



**HUAWEI TE30 Videoconferencing Endpoint  
V100R001C01**

**User Guide**

**Issue**     **03**  
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# About This Document

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## Overview


This document describes how to install, configure, maintain, and troubleshoot the HUAWEI TE30 Videoconferencing Endpoint (TE30 or Endpoint for short). It also provides step-by-step instructions on conferencing tasks.


When using this document, note the following:

- Except chapters **11 Web-based Remote Management**, **12 Troubleshooting**, and **13 Maintenance**, which apply to the TE30 web interface, descriptions and configurations in this document apply to the TE30 user interface controlled by the remote control (remote controlled UI for short).
- To access the menu screen, press  on the remote control. You can find the option bar on the left of the menu screen. This option bar is your interface to all functions except calling.
- To move up, move down, hide, or show an icon in the option bar, select  and then the desired icon.
- To hide the option bar, press the left arrow key, , or  on the remote control.
- To show the option bar again, press .
- To prevent endpoint parameters from being modified by unauthorized users, anyone who wants to access the **Settings** screen and use the customized tool bar  on the menu screen must provide the administrator password. For the details about how to set the password, refer to **10.2.1 Setting the Administrator Password**.

## Intended Audience






This document is primarily intended for:

- Administrators  
Administrators have access to all menus on the web interface and remote controlled UI.
- Common users  
Common users have access to all menus except the **Settings** screen and customized tool bar  on the menu screen of the remote controlled UI.

To access the **Settings** menu and use the customized tool bar  on the menu screen, obtain the administrator password from the system administrator.

## Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
 <b>DANGER</b>	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
 <b>WARNING</b>	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
 <b>CAUTION</b>	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
 <b>NOTICE</b>	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance deterioration, or unanticipated results. NOTICE is used to address practices not related to personal injury.
 <b>NOTE</b>	Calls attention to important information, best practices and tips. NOTE is used to address information not related to personal injury, equipment damage, and environment deterioration.

## Change History

Changes between document issues are cumulative. The latest document issue contains all the changes made in earlier issues.

### Issue 03 (2014-02-10)

This issue is the third official release. Changed voice dialing, the related default passwords and modified the cover page, About This Document, security features, and endpoint parameter descriptions, such as the description about the sampling phase parameter.

### Issue 02 (2013-05-07)

This issue is the second official release.

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# 1 TE30 Introduction

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The TE30 is a compact, easy to install, and easy to use videoconferencing endpoint designed by Huawei.

As an all-in-one endpoint incorporating a digital camera and stereo microphone, the TE30 is ready for video communication as soon as it is powered on and connected to a network. It is suitable for executive personnel who want to attend video conferences from their executive offices or conference rooms as well as home users.

## HD Video

The TE30 supports HD video with the following resolutions:

- 720p (1280 x 720 pixels and progressive scanning)
- 1080p (1920 x 1080 pixels and progressive scanning)

## H.239 Dual Stream

- The TE30 complies with the H.239 standard and supports two concurrent transmission channels. One is for transmitting presentations, and the other is for transmitting videos.
- Presentations can either be streaming footage from the camera or computer desktop content, and can be displayed independently or on the same monitor as videos.

## Conferencing Features

- Point-to-point conference
- Multipoint conference
- Joining a conference as a called party
- One press to join a conference
- Joining a conference by dialing two required numbers
- English voice dialing

## UI

- A maximum of 22 languages
- Rich operation hints and statistics

## Network Features

- Maximum call bandwidth: 4 Mbit/s
- IP-based network
- Packet loss concealment
- Wi-Fi capable

# 2 Installation and Initial Configuration

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## About This Chapter

Before using your TE30, correctly install and configure it.

### [2.1 Installing Your TE30](#)

Your TE30 offers multiple installation options. You can use any of them to implement quick deployment.

### [2.2 Connecting Cables](#)

You need to connect cables to your TE30 before using it for conferencing.

### [2.3 Powering On and Off](#)

With all cables connected to the TE30, power it on.

### [2.4 Using the Wizard](#)

The Wizard helps you quickly set the general, network, and camera parameters on your TE30.

## 2.1 Installing Your TE30

Your TE30 offers multiple installation options. You can use any of them to implement quick deployment.

For TE30 installation options and instructions, see the *HUAWEI TE30 Videoconferencing Endpoint Quick Start Guide* provided with your TE30.

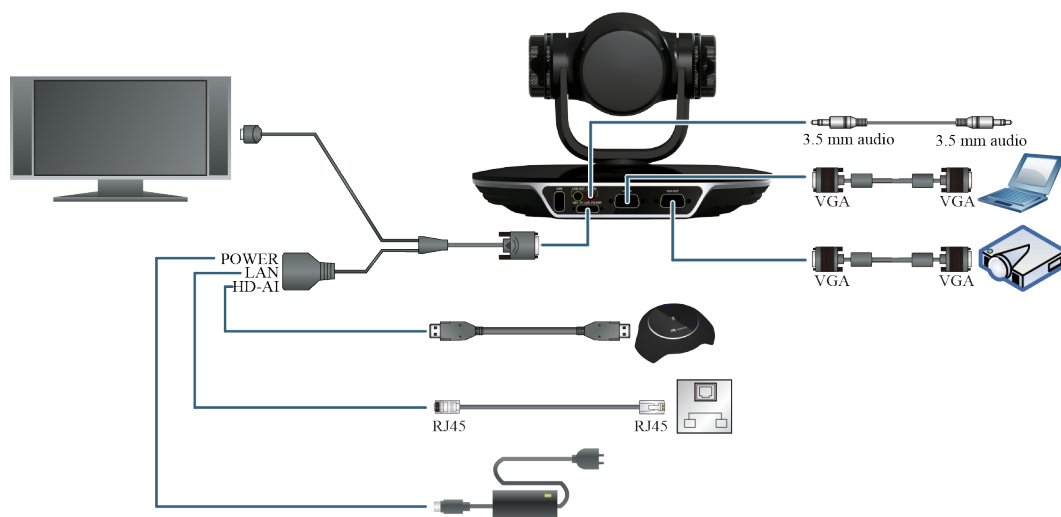
## 2.2 Connecting Cables

You need to connect cables to your TE30 before using it for conferencing.

