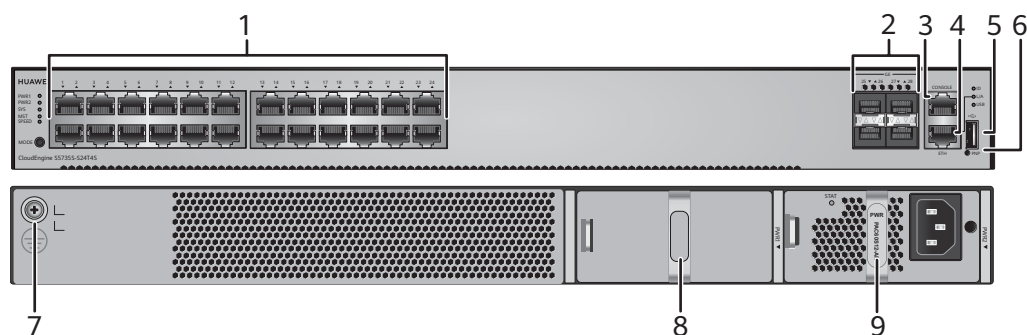
Table 5-1550 lists the mapping between the S5735S-S24T4S-A chassis and software versions.

Table 5-1550 Version mapping

Series	Model	Software Version
S5735S-S	S5735S-S24T4S-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-533 S5735S-S24T4S-A appearance



1	Twenty-four 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	<p>Ground screw</p> <p>NOTE It is used with a ground cable.</p>	8	<p>Power module slot 1</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 60 W AC Power Module (PAC60S12-AR) • 1000 W DC Power Module (PDC1000S12-DB) • 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions)
9	<p>Power module slot 2</p> <p>NOTE Applicable power module:</p> <ul style="list-style-type: none"> • 60 W AC Power Module (PAC60S12-AR) • 1000 W DC Power Module (PDC1000S12-DB) • 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1551](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1551 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and

receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-1552](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-1552 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1553](#).

Table 5-1553 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1554](#) describes the attributes of an ETH management port.

Table 5-1554 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

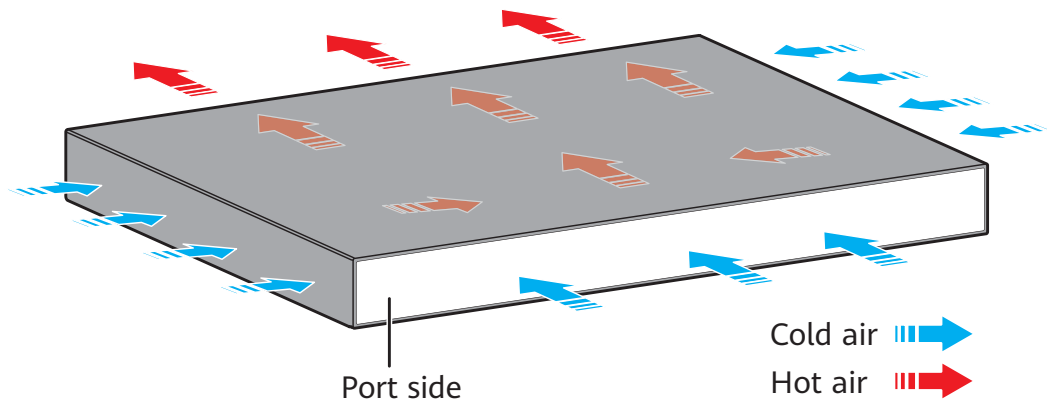
The S5735S-S24T4S-A has similar indicators to those on the S5735-S24P4X except that the S5735S-S24T4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-S24T4S-A can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5735S-S24T4S-A has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1555 lists technical specifications of the S5735S-S24T4S-A.

Table 5-1555 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	69.42 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)

Item	Description
Weight (with packaging)	7.89 kg (17.4 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	44 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	29 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010939

5.33.2 S5735S-S32ST4X-A

Version Mapping

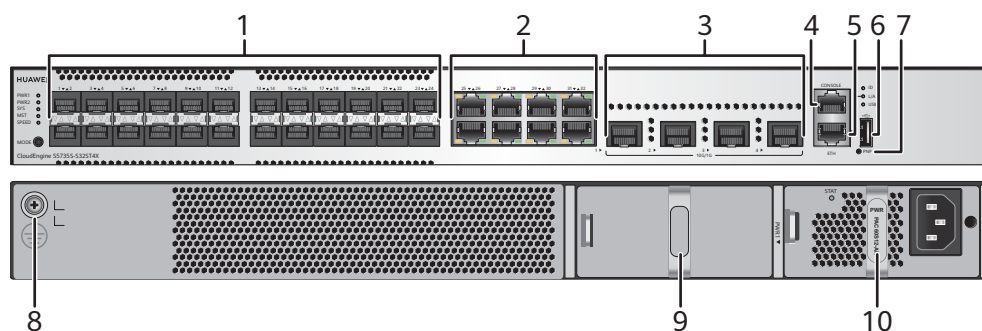
[Table 5-1556](#) lists the mapping between the S5735S-S32ST4X-A chassis and software versions.

Table 5-1556 Version mapping

Series	Model	Software Version
S5735S-S	S5735S-S32ST4X-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-534 S5735S-S32ST4X-A appearance



1	<p>Twenty-four 100/1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • FE optical module • GE optical module (maximum transmission distance ≤ 40 km) • GE copper module (works at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s) 	2	<p>Eight 10/100/1000BASE-T ports</p>
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3	<p>Four 10GE SFP+ ports</p> <p>Applicable modules and cables:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions) 	4	One console port
5	One ETH management port	6	One USB port
7	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>	8	<p>Ground screw</p> <p>NOTE</p> <p>It is used with a ground cable.</p>
9	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 60 W AC Power Module (PAC60S12-AR) • 1000 W DC Power Module (PDC1000S12-DB) • 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions) 	10	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 60 W AC Power Module (PAC60S12-AR) • 1000 W DC Power Module (PDC1000S12-DB) • 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions)

Port Description

100/1000BASE-X port

A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s. [Table 5-1557](#) describes the attributes of a 100/1000BASE-X port.

Table 5-1557 Attributes of a 100/1000BASE-X port

Attribute	Description
Connector type	LC/PC
Optical interface attributes	Depend on the optical module used
Standards compliance	IEEE802.3z
Working mode	100/1000 Mbit/s auto-sensing

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1558](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1558 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1559](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1559 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1560](#).

Table 5-1560 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1561](#) describes the attributes of an ETH management port.

Table 5-1561 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

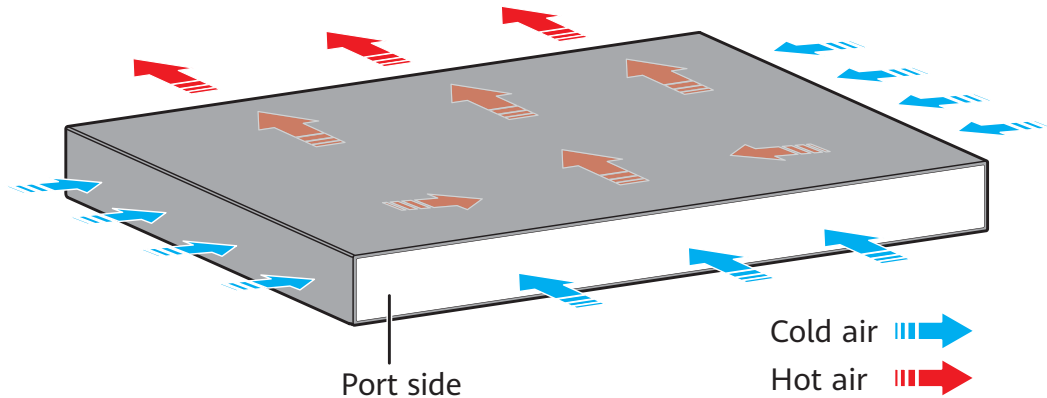
The S5735S-S32ST4X-A has similar indicators to those on the S5735-S24P4X except that the S5735S-S32ST4X-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-S32ST4X-A can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5735S-S32ST4X-A has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1562 lists technical specifications of the S5735S-S32ST4X-A.

Table 5-1562 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	68.59 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)

Item	Description
Weight (with packaging)	8.15 kg (17.97 lb)
Stack ports	Any 10/100/1000BASE-T ports, 100/1000BASE-X ports, or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	66 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	47 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 59.3 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010932

5.33.3 S5735S-S48T4S-A

Version Mapping

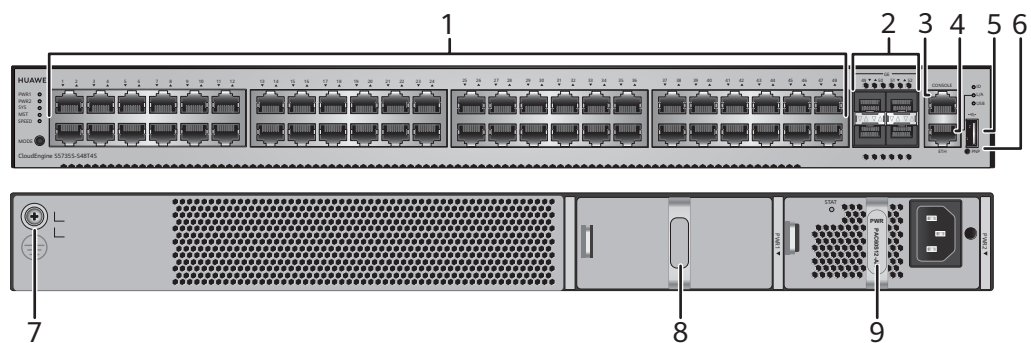
[Table 5-1563](#) lists the mapping between the S5735S-S48T4S-A chassis and software versions.

Table 5-1563 Version mapping

Series	Model	Software Version
S5735S-S	S5735S-S48T4S-A	V200R019C00 and later versions

Appearance and Structure

Figure 5-535 S5735S-S48T4S-A appearance



1	Forty-eight 10/100/1000BASE-T ports	2	<p>Four 1000BASE-X ports</p> <p>Applicable modules:</p> <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module • 10GE SFP+ optical module (only used for stack connection, OSXD22N00 not supported, applicable in V200R019C10 and later versions) • 1 m and 3 m SFP+ high-speed copper cables (only used for stack connection, applicable in V200R019C10 and later versions) • 3 m and 10 m SFP+ AOC cables (only used for stack connection, applicable in V200R019C10 and later versions) • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	<p>One PNP button</p> <p>NOTICE</p> <p>To restore the factory settings and reset the switch, hold down the button for at least 6 seconds.</p> <p>To reset the switch, press the button.</p> <p>Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.</p>

7	Ground screw NOTE It is used with a ground cable .	8	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 60 W AC Power Module (PAC60S12-AR) • 1000 W DC Power Module (PDC1000S12-DB) • 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions)
9	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 60 W AC Power Module (PAC60S12-AR) • 1000 W DC Power Module (PDC1000S12-DB) • 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1564](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1564 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

1000BASE-X port

When a 1000BASE-X port uses a GE optical module, it can only transmit and receive data at 1000 Mbit/s and does not support the 100 Mbit/s transmission speed. When a 1000BASE-X port uses a GE copper module, it can transmit and

receive data at 10 Mbit/s, 100 Mbit/s, or 1000 Mbit/s. [Table 5-1565](#) describes the attributes of a 1000BASE-X Ethernet optical port.

Table 5-1565 Attributes of a 1000BASE-X Ethernet optical port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the module used
Standards compliance	IEEE802.3z

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1566](#).

Table 5-1566 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1567](#) describes the attributes of an ETH management port.

Table 5-1567 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45

Attribute	Description
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

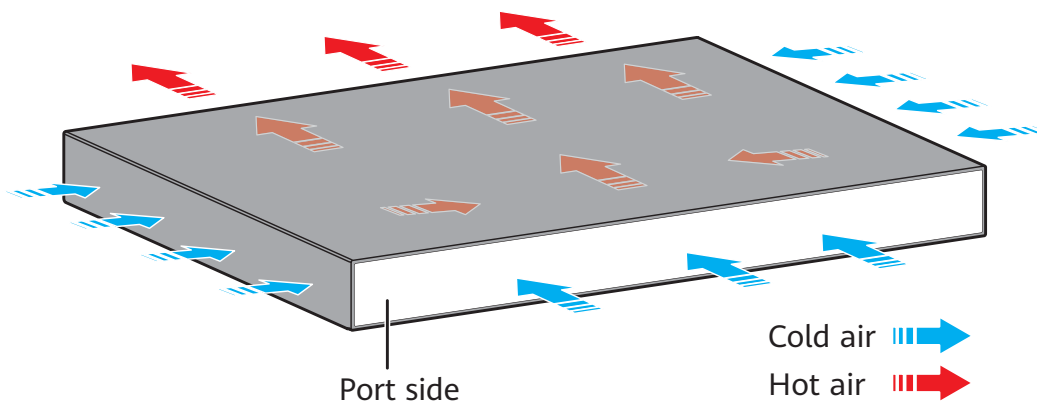
The S5735S-S48T4S-A has similar indicators to those on the S5735-S24P4X except that the S5735S-S48T4S-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-S48T4S-A can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5735S-S48T4S-A has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1568 lists technical specifications of the S5735S-S48T4S-A.

Table 5-1568 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	74.7 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)

Item	Description
Weight (with packaging)	8.37 kg (18.45 lb)
Stack ports	Any 10/100/1000BASE-T ports or 1000BASE-X ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	58 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> Tested according to ATIS standard EEE enabled No PoE power consumption 	41 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010942

5.33.4 S5735S-S24T4X-A

Version Mapping

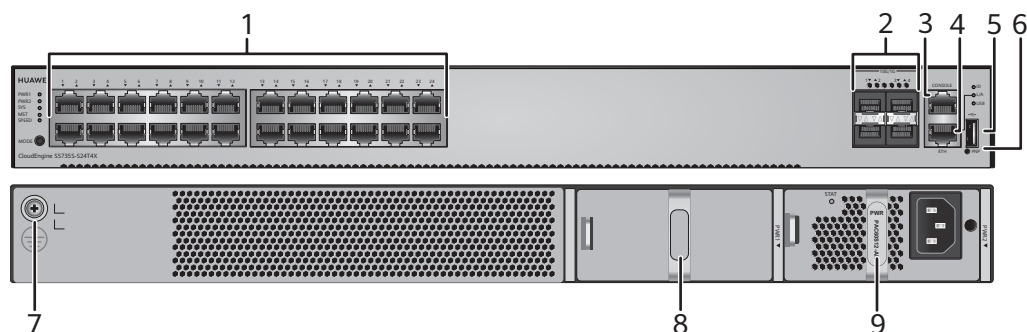
[Table 5-1569](#) lists the mapping between the S5735S-S24T4X-A chassis and software versions.

Table 5-1569 Version mapping

Series	Model	Software Version
S5735-S	S5735S-S24T4X-A	V200R019C10SPC500 and later versions

Appearance and Structure

Figure 5-536 S5735S-S24T4X-A appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port

5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 60 W AC Power Module (PAC60S12-AR) • 1000 W DC Power Module (PDC1000S12-DB) • 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions)
9	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 60 W AC Power Module (PAC60S12-AR) • 1000 W DC Power Module (PDC1000S12-DB) • 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1570](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1570 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1571](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1571 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1572](#).

Table 5-1572 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1573](#) describes the attributes of an ETH management port.

Table 5-1573 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

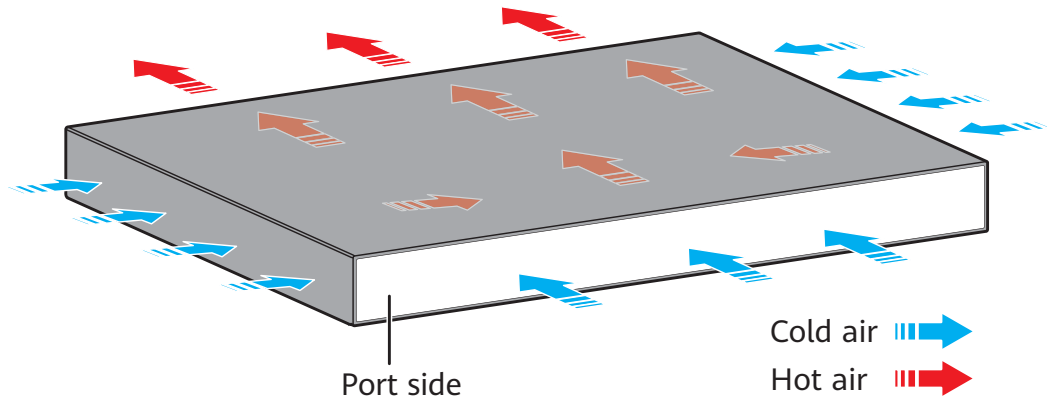
The S5735S-S24T4X-A has similar indicators to those on the S5735-S24P4X except that the S5735S-S24T4X-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-S24T4X-A can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5735S-S24T4X-A has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1574](#) lists technical specifications of the S5735S-S24T4X-A.

