

Huawei Enterprise Wireless Access Controller Brochure



A group of people in a meeting looking at a laptop screen. The image is slightly blurred, showing a man in a grey shirt leaning over a woman in a white shirt, both looking at a laptop. Another man in a red shirt is visible in the background.

Huawei Enterprise Wireless Access Controller Brochure

Huawei's third-generation WLAN access controller (AC) products provide comprehensive service support for WLANs using the Fit AP + AC architecture and helps simplify network configurations, maintenance, and management. Huawei offers three types of professional AC products, targeting at different markets:

- ACU2: a wireless access controller unit for large enterprises
- AC6605: an independent access controller for medium- to large-sized enterprises
- AC6005: an independent access controller for small- to medium-sized enterprises

Huawei ACs can be deployed in inline or bypass networking mode, applicable to network building, network rebuilding, and smooth network upgrade projects. Flexible AC networking allows customers to choose the optimal networking mode according to actual requirements, minimizing the capital expenditure (CAPEX). When paired with Huawei eSight, the ACs achieve uniform management, operation and maintenance of wired and wireless networks, delivering secure, reliable, easy-to-manage, and efficient wireless access services for enterprise users.

Huawei ACs feature the following advantages:

- Compatibility with 802.11/a/b/g/n wireless points (APs) and Huawei latest-generation 802.11ac APs, allowing customers to seamlessly expand wireless network capacity without incurring additional administrative or equipment expense
- Multiple backup modes to improve wireless network reliability, such as 1+1 hot backup, N+1 and N+N backup
- Flexible forwarding and authentication modes, realizing centralized user authentication and on-demand traffic forwarding
- Intra-AC roaming, and Inter-AC fast Layer 2 or Layer 3 roaming, support for seamless roaming of voice and video services
- Visualized topology display and uniform configuration, management, operation and maintenance of wired and wireless networks
- Flexible user policy management and authorization control capabilities, providing high security guarantee
- Flexible licensing policies: cost-effective and convenient large-granularity licensing and fine-grained small-granularity license configurations

ACU2 for Large Enterprises

Huawei Access Controller Unit 2 (ACU2) is a WLAN service unit used on Huawei S7700/S9700/S12700 switches to implement access controller functions. The ACU2 can be used to provide wireless services on large-scale enterprise or campus networks. It features large capacity, high reliability, and various types of services, and can work with Huawei 802.11a/b/g/n/ac APs to deliver large-scale and high-density access services.

- [High access capacity and processing capability](#)

An ACU2 can manage a maximum of 2048 APs and 32K STAs.

The ACU2 provides a nearly 40 Gbit/s line-speed forwarding capability.

- [Independent service unit, facilitating centralized deployment and capacity expansion](#)

You can build a WLAN rapidly by adding ACU2s on switches. This simplifies network architecture, reduces cables in equipment rooms, shortens WLAN construction costs and time, and lowers the total cost of ownership (TCO).

You can install multiple ACU2s on a switch to manage $N \times 2048$ APs (N is the number of ACU2s).

Huawei Access Controller Unit 2

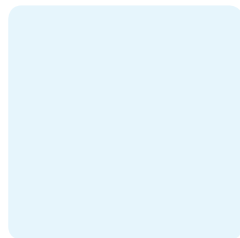
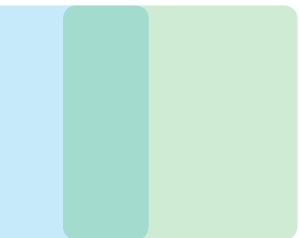


Manages a maximum of 2048 APs and 32K STAs.

Provides a 40 Gbit/s forwarding capability.

Applies to Huawei S7700, S9700, and S12700 series switches.

A maximum of 11 ACU2s can be installed on a chassis switch.



2 AC6605 for Medium- to Large-sized Enterprises

Huawei-developed AC6605 has high specifications and integrates GE Ethernet switch functionalities for both wired and wireless access control. The AC6605 offers users considerable flexibility in configuring the number of managed APs. Used with Huawei industry-leading, performance-enhanced, and cost-effective APs, the AC6605 helps build medium- to large-sized campus and enterprise office networks, and extend wireless Metropolitan Area Network (MAN) coverage and hotspot coverage.