Please refer to the *HUAWEI TE30 Videoconferencing Endpoint Quick Start Guide* to familiarize yourself with the TE30 rear ports before connecting cables.

**Figure 2-1** shows a cable connection example.

**Figure 2-1** Connecting cables



In **Figure 2-1**:



- Video input: Use the built-in camera in your TE30 as the video input source.
- Presentation input: Use a VGA cable to connect the TE30 VGA IN port to a computer VGA out port.
- Audio input: Use the built-in microphone.
- (Optional) Microphone array audio input: Use the 10 m HD-AI (High Definition Audio Interface) cable provided by a VPM220 microphone array to connect the integrated cable HD-AI connector and the VPM220.
- (Optional) Computer audio input: Use a 3.5 mm audio cable to connect the TE30 LINE IN port to a computer audio output port.
- Video and audio output: Use the provided integrated cable to connect the TE30 MIC/TV/LAN/POWER port to the monitor HDMI input port.

- (Optional) Presentation output: Use a VGA cable to connect the TE30 VGA OUT port to a projector VGA out port.
- LAN connection: Use the provided network cable to connect the LAN connector of the integrated cable to the network port of a network device.
- Power supply: Use the provided power cable and power adapter to connect the integrated cable power connector to the power socket.

 **NOTE**

- The HDMI conversion cable is used to extend an HDMI cable. Connect one end of the HDMI conversion cable to the HDMI connector of the integrated cable, and connect the other end to an HDMI cable. Then connect the HDMI cable to the monitor HDMI input port.
- The integrated cable and the HDMI conversion cable are provided with your TE30. You need to purchase other cables such as the VGA and 3.5 mm audio cables. The endpoint supports a 3.5 mm audio cable with a connector whose maximum diameter is 10 mm. You are advised to purchase a 3.5 mm audio cable with a connector whose diameter is less than or equal to 8 mm.
- The 10 m HD-AI cable is provided as standard with the VPM220, and the integrated cable is provided as standard with the TE30.

If the monitor does not provide an HDMI input port, use either of the following methods:

- When the monitor provides a DVI input port, use an HDMI-DVI cable to connect the HDMI connector of the integrated cable to the monitor DVI input port. Press and hold  on the remote control for 5 seconds. Choose **Advanced Settings > Settings > Video > Video Output**, select **MAIN OUT HD**, and select **DVI** for **Output mode**.
- When the monitor provides a VGA input port, use a VGA cable to connect the TE30 VGA OUT port to the monitor VGA input port. Press and hold  on the remote control for 5 seconds. Choose **Advanced Settings > Settings > Video > Common Settings**, select **Video Output**, and select **VGA OUT** for **GUI**, **Caption output**, and **Main output interface**.

## 2.3 Powering On and Off

With all cables connected to the TE30, power it on.

Before powering on your TE30, ensure that:


- The power cable and power adapter are correctly connected to the related devices.
- The AC power supply voltage is at 50 Hz or 60 Hz within the 100-240 V range.
- The sequence of and voltage difference between the live wire, neutral wire, and ground cable comply with international standards. The ground cable is properly grounded.



### **NOTICE**

- When your TE30 is powered on, ensure that the power cable is securely connected to the TE30 to prevent power disconnection.
  - Before isolating your TE30 from any external power supplies (for example, the power supply from a power socket) and removing the power cable, power off the TE30 properly.
-

With all cables connected correctly, use the power adapter to connect the TE30 to a power supply. The power adapter indicator will then turn on, and the TE30 is automatically powered on.

To power off your TE30, press  on the remote control, select **Shut Down**, and follow the onscreen instructions.

**Table 2-1** lists TE30 indicator status.

**Table 2-1** Indicator status

Indicator Status	TE30 Status
Blinking green	Starting
Steady green	Operating correctly
Blinking red	Encountered a fault, such as a self-check error, overheating, or software malfunction
Blinking orange	Sleeping
Steady orange	Being powered off
Off	Powered off

Your TE30 provides an organic light-emitting diode (OLED) display, which shows the IP address, site number, and indications for startup, upgrade, sleep mode, and malfunction. **Table 2-2** describes the content shown on the OLED display.

**Table 2-2** OLED display content

When the TE30 Is...	OLED Display Shows...
Starting	Message "Booting..."
Operating correctly	switch between IP address and site number of the TE30 at 10-second intervals
Being upgraded	<ul style="list-style-type: none"> <li>● Message "Downloading" during software downloads</li> <li>● Message "Updating" during software updates</li> </ul>
Sleeping	Message "Standby"
Malfunctioning	Indications that signify fan stop, overheating, or other faults, with a hexadecimal error code after each indication

## 2.4 Using the Wizard

The Wizard helps you quickly set the general, network, and camera parameters on your TE30.

### Background

When configuring the TE30 for the first time, use the Wizard to facilitate setup. For details, see the *HUAWEI TE30 Videoconferencing Endpoint Quick Start Guide*.