Table 5-1574 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	69.42 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> ● Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) ● Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	7.89 kg (17.4 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	46 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	31 W

Item	Description
Operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010967

5.33.5 S5735S-S24P4X-A

Version Mapping

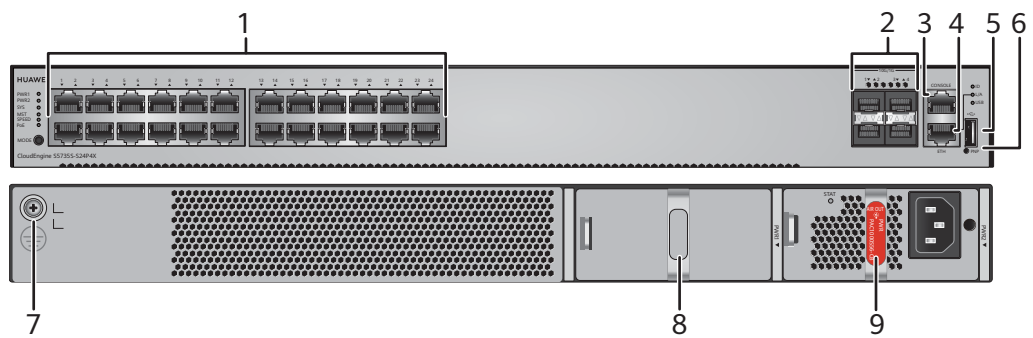
Table 5-1575 lists the mapping between the S5735S-S24P4X-A chassis and software versions.

Table 5-1575 Version mapping

Series	Model	Software Version
S5735S-S	S5735S-S24P4X-A	V200R019C10SPC500 and later versions

Appearance and Structure

Figure 5-537 S5735S-S24P4X-A appearance



1	Twenty-four PoE + 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Power module slot 1 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)
9	Power module slot 2 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1576](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1576 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1577](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1577 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1578](#).

Table 5-1578 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1579](#) describes the attributes of an ETH management port.

Table 5-1579 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735S-S24P4X-A has the same types of indicators as the S5735-S24P4X. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-S24P4X-A is a PoE switch. It has two power module slots, each of which can have a 1000 W PoE power module installed. [Table 5-1580](#) lists its power supply configurations.

Table 5-1580 Power supply configurations

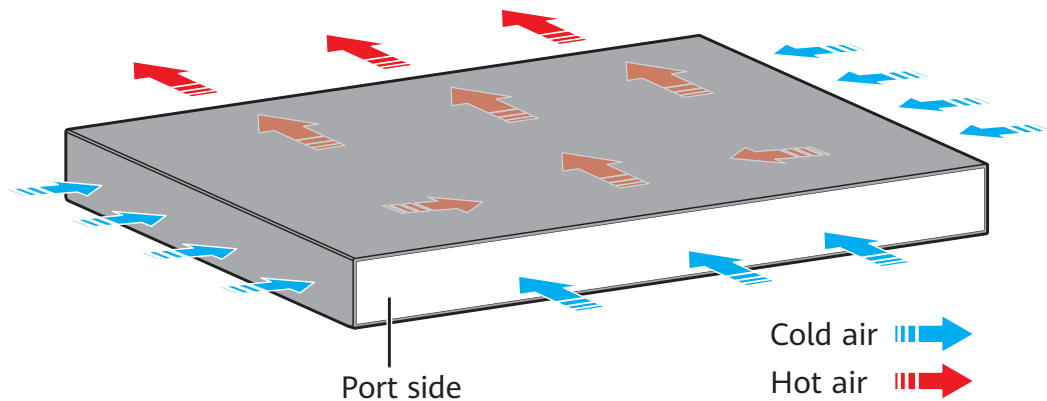
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	–	874 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 24• 802.3at (30 W per port): 24
1000 W (110 V)	–	779 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 24• 802.3at (30 W per port): 24
1000 W (220 V)	1000 W (220 V)	1600 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 24• 802.3at (30 W per port): 24
1000 W (110 V)	1000 W (110 V)	1558 W	<ul style="list-style-type: none">• 802.3af (15.4 W per port): 24• 802.3at (30 W per port): 24

 NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5735S-S24P4X-A has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1581 lists technical specifications of the S5735S-S24P4X-A.

Table 5-1581 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	59.88 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	8.49 kg (18.72 lb)

Item	Description
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none">AC input: 100 V AC to 240 V AC, 50/60 HzHigh-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none">AC input: 90 V AC to 290 V AC, 45 Hz to 65 HzHigh-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none">Not providing the PoE function: 65 W100% PoE loads: 847 W (PoE: 720 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none">Tested according to ATIS standardEEE enabledNo PoE power consumption	51 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010969

5.33.6 S5735S-S48T4X-A

Version Mapping

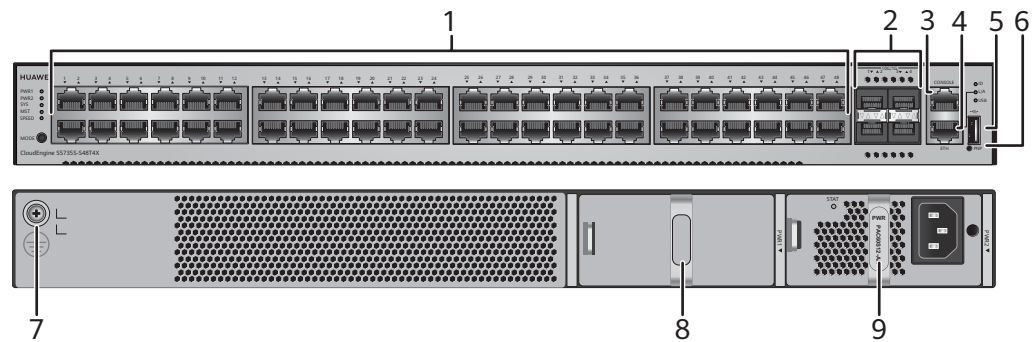
[Table 5-1582](#) lists the mapping between the S5735S-S48T4X-A chassis and software versions.

Table 5-1582 Version mapping

Series	Model	Software Version
S5735S-S	S5735S-S48T4X-A	V200R019C10SPC500 and later versions

Appearance and Structure

Figure 5-538 S5735S-S48T4X-A appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none"> • GE optical module • GE-CWDM optical module • GE-DWDM optical module • GE copper module (100M/1000M auto-sensing) • 10GE SFP+ optical module (OSXD22N00 not supported) • 10GE-CWDM optical module • 10GE-DWDM optical module • 1 m and 3 m SFP+ high-speed copper cables • 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port

5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 60 W AC Power Module (PAC60S12-AR) • 1000 W DC Power Module (PDC1000S12-DB) • 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions)
9	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 60 W AC Power Module (PAC60S12-AR) • 1000 W DC Power Module (PDC1000S12-DB) • 180 W DC Power Module (PDC180S12-CR) (applicable in V200R020C00 and later versions) 	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1583](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1583 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing

Attribute	Description
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1584](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1584 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1585](#).

Table 5-1585 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an [Ethernet cable](#). You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1586](#) describes the attributes of an ETH management port.

Table 5-1586 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

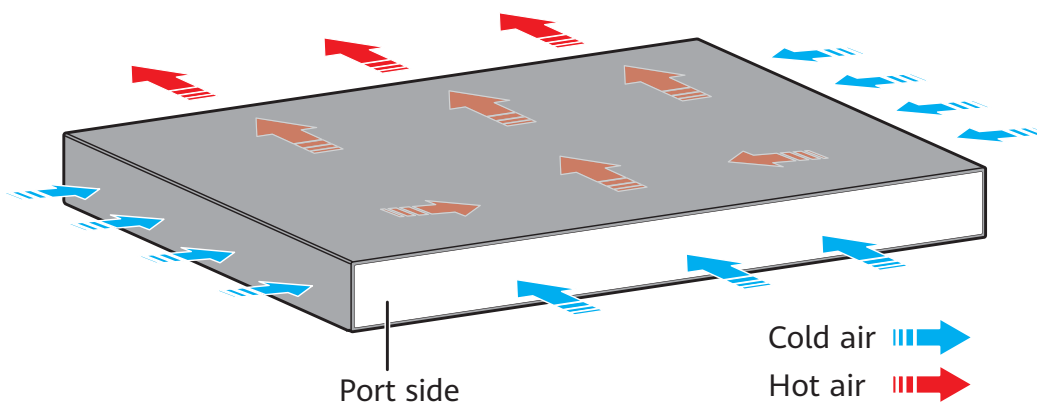
The S5735S-S48T4X-A has similar indicators to those on the S5735-S24P4X except that the S5735S-S48T4X-A does not have a PoE mode indicator. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-S48T4X-A can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation

The S5735S-S48T4X-A has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

[Table 5-1587](#) lists technical specifications of the S5735S-S48T4X-A.

Table 5-1587 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	74.7 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode

Item	Description
Dimensions (H x W x D)	<ul style="list-style-type: none"> ● Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) ● Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	8.37 kg (18.45 lb)
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Not supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC ● DC input: -48 V DC to -60 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 264 V AC, 47 Hz to 63 Hz ● High-Voltage DC input: 190 V DC to 290 V DC ● DC input: -38.4 V DC to -72 V DC
Maximum power consumption (100% throughput, full speed of fans)	59 W
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	40 W

Item	Description
Operating temperature	<p>-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).</p>
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded. The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none"> • EMC certification • Safety certification • Manufacturing certification
Part number	98010968

5.33.7 S5735S-S48P4X-A

Version Mapping

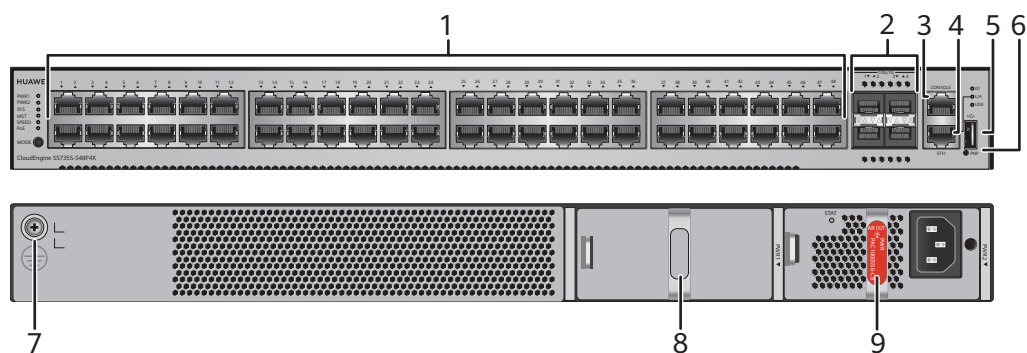
Table 5-1588 lists the mapping between the S5735S-S48P4X-A chassis and software versions.

Table 5-1588 Version mapping

Series	Model	Software Version
S5735S-S	S5735S-S48P4X-A	V200R019C10SPC500 and later versions

Appearance and Structure

Figure 5-539 S5735S-S48P4X-A appearance



1	Forty-eight PoE+ 10/100/1000BASE-T ports	2	Four 10GE SFP+ ports Applicable modules and cables: <ul style="list-style-type: none">• GE optical module• GE-CWDM optical module• GE-DWDM optical module• GE copper module (100M/1000M auto-sensing)• 10GE SFP+ optical module (OSXD22N00 not supported)• 10GE-CWDM optical module• 10GE-DWDM optical module• 1 m and 3 m SFP+ high-speed copper cables• 3 m and 10 m SFP+ AOC cables• 0.5 m and 1.5 m SFP+ dedicated stack copper cables (used for zero-configuration stacking, applicable in V200R019C10 and later versions)
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Power module slot 1 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)
9	Power module slot 2 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)	-	-

Port Description

10/100/1000BASE-T port

A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s, and must use an [Ethernet cable](#). [Table 5-1589](#) describes the attributes of a 10/100/1000BASE-T Ethernet electrical port.

Table 5-1589 Attributes of a 10/100/1000BASE-T Ethernet electrical port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab
Working mode	10/100/1000 Mbit/s auto-sensing
Maximum transmission distance	100 m

10GE SFP+ port

A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s. [Table 5-1590](#) describes the attributes of a 10GE SFP+ Ethernet optical port.

Table 5-1590 Attributes of a 10GE SFP+ port

Attribute	Description
Connector type	LC/PC
Optical port attributes	Depend on the optical module used
Standards compliance	IEEE802.3ae
Working mode	GE/10GE auto-sensing

Console port

The console port is connected to a console for on-site configuration. The port must use a [console cable](#). The console port is used when a switch is powered on for the first time. For details about the attributes of a console port, see [Table 5-1591](#).

Table 5-1591 Attributes of a console port

Attribute	Description
Connector type	RJ45
Standards compliance	RS-232
Working mode	Duplex Universal Asynchronous Receiver/Transmitter (UART)
Baud rate	9600 bit/s, 19200 bit/s, 38400 bit/s, 57600 bit/s, or 115200 bit/s Default value: 9600 bit/s

ETH management port

You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely. The port must use an **Ethernet cable**. You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port. [Table 5-1592](#) describes the attributes of an ETH management port.

Table 5-1592 Attributes of an ETH management port

Attribute	Description
Connector type	RJ45
Standards compliance	IEEE802.3
Working Mode	10/100 Mbit/s auto-sensing
Maximum transmission distance	100 m

In V200R012C00 and later versions, you can log in to the switch that contains the ETH management port for the first time through the ETH port. For details, see "First Login to a Switch" in the *Configuration Guide - Basic Configuration*. If you have logged in to the switch for the first time by pressing and holding the MODE button for 6 seconds or longer and saved the configuration, the default configuration on the ETH port will be cleared. In this case, you cannot log in to the switch for the first time through the ETH port. You are advised to log in to the switch for the first time through the ETH port.

USB port

The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.

 NOTE

USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.

Indicator Description

The S5735S-S48P4X-A has the same types of indicators as the S5735-S24P4X. For details, see [Indicator Description](#).

Power Supply Configuration

The S5735S-S48P4X-A is a PoE switch. It has two power module slots, each of which can have a 1000 W PoE power module installed. [Table 5-1593](#) lists its power supply configurations.

Table 5-1593 Power supply configurations

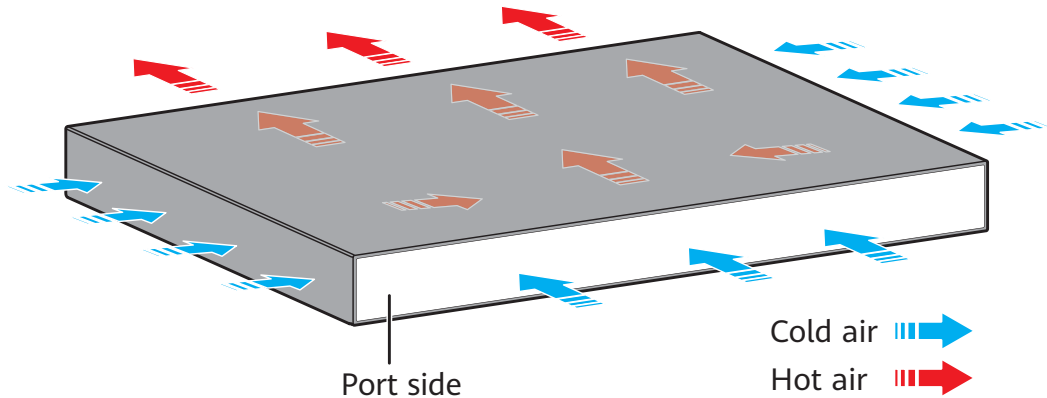
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	-	874 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 29
1000 W (110 V)	-	779 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 25
1000 W (220 V)	1000 W (220 V)	1600 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48
1000 W (110 V)	1000 W (110 V)	1558 W	<ul style="list-style-type: none"> 802.3af (15.4 W per port): 48 802.3at (30 W per port): 48

 NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation

The S5735S-S48P4X-A has two built-in fans for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1594 lists technical specifications of the S5735S-S48P4X-A.

Table 5-1594 Technical specifications

Item	Description
Memory (RAM)	1 GB
Flash	512 MB in total. To view the available flash memory size, run the display version command.
Mean time between failures (MTBF)	54.88 years
Mean time to repair (MTTR)	2 hours
Availability	> 0.99999
Service port surge protection	Common mode: ± 7 kV
Power supply surge protection	± 6 kV in differential mode, ± 6 kV in common mode
Dimensions (H x W x D)	<ul style="list-style-type: none"> Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.2 mm (1.72 in. x 17.4 in. x 17.49 in.)
Weight (with packaging)	8.74 kg (19.27 lb)

Item	Description
Stack ports	Any 10/100/1000BASE-T ports or 10GE SFP+ ports (applicable in V200R019C10 and later versions)
RTC	Supported
RPS	Not supported
PoE	Supported
Rated voltage range	<ul style="list-style-type: none"> ● AC input: 100 V AC to 240 V AC, 50/60 Hz ● High-Voltage DC input: 240 V DC
Maximum voltage range	<ul style="list-style-type: none"> ● AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz ● High-Voltage DC input: 190 V DC to 290 V DC
Maximum power consumption (100% throughput, full speed of fans)	<ul style="list-style-type: none"> ● Not providing the PoE function: 77 W ● 100% PoE loads: 1661 W (PoE: 1440 W)
Typical power consumption (30% of traffic load) <ul style="list-style-type: none"> ● Tested according to ATIS standard ● EEE enabled ● No PoE power consumption 	59 W
Operating temperature	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.) NOTE When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.). The switch cannot be started when the ambient temperature is lower than 0°C (32°F).