Table 2-1 Huawei AC6605

 <p style="text-align: center;">AC6605</p>	<p>Manages a maximum of 1024 APs and 10K STAs .</p> <p>Provides 24 x GE + 2 x 10GE ports (full PoE+ power for 24 ports) and a 10 Gbit/s forwarding capability, integrates AC and LSW units, and supports wired and wireless access and aggregation.</p> <p>The AC6605 can be deployed as a stand-alone device or in a rack.</p>
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Huawei AC6605 features the following advantages:

- Abundant port types

The AC6605 provides abundant port types to support various application scenarios. For details, see Table 2-2.

Table 2-2 AC6605 ports

Port Type	Quantity	Description
Uplink port	Two 10GE optical ports	The 10GE ports use Small Form-Factor Pluggable (SFP+) optical modules.
Service port	24 GE ports	Among the 24 electrical GE ports, the last four are used with four optical ports as combo ports. With PoE power supply configured, the AC6605 can provide 802.3at PoE+ power for 24 ports.
Maintenance port	One RJ-45 serial port	It is an RS-232 port.
	One RJ-45 network port	It is a 100BASE-TX port.
	One mini USB serial port	It is mutually exclusive with an RJ45 serial port.

- [Large capacity, high performance, and integrated design](#)

Integrated design: An AC6605 provides high switching and AC forwarding capabilities.

Large forwarding capability: An AC6605 has 24 GE ports and two 10GE ports, and provides a 10 Gbit/s forwarding capability.

Full PoE+ power on 24 ports: This PoE capability allows the AC to provide power to APs and other powered devices (PDs).

- [High reliability design](#)

Port backup based on the Link Aggregation Control Protocol (LACP) or Multiple Spanning Tree Protocol (MSTP)

Redundant AC/DC power supplies

Hot swappable power supplies

- [Easy-to-install and easy-to-maintain](#)

Convenient size (442 mm x 420 mm x 43.6 mm): small enough to fit a standard cabinet

Hot swappable power supplies, easy-to-maintain

Built-in web platform, facilitating local GUI-based management

Easy management on eSight with various northbound ports

Intra-board temperature probe, which monitors the operating environment of the AC in real time

- [Dynamic energy management](#)

Low-noise fans dynamically adjust to load changes to keep equipment noise and power consumption low.

Automatic power-saving mode engages during idle operation (when no peer device is connected).


Highly integrated and energy-saving design provides even higher performance and lower power consumption when coupled with an intelligent device management system.



3 AC6005 for Small- to Medium-sized Enterprises

Huawei AC6005 is a small box wireless access controller applicable to small- to medium-sized enterprises. Huawei AC6005 is available in two models: AC6005-8 and AC6005-8-PWR with PoE support. It is highly reliable, easy to install and maintain, and features such advantages as high performance, high reliability, flexible networking, and energy conservation.

Table 3-1 Huawei AC6005

 AC6005	<p>Manages a maximum of 256 APs and 2K STAs.</p> <p>Provides 8 x GE ports (full PoE power for eight ports) and a 4 Gbit/s forwarding capability, integrates AC and LSW units, and supports wired and wireless access functions.</p> <p>The AC6005 can be deployed as a stand-alone device or in a rack.</p>
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Huawei AC6005 features the following advantages:

- **Abundant port types**

The AC6005 provides abundant port types to support various application scenarios.

Table 3-2 AC6005 ports

Port Type	Quantity	Description
Service port	Eight GE ports	Among the 8 electrical ports, the last two are used with two optical ports as combo ports. The AC6005-8-PWR can provide PoE power (802.3af) for eight ports or PoE+ power (802.3at) for four ports.
Maintenance port	One RJ-45 serial port	It is an RS-232 port.
	One USB port	The USB port can have a USB flash drive connected to upgrade the device, or transfer configuration files or other files.

- **High-performance design**

Large forwarding capability: An AC6005 has 8 GE ports and provides a 4 Gbit/s forwarding capability.

PoE: The AC6005-8-PWR can provide full PoE power on eight ports or full PoE+ power on four ports. This PoE capability allows the AC to provide power to APs.

- **High reliability design**

Port backup based on the Link Aggregation Control Protocol (LACP) or Multiple Spanning Tree Protocol (MSTP)

- **Easy-to-install and easy-to-maintain**

Convenient size (320 mm x 233.6 mm x 43.6 mm): small enough to fit a standard cabinet or for installation on a desk

Built-in web platform, facilitating local GUI-based management

Management on eSight with various northbound ports

Intra-board temperature probe, which monitors the operating environment of the AC in real time

- **Dynamic energy management**

Low-noise fans dynamically adjust to load changes to keep equipment noise and power consumption low.

Automatic power-saving mode engages during idle operation (when no peer device is connected).