If a USB flash drive is provided with your TE30, you can also load the configuration file from the USB flash drive to configure your TE30. For details, see the *HUAWEI TE30 Videoconferencing Endpoint Quick Installation Guide*.

### Procedure

**Step 1** Choose **Advanced Settings > Settings > Installation > Wizard**.

The **General** screen is displayed.

**Step 2** Set the general parameters by referring to [Table 2-3](#) and [Table 3-1](#).

**Table 2-3** General parameters

Parameter	Description	Setting
Site name	Specifies the site name you want to be superimposed on the video of your site when the video is displayed to other sites. When your site joins a multipoint conference, this site name is displayed in the site list.	The default value is <b>site</b> .
Language	Specifies the language for the remote controlled UI.	The default value is <b>English</b> .
Time zone	Specifies the time difference between the local time and the Greenwich Mean Time (GMT).	Your TE30 automatically sets this parameter based on your settings of <b>Location</b> . The default value is <b>(GMT +08:00) Beijing, Chongqing, Hong Kong, Urumqi</b> .
Time format	Specifies the format in which time is displayed.	The default value is <b>24-hour</b> .

Parameter	Description	Setting
NMS server	<p>Specifies the IP address of the HUAWEI Service Management Center (SMC) 2.0.</p> <p>After you set this parameter, <b>Connection type</b>, <b>Local IP address</b>, <b>Subnet mask</b>, and <b>Gateway address</b>, your TE30 automatically attempts to obtain the HUAWEI SMC 2.0 settings. After obtaining the settings, it displays the conferencing screen.</p> <p><b>NOTE</b> This parameter is available on the <b>General</b> screen only when you are configuring the TE30 for the first time.</p>	For details, contact the local reseller or operator.

**Step 3** Select **Next**. Set the H.323 parameters by referring to [Table 3-2](#).

**Step 4** Select **Next**. Set the Session Initiation Protocol (SIP) parameters by referring to [Table 3-3](#).

**Step 5** Select **Next**. Set the video input parameters by referring to [Table 4-5](#).

**Step 6** Select **Save**.

---End

## Follow-up Procedure

To set date and time parameters listed in [Table 2-4](#), choose **Advanced Settings > Settings > General > Date and time**.

**Table 2-4** Date and time parameters

Parameter	Description	Setting
Location	<p>Specifies the country or area where your TE30 is located.</p> <p>When you set this parameter, your TE30 automatically adjusts the value of <b>Time zone</b>.</p>	The default value is <b>China</b> .



Parameter	Description	Setting
Adjust time automatically based on DST	<p>Specifies whether your TE30 adjusts its clock based on local observance of Daylight Savings Time (DST).</p> <p>If this function is enabled, your TE30 automatically adjusts its clock one hour forward.</p> <p><b>NOTE</b> The presence of this parameter is controlled by your settings of <b>Time zone</b>. This parameter is available for countries and regions that support DST.</p>	This parameter is deselected by default.
Date format	Specifies the format in which the date is displayed.	The default value is <b>YYYY/MM/DD</b> .
Enable NTP	<p>Specifies whether your TE30 automatically synchronizes system time with a Network Time Protocol (NTP) server at an interval of 300 seconds.</p> <p><b>NOTE</b> If you set this parameter to <b>Enable NTP</b>, you must also set <b>NTP server address</b>.</p>	This parameter is deselected by default.
NTP address type	<p>Specifies the mode for your TE30 to obtain the Network Time Protocol (NTP) server IP address.</p> <ul style="list-style-type: none"> <li>● <b>Auto</b>: Your TE30 automatically obtains the NTP server IP address.</li> <li>● <b>Manual</b>: You must manually set the NTP server IP address.</li> </ul> <p>This parameter is available only when <b>Connection type</b> is set to <b>Dynamic IP</b>.</p> <p><b>NOTE</b> For details about how to set <b>Connection type</b>, see <a href="#">3.1 Setting IP Parameters</a>.</p>	The default value is <b>Manual</b> .
NTP server address	Specifies the NTP server IP address.	No default value is set for this parameter.

To set the **Fan noise** parameter, Choose **Advanced Settings > Settings > General > Fan noise**.

- **Quiet**: The noise level is minimal, and the rotation speed is slow.
- **Cozy**: The noise level is medium, and the rotation speed is normal.

To set custom parameters listed in [Table 2-5](#), choose **Advanced Settings > Settings > Display > Personalize**.

**Table 2-5** Custom parameters

Parameter	Description	Setting
Transparency	Specifies the transparency of the background photograph on the menu screen.  If you set this parameter to <b>Opaque</b> , no background photograph is displayed on the menu screen.  If you set this parameter to values other than <b>Opaque</b> , a background photograph is displayed behind the menu screen with a degree of transparency corresponding to the value chosen.	The default value is <b>15%</b> .
Display IP address	Specifies whether to display the local IP address on the conferencing screen.	This parameter is selected by default.
Select conference control operation	Specifies the conference control functions you wish to display on the <b>Conference Control</b> screen.	None
Display position	Specifies the position where your site name is superimposed on the video of your site.	The default value is <b>Lower right corner</b> .
Display duration	Specifies the duration for displaying a site name.	The default value is <b>Always display</b> .
Display time and zone	Specifies whether to superimpose the time zone and time on the video of your site after your site joins a conference.	This parameter is deselected by default.
Font color	Specifies the color in which a site name is displayed.	The default color is white.
Font size	Specifies the font size of a site name.	The default value is <b>Medium</b> .
Font Type	Specifies the typeface of a site name.  This parameter is available only when <b>Language</b> is set to <b>中文(简体)</b> .	The default value is <b>Boldface</b> .
Bold	Specifies whether a site name is displayed in bold.	This parameter is deselected by default.
Set the horizontal offset	Fine-tunes a site name's position leftward and rightward on the local video.	Value range: 0-96 The default value is <b>48</b> .
Set the vertical offset	Fine-tunes a site name's position upward and downward on the local video.	Value range: 0-96 The default value is <b>48</b> .