Item	Description
Short-term operating temperature	<p>-5°C to +55°C (23°F to 131°F) at an altitude of 0-1800 m (0-5906 ft.)</p> <p>NOTE</p> <p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature	-40°C to +70°C (-40°F to +158°F)
Noise under normal temperature (27°C, sound power)	< 58.9 dB(A)
Relative humidity	5% to 95%, noncondensing
Operating altitude	0-5000 m (0-16404 ft.)
Certification	<ul style="list-style-type: none">• EMC certification• Safety certification• Manufacturing certification
Part number	98010970

5.34 S5735S-H

5.34.1 S5735S-H24S4XC-A

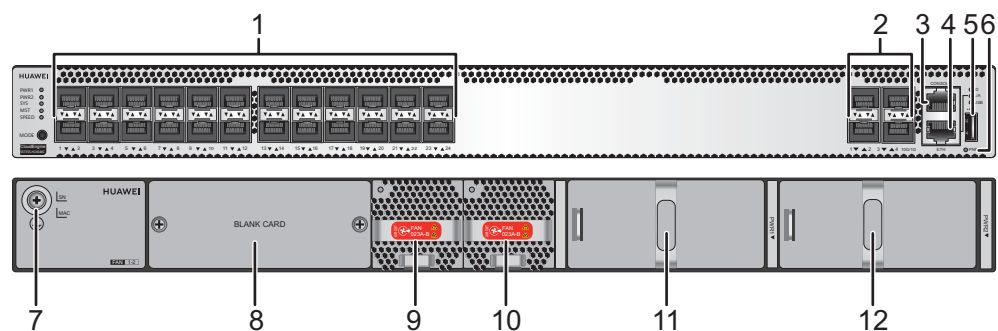
Overview

Table 5-1595 Basic information about the S5735S-H24S4XC-A

Item	Details
Description	S5735S-H24S4XC bundle (24*GE SFP ports, 4*10GE SFP+ ports, 1*expansion slot, 1*AC power module)
First supported version	V200R020C00
Part Number	98011041
Model	S5735S-H24S4XC-A

Components

Figure 5-540 S5735S-H24S4XC-A appearance



1	Twenty-four 100/1000BASE-X ports	2	Four 10GE SFP+ optical ports
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.

7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot NOTE Applicable card: <ul style="list-style-type: none"> • S7X08000 • ES5D21Q02Q00 • ES5D21Q04Q01
9	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module
13	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) 	12	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB)

Ports

Table 5-1596 Ports on the S5735S-H24S4XC-A

Port	Connector Type	Description	Available Components
100/1000BASE-X port	SFP	A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s.	FE SFP/eSFP optical modules GE eSFP optical modules GE SFP copper module

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	GE eSFP optical modules GE-CWDM eSFP optical modules GE-DWDM eSFP optical modules GE SFP copper module 10GE SFP+ optical modules (OSXD22N00 not supported) 10GE-CWDM SFP + optical modules 10GE-DWDM SFP + optical modules 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables 3 m and 10 m SFP+ AOC cables 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

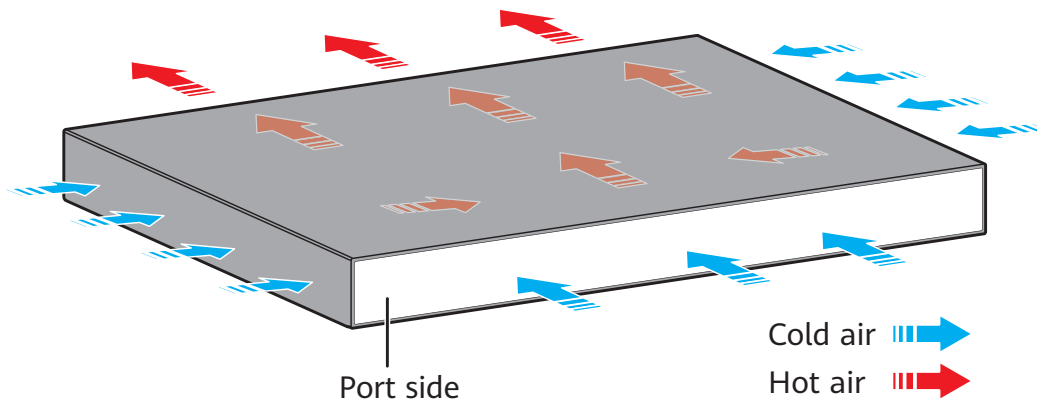
The S5735S-H24S4XC-A has the same types of indicators as the S5736-S24S4XC. For details, see the S5736-S24S4XC.

Power Supply System

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1597 Technical specifications of the S5735S-H24S4XC-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.0 mm (1.72 in. x 17.4 in. x 17.5 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	150mm x 710mm x 560mm (5.90 in. x 27.95 in. x 22.05 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	6 kg (13.23 lb)
Weight with packaging [kg(lb)]	9 kg (19.84 lb)
Typical power consumption [W]	63 W
Typical heat dissipation [BTU/hour]	214.96 BTU/hour
Maximum power consumption [W]	74 W
Maximum heat dissipation [BTU/hour]	252.5 BTU/hour
MTBF [year]	65.79 year
MTTR [hour]	2 hour
Availability	>0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	49.9 dB(A)
Number of card slots	1
Number of power slots	2
Number of fans	2
Maximum number of 40GE ports	4 (with card)
Maximum number of 25GE ports	2 (with card)
Maximum number of 10GE ports	12 (with card)
Maximum number of GE ports	36 (with card)
Maximum number of FE ports	24
Redundant power supply	1+1 AC and DC power can be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • DC input: -48 V DC to -60 V DC
Input voltage range [V]	<ul style="list-style-type: none"> • AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz • High-Voltage DC input: 190 V DC to 290 V DC • DC input: -38.4 V DC to -72 V DC

Item	Specification
Maximum input current [A]	150 W AC: 3 A 180 W DC: 6 A 600 W AC: 8 A 1000 W DC: 30 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
RTC	Supported
RPS	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	<ul style="list-style-type: none">Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common modeUsing DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Pluggable
Heat dissipation	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left, front and right, air exhaustion from behind
PoE	Not supported
Maximum PoE power consumption [W]	-
PoE+ power interfaces	-
PoE++ power interfaces	-
Full load PoE power consumption 15.4W (802.3af)	-
Full load PoE power consumption 30W (802.3at)	-
Full load PoE++ power consumption 60W (802.3bt)	-
Full load PoE++ power consumption 90W (802.3bt)	-

Item	Specification
Certification	EMC certification Safety certification Manufacturing certification

5.34.2 S5735S-H24T4XC-A

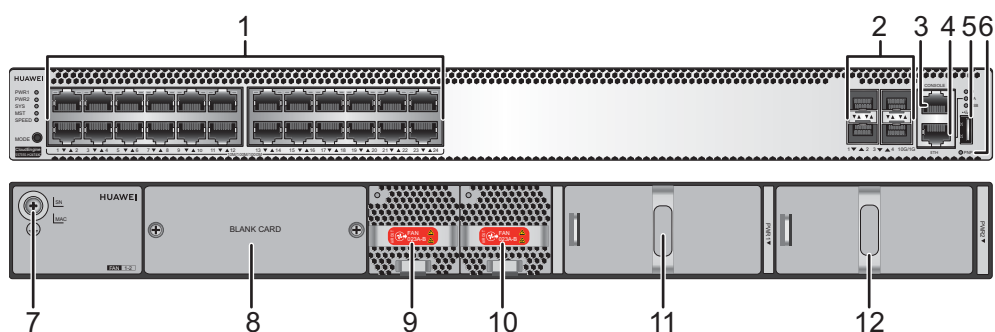
Overview

Table 5-1598 Basic information about the S5735S-H24T4XC-A

Item	Details
Description	S5735S-H24T4XC bundle(24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, 1*expansion slot, 1*AC power module)
First supported version	V200R020C00
Part Number	98011025
Model	S5735S-H24T4XC-A

Components

Figure 5-541 S5735S-H24T4XC-A appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ optical ports
3	One console port	4	One ETH management port

5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot NOTE Applicable card: <ul style="list-style-type: none"> • S7X08000 • ES5D21Q02Q00 • ES5D21Q04Q01
9	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module
13	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) 	12	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR)

Ports

Table 5-1599 Ports on the S5735S-H24T4XC-A

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<p>GE eSFP optical modules</p> <p>GE-CWDM eSFP optical modules</p> <p>GE-DWDM eSFP optical modules</p> <p>GE SFP copper module</p> <p>10GE SFP+ optical modules (OSXD22N00 not supported)</p> <p>10GE-CWDM SFP + optical modules</p> <p>10GE-DWDM SFP + optical modules</p> <p>1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables</p> <p>3 m and 10 m SFP+ AOC cables</p> <p>0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)</p>
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

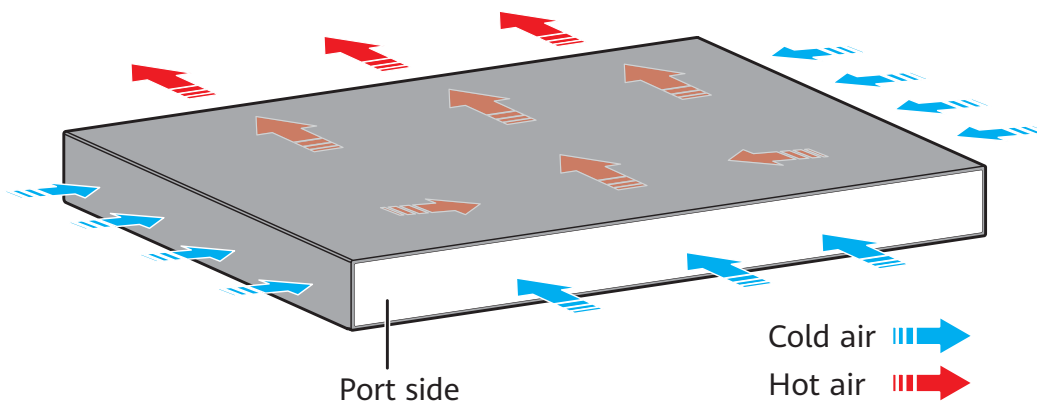
The S5735S-H24T4XC-A has similar indicators to those on the S5735S-H48U4XC-A except that the S5735S-H24T4XC-A does not have a PoE mode indicator. For details, see the S5735S-H48U4XC-A.

Power Supply System

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1600 Technical specifications of the S5735S-H24T4XC-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.0 mm (1.72 in. x 17.4 in. x 17.5 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	150mm x 710mm x 560mm (5.90 in. x 27.95 in. x 22.05 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	5.8 kg (12.79 lb)
Weight with packaging [kg(lb)]	8.8 kg (19.4 lb)
Typical power consumption [W]	39 W
Typical heat dissipation [BTU/hour]	133.07 BTU/hour
Maximum power consumption [W]	55 W
Maximum heat dissipation [BTU/hour]	187.67 BTU/hour
MTBF [year]	83.79 year
MTTR [hour]	2 hour
Availability	>0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	47.4 dB(A)
Number of card slots	1
Number of power slots	2
Number of fans	2
Maximum number of 40GE ports	4 (with card)
Maximum number of 25GE ports	2 (with card)
Maximum number of 10GE ports	12 (with card)
Maximum number of GE ports	36 (with card)
Maximum number of FE ports	24
Redundant power supply	1+1 AC and DC power can be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • DC input: -48 V DC to -60 V DC
Input voltage range [V]	<ul style="list-style-type: none"> • AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz • DC input: -38.4 V DC to -72 V DC

Item	Specification
Maximum input current [A]	150 W AC: 3 A 180 W DC: 6 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
RTC	Supported
RPS	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	<ul style="list-style-type: none">Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common modeUsing DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Pluggable
Heat dissipation	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left, front and right, air exhaustion from behind
PoE	Not supported
Maximum PoE power consumption [W]	-
PoE+ power interfaces	-
PoE++ power interfaces	-
Full load PoE power consumption 15.4W (802.3af)	-
Full load PoE power consumption 30W (802.3at)	-
Full load PoE++ power consumption 60W (802.3bt)	-
Full load PoE++ power consumption 90W (802.3bt)	-

Item	Specification
Certification	EMC certification Safety certification Manufacturing certification

5.34.3 S5735S-H24U4XC-A

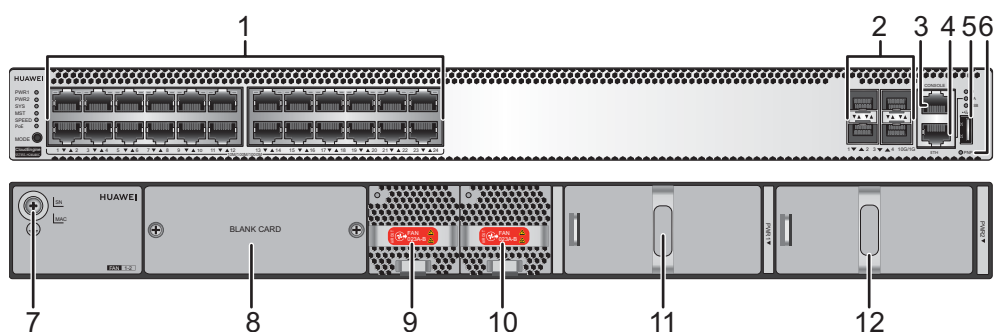
Overview

Table 5-1601 Basic information about the S5735S-H24U4XC-A

Item	Details
Description	S5735S-H24U4XC bundle (24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, 1*expansion slot, PoE++, 1*AC power module)
First supported version	V200R020C00
Part Number	98011033
Model	S5735S-H24U4XC-A

Components

Figure 5-542 S5735S-H24U4XC-A appearance



1	Twenty-four 10/100/1000BASE-T PoE+ ports	2	Four 10GE SFP+ optical ports
3	One console port	4	One ETH management port

5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot NOTE Applicable card: <ul style="list-style-type: none"> • S7X08000 • ES5D21Q02Q00 • ES5D21Q04Q01
9	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module
13	Power module slot 1 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)	12	Power module slot 2 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)

Ports

Table 5-1602 Ports on the S5735S-H24U4XC-A

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	GE eSFP optical modules GE-CWDM eSFP optical modules GE-DWDM eSFP optical modules GE SFP copper module 10GE SFP+ optical modules (OSXD22N00 not supported) 10GE-CWDM SFP + optical modules 10GE-DWDM SFP + optical modules 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables 3 m and 10 m SFP+ AOC cables 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

The S5735S-H24U4XC-A has the same types of indicators as the S5735S-H48U4XC-A. For details, see the S5735S-H48U4XC-A.

Power Supply System

The S5735S-H24U4XC-A is a PoE switch. It has two power module slots, each of which can have a 1000 W PoE power module installed.

Table 5-1603 Power supply configurations

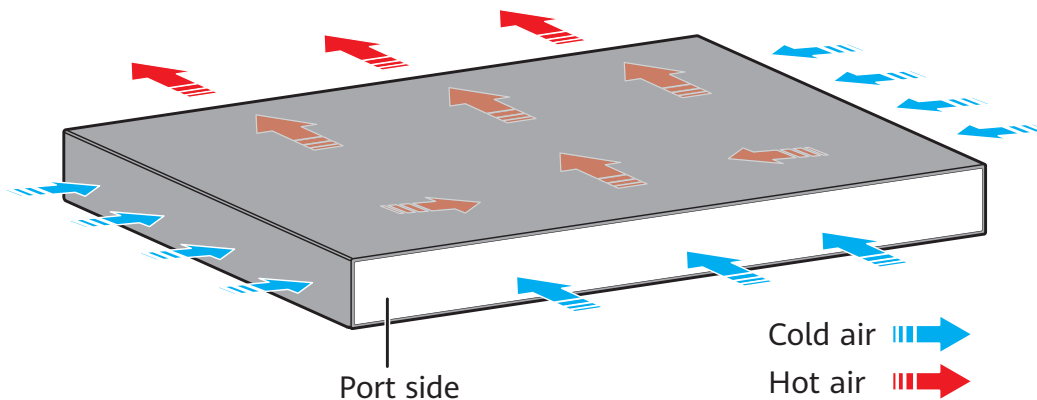
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	–	867 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 14 ● 802.3bt (90 W per port): 9
1000 W (110 V)	–	772 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 12 ● 802.3bt (90 W per port): 8
1000 W (220 V)	1000 W (220 V)	1817 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24 ● 802.3bt (90 W per port): 20
1000 W (110 V)	1000 W (110 V)	1627 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24 ● 802.3bt (90 W per port): 18

 NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1604 Technical specifications of the S5735S-H24U4XC-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.0 mm (1.72 in. x 17.4 in. x 17.5 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	150mm x 710mm x 560mm (5.90 in. x 27.95 in. x 22.05 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	6.1 kg (13.45 lb)
Weight with packaging [kg(lb)]	9.1 kg (20.06 lb)
Typical power consumption [W]	59 W
Typical heat dissipation [BTU/hour]	201.31 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Not providing the PoE function: 102 W (without card) 100% PoE loads: 1919 W (PoE: 1817 W, without card)

Item	Specification
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none">Not providing the PoE function: 348.03 (without card)100% PoE loads: 6547.82 (without card)
MTBF [year]	65.32 year
MTTR [hour]	2 hour
Availability	>0.99999
Noise at normal temperature (acoustic power) [dB(A)]	70 dB(A)
Number of card slots	1
Number of power slots	2
Number of fans	2
Maximum number of 40GE ports	4 (with card)
Maximum number of 25GE ports	2 (with card)
Maximum number of 10GE ports	12 (with card)
Maximum number of GE ports	36 (with card)
Maximum number of FE ports	24
Redundant power supply	1+1
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz • High-Voltage DC input: 240 V DC
Input voltage range [V]	<ul style="list-style-type: none"> • AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz • High-Voltage DC input: 190 V DC to 290 V DC