Highly integrated and energy-saving design provides even higher performance and lower power consumption when coupled with an intelligent device management system.

4 Comparison of Huawei WLAN Access Controller Products

Table 4-1 Comparison of Huawei WLAN access controller products

	AC6005	AC6605	ACU2
Target market	Small- to medium-sized enterprises	Medium- to large-sized enterprises	Large enterprises
Product model	Box, applicable to racks	Box, applicable to racks	Card used on chassis switches
Service port type	8 x GE	24 x GE+2 x 10GE	-
Maximum power consumption (without PoE power supply)	AC6005-8: 25.6 W AC6005-8-PWR: 39.6 W	85 W	168 W
Maximum number of managed APs	256	1024	2048
Maximum number of supported VAPs	1K	4K	8K
Number of access users	2K	10K	32K
Forwarding capability	4 Gbit/s	10 Gbit/s	40 Gbit/s



	AC6005	AC6605	ACU2
Access Control List (ACL)	4K	8K	32K
Wireless Distribution System (WDS)	√	√	√
Mesh	√	√	√
Wireless LAN Authentication and Privacy Infrastructure (WAPI)	√	√	√
1+1 hot backup, N+1 and N+N backup	√	√	√
User group policy management	√	√	√
Network Admission Control (NAC)	√	√	√
Wi-Fi Multi-Media (WMM)	√	√	√
Spectrum analysis	√	√	√
Wireless Intrusion Detection System (WIDS)/Wireless Intrusion Prevention System (WIPS)	√	√	√
Intra-AC/Inter-AC seamless roaming	√	√	√
Management on web pages	√	√	√
Wireless positioning/Real-Time Location System (RTLS)	√	√	√
DTLS	√	√	√
IPSec	√	√	√
IPv6	√	√	√
Auto Radio	√	√	√
User Awareness	√	√	√
High Density Boost	√	√	√



5 Optimal Choice

Professional Service Stemming from Abundant Accumulation

- Huawei, staffed with top industry experts (including chair of the IEEE 802.11ac work group), has made continuous investments in wireless field since last 15 years, winning more than 100 innovation patents.
- Huawei has the most professional simulation platform and world's largest automation test factory, able to establish an accurate test environment. Huawei products have been strictly verified through accurate simulation tests, ensuring high product quality.
- By capitalizing on successful 3G/4G network planning cases and Huawei-developed 3D network planning tools, Huawei delivers professional network planning and optimization solutions well suited to actual environments, making wireless network deployment easy in complex scenarios.

Innovative High Performance Experience

- Auto Radio: Huawei applies innovative technologies to WLAN products, including dynamic power adjustment, channel optimization, 5-G prior, and dynamic load balancing, which enables wireless networks to be deployed rapidly and automatically adjusts to network changes in real

time, improving network's running efficiency and radio performance. Interference suppression technologies, such as Clear Channel Assessment (CCA), rogue device detection, and radio calibration dynamically detect and minimize interference in the radio environment, creating a clean radio experience.

- **High Density Boost:** By integrating dynamic access control, multi-user collision control, airtime scheduling, and user CAC technologies, High Density Boost addresses challenges in high-density scenarios, including access problems, data congestion, and poor roaming experience, helping build a wireless expressway network that can accommodate more terminals.
- **User Awareness:** This technology helps build a more secure and resilient network and provides access policies matching each user or terminal anywhere at any time. The network delivers policies based on user identities, terminal types, terminal operating system, network use time, and physical locations, which improves network security and serviceability. In addition, Huawei ACs provide a built-in Bonjour gateway. Devices running Apple Bonjour can build a network automatically, without extra settings or an additional Bonjour gateway.
- **Link Following:** Convergence of smart antenna and implicit Beamforming technologies allows antennas to detect user locations in real time. As terminals move, the antennas switch directions accordingly to improve signal strength and reduce interferences. Link Following realizes millisecond-level switchover and allows Huawei products to deliver ubiquitous network coverage for customers.

Rich Experience for Complex Scenarios

- Huawei's unique high-density technologies and specially crafted antennas help customers easily deal with such challenges of high-density situations as high density access and large burst traffic.
- Huawei's outdoor wide coverage solution achieves 10 km-distance coverage, facilitating broadband access and data transmissions in villages where wired networks are difficult to deploy.
- Huawei's wireless office solution employs industry-leading GE wireless access devices to implement fine-grained security management and control, bringing users super fast bandwidth and high security experience.



NOTE: All products are subject to the latest releases.

More Information

For more information, visit www.huawei.com/enterprise or contact the Huawei local sales office.





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