# 3 Network

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## About This Chapter

With network settings configured correctly, your TE30 can properly communicate with other network devices.

### [3.1 Setting IP Parameters](#)

To use your TE30 on an IP network to implement video communication, correctly set IP parameters, which include the domain name system (DNS) server address, network interface mode, and gateway address.

### [3.2 Setting H.323 Parameters](#)

When an H.323 network gatekeeper (GK) is used on your videoconferencing system, you must set the H.323 parameters.

### [3.3 Setting SIP Parameters](#)

To prepare your TE30 for video communication using SIP, set SIP parameters, which include the parameter specifying whether to register with a SIP server.

### [3.4 Setting Wi-Fi Parameters](#)

To use your TE30 to implement video communication over a Wi-Fi network, set the Wi-Fi parameters.

### [3.5 Setting QoS Parameters](#)

Quality of service (QoS) settings determine the mode for processing IP data packets during a conference.

### [3.6 Setting Firewall Parameters](#)

With the firewall settings correctly configured, video conferences held using your TE30 are secure.

### [3.7 Setting Network Diagnostics Parameters](#)

Correct settings for network diagnostics parameters enable you to employ a network diagnostics tool to diagnose your TE30 using ports.

## 3.1 Setting IP Parameters

To use your TE30 on an IP network to implement video communication, correctly set IP parameters, which include the domain name system (DNS) server address, network interface mode, and gateway address.

### Procedure

- Step 1** Choose **Advanced Settings > Settings > Network > IP > IP**. Set the IP parameters by referring to [Table 3-1](#).

**Table 3-1** IP parameters

Parameter	Description	Setting
IPv6	Specifies whether IPv6 is used. If you use IPv6, you must also set <b>Connection type, Local IP address, Subnet prefix length, and Gateway address</b> .	This parameter is deselected by default.
DNS server address	Specifies the IP address of the active DNS server. After you set this parameter, domain names can be used as the addresses of Gatekeeper (GK) and SIP servers. The DNS server will translate the domain names into the IP addresses of the GK and SIP servers.	Example: 202.98.192.67
Alternate DNS server IP address	Specifies the IP address of the standby DNS server. The standby DNS server is used when the active DNS server is unavailable or responds slowly.	Example: 202.98.198.167

Parameter	Description	Setting
Network interface mode	<p>Specifies the working mode for the network ports on your TE30.</p> <ul style="list-style-type: none"> <li>● <b>Auto detection:</b> When accessing a network, your TE30 automatically negotiates with a remote network device to determine the optimal work mode.</li> <li>● <b>10 Mbps and half duplex:</b> The data transmission rate is 10 Mbit/s, and data cannot be sent and received simultaneously.</li> <li>● <b>10 Mbps and full duplex:</b> The data transmission rate is 10 Mbit/s, and data can be sent and received simultaneously.</li> <li>● <b>100 Mbps and half duplex:</b> The data transmission rate is 100 Mbit/s, and data cannot be sent and received simultaneously.</li> <li>● <b>100 Mbps and full duplex:</b> The data transmission rate is 100 Mbit/s, and data can be sent and received simultaneously.</li> </ul>	<p>The default value is <b>Auto detection</b>.</p> <p><b>NOTE</b> If the remote network device you want to communicate with has its network interface mode set to <b>10 Mbps and full duplex</b> or <b>100 Mbps and full duplex</b>, set this parameter to be the same as the remote network interface mode. Otherwise, communication fails.</p>
PPPoE	<p>Specifies whether your TE30 accesses broadband networks using dial-up connections.</p> <p><b>NOTE</b> If you set this parameter to <b>Enable</b>, you must also set <b>Dialing mode</b>, <b>User name</b>, and <b>Password</b>.</p>	<p>The default value is <b>Disable</b>.</p>

Parameter	Description	Setting
Dialing mode	<p>Specifies the dial-up connection mode. The dial-up process complies with the Point-to-Point Protocol over Ethernet (PPPoE) protocol. To use a dial-up connection, enter the user name and password provided by your broadband access service provider in <b>User name</b> and <b>Password</b>.</p> <ul style="list-style-type: none"> <li>● <b>Auto</b>: When your TE30 starts, it automatically sets up a dial-up connection over the IP network. If the dial-up service is not free of charge, charging starts when the dial-up connection is set up.</li> <li>● <b>Manual</b>: Your TE30 uses the dial-up program to access a network. To set up a PPPoE dial-up connection, you must choose <b>Advanced Settings &gt; Utilities &gt; PPPoE Dialing &gt; Connect</b>.</li> </ul>	The default value is <b>Auto</b> .
Connection type	<p>Specifies the mode in which your TE30 obtains an IP address.</p> <ul style="list-style-type: none"> <li>● <b>Static IP</b>: The network administrator assigns an IP address to your TE30. If you select this option, you must also set <b>Local IP address</b>, <b>Subnet mask</b>, and <b>Gateway address</b>.</li> <li>● <b>Dynamic IP</b>: When a DHCP server is available on the network, your TE30 automatically obtains an IP address using the Dynamic Host Configuration Protocol (DHCP).</li> </ul>	The default value is <b>Static IP</b> . If you have set <b>NMS server</b> , select <b>Static IP</b> for this parameter.
Local IP address and Subnet mask	<p>Specify the IP address and subnet mask of your TE30.</p>	<p>Contact the network administrator.</p> <p>Examples:</p> <ul style="list-style-type: none"> <li>● IPv4 address: 192.168.1.10</li> <li>● IPv6 address: 2000:0:0:200:55:26:1</li> </ul>
Gateway address	<p>Specifies the gateway address that corresponds to the IP address of your TE30.</p> <p>This parameter is mandatory only when <b>Connection type</b> is set to <b>Static IP</b>.</p>	<p>Contact the network administrator.</p> <p>Examples:</p> <ul style="list-style-type: none"> <li>● IPv4 address: 192.168.1.1</li> <li>● IPv6 address: 2000:0:0:200:55:0:1</li> </ul>