Item	Specification
Maximum input current [A]	AC 1000 W: 110 V: 12 A 220 V: 8 A 240 V: 8 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
RTC	Supported
RPS	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Pluggable
Heat dissipation	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left, front and right, air exhaustion from behind
PoE	Supported
Maximum PoE power consumption [W]	One 1000 W: 867 W (220 V input); 772 W (110 V input) Two 1000 W: 1817 W (220 V input); 1627 W (110 V input)
PoE+ power interfaces	24
PoE++ power interfaces	24
Full load PoE power consumption 15.4W (802.3af)	24
Full load PoE power consumption 30W (802.3at)	24
Full load PoE++ power consumption 60W (802.3bt)	One 1000 W: 14 (220 V input); 12 (110 V input) Two 1000 W: 24 (220 V input); 24 (110 V input)

Item	Specification
Full load PoE++ power consumption 90W (802.3bt)	One 1000 W: 9 (220 V input); 8 (110 V input) Two 1000 W: 20 (220 V input); 18 (110 V input)
Certification	EMC certification Safety certification Manufacturing certification

5.34.4 S5735S-H48T4XC-A

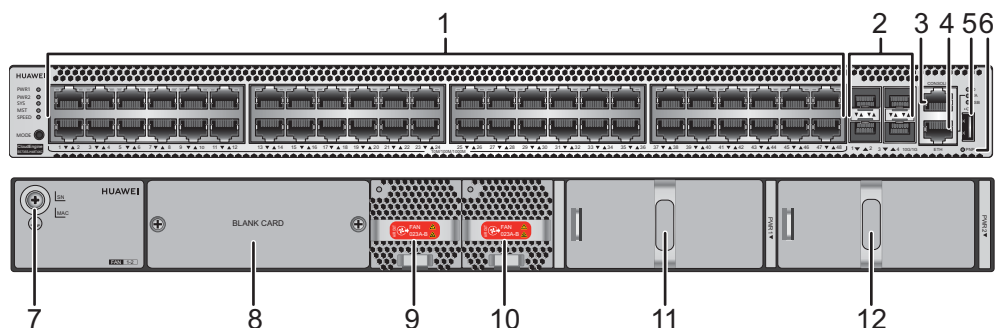
Overview

Table 5-1605 Basic information about the S5735S-H48T4XC-A

Item	Details
Description	S5735S-H48T4XC bundle (48*10/100/1000BASE-T ports, 4*10GE SFP+ ports, 1*expansion slot, 1*AC power module)
First supported version	V200R020C00
Part Number	98011029
Model	S5735S-H48T4XC-A

Components

Figure 5-543 S5735S-H48T4XC-A appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ optical ports
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot NOTE Applicable card: <ul style="list-style-type: none"> • S7X08000 • E55D21Q02Q00 • E55D21Q04Q01
9	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module
13	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) 	12	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR)

Ports

Table 5-1606 Ports on the S5735S-H48T4XC-A

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<p>GE eSFP optical modules</p> <p>GE-CWDM eSFP optical modules</p> <p>GE-DWDM eSFP optical modules</p> <p>GE SFP copper module</p> <p>10GE SFP+ optical modules (OSXD22N00 not supported)</p> <p>10GE-CWDM SFP + optical modules</p> <p>10GE-DWDM SFP + optical modules</p> <p>1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables</p> <p>3 m and 10 m SFP+ AOC cables</p> <p>0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)</p>

Port	Connector Type	Description	Available Components
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

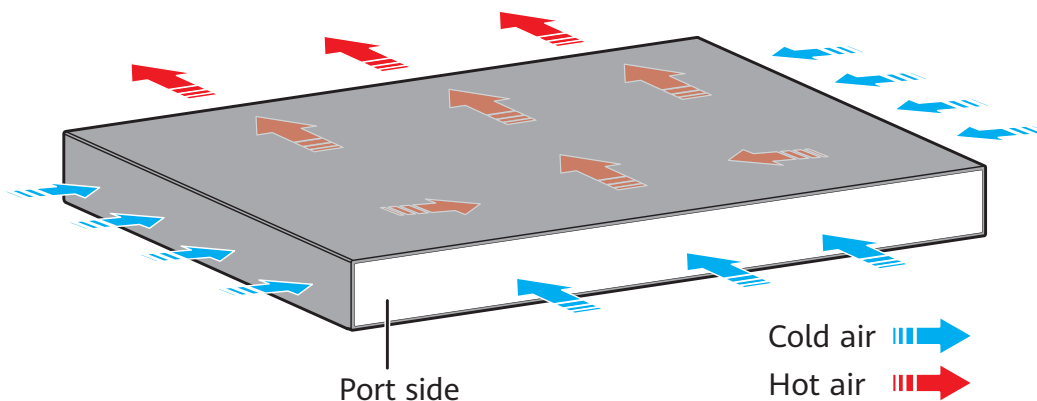
The S5735S-H48T4XC-A has similar indicators to those on the S5735S-H48U4XC-A except that the S5735S-H48T4XC-A does not have a PoE mode indicator. For details, see the S5735S-H48U4XC-A.

Power Supply System

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1607 Technical specifications of the S5735S-H48T4XC-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.0 mm (1.72 in. x 17.4 in. x 17.5 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	150mm x 710mm x 560mm (5.90 in. x 27.95 in. x 22.05 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	6 kg (13.23 lb)
Weight with packaging [kg(lb)]	9 kg (19.84 lb)
Typical power consumption [W]	53 W
Typical heat dissipation [BTU/hour]	180.84 BTU/hour
Maximum power consumption [W]	68 W
Maximum heat dissipation [BTU/hour]	232.02 BTU/hour
MTBF [year]	70.89 year
MTTR [hour]	2 hour
Availability	>0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	44.7 dB(A)
Number of card slots	1
Number of power slots	2
Number of fans	2
Maximum number of 40GE ports	4 (with card)
Maximum number of 25GE ports	2 (with card)
Maximum number of 10GE ports	12 (with card)
Maximum number of GE ports	60 (with card)
Maximum number of FE ports	48
Redundant power supply	1+1 AC and DC power can be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • DC input: -48 V DC to -60 V DC
Input voltage range [V]	<ul style="list-style-type: none"> • AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz • DC input: -38.4 V DC to -72 V DC

Item	Specification
Maximum input current [A]	150 W AC: 3 A 180 W DC: 6 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
RTC	Supported
RPS	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	<ul style="list-style-type: none">Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common modeUsing DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Pluggable
Heat dissipation	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left, front and right, air exhaustion from behind
PoE	Not supported
Maximum PoE power consumption [W]	-
PoE+ power interfaces	-
PoE++ power interfaces	-
Full load PoE power consumption 15.4W (802.3af)	-
Full load PoE power consumption 30W (802.3at)	-
Full load PoE++ power consumption 60W (802.3bt)	-
Full load PoE++ power consumption 90W (802.3bt)	-

Item	Specification
Certification	EMC certification Safety certification Manufacturing certification

5.34.5 S5735S-H48U4XC-A

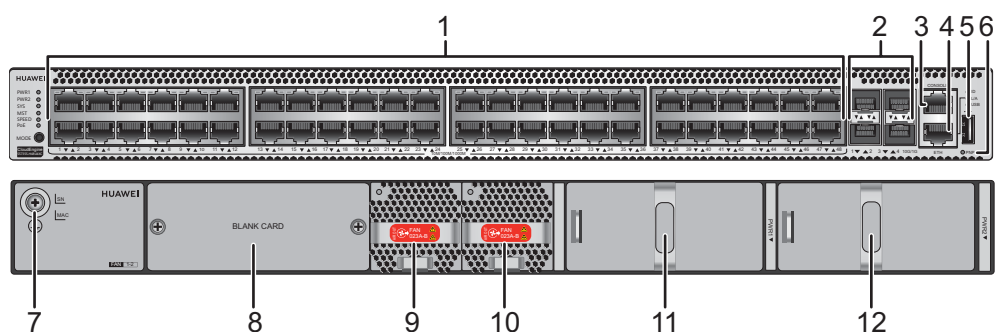
Overview

Table 5-1608 Basic information about the S5735S-H48U4XC-A

Item	Details
Description	S5735S-H48U4XC bundle (48*10/100/1000BASE-T ports, 4*10GE SFP+ ports, 1*expansion slot, PoE++, 1*AC power module)
First supported version	V200R020C00
Part Number	98011037
Model	S5735S-H48U4XC-A

Components

Figure 5-544 S5735S-H48U4XC-A appearance



1	Forty-eight 10/100/1000BASE-T PoE + ports	2	Four 10GE SFP+ optical ports
3	One console port	4	One ETH management port

5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot NOTE Applicable card: <ul style="list-style-type: none"> • S7X08000 • ES5D21Q02Q00 • ES5D21Q04Q01
9	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module
13	Power module slot 1 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)	12	Power module slot 2 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)

Ports

Table 5-1609 Ports on the S5735S-H48U4XC-A

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	GE eSFP optical modules GE-CWDM eSFP optical modules GE-DWDM eSFP optical modules GE SFP copper module 10GE SFP+ optical modules (OSXD22N00 not supported) 10GE-CWDM SFP + optical modules 10GE-DWDM SFP + optical modules 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables 3 m and 10 m SFP+ AOC cables 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

Figure 5-545 Indicators on the S5735S-H48U4XC-A

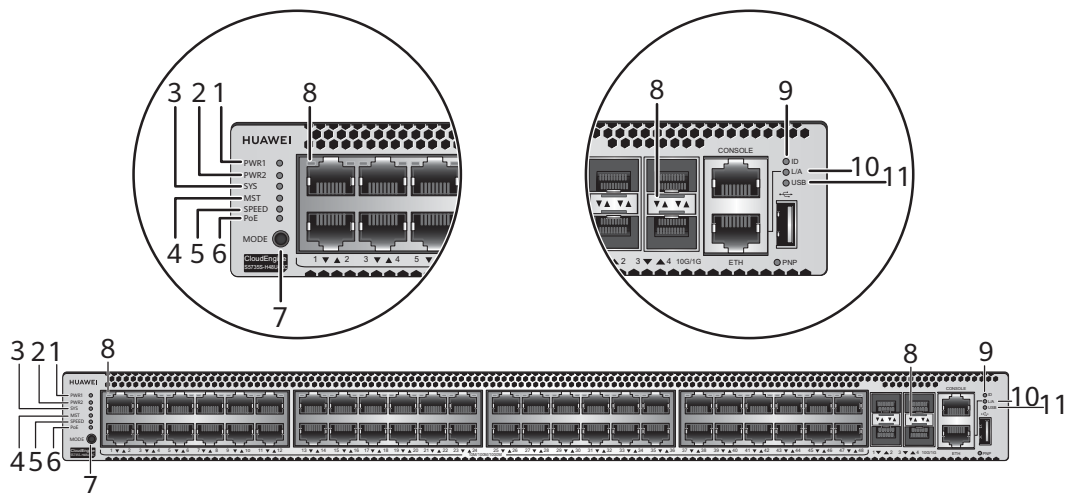


Table 5-1610 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.

No.	Indicator	Name	Color	Status	Description
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p> <p>NOTE Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none"> If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows: <ul style="list-style-type: none"> If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes. If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status. If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-1611 .		

No.	Indicator	Name	Color	Status	Description
9	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
10	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
11	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-1611 Description of service port indicators in different modes

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green or yellow	Blinking	The port is sending or receiving data.
MST stack mode	Green	Off	Port indicators do not show the stack ID of the switch.
		Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
		Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green or yellow	Steady on	10M/100M/1000M BASE-T port: The port is operating at 10 Mbit/s or 100 Mbit/s. 1000M/10GE SFP+ port: The port is operating at 1000 Mbit/s.
	Green or yellow	Blinking	10M/100M/1000M BASE-T port: The port is operating at 1000 Mbit/s. 1000M/10GE SFP+ port: The port is operating at 10 Gbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.

Display Mode	Color	Status	Description
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Power Supply System

The S5735S-H48U4XC-A is a PoE switch. It has two power module slots, each of which can have a 1000 W PoE power module installed.

Table 5-1612 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	–	859 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 28 ● 802.3bt (60 W per port): 14 ● 802.3bt (90 W per port): 9
1000 W (110 V)	–	764 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 25 ● 802.3bt (60 W per port): 12 ● 802.3bt (90 W per port): 8
1000 W (220 V)	1000 W (220 V)	1809 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 48 ● 802.3bt (60 W per port): 30 ● 802.3bt (90 W per port): 20

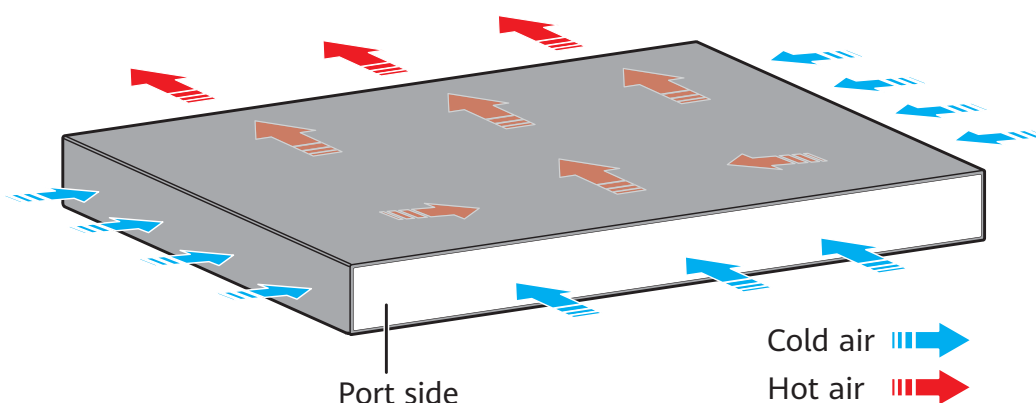
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (110 V)	1000 W (110 V)	1619 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 48 • 802.3bt (60 W per port): 26 • 802.3bt (90 W per port): 17

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1613 Technical specifications of the S5735S-H48U4XC-A

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.0 mm (1.72 in. x 17.4 in. x 17.5 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	150mm x 710mm x 560mm (5.90 in. x 27.95 in. x 22.05 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	6.3 kg (13.89 lb)
Weight with packaging [kg(lb)]	9.3 kg (20.51 lb)
Typical power consumption [W]	75 W
Typical heat dissipation [BTU/hour]	255.91 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Not providing the PoE function: 115 W (without card) 100% PoE loads: 1924 W (PoE: 1809 W, without card)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Not providing the PoE function: 392.40 (without card) 100% PoE loads: 6564.88 (without card)
MTBF [year]	53.38 year
MTTR [hour]	2 hour
Availability	>0.99999
Noise at normal temperature (acoustic power) [dB(A)]	70 dB(A)
Number of card slots	1
Number of power slots	2
Number of fans	2
Maximum number of 40GE ports	4 (with card)
Maximum number of 25GE ports	2 (with card)

Item	Specification
Maximum number of 10GE ports	12 (with card)
Maximum number of GE ports	60 (with card)
Maximum number of FE ports	48
Redundant power supply	1+1
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none">• The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year.• The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)

Item	Specification
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none">AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 HzHigh-Voltage DC input: 240 V DC
Input voltage range [V]	<ul style="list-style-type: none">AC input: 90 V AC to 290 V AC, 45 Hz to 65 HzHigh-Voltage DC input: 190 V DC to 290 V DC
Maximum input current [A]	AC 1000 W: 110 V: 12 A 220 V: 8 A 240 V: 8 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
RTC	Supported
RPS	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Pluggable
Heat dissipation	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left, front and right, air exhaustion from behind
PoE	Supported
Maximum PoE power consumption [W]	One 1000 W: 859 W (220 V input); 764 W (110 V input) Two 1000 W: 1809 W (220 V input); 1619 W (110 V input)
PoE+ power interfaces	48
PoE++ power interfaces	48

Item	Specification
Full load PoE power consumption 15.4W (802.3af)	48
Full load PoE power consumption 30W (802.3at)	One 1000 W: 28 (220 V input); 25 (110 V input) Two 1000 W: 48 (220 V input); 48 (110 V input)
Full load PoE++ power consumption 60W (802.3bt)	One 1000 W: 14 (220 V input); 12 (110 V input) Two 1000 W: 30 (220 V input); 26 (110 V input)
Full load PoE++ power consumption 90W (802.3bt)	One 1000 W: 9 (220 V input); 8 (110 V input) Two 1000 W: 20 (220 V input); 17 (110 V input)
Certification	EMC certification Safety certification Manufacturing certification

5.35 S5736-S

5.35.1 S5736-S24UM4XC

Overview

Table 5-1614 Basic information about the S5736-S24UM4XC

Item	Details
Description	S5736-S24UM4XC base (24*100M/1G Ethernet ports, optional RTU upgrade to 2.5/5/10G, 4*10GE SFP+ ports, 1*expansion slot, PoE++, without power module)
First supported version	V200R020C00
Part Number	98011020
Model	S5736-S24UM4XC

Item	Details
Other part numbers	<p>98011020-001: S5736-S24UM4XC 2.5&10G bundle (12*100M/1G/2.5G Ethernet ports, 12*100M/1G/2.5G/5G/10G Ethernet ports, optional RTU upgrade to 5/10G, 4*10GE SFP+ ports, 1*expansion slot, PoE++, 1*1000W AC power)</p> <p>98011020-002: S5736-S24UM4XC 2.5G bundle (24*100M/1G/2.5G, optional RTU upgrade to 5/10G, 4*10GE SFP+ ports, 1*expansion slot, PoE++, 1*1000W AC power)</p> <p>98011020-003: S5736-S24UM4XC 5G bundle (24*100M/1G/2.5G/5G Ethernet ports, Optional RTU upgrade to 10G, 4*10GE SFP+ ports, 1*expansion slot, PoE++, 1*1000W AC power)</p> <p>98011020-004: S5736-S24UM4XC 10G bundle (24*100M/1G/2.5G/5G/10G Ethernet ports, 4*10GE SFP+ ports, 1*expansion slot, PoE++, 1*1000W AC power)</p>

There are several S5736-S24UM4XC bundles, which consist of different power supplies and ports, as listed in [Table 5-1615](#).