Parameter	Description	Setting
Subnet prefix length	Specifies the prefix length for the IPv6 address of your TE30.	The default value is <b>0</b> .

**Step 2** Select **Save**.

----End

## 3.2 Setting H.323 Parameters

When an H.323 network gatekeeper (GK) is used on your videoconferencing system, you must set the H.323 parameters.

### Prerequisites

The videoconferencing system is using a GK.

### Background

When a GK is used on your videoconferencing system, you can set the site number and name for your TE30. Other endpoints also registered with a GK can then use the site number or name as well as the IP address to call your TE30.

#### NOTE

A GK is responsible for network bandwidth management, endpoint authentication, and address translation on the videoconferencing system.

### Procedure

**Step 1** Choose **Advanced Settings > Settings > Network > IP > H.323**. Set the H.323 parameters by referring to [Table 3-2](#).

**Table 3-2** H.323 parameters

Parameter	Description	Setting
Enable GK	<p>Specifies whether to register your TE30 with the GK on your videoconferencing system.</p> <ul style="list-style-type: none"> <li>● If you select this parameter, the TE30 registers with the GK after being started. After the TE30 successfully registers with the GK, it can call endpoints defined in the address book by their IP addresses, numbers, and names.</li> <li>● If you do not select this parameter, the TE30 does not register with the GK. In this case, the TE30 can call other endpoints only by their IP addresses.</li> </ul>	This parameter is deselected by default.
GK registration mode	<p>Specifies the mode for registering your TE30 with the GK.</p> <ul style="list-style-type: none"> <li>● <b>Auto:</b> Your TE30 automatically registers with the available GK on the network and obtains the GK address.</li> <li>● <b>Manual:</b> You must set <b>GK address</b>, which specifies the GK with which you want your TE30 to register.</li> </ul>	The default value is <b>Auto</b> .
GK address	<p>Specifies the IP address of the server where the desired GK is installed.</p> <p>This parameter is mandatory only when <b>GK registration mode</b> is set to <b>Manual</b>.</p>	Example: 192.168.1.10
Site number	<p>Specifies the site number for your TE30. If your TE30 registers with a GK, endpoints that also register with GKs can dial this site number to call your TE30.</p>	<p>The site number can contain only digits.</p> <p>Example: 12345</p>
H.323 ID	<p>Specifies the name by which a GK identifies your TE30 after your TE30 registers with the GK.</p>	<p>The value can consist of digits, letters, and special characters, such as @ # %.</p> <p>Example: ab3@Joe</p>
Authentication user name	<p>Specifies the user name used for H.323 authentication.</p>	<p>Obtain the user name from your network service provider.</p> <p>Ensure that this user name is the same as that predefined on the GK.</p>



Parameter	Description	Setting
Password	Specifies the password your TE30 uses to register with the GK. The GK uses this password to authenticate your TE30.	Obtain the password from your network service provider. Ensure that this password is the same as that predefined on the GK
Huawei GK	Specifies whether your TE30 registers with the Huawei GK server. If this parameter is deselected, some functions, such as <b>Conference Control</b> , are unavailable on your TE30.	This parameter is selected by default. Retain the default value when the TE30 registers with the Huawei GK server.
HTTPS mode	Specifies whether to upload information about conferences initiated from your TE30 in HTTPS encryption mode. <ul style="list-style-type: none"> <li>● This parameter is available only when <b>Huawei GK</b> is selected.</li> <li>● If you do not select this parameter, the TE30 will use the Transfer Control Protocol (TCP) to upload conference information, which may be insecure.</li> </ul>	This parameter is selected by default. To improve communication security, retain the default value.
Multipoint conference authentication	Specifies whether a certificate for authentication is required to initiate a SiteCall conference. For details about how to import a certificate, see <a href="#">11.4.8 Importing a Certificate</a> . This parameter is available only when <b>HTTPS mode</b> is selected.	This parameter is deselected by default. To improve communication security, select this parameter.
Use VoIP gateway	Specifies whether to use a VoIP gateway and the address of the VoIP gateway. If you set these two parameters, your TE30 can place calls to PSTN endpoints connected to the VoIP gateway. If you select <b>Use VoIP gateway</b> , you must also set <b>VoIP gateway address</b> .	This parameter is deselected by default.

**Step 2** Select **Save**.

----End

### 3.3 Setting SIP Parameters

To prepare your TE30 for video communication using SIP, set SIP parameters, which include the parameter specifying whether to register with a SIP server.

## Prerequisites

All involved parties in the conference support SIP.

## Procedure

- Step 1** Choose **Advanced Settings > Settings > Network > IP > SIP**. Set the SIP parameters by referring to **Table 3-3**.

**Table 3-3** SIP parameters

Parameter	Description	Setting
Register with server	<p>Specifies whether to register your TE30 with a SIP server.</p> <ul style="list-style-type: none"> <li>● If you select this parameter and the TE30 successfully registers with the SIP server, the TE30 can call endpoints defined in the address book by their IP addresses, numbers, and names.</li> <li>● If you do not select this parameter, the TE30 does not register with any SIP servers and can call other endpoints only by their IP addresses.</li> </ul> <p><b>NOTE</b> If you select this parameter, you must also set <b>Server address, Conference service number, Site number, User name, and Password</b>.</p>	This parameter is deselected by default.
Server address	Specifies the IP address or domain name of the SIP server with which you want your TE30 to register.	Example: 192.168.1.10
Conference service number	<p>Specifies the conference service number for your TE30 to initiate conferences over an IP multimedia subsystem (IMS) network.</p> <p>Set this parameter to the conference service number obtained from your IMS network administrator.</p> <p><b>NOTE</b> Born by the standard IP, the IMS uses VoIP applications based on the 3rd Generation Partnership Project (3GPP) SIP to provide fixed and mobile multimedia services for operators. Integrating multipoint control units (MCUs) can enhance the functionality of the Huawei IMS HD videoconferencing solution.</p>	No default value is set for this parameter.
Enable proxy server	Specifies whether to enable the proxy server. If you set Server address to the SIP server domain name, select this parameter.	This parameter is deselected by default.

Parameter	Description	Setting
Proxy server address	Specifies the address of the proxy server. If you set Server address to the SIP server domain name, set this parameter to the IP address bound to that domain name.	Example: 192.168.1.10
Site number	Specifies the site number for your TE30. If your TE30 registers with a SIP server, endpoints that also register with the SIP server can dial this site number to call your TE30.	The site number can consist of digits and letters. Example: 12345
User name and Password	Specify the name and password by which a SIP server identifies your TE30 after it registers with the SIP server.	The value can consist of digits, letters, and special characters, such as @ # %. Example: ab3@Joe
Server type	Specifies the SIP server type. <ul style="list-style-type: none"> <li>● <b>OCS</b>: Select this option if your TE30 registers with the Microsoft Office Communications Server (OCS) or Microsoft Lync Server.</li> <li>● <b>CISCO VCS</b>: Select this option if your TE30 registers with the Cisco TelePresence Video Communication Server (VCS).</li> <li>● <b>Standard</b>: Select this option if your TE30 registers with any other SIP servers.</li> </ul>	The default value is <b>Standard</b> .
Transmission type	Specifies the protocol used for SIP signaling transmission. <ul style="list-style-type: none"> <li>● <b>TCP</b>: Use the Transmission Control Protocol (TCP) to implement transmission reliability.</li> <li>● <b>UDP</b>: Use the User Datagram Protocol (UDP) to implement transmission with reduced latency.</li> <li>● <b>TLS</b>: Use the Transport Layer Security (TLS) protocol to implement transmission security. If you select this option, you must import a certificate when your TE30 registers with a SIP server. For details, see <a href="#">11.4.8 Importing a Certificate</a>.</li> </ul>	The default value is <b>UDP</b> .

Parameter	Description	Setting
Video request handling	<p>Specifies how your TE30 handles video requests from a remote endpoint during a point-to-point SIP audio call or multipoint conference.</p> <ul style="list-style-type: none"> <li>● <b>Accept automatically:</b> Your TE30 automatically accepts video requests from the remote endpoint.</li> <li>● <b>Reject automatically:</b> Your TE30 automatically rejects video requests from the remote endpoint.</li> <li>● <b>Manual:</b> Your TE30 prompts you to accept video requests from the remote endpoint.</li> </ul>	The default value is <b>Manual</b> .

**Step 2** Select **Save**.

----End

## 3.4 Setting Wi-Fi Parameters

To use your TE30 to implement video communication over a Wi-Fi network, set the Wi-Fi parameters.

### Setting Wi-Fi Client Parameters

When the Wi-Fi client function is enabled, your TE30 functions as a Wi-Fi client and access an available Wi-Fi network after connecting to a wireless router.

**Step 1** Choose **Advanced Settings > Settings > Network > Wi-Fi > Wi-Fi Client**. Select **Enable** for the **Wi-Fi Client** parameter.

Your TE30 automatically scans for available wireless routers and lists them in the **Wireless access point** list box. If you need to set a static IP address for your TE30, go to [Step 2](#). Otherwise, go to [Step 4](#).

**Step 2** Select **Advanced Settings**. On the displayed **Advanced Wireless Settings** screen, set IP parameters by referring to [3.1 Setting IP Parameters](#).


**Step 3** Select **Save**.

**Step 4** Select **Scan**.

Your TE30 automatically scans for available wireless routers and lists them in the **Wireless access point** list box.

**Step 5** From **Wireless access point**, select the wireless router you want to connect to.

**Step 6** Press **OK** on the remote control. When prompted, enter the security key or password and select **Connect**.

When the TE30 is connected to the router, the status of that router changes to .

---End

## Setting Wi-Fi Hotspot Parameters

When the Wi-Fi hotspot function is enabled, other devices can access a Wi-Fi network by connecting to the TE30.

- Step 1** Choose **Advanced Settings > Settings > Network > Wi-Fi > Wi-Fi Hotspot**. Select **Enable** for the **Wi-Fi Hotspot** parameter.
- Step 2** Select **Advanced Settings**. On the displayed **Advanced Wireless Settings** screen, set the advanced wireless network parameters by referring to [Table 3-4](#).