Table 5-1615 S5736-S24UM4XC bundles

Part Number	Description	Remarks
98011020	S5736-S24UM4XC Base(24*100M/1G Ethernet ports,Optional RTU upgrade to 2.5/5/10G, 4*10GE SFP+ ports, 1*expansion slot, PoE ++, without power module)	<p>By default, no power supply is configured.</p> <p>By default, multi-GE ports support 100 Mbit/s and 1000 Mbit/s. You can purchase an RTU license to increase the port rate to 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s.</p> <p>There is a label on the rear side of the device, which contains the default rate "24*GE" supported by the multi-GE ports.</p>

Part Number	Description	Remarks
9801102 0-001	S5736-S24UM4XC 2.5&10G Bundle(12*100M/1G/2.5G Ethernet ports, 12*100M/1G/2.5G/5G/10G Ethernet ports, Optional RTU upgrade to 5/10G, 4*10GE SFP+ ports, 1*expansion slot, PoE++, 1*1000W AC power)	<p>By default, one 1000 W AC power module is configured.</p> <p>By default, the first 12 multi-GE ports support 100 Mbit/s, 1000 Mbit/s, and 2.5 Gbit/s. You can purchase an RTU license to increase the port rate to 5 Gbit/s or 10 Gbit/s.</p> <p>By default, the last 12 multi-GE ports support 100 Mbit/s, 1000 Mbit/s, 2.5 Gbit/s, 5 Gbit/s, and 10 Gbit/s.</p> <p>There is a label on the rear side of the device, which contains the default rate "12*2.5GE+12*10GE" supported by the multi-GE ports.</p>
9801102 0-002	S5736-S24UM4XC 2.5G Bundle(24*100M/1G/2.5G, Optional RTU upgrade to 5/10G, 4*10GE SFP+ ports, 1*expansion slot, PoE++, 1*1000W AC power)	<p>By default, one 1000 W AC power module is configured.</p> <p>By default, multi-GE ports support 100 Mbit/s, 1000 Mbit/s, and 2.5 Gbit/s. You can purchase an RTU license to increase the port rate to 5 Gbit/s or 10 Gbit/s.</p> <p>There is a label on the rear side of the device, which contains the default rate "24*2.5GE" supported by the multi-GE ports.</p>
9801102 0-003	S5736-S24UM4XC 5G Bundle(24*100M/1G/2.5G/5G Ethernet ports, Optional RTU upgrade to 10G, 4*10GE SFP+ ports, 1*expansion slot, PoE++, 1*1000W AC power)	<p>By default, one 1000 W AC power module is configured.</p> <p>By default, multi-GE ports support 100 Mbit/s, 1000 Mbit/s, 2.5 Gbit/s, and 5 Gbit/s. You can purchase an RTU license to increase the port rate to 10 Gbit/s.</p> <p>There is a label on the rear side of the device, which contains the default rate "24*5GE" supported by the multi-GE ports.</p>

Part Number	Description	Remarks
9801102 0-004	S5736-S24UM4XC 10G Bundle(24*100M/1G/2.5G/5G/10G Ethernet ports, 4*10GE SFP+ ports, 1*expansion slot, PoE++, 1*1000W AC power)	By default, one 1000 W AC power module is configured. By default, multi-GE ports support 100 Mbit/s, 1000 Mbit/s, 2.5 Gbit/s, 5 Gbit/s, and 10 Gbit/s. There is a label on the rear side of the device, which contains the default rate "24*10GE" supported by the multi-GE ports.

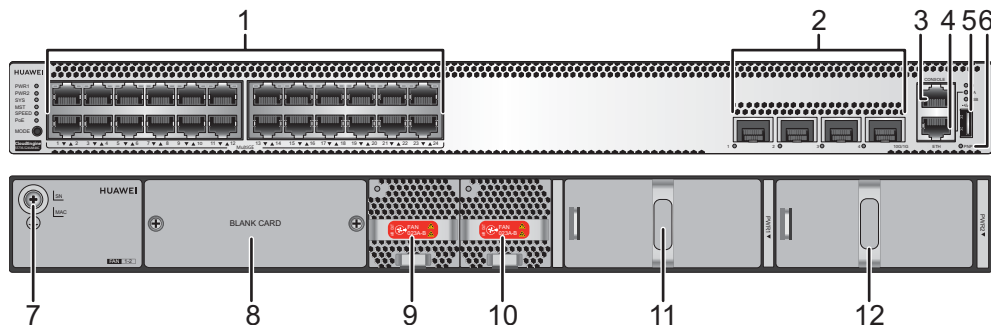
NOTE

A pre-configured or loaded RTU (right to use) license of a device is bound to the device ESN and cannot be unbound or transferred to other devices.

For details about the RTU licenses supported by the device and how to load them, see the *License Usage Guide*.

Components

Figure 5-546 S5736-S24UM4XC appearance



1	Twenty-four 100M/1000M/2.5GE/5GE/10GE BASE-T PoE++ ports (multi-GE ports)	2	Four 10GE SFP+ optical ports
3	One console port	4	One ETH management port

5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot NOTE Applicable card: <ul style="list-style-type: none"> • S7X08000 • ES5D21Q02Q00 • ES5D21Q04Q01
9	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module
13	Power module slot 1 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)	12	Power module slot 2 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)

Ports

[Table 5-1616](#) lists the maximum transmission distances of different cables on multi-GE ports.

Table 5-1616 Maximum transmission distances of different cables on multi-GE ports

Cable Type (6-a-1 Bundle)	Multi-GE Port (Different Rates)			
	100M/1000M	2.5GE	5GE	10GE
Category 5e unshielded twisted pair (Cat5e UTP)	100 m	100 m	<ul style="list-style-type: none"> • 55 m • 100 m (6-a-1 bundle only for the first 30 m) Not recommended due to high risk	Not supported
Category 5e shielded twisted pair (Cat5e STP)	100 m	100 m	100 m	Not supported
Category 6 unshielded twisted pair (Cat6 UTP)	100 m	100 m	100 m Not recommended due to high risk	Not supported
Category 6 shielded twisted pair (Cat6 STP)	100 m	100 m	100 m	Not supported
Category 6A unshielded twisted pair (Cat6A U/UTP)	100 m	100 m	100 m Not recommended due to high risk	Not supported
Category 6A foiled/unshielded twisted pair (Cat6A F/UTP)	100 m	100 m	100 m	100 m
Category 6A shielded twisted pair (Cat6A STP)	100 m	100 m	100 m	100 m
Category 7 twisted pair (Cat7)	100 m	100 m	100 m	100 m

 **NOTE**

6-a-1 stands for the six-around-one cable bundle mode, with one cable in the center and six cables bundled evenly around it.

Some cables pose high risks and are not recommended for the following reasons:

- 802.3bz requires that the ALSNR value for alien crosstalk between Ethernet cables be greater than 0, but the standards for Cat5e and Cat6 unshielded twisted pairs do not specify the required ALSNR value. Therefore, such cables may not meet the crosstalk requirement in 802.3bz, causing severe problems such as continuous packet loss.
- According the cabling specification TIA TSB-5021, using Cat5e and Cat6 cables for 5G poses high risks.
- Currently, no clear onsite testing or evaluation method is available for checking whether ALSNR of cables conforms to 802.3bz.

If Cat5e and Cat6 unshielded twisted pairs do not meet the 5G requirement, you are advised to replace them with shielded twisted pairs or reduce the rate of ports to 2.5G.

Table 5-1617 Ports on the S5736-S24UM4XC

Port	Connector Type	Description	Available Components
100M/1000M/ 2.5GE/5GE/10GE BASE-T port (multi-GE port)	RJ45	A 100M/1000M/ 2.5GE/5GE/10GE BASE-T port (multi-GE port) sends and receives service data at 100 Mbit/s, 1 Gbit/s, 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s. The port supports the PoE function.	If the 2.5 Gbit/s or 5 Gbit/s speed is required, the port must use an Ethernet cable of Cat5e or higher category. If the 10 Gbit/s speed is required, the port must use an Ethernet cable of Cat6A F/UTP or higher category.

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	GE eSFP optical modules GE-CWDM eSFP optical modules GE-DWDM eSFP optical modules GE SFP copper module 10GE SFP+ optical modules (OSXD22N00 not supported) 10GE-CWDM SFP + optical modules 10GE-DWDM SFP + optical modules 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables 3 m and 10 m SFP+ AOC cables 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

Figure 5-547 Indicators on the S5736-S24UM4XC

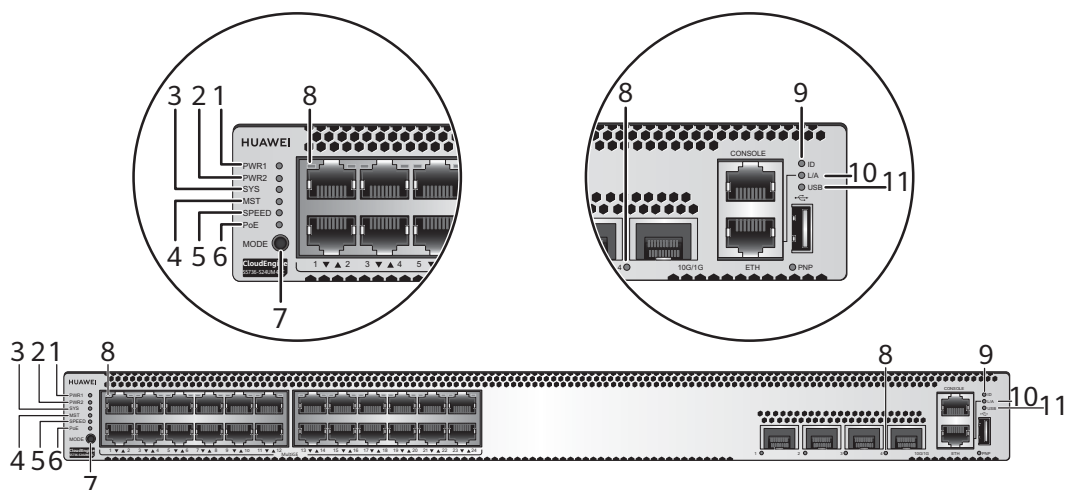


Table 5-1618 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.

No.	Indicator	Name	Color	Status	Description
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p> <p>NOTE Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none"> If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows: <ul style="list-style-type: none"> If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes. If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status. If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-1619 .		

No.	Indicator	Name	Color	Status	Description
9	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
10	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
11	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-1619 Description of service port indicators in different modes

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green	Blinking	The port is sending or receiving data.
MST stack mode	Green	Off	Port indicators do not show the stack ID of the switch.
		Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
		Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	100M/1000M/2.5GE/5GE/10GE BASE-T port: The port is operating at 100 Mbit/s or 1000 Mbit/s. 1000M/10GE SFP+ port: The port is operating at 1000 Mbit/s.
	Green	Blinking	100M/1000M/2.5GE/5GE/10GE BASE-T port: The port is operating at 2.5 Gbit/s, 5 Gbit/s, or 10 Gbit/s. 1000M/10GE SFP+ port: The port is operating at 10 Gbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.

Display Mode	Color	Status	Description
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Power Supply System

The S5736-S24UM4XC is a PoE switch. It has two power module slots, each of which can have a 1000 W PoE power module installed.

Table 5-1620 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	-	841 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 14 ● 802.3bt (90 W per port): 9
1000 W (110 V)	-	746 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 12 ● 802.3bt (90 W per port): 8
1000 W (220 V)	1000 W (220 V)	1791 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24 ● 802.3bt (90 W per port): 19

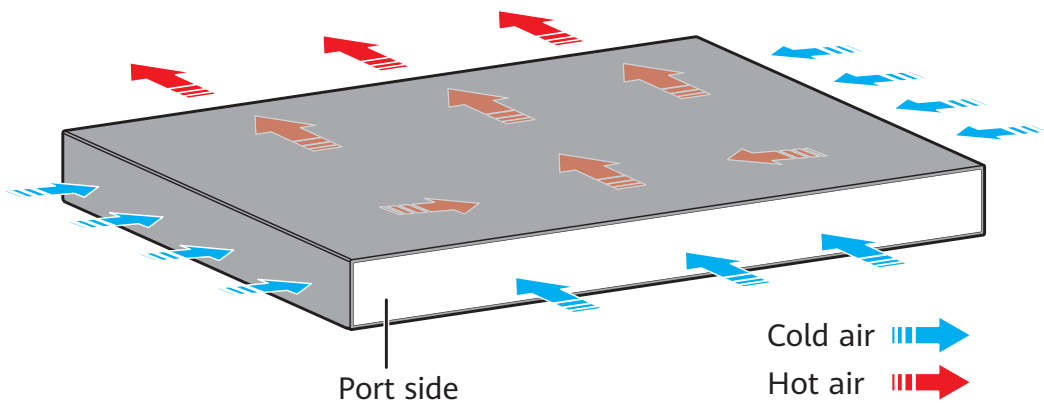
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (110 V)	1000 W (110 V)	1601 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3bt (60 W per port): 24 • 802.3bt (90 W per port): 17

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1621 Technical specifications of the S5736-S24UM4XC

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.0 mm (1.72 in. x 17.4 in. x 17.5 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	150mm x 710mm x 560mm (5.90 in. x 27.95 in. x 22.05 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	6.7 kg (14.77 lb)
Weight with packaging [kg(lb)]	9.7 kg (21.39 lb)
Typical power consumption [W]	117 W
Typical heat dissipation [BTU/hour]	399.22 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Not providing the PoE function: 176 W (without card) 100% PoE loads: 1967 W (PoE: 1791 W, without card)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none"> Not providing the PoE function: 600.53 (without card) 100% PoE loads: 6711.60 (without card)
MTBF [year]	59.44 year
MTTR [hour]	2 hour
Availability	>0.99999
Noise at normal temperature (acoustic power) [dB(A)]	70.1 dB(A)
Number of card slots	1
Number of power slots	2
Number of fans	2
Maximum number of 40GE ports	4 (with card)
Maximum number of 25GE ports	2 (with card)

Item	Specification
Maximum number of 10GE ports	36 (with card)
Maximum number of 5GE ports	24 (with card)
Maximum number of 2.5GE ports	24 (with card)
Maximum number of GE ports	36 (with card)
Maximum number of FE ports	24
Redundant power supply	1+1
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing

Item	Specification
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none">AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 HzHigh-Voltage DC input: 240 V DC
Input voltage range [V]	<ul style="list-style-type: none">AC input: 90 V AC to 290 V AC, 45 Hz to 65 HzHigh-Voltage DC input: 190 V DC to 290 V DC
Maximum input current [A]	AC 1000 W: 110 V: 12 A 220 V: 8 A 240 V: 8 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
RTC	Supported
RPS	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Pluggable
Heat dissipation	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left, front and right, air exhaustion from behind
PoE	Supported
Maximum PoE power consumption [W]	One 1000 W: 841 W (220 V input); 746 W (110 V input) Two 1000 W: 1791 W (220 V input); 1601 W (110 V input)
PoE+ power interfaces	24

Item	Specification
PoE++ power interfaces	24
Full load PoE power consumption 15.4W (802.3af)	24
Full load PoE power consumption 30W (802.3at)	24
Full load PoE++ power consumption 60W (802.3bt)	One 1000 W: 14 (220 V input); 12 (110 V input) Two 1000 W: 24 (220 V input); 24 (110 V input)
Full load PoE++ power consumption 90W (802.3bt)	One 1000 W: 9 (220 V input); 8 (110 V input) Two 1000 W: 19 (220 V input); 17 (110 V input)
Certification	EMC certification Safety certification Manufacturing certification

5.35.2 S5736-S24T4XC

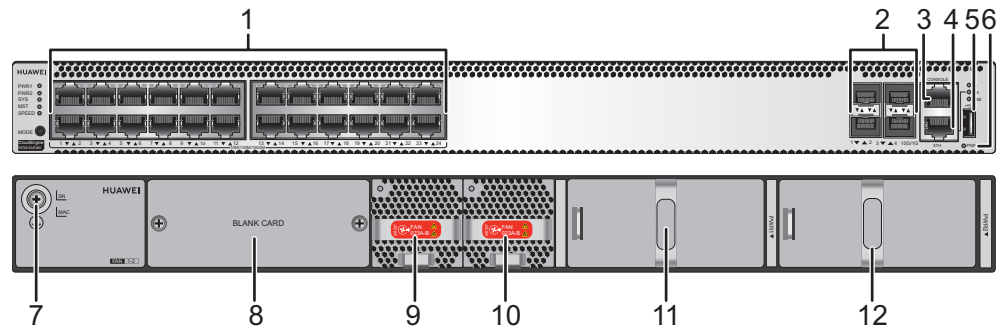
Overview

Table 5-1622 Basic information about the S5736-S24T4XC

Item	Details
Description	S5736-S24T4XC (24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, 1*expansion slot, without power module)
First supported version	V200R020C00
Part Number	98011022
Model	S5736-S24T4XC

Components

Figure 5-548 S5736-S24T4XC appearance



1	Twenty-four 10/100/1000BASE-T ports	2	Four 10GE SFP+ optical ports
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot NOTE Applicable card: <ul style="list-style-type: none"> • S7X08000 • ES5D21Q02Q00 • ES5D21Q04Q01
9	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module

1 3	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) 	1 2	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR)
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Ports

Table 5-1623 Ports on the S5736-S24T4XC

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	GE eSFP optical modules GE-CWDM eSFP optical modules GE-DWDM eSFP optical modules GE SFP copper module 10GE SFP+ optical modules (OSXD22N00 not supported) 10GE-CWDM SFP + optical modules 10GE-DWDM SFP + optical modules 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables 3 m and 10 m SFP+ AOC cables 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

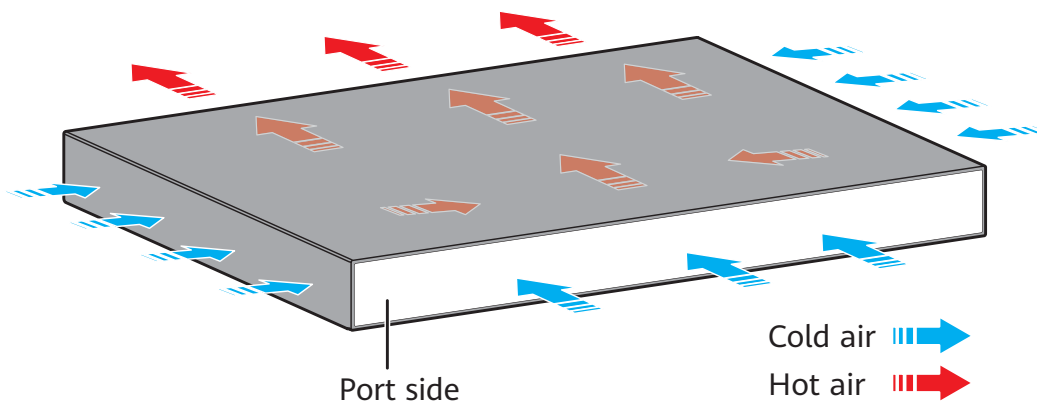
The S5736-S24T4XC has similar indicators to those on the S5736-S48U4XC except that the S5736-S24T4XC does not have a PoE mode indicator. For details, see the S5736-S48U4XC.