**Table 3-4** Advanced wireless network parameters

Parameter	Description	Setting
SSID Number	Specifies the name of your TE30's Wi-Fi network.	This parameter is mandatory. The value is a string of 1 to 31 characters, consisting of digits, letters, and special characters, such as @ # %.
Channel	Specifies a channel that transmits data through Wi-Fi signals. If you select <b>AUTO</b> , your TE30 automatically selects the optimal channel.	The default value is <b>AUTO</b> . Retain the default value.
Protocol	Specifies the standard used on the Wi-Fi network. <ul style="list-style-type: none"> <li>● <b>802.11b</b>: This standard works in the 2.4 GHz band and delivers a maximum data transmission rate of 300 Mbit/s.</li> <li>● <b>802.11g</b>: This standard works in the 2.4 GHz band and delivers a maximum data transmission rate of 54 Mbit/s.</li> <li>● <b>802.11n</b>: This standard works in the 2.4 GHz band and delivers a maximum data transmission rate of 300 Mbit/s.</li> <li>● <b>802.11b/g/n</b>: 802.11b, 802.11g, and 802.11n are all supported.</li> </ul>	The default value is <b>802.11b/g/n</b> .

Parameter	Description	Setting
Identity authentication mode and Encryption mode	<p>The first parameter specifies the identity authentication mode used on the Wi-Fi network. The second parameter specifies the data encryption mode corresponding to the identity authentication mode adopted.</p> <ul style="list-style-type: none"> <li>● <b>OPEN</b>: If you select this option for Identity authentication mode, the values available for <b>Encryption mode</b> are <b>NONE</b> and <b>WEP</b>.</li> <li>● <b>SHARE</b>: If you select this option for Identity authentication mode, the value available for <b>Encryption mode</b> is <b>WEP</b>.</li> <li>● <b>WPA-PSK</b>: If you select this option for Identity authentication mode, the values available for <b>Encryption mode</b> are <b>TKIP</b> and <b>AES</b>.</li> <li>● <b>WPA2-PSK</b>: If you select this option for Identity authentication mode, the values available for <b>Encryption mode</b> are <b>TKIP</b> and <b>AES</b>.</li> </ul>	<ul style="list-style-type: none"> <li>● The default value of <b>Identity authentication mode</b> is <b>OPEN</b>.</li> <li>● The default value of <b>Encryption mode</b> is <b>NONE</b>.</li> </ul> <p><b>NOTE</b> When the TE30 is connected to a VPM220, you must set <b>Identity authentication mode</b> to <b>WPA-PSK</b> or <b>WPA2-PSK</b>.</p>
Password	Specifies the password used by other devices to connect to your TE30.	The required password varies depending on your settings of <b>Encryption mode</b> . If you set <b>Encryption mode</b> to <b>NONE</b> , the Wi-Fi network provided by your TE30 is open to everyone.
Local IP address and Subnet mask	Specify the IP address and subnet mask of your TE30.	<p>Examples:</p> <ul style="list-style-type: none"> <li>● <b>Local IP address</b>: 192.168.1.10</li> <li>● <b>Subnet mask</b>: 255.255.255.0</li> </ul>
DHCP	<p>Specifies whether your TE30 assigns IP addresses to devices connected to it.</p> <p>If you select this parameter, you must also set <b>Start IP address</b> and <b>End IP address</b>.</p>	This parameter is deselected by default.
Start IP address and End IP address	Specify the IP address segment for the devices connected to your TE30.	<p>Examples:</p> <ul style="list-style-type: none"> <li>● <b>Start IP address</b>: 192.168.1.10</li> <li>● <b>End IP address</b>: 192.168.1.157</li> </ul>

**Step 3** Select **Save**.

In the **Connected devices** list box, you can view the MAC and IP addresses of all the devices connected to your TE30.

---End

## 3.5 Setting QoS Parameters

Quality of service (QoS) settings determine the mode for processing IP data packets during a conference.

### Procedure

**Step 1** Choose **Advanced Settings > Settings > Security > QoS**. Set the QoS parameters by referring to [Table 3-5](#).

**Table 3-5** QoS parameters

Parameter	Description	Setting
QoS type	<p>Specifies the QoS type.</p> <ul style="list-style-type: none"> <li>● <b>Priority</b>: If you select this option, you must also set <b>IP priority</b> and <b>Service type</b>.</li> <li>● <b>DiffServ</b>: If you select this option, you must also set <b>DSCP</b>. DSCP stands for differentiated services code point.</li> </ul>	The default value is <b>Priority</b> .
IP priority	Specifies the priority that a network device gives to forwarding the data packets sent by your TE30. A larger value indicates a higher priority.	<p>Value range: 0-7</p> <p>The default value is 7.</p>