Power Supply System

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1624 Technical specifications of the S5736-S24T4XC

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.0 mm (1.72 in. x 17.4 in. x 17.5 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	150mm x 710mm x 560mm (5.90 in. x 27.95 in. x 22.05 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	5 kg (11.02 lb)
Weight with packaging [kg(lb)]	8 kg (17.64 lb)
Typical power consumption [W]	39 W
Typical heat dissipation [BTU/hour]	133.07 BTU/hour
Maximum power consumption [W]	55 W
Maximum heat dissipation [BTU/hour]	187.67 BTU/hour
MTBF [year]	83.79 year
MTTR [hour]	2 hour
Availability	>0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	47.4 dB(A)
Number of card slots	1
Number of power slots	2
Number of fans	2
Maximum number of 40GE ports	4 (with card)
Maximum number of 25GE ports	2 (with card)
Maximum number of 10GE ports	12 (with card)
Maximum number of GE ports	36 (with card)
Maximum number of FE ports	24
Redundant power supply	1+1 AC and DC power can be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • DC input: -48 V DC to -60 V DC
Input voltage range [V]	<ul style="list-style-type: none"> • AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz • DC input: -38.4 V DC to -72 V DC

Item	Specification
Maximum input current [A]	150 W AC: 3 A 180 W DC: 6 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
RTC	Supported
RPS	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	<ul style="list-style-type: none">Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common modeUsing DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Pluggable
Heat dissipation	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left, front and right, air exhaustion from behind
PoE	Not supported
Maximum PoE power consumption [W]	-
PoE+ power interfaces	-
PoE++ power interfaces	-
Full load PoE power consumption 15.4W (802.3af)	-
Full load PoE power consumption 30W (802.3at)	-
Full load PoE++ power consumption 60W (802.3bt)	-
Full load PoE++ power consumption 90W (802.3bt)	-

Item	Specification
Certification	EMC certification Safety certification Manufacturing certification

5.35.3 S5736-S24U4XC

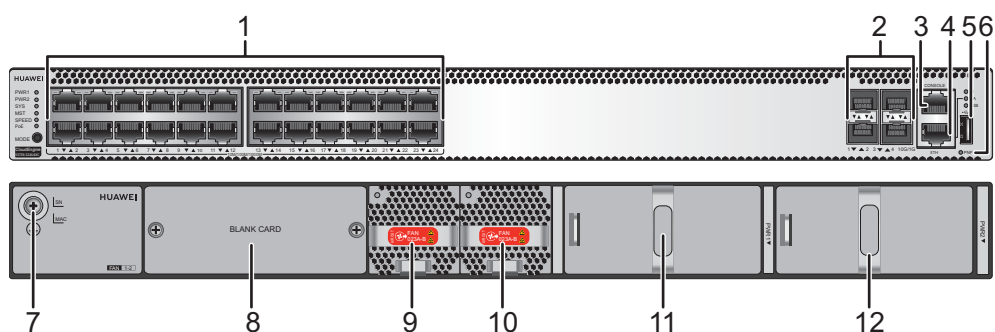
Overview

Table 5-1625 Basic information about the S5736-S24U4XC

Item	Details
Description	S5736-S24U4XC (24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, 1*expansion slot, PoE++, without power module)
First supported version	V200R020C00
Part Number	98011030
Model	S5736-S24U4XC

Components

Figure 5-549 S5736-S24U4XC appearance



1	Twenty-four 10/100/1000BASE-T PoE+ ports	2	Four 10GE SFP+ optical ports
3	One console port	4	One ETH management port

5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot NOTE Applicable card: <ul style="list-style-type: none"> • S7X08000 • ES5D21Q02Q00 • ES5D21Q04Q01
9	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module
13	Power module slot 1 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)	12	Power module slot 2 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)

Ports

Table 5-1626 Ports on the S5736-S24U4XC

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	GE eSFP optical modules GE-CWDM eSFP optical modules GE-DWDM eSFP optical modules GE SFP copper module 10GE SFP+ optical modules (OSXD22N00 not supported) 10GE-CWDM SFP + optical modules 10GE-DWDM SFP + optical modules 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables 3 m and 10 m SFP+ AOC cables 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

The S5736-S24U4XC has the same types of indicators as the S5736-S48U4XC. For details, see the S5736-S48U4XC.

Power Supply System

The S5736-S24U4XC is a PoE switch. It has two power module slots, each of which can have a 1000 W PoE power module installed.

Table 5-1627 Power supply configurations

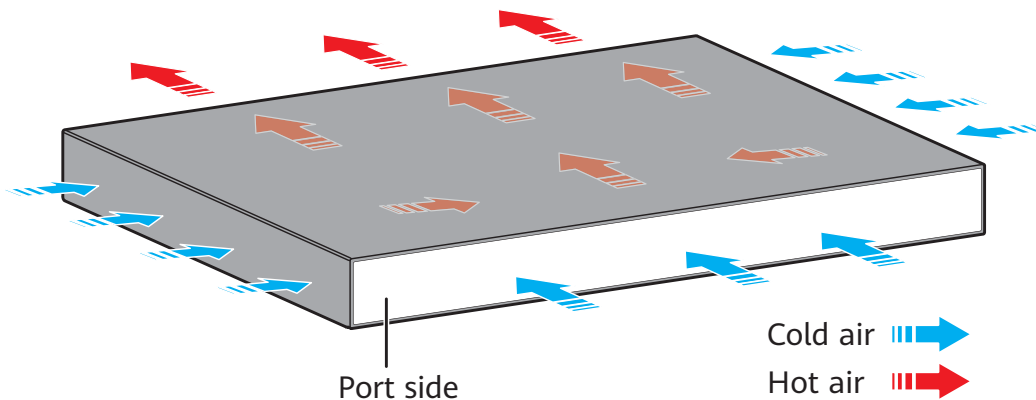
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	–	867 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 14 ● 802.3bt (90 W per port): 9
1000 W (110 V)	–	772 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 12 ● 802.3bt (90 W per port): 8
1000 W (220 V)	1000 W (220 V)	1817 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24 ● 802.3bt (90 W per port): 20
1000 W (110 V)	1000 W (110 V)	1627 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 24 ● 802.3at (30 W per port): 24 ● 802.3bt (60 W per port): 24 ● 802.3bt (90 W per port): 18

 NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1628 Technical specifications of the S5736-S24U4XC

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.0 mm (1.72 in. x 17.4 in. x 17.5 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	150mm x 710mm x 560mm (5.90 in. x 27.95 in. x 22.05 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	5.1 kg (11.24 lb)
Weight with packaging [kg(lb)]	8.1 kg (17.86 lb)
Typical power consumption [W]	59 W
Typical heat dissipation [BTU/hour]	201.31 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none"> Not providing the PoE function: 102 W (without card) 100% PoE loads: 1919 W (PoE: 1817 W, without card)

Item	Specification
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none">Not providing the PoE function: 348.03 (without card)100% PoE loads: 6547.82 (without card)
MTBF [year]	70.89 year
MTTR [hour]	2 hour
Availability	>0.99999
Noise at normal temperature (acoustic power) [dB(A)]	70 dB(A)
Number of card slots	1
Number of power slots	2
Number of fans	2
Maximum number of 40GE ports	4 (with card)
Maximum number of 25GE ports	2 (with card)
Maximum number of 10GE ports	12 (with card)
Maximum number of GE ports	36 (with card)
Maximum number of FE ports	24
Redundant power supply	1+1
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 Hz • High-Voltage DC input: 240 V DC
Input voltage range [V]	<ul style="list-style-type: none"> • AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz • High-Voltage DC input: 190 V DC to 290 V DC

Item	Specification
Maximum input current [A]	AC 1000 W: 110 V: 12 A 220 V: 8 A 240 V: 8 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
RTC	Supported
RPS	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Pluggable
Heat dissipation	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left, front and right, air exhaustion from behind
PoE	Supported
Maximum PoE power consumption [W]	One 1000 W: 867 W (220 V input); 772 W (110 V input) Two 1000 W: 1817 W (220 V input); 1627 W (110 V input)
PoE+ power interfaces	24
PoE++ power interfaces	24
Full load PoE power consumption 15.4W (802.3af)	24
Full load PoE power consumption 30W (802.3at)	24
Full load PoE++ power consumption 60W (802.3bt)	One 1000 W: 14 (220 V input); 12 (110 V input) Two 1000 W: 24 (220 V input); 24 (110 V input)

Item	Specification
Full load PoE++ power consumption 90W (802.3bt)	One 1000 W: 9 (220 V input); 8 (110 V input) Two 1000 W: 20 (220 V input); 18 (110 V input)
Certification	EMC certification Safety certification Manufacturing certification

5.35.4 S5736-S24S4XC

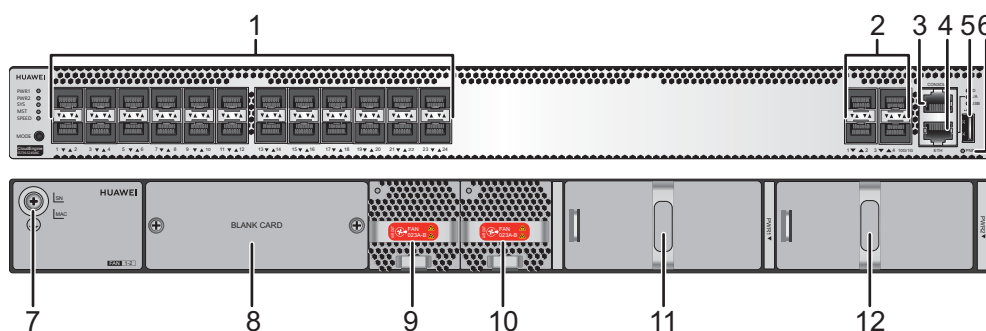
Overview

Table 5-1629 Basic information about the S5736-S24S4XC

Item	Details
Description	S5736-S24S4XC (24*GE SFP ports, 4*10GE SFP+ ports, 1*expansion slot, without power module)
First supported version	V200R020C00
Part Number	98011038
Model	S5736-S24S4XC

Components

Figure 5-550 S5736-S24S4XC appearance



1	Twenty-four 100/1000BASE-X ports	2	Four 10GE SFP+ optical ports
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3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot NOTE Applicable card: <ul style="list-style-type: none"> • S7X08000 • E55D21Q02Q00 • E55D21Q04Q01
9	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module
13	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) 	12	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB)

Ports

Table 5-1630 Ports on the S5736-S24S4XC

Port	Connector Type	Description	Available Components
100/1000BASE-X port	SFP	A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s.	<p>FE SFP/eSFP optical modules</p> <p>GE eSFP optical modules</p> <p>GE SFP copper module</p>
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<p>GE eSFP optical modules</p> <p>GE-CWDM eSFP optical modules</p> <p>GE-DWDM eSFP optical modules</p> <p>GE SFP copper module</p> <p>10GE SFP+ optical modules (OSXD22N00 not supported)</p> <p>10GE-CWDM SFP + optical modules</p> <p>10GE-DWDM SFP + optical modules</p> <p>1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables</p> <p>3 m and 10 m SFP+ AOC cables</p> <p>0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)</p>
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

Figure 5-551 Indicators on the S5736-S24S4XC

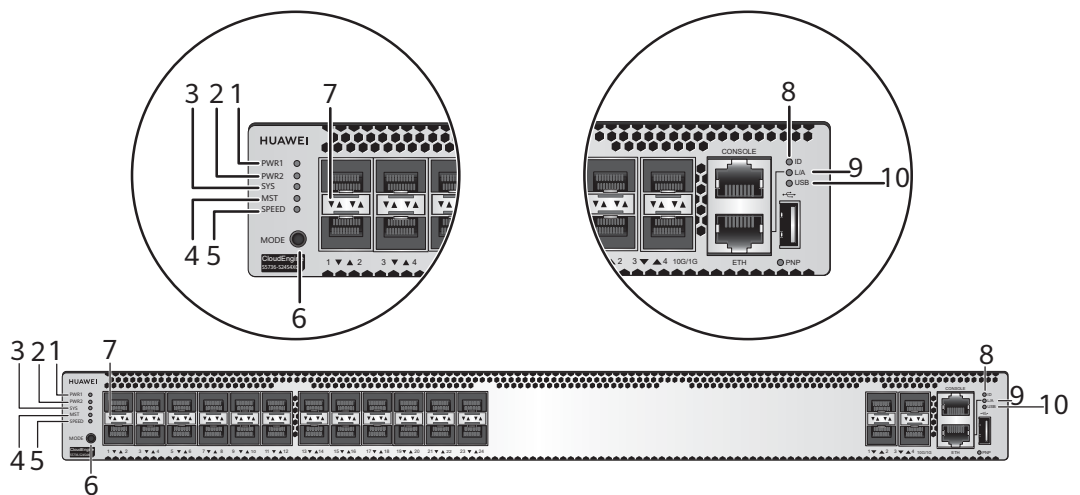


Table 5-1631 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.

No.	Indicator	Name	Color	Status	Description
6	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED indicator is off.</p> <p>NOTE Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none"> If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows: <ul style="list-style-type: none"> If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes. If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status. If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.
7	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-1632 .		
8	ID	ID indicator	-	Off	The ID indicator is not used (default state).

No.	Indicator	Name	Color	Status	Description
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
9	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
10	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-1632 Description of service port indicators in different modes

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.

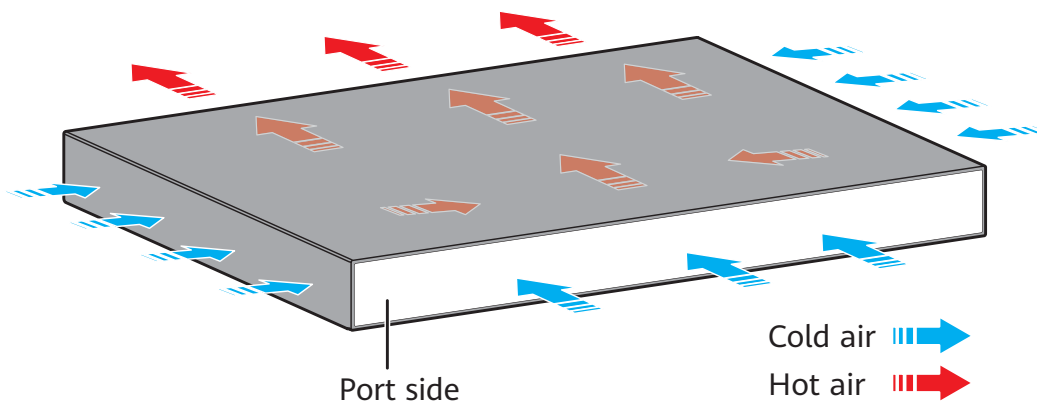
Display Mode	Color	Status	Description
	Green or yellow	Blinking	The port is sending or receiving data.
MST stack mode	-	Off	Port indicators do not show the stack ID of the switch.
	Green and yellow	Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
	Green and yellow	Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green and yellow	Steady on	100M/1000M port: The port is operating at 100 Mbit/s. 1000M/10GE port: The port is operating at 1000 Mbit/s.
	Green and yellow	Blinking	100M/1000M port: The port is operating at 1000 Mbit/s. 1000M/10GE port: The port is operating at 10 Gbit/s.

Power Supply System

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1633 Technical specifications of the S5736-S24S4XC

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.0 mm (1.72 in. x 17.4 in. x 17.5 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	150mm x 710mm x 560mm (5.90 in. x 27.95 in. x 22.05 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	5.2 kg (11.46 lb)
Weight with packaging [kg(lb)]	8.2 kg (18.08 lb)
Typical power consumption [W]	63 W
Typical heat dissipation [BTU/hour]	214.96 BTU/hour
Maximum power consumption [W]	74 W
Maximum heat dissipation [BTU/hour]	252.5 BTU/hour
MTBF [year]	65.79 year
MTTR [hour]	2 hour
Availability	>0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	49.9 dB(A)
Number of card slots	1
Number of power slots	2
Number of fans	2
Maximum number of 40GE ports	4 (with card)
Maximum number of 25GE ports	2 (with card)
Maximum number of 10GE ports	12 (with card)
Maximum number of GE ports	36 (with card)
Maximum number of FE ports	24
Redundant power supply	1+1 AC and DC power can be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • DC input: -48 V DC to -60 V DC
Input voltage range [V]	<ul style="list-style-type: none"> • AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz • High-Voltage DC input: 190 V DC to 290 V DC • DC input: -38.4 V DC to -72 V DC

Item	Specification
Maximum input current [A]	150 W AC: 3 A 180 W DC: 6 A 600 W AC: 8 A 1000 W DC: 30 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
RTC	Supported
RPS	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Pluggable
Heat dissipation	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left, front and right, air exhaustion from behind
PoE	Not supported
Maximum PoE power consumption [W]	-
PoE+ power interfaces	-
PoE++ power interfaces	-
Full load PoE power consumption 15.4W (802.3af)	-
Full load PoE power consumption 30W (802.3at)	-
Full load PoE++ power consumption 60W (802.3bt)	-
Full load PoE++ power consumption 90W (802.3bt)	-

Item	Specification
Certification	EMC certification Safety certification Manufacturing certification

5.35.5 S5736-S48T4XC

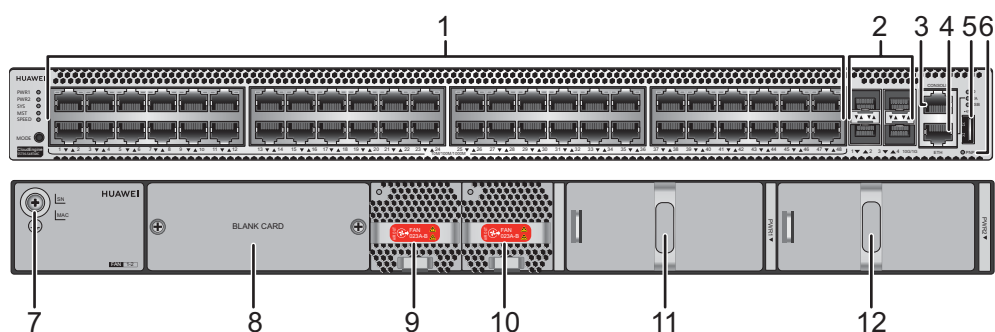
Overview

Table 5-1634 Basic information about the S5736-S48T4XC

Item	Details
Description	S5736-S48T4XC (48*10/100/1000BASE-T ports, 4*10GE SFP+ ports, 1*expansion slot, without power module)
First supported version	V200R020C00
Part Number	98011026
Model	S5736-S48T4XC

Components

Figure 5-552 S5736-S48T4XC appearance



1	Forty-eight 10/100/1000BASE-T ports	2	Four 10GE SFP+ optical ports
3	One console port	4	One ETH management port

5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot NOTE Applicable card: <ul style="list-style-type: none"> • S7X08000 • ES5D21Q02Q00 • ES5D21Q04Q01
9	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module
13	Power module slot 1 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) 	12	Power module slot 2 NOTE Applicable power module: <ul style="list-style-type: none"> • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR)

Ports

Table 5-1635 Ports on the S5736-S48T4XC

Port	Connector Type	Description	Available Components
10/100/1000BASE-T port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<p>GE eSFP optical modules</p> <p>GE-CWDM eSFP optical modules</p> <p>GE-DWDM eSFP optical modules</p> <p>GE SFP copper module</p> <p>10GE SFP+ optical modules (OSXD22N00 not supported)</p> <p>10GE-CWDM SFP + optical modules</p> <p>10GE-DWDM SFP + optical modules</p> <p>1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables</p> <p>3 m and 10 m SFP+ AOC cables</p> <p>0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)</p>
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

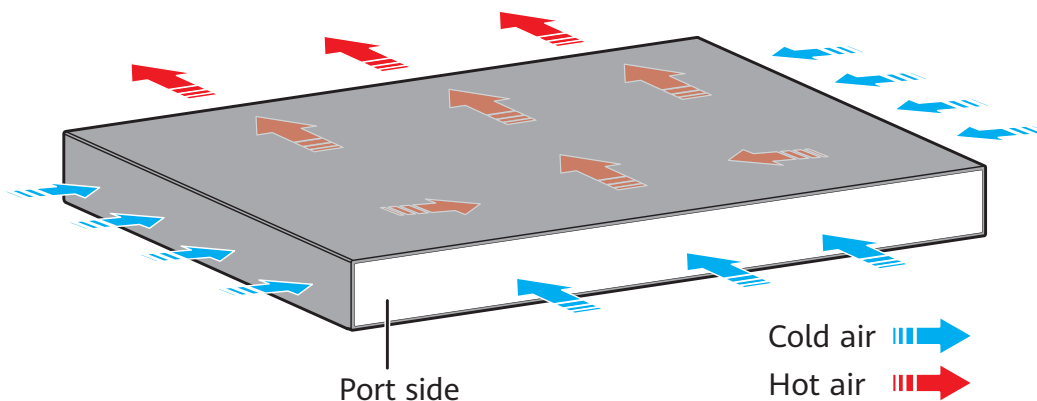
The S5736-S48T4XC has similar indicators to those on the S5736-S48U4XC except that the S5736-S48T4XC does not have a PoE mode indicator. For details, see the S5736-S48U4XC.

Power Supply System

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1636 Technical specifications of the S5736-S48T4XC

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.0 mm (1.72 in. x 17.4 in. x 17.5 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	150mm x 710mm x 560mm (5.90 in. x 27.95 in. x 22.05 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	5.2 kg (11.46 lb)
Weight with packaging [kg(lb)]	8.2 kg (18.08 lb)
Typical power consumption [W]	53 W
Typical heat dissipation [BTU/hour]	180.84 BTU/hour
Maximum power consumption [W]	68 W
Maximum heat dissipation [BTU/hour]	232.02 BTU/hour
MTBF [year]	70.89 year
MTTR [hour]	2 hour
Availability	>0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	44.7 dB(A)
Number of card slots	1
Number of power slots	2
Number of fans	2
Maximum number of 40GE ports	4 (with card)
Maximum number of 25GE ports	2 (with card)
Maximum number of 10GE ports	12 (with card)
Maximum number of GE ports	60 (with card)
Maximum number of FE ports	48
Redundant power supply	1+1 AC and DC power can be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • DC input: -48 V DC to -60 V DC
Input voltage range [V]	<ul style="list-style-type: none"> • AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz • DC input: -38.4 V DC to -72 V DC

Item	Specification
Maximum input current [A]	150 W AC: 3 A 180 W DC: 6 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
RTC	Supported
RPS	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Pluggable
Heat dissipation	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left, front and right, air exhaustion from behind
PoE	Not supported
Maximum PoE power consumption [W]	-
PoE+ power interfaces	-
PoE++ power interfaces	-
Full load PoE power consumption 15.4W (802.3af)	-
Full load PoE power consumption 30W (802.3at)	-
Full load PoE++ power consumption 60W (802.3bt)	-
Full load PoE++ power consumption 90W (802.3bt)	-

Item	Specification
Certification	EMC certification Safety certification Manufacturing certification

5.35.6 S5736-S48U4XC

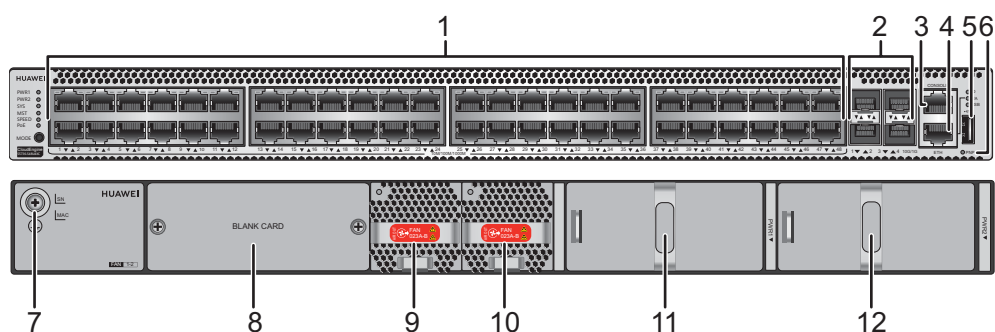
Overview

Table 5-1637 Basic information about the S5736-S48U4XC

Item	Details
Description	S5736-S48U4XC (48*10/100/1000BASE-T ports, 4*10GE SFP+ ports, 1*expansion slot, PoE++, without power module)
First supported version	V200R020C00
Part Number	98011034
Model	S5736-S48U4XC

Components

Figure 5-553 S5736-S48U4XC appearance



1	Forty-eight 10/100/1000BASE-T PoE + ports	2	Four 10GE SFP+ optical ports
3	One console port	4	One ETH management port

5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot NOTE Applicable card: <ul style="list-style-type: none"> • S7X08000 • ES5D21Q02Q00 • ES5D21Q04Q01
9	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module
13	Power module slot 1 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)	12	Power module slot 2 NOTE Applicable power module: 6.20 1000 W AC PoE Power Module (PAC1000S56-CB)

Ports

Table 5-1638 Ports on the S5736-S48U4XC

Port	Connector Type	Description	Available Components
10/100/1000BASE-T PoE+ port	RJ45	A 10/100/1000BASE-T Ethernet electrical port sends and receives service data at 10/100/1000 Mbit/s. The port supports the PoE function.	Ethernet cable

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	GE eSFP optical modules GE-CWDM eSFP optical modules GE-DWDM eSFP optical modules GE SFP copper module 10GE SFP+ optical modules (OSXD22N00 not supported) 10GE-CWDM SFP + optical modules 10GE-DWDM SFP + optical modules 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables 3 m and 10 m SFP+ AOC cables 0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

Figure 5-554 Indicators on the S5736-S48U4XC

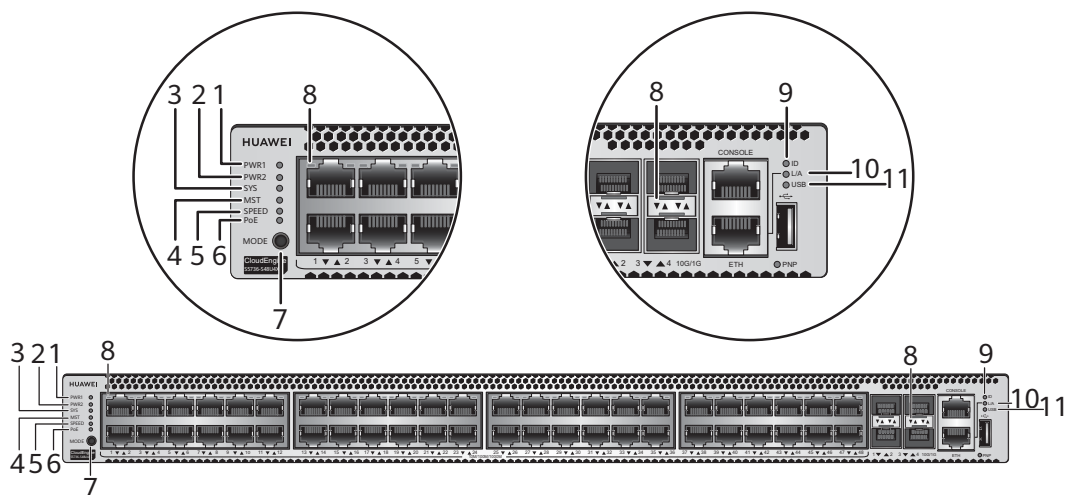


Table 5-1639 Description of indicators on the switch

No.	Indicator	Name	Color	Status	Description
1	PWR 1	Power module indicator	-	Off	No power module is available in power module slot 1, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 1 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 1: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
2	PWR 2	Power module indicator	-	Off	No power module is available in power module slot 2, or the switch has only one power module but the power module does not work normally.
			Green	Steady on	A power module is installed in power module slot 2 and is working normally.
			Yellow	Steady on	The switch has two power modules installed. Any of the following situations occurs in power module slot 2: <ul style="list-style-type: none"> • A power module is available in this slot but it is not connected to a power source. • The power module in this slot has failed.
3	SYS	System status indicator	-	Off	The system is not running.
			Green	Fast blinking	The system is starting.

No.	Indicator	Name	Color	Status	Description
			Green	Steady on	During the system startup preparation phase, the SYS indicator is steady green, which lasts for a maximum of 30 seconds.
			Green	Slow blinking	The system is running normally.
			Red	Steady on	The system does not work normally after registration, or a fan alarm or a temperature alarm has been generated.
4	MST	Stack indicator	-	Off	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is a standby or slave switch in a stack or the stacking function is not enabled on the switch. If you are changing the indicator mode: The stack mode is not selected.
			Green	Steady on	The stack mode is selected. The switch is a standby or slave switch in a stack, and the service port indicators show the stack ID of the switch.
			Green	Blinking	<ul style="list-style-type: none"> If you are not changing the indicator mode (default): The switch is the master switch in a stack or a standalone switch with the stacking function enabled. If you are changing the indicator mode: The stack mode is selected. The switch is the master switch in a stack or a standalone switch, and the service port indicators show the stack ID of the master switch. After 45 seconds, the service port indicators automatically restore to the status mode.
5	SPEED	Speed indicator	-	Off	The speed mode is not selected.
			Green	Steady on	The speed mode is selected, and service port indicators show the speed of each port.

No.	Indicator	Name	Color	Status	Description
6	PoE	PoE indicator	-	Off	The PoE mode is not selected.
			Green	Steady on	The PoE mode is selected, and service port indicators show the PoE status of each port.

No.	Indicator	Name	Color	Status	Description
7	MODE	Mode switch button	-	-	<ul style="list-style-type: none"> When you press this button once, the service port indicators change to the stack mode and show the stack ID of the local switch. When you press this button a second time, the service port indicators change to the speed mode and show the speed of each service port. When you press this button a third time, the service port indicators change to the PoE mode and show the PoE status of each service port. When you press this button a fourth time, the service port indicators restore to the default mode and show the connection status and link activity of each service port. <p>If you do not press the MODE button within 45 seconds, the service port indicators restore to the default mode. In this case, the SPEED and PoE indicators are off.</p> <p>NOTE Hold down the mode switch button for 6s and release it to start the web initial login mode. Either of the following situations will occur:</p> <ul style="list-style-type: none"> If the switch has no configuration file, the system attempts to enter the web initial login mode. In this mode, the status of mode indicators is as follows: <ul style="list-style-type: none"> If the system enters the web initial login mode successfully, all mode indicators turn green and stay on for a maximum of 10 minutes. If the system fails to enter the initial login mode, all mode indicators fast blink for 10 seconds and then restore the default status. If the switch has a configuration file, the system cannot enter the web initial login mode. In this case, all mode indicators fast blink for 10s, and then return to the default states.
8	-	Service port indicator	Meanings of service port indicators vary in different modes. For details, see Table 5-1640 .		

No.	Indicator	Name	Color	Status	Description
9	ID	ID indicator	-	Off	The ID indicator is not used (default state).
			Blue	Steady on	The indicator identifies the switch to maintain. The ID indicator can be turned on or off remotely to help field engineers find the switch to maintain.
10	L/A	ETH port indicator	-	Off	The ETH port is not connected.
			Green	Steady on	The ETH port is connected.
			Green	Blinking	The ETH port is sending or receiving data.
11	USB	USB-based deployment indicator	-	Off	<ul style="list-style-type: none"> No USB flash drive is connected to the switch. The USB port is damaged. The indicator is damaged. The USB flash drive does not have any configuration file and cannot be used for deployment. The switch has been upgraded using the USB flash drive and is restarting.
			Green	Steady on	A USB-based deployment has been completed.
			Green	Blinking	The system is reading data from a USB flash drive.
			Yellow	Steady on	The switch has copied all the required files and completed the file check. The USB flash drive can be removed from the switch.
			Red	Blinking	An error has occurred when the system is executing the configuration file or reading data from the USB flash drive.

Table 5-1640 Description of service port indicators in different modes

Display Mode	Color	Status	Description
Default mode	-	Off	The port is not connected or has been shut down.
	Green	Steady on	A link has been established on the port.
	Green or yellow	Blinking	The port is sending or receiving data.
MST stack mode	Green	Off	Port indicators do not show the stack ID of the switch.
		Steady on	The switch is not the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is steady on, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are steady on, the stack ID of the switch is 0.
		Blinking	The switch is the master switch in a stack. <ul style="list-style-type: none"> If the indicator of a port is blinking, the number of this port is the stack ID of the switch. If the indicators of ports 1 to 9 are blinking, the stack ID of the switch is 0.
Speed mode	-	Off	The port is not connected or has been shut down.
	Green or yellow	Steady on	10M/100M/1000M BASE-T port: The port is operating at 10 Mbit/s or 100 Mbit/s. 1000M/10GE SFP+ port: The port is operating at 1000 Mbit/s.
	Green or yellow	Blinking	10M/100M/1000M BASE-T port: The port is operating at 1000 Mbit/s. 1000M/10GE SFP+ port: The port is operating at 10 Gbit/s.
PoE mode	-	Off	The port is not providing power to a powered device (PD).
	Green	Steady on	The port is providing power to a PD.

Display Mode	Color	Status	Description
	Green	Blinking	The power of the PD connected to the port exceeds the power capacity of the port or the power threshold configured on the port. Alternatively, the PD does not comply with IEEE standards.

Power Supply System

The S5736-S48U4XC is a PoE switch. It has two power module slots, each of which can have a 1000 W PoE power module installed.

Table 5-1641 Power supply configurations

Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (220 V)	-	859 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 28 ● 802.3bt (60 W per port): 14 ● 802.3bt (90 W per port): 9
1000 W (110 V)	-	764 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 25 ● 802.3bt (60 W per port): 12 ● 802.3bt (90 W per port): 8
1000 W (220 V)	1000 W (220 V)	1809 W	<ul style="list-style-type: none"> ● 802.3af (15.4 W per port): 48 ● 802.3at (30 W per port): 48 ● 802.3bt (60 W per port): 30 ● 802.3bt (90 W per port): 20

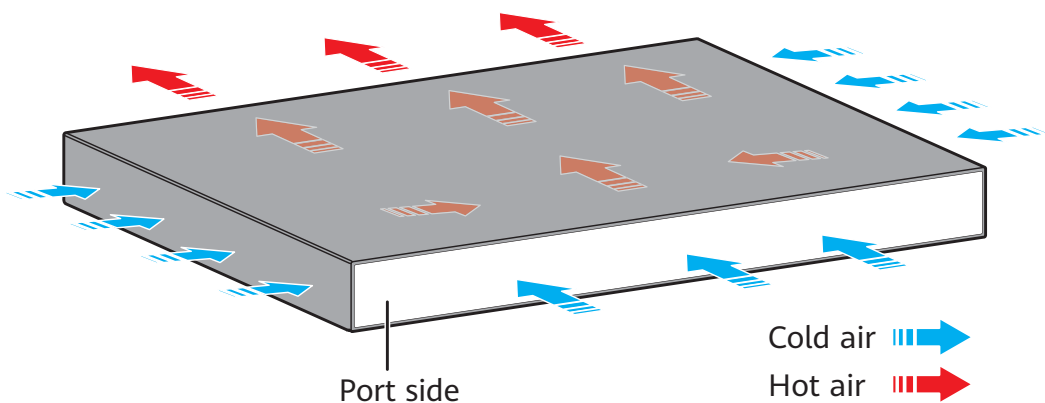
Power Module 1	Power Module 2	Available PoE Power	Maximum Number of Ports (Fully Loaded)
1000 W (110 V)	1000 W (110 V)	1619 W	<ul style="list-style-type: none"> • 802.3af (15.4 W per port): 48 • 802.3at (30 W per port): 48 • 802.3bt (60 W per port): 26 • 802.3bt (90 W per port): 17

NOTE

When a switch has two power modules installed, the two power modules work in redundancy mode to provide power for the chassis and in load balancing mode to provide power for PDs.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1642 Technical specifications of the S5736-S48U4XC

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.0 mm (1.72 in. x 17.4 in. x 17.5 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	150mm x 710mm x 560mm (5.90 in. x 27.95 in. x 22.05 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	5.3 kg (11.68 lb)
Weight with packaging [kg(lb)]	8.3 kg (18.3 lb)
Typical power consumption [W]	75 W
Typical heat dissipation [BTU/hour]	255.91 BTU/hour
Maximum power consumption [W]	<ul style="list-style-type: none">Not providing the PoE function: 115 W (without card)100% PoE loads: 1924 W (PoE: 1809 W, without card)
Maximum heat dissipation [BTU/hour]	<ul style="list-style-type: none">Not providing the PoE function: 392.40 (without card)100% PoE loads: 6564.88 (without card)
MTBF [year]	65.32 year
MTTR [hour]	2 hour
Availability	>0.99999
Noise at normal temperature (acoustic power) [dB(A)]	70 dB(A)
Number of card slots	1
Number of power slots	2
Number of fans	2
Maximum number of 40GE ports	4 (with card)
Maximum number of 25GE ports	2 (with card)

Item	Specification
Maximum number of 10GE ports	12 (with card)
Maximum number of GE ports	60 (with card)
Maximum number of FE ports	48
Redundant power supply	1+1
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)

Item	Specification
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none">AC input: 100 V AC to 130 V AC, 200 V AC to 240 V AC, 50/60 HzHigh-Voltage DC input: 240 V DC
Input voltage range [V]	<ul style="list-style-type: none">AC input: 90 V AC to 290 V AC, 45 Hz to 65 HzHigh-Voltage DC input: 190 V DC to 290 V DC
Maximum input current [A]	AC 1000 W: 110 V: 12 A 220 V: 8 A 240 V: 8 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
RTC	Supported
RPS	Not supported
Service port surge protection [kV]	Common mode: ± 6 kV
Power supply surge protection [kV]	± 6 kV in differential mode, ± 6 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Pluggable
Heat dissipation	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left, front and right, air exhaustion from behind
PoE	Supported
Maximum PoE power consumption [W]	One 1000 W: 859 W (220 V input); 764 W (110 V input) Two 1000 W: 1809 W (220 V input); 1619 W (110 V input)
PoE+ power interfaces	48
PoE++ power interfaces	48

Item	Specification
Full load PoE power consumption 15.4W (802.3af)	48
Full load PoE power consumption 30W (802.3at)	One 1000 W: 28 (220 V input); 25 (110 V input) Two 1000 W: 48 (220 V input); 48 (110 V input)
Full load PoE++ power consumption 60W (802.3bt)	One 1000 W: 14 (220 V input); 12 (110 V input) Two 1000 W: 30 (220 V input); 26 (110 V input)
Full load PoE++ power consumption 90W (802.3bt)	One 1000 W: 9 (220 V input); 8 (110 V input) Two 1000 W: 20 (220 V input); 17 (110 V input)
Certification	EMC certification Safety certification Manufacturing certification

5.35.7 S5736-S48S4XC

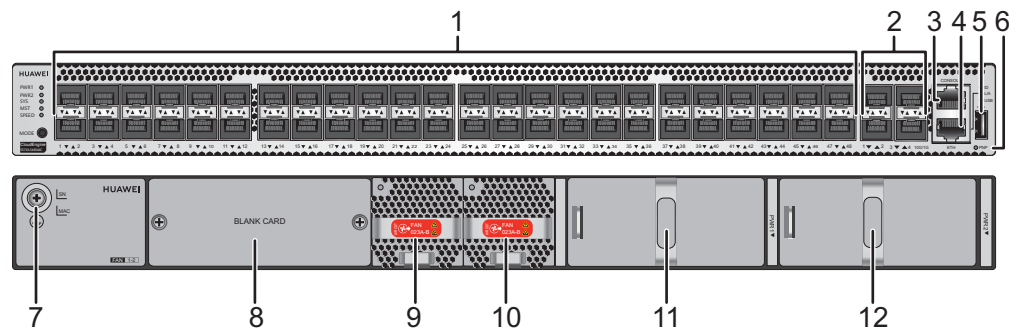
Overview

Table 5-1643 Basic information about the S5736-S48S4XC

Item	Details
Description	S5736-S48S4XC (48*GE SFP ports, 4*10GE SFP+ ports, 1*expansion slot, without power module)
First supported version	V200R020C00
Part Number	98011042
Model	S5736-S48S4XC

Components

Figure 5-555 S5736-S48S4XC appearance



1	Forty-eight 100/1000BASE-X ports	2	Four 10GE SFP+ optical ports
3	One console port	4	One ETH management port
5	One USB port	6	One PNP button NOTICE To restore the factory settings and reset the switch, hold down the button for at least 6 seconds. To reset the switch, press the button. Resetting the switch will cause service interruption. Exercise caution when you press the PNP button.
7	Ground screw NOTE It is used with a ground cable .	8	Rear card slot NOTE Applicable card: <ul style="list-style-type: none"> • S7X08000 • ES5D21Q02Q00 • ES5D21Q04Q01
9	Fan module slot 1 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module	10	Fan module slot 2 NOTE Applicable fan module: 8.5 FAN-023A-B Fan Module

1 3	<p>Power module slot 1</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB) 	1 2	<p>Power module slot 2</p> <p>NOTE</p> <p>Applicable power module:</p> <ul style="list-style-type: none"> • 6.4 150 W AC Power Module (PAC150S12-R) • 6.8 180 W DC Power Module (PDC180S12-CR) • 6.14 600 W AC Power Module (PAC600S12-CB) • 6.21 1000 W DC Power Module (PDC1000S12-DB)
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Ports

Table 5-1644 Ports on the S5736-S48S4XC

Port	Connector Type	Description	Available Components
100/1000BASE-X port	SFP	A 100/1000BASE-X port can send and receive data at 100 Mbit/s or 1000 Mbit/s.	FE SFP/eSFP optical modules GE eSFP optical modules GE SFP copper module

Port	Connector Type	Description	Available Components
10GE SFP+ optical port	SFP+	A 10GE SFP+ Ethernet optical port supports auto-sensing to 1000 Mbit/s. It sends and receives service data at 1000 Mbit/s or 10 Gbit/s.	<p>GE eSFP optical modules</p> <p>GE-CWDM eSFP optical modules</p> <p>GE-DWDM eSFP optical modules</p> <p>GE SFP copper module</p> <p>10GE SFP+ optical modules (OSXD22N00 not supported)</p> <p>10GE-CWDM SFP + optical modules</p> <p>10GE-DWDM SFP + optical modules</p> <p>1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables</p> <p>3 m and 10 m SFP+ AOC cables</p> <p>0.5 m and 1.5 m SFP+ dedicated stack cables (only for zero-configuration stacking)</p>
Console port	RJ45	The console port is connected to a console for on-site configuration.	Console cable

Port	Connector Type	Description	Available Components
ETH management port	RJ45	<p>You can connect a switch to a configuration terminal or network management workstation through the ETH management port to configure the switch locally or remotely.</p> <p>You can choose to download the software package through the ETH management port in the BootLoad menu. File transfer through the ETH management port is faster than transfer through the console port.</p>	Ethernet cable

Port	Connector Type	Description	Available Components
USB port	USB 2.0 Type A	<p>The USB port can have a USB flash drive connected to upgrade the switch, or transfer configuration files or other files. The USB port can only connect to a USB flash drive that complies with USB 2.0.</p> <p>USB flash drives from different vendors differ in model compatibility and drivers. If a USB flash drive cannot be used, try to replace it with another one from a mainstream vendor. Switches support a maximum of 128 GB USB flash drives.</p>	USB flash drive

Indicators and Buttons

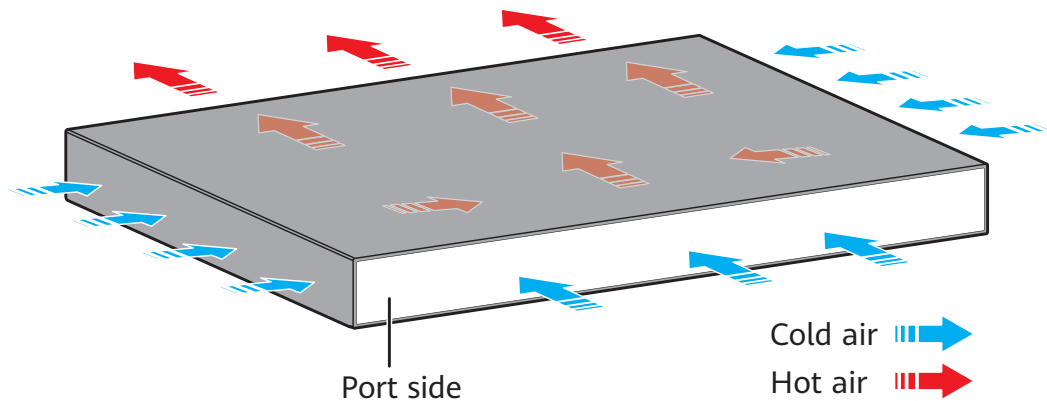
The S5736-S48S4XC has the same types of indicators as the S5736-S24S4XC. For details, see the S5736-S24S4XC.

Power Supply System

The switch can use a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Heat Dissipation System

The switch uses pluggable fan modules for forced air cooling. Air flows in from the left, right, and front sides, and exhausts from the rear panel.



NOTE

This figure only shows the airflow direction and does not depict the actual device.

Technical Specifications

Table 5-1645 Technical specifications of the S5736-S48S4XC

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	Basic dimensions (excluding the parts protruding from the body): 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) Maximum dimensions (the depth is the distance from ports on the front panel to the handle on the rear panel): 43.6 mm x 442.0 mm x 444.0 mm (1.72 in. x 17.4 in. x 17.5 in.)
Dimensions with packaging (H x W x D) [mm(in.)]	150mm x 710mm x 560mm (5.90 in. x 27.95 in. x 22.05 in.)
Chassis height [U]	1 U
Weight without packaging [kg(lb)]	5.5 kg (12.13 lb)
Weight with packaging [kg(lb)]	8.6 kg (18.96 lb)
Typical power consumption [W]	87 W
Typical heat dissipation [BTU/hour]	296.85 BTU/hour
Maximum power consumption [W]	100 W
Maximum heat dissipation [BTU/hour]	341.21 BTU/hour
MTBF [year]	53.69 year
MTTR [hour]	2 hour
Availability	>0.99999

Item	Specification
Noise at normal temperature (acoustic power) [dB(A)]	49.9 dB(A)
Number of card slots	1
Number of power slots	2
Number of fans	2
Maximum number of 40GE ports	4 (with card)
Maximum number of 25GE ports	2 (with card)
Maximum number of 10GE ports	12 (with card)
Maximum number of GE ports	60 (with card)
Maximum number of FE ports	48
Redundant power supply	1+1 AC and DC power can be used together.
Long-term operating temperature [°C(°F)]	-5°C to +45°C (23°F to 113°F) at an altitude of 0-1800 m (0-5906 ft.)
Short-term operating temperature [°C(°F)]	-5°C to +50°C (23°F to 122°F) at an altitude of 0-1800 m (0-5906 ft.)

Item	Specification
Restriction on the operating temperature variation rate [°C(°F)]	<p>When the altitude is 1800-5000 m (5906-16404 ft.), the highest operating temperature reduces by 1°C (1.8°F) every time the altitude increases by 220 m (722 ft.).</p> <p>The equipment can operate beyond the normal operating temperature range for a short-term period, but the following conditions must be met:</p> <ul style="list-style-type: none"> • The equipment operates at a temperature of over 45°C (113°F) consecutively for at most 96 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for a total of no more than 360 hours in one year. • The equipment operates at a temperature of over 45°C (113°F) for no more in 15 times in one year. <p>The equipment may be damaged or experience unexpected exceptions if any of the preceding limits is exceeded.</p> <p>The equipment cannot start when the temperature is lower than 0°C (32°F). The maximum distance of optical modules used in these conditions cannot exceed 10 km.</p>
Storage temperature [°C(°F)]	-40°C to +70°C (-40°F to +158°F)
Long-term operating relative humidity [RH]	5% to 95%, noncondensing
Long-term operating altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Storage altitude [m(ft.)]	0-5000 m (0-16404 ft.)
Power supply mode	Pluggable power supply
Rated input voltage [V]	<ul style="list-style-type: none"> • AC input: 100 V AC to 240 V AC, 50/60 Hz • DC input: -48 V DC to -60 V DC
Input voltage range [V]	<ul style="list-style-type: none"> • AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz • High-Voltage DC input: 190 V DC to 290 V DC • DC input: -38.4 V DC to -72 V DC

Item	Specification
Maximum input current [A]	150 W AC: 3 A 180 W DC: 6 A 600 W AC: 8 A 1000 W DC: 30 A
Memory	2 GB
Flash memory	1 GB in total. To view the available flash memory size, run the display version command.
RTC	Supported
RPS	Not supported
Service port surge protection [kV]	-
Power supply surge protection [kV]	<ul style="list-style-type: none"> Using AC power modules: ± 6 kV in differential mode, ± 6 kV in common mode Using DC power modules: ± 2 kV in differential mode, ± 4 kV in common mode
Ingress protection level (dustproof/waterproof)	IP20
Types of fans	Pluggable
Heat dissipation	Heat dissipation with fan, intelligent fan speed adjustment
Airflow direction	Air intake from left, front and right, air exhaustion from behind
PoE	Not supported
Maximum PoE power consumption [W]	-
PoE+ power interfaces	-
PoE++ power interfaces	-
Full load PoE power consumption 15.4W (802.3af)	-
Full load PoE power consumption 30W (802.3at)	-
Full load PoE++ power consumption 60W (802.3bt)	-
Full load PoE++ power consumption 90W (802.3bt)	-

Item	Specification
Certification	EMC certification Safety certification Manufacturing certification