Parameter	Description	Setting
Service type	<p>Specifies how the data packets sent and received by your TE30 are processed on the network.</p> <ul style="list-style-type: none"> <li>● <b>Normal</b>: Network devices transmit the data packets without special processing.</li> <li>● <b>Minimum delay</b>: Network devices transmit the data packets at the highest rate with the minimum delay.</li> <li>● <b>Maximum throughput</b>: The largest number of data packets possible are transmitted on the network.</li> <li>● <b>Highest reliability</b>: The data packets are transmitted to remote sites completely and correctly.</li> <li>● <b>Minimum cost</b>: Network devices transmit the data packets at the lowest cost.</li> </ul>	The default value is <b>Minimum delay</b> .
DSCP audio , DSCP video , DSCP data , and DSCP signaling	<p>Specify the service level for the data packets sent by your TE30 during transmission.</p> <p>A larger value indicates a higher service level.</p>	<p>Value range: 0-63</p> <p>The default value is <b>63</b>.</p>
Network jitter	<p>Adjusts network jitter settings to address the following:</p> <ul style="list-style-type: none"> <li>● Lip synchronization problems during conferences</li> <li>● Choppy audio problems, by increasing the network jitter value.</li> </ul>	<p>Value range: 0 ms to 1000 ms</p> <p>The default value is <b>0ms</b>.</p>
Lip sync.	<p>Fine-tunes network jitter settings if a slight lip synchronization problem persists after the network jitter settings are adjusted.</p>	<p>Value range: 0 ms to 300 ms</p> <p>The default value is <b>0ms</b>.</p>

**Step 2** Select **Save**.

----**End**



## 3.6 Setting Firewall Parameters

With the firewall settings correctly configured, video conferences held using your TE30 are secure.

### Background

The firewall protects your IP network by separating the internal and external network communication data.

With Network Address Translation (NAT) technology, a device on a local area network (LAN) is allocated with a dedicated internal IP address and uses an external IP address to communicate with external devices. If your LAN uses NAT technology, set the IP address of the NAT wide area network (WAN) on your TE30.

### Procedure

- Step 1** Choose **Advanced Settings > Settings > Network > Firewall**. Set the firewall parameters by referring to [Table 3-6](#).

**Table 3-6** Firewall parameters

Parameter	Description	Setting
Enable H.460	Specifies whether to use H.460 to implement traversal between public and private networks after your TE30 is recognized as a private network endpoint.	This parameter is deselected by default.
Use NAT	Specifies whether NAT is enabled to implement traversal between public and private networks. An endpoint installed on a private network is considered as a public network endpoint after NAT is enabled on the endpoint. <b>NOTE</b> Even if you then enable H.460 on the endpoint, it is still considered as a public network endpoint, and H.460 is not used.	This parameter is deselected by default.
NAT address	Specifies the public IP address for your TE30. This parameter is mandatory if you select <b>Use NAT</b> .	No default value is set for this parameter.
H.323 call port	Specifies the port a remote site uses to send and receive call signaling during communication with your site.	The default value is <b>1720</b> .

Parameter	Description	Setting
RAS source port	Specifies the port your site uses to send and receive Registration, Admission and Status (RAS) signaling during communication with remote sites.	The default value is <b>1719</b> .
RAS destination port	Specifies the port a remote site uses to send and receive RAS signaling during communication with your site.	The default value is <b>1719</b> .
Local listen port	Specifies the SIP listening port for your site.	The default value is <b>5060</b> .
Server listen port	Specifies the listening port on the SIP server with which your TE30 registers.	The default value is <b>5060</b> .
SIP call port	Specifies the port your TE30 uses to send SIP signaling during communication with remote sites.	The default value is <b>5060</b> .
Local SIP TLS listen port	Specifies the SIP listening port for your site when <b>Transmission type</b> is set to <b>TLS</b> .	The default value is <b>5061</b> . <b>NOTE</b> For details about how to set <b>Transmission type</b> , see <a href="#">3.3 Setting SIP Parameters</a> .
SIP server TLS listen port	Specifies the listening port on the SIP server with which your TE30 registers when <b>Transmission type</b> is set to <b>TLS</b> .	The default value is <b>5061</b> .
SIP TLS call port	Specifies the port your TE30 uses to send SIP signaling during communication with remote sites when <b>Transmission type</b> is set to <b>TLS</b> .	The default value is <b>5061</b> .
Port settings	Mode for setting and using port resources. <ul style="list-style-type: none"> <li>● <b>Normal</b>: Port numbers in use cannot be changed.</li> <li>● <b>Port convergence</b>: The port numbers used in H.323 converge. Specifically, signals of different formats use the same port number. This efficiently saves port resources.</li> <li>● <b>Same port send/receive</b>: Your TE30 sends and receives data streams through the same port.</li> </ul>	The default value is <b>Same port send/receive</b> .
Audio port	Specifies the port your TE30 uses to receive audio packets during communication with remote sites.	The default value is <b>10002</b> .

Parameter	Description	Setting
Video port	Specifies the port your TE30 uses to receive video packets during communication with remote sites.	The default value is <b>10004</b> .

**Step 2** Select **Save**.

----End

## 3.7 Setting Network Diagnostics Parameters

Correct settings for network diagnostics parameters enable you to employ a network diagnostics tool to diagnose your TE30 using ports.

### Procedure

**Step 1** Choose **Advanced Settings > Settings > Network > Diagnostics**. Set the network diagnostics parameters by referring to [Table 3-7](#).

**Table 3-7** Network diagnostics parameters

Parameter	Description	Setting
Network diagnostics	Specifies whether to enable the H.323 call port, RAS ports, and SIP call port to be used for network diagnostics. If you select this parameter, you must also set <b>H.323 call port</b> , <b>RAS source port</b> , <b>RAS destination port</b> , and <b>SIP call port</b> .	This parameter is deselected by default.
H.323 call port	Specifies the port the network diagnostics tool uses to send and receive call signaling during communication with your TE30.	The default value is <b>1820</b> .
RAS source port	Specifies the port your TE30 uses to send and receive RAS signaling during communication with the network diagnostics tool.	The default value is <b>1819</b> .
RAS destination port	Specifies the port the network diagnostics tool uses to send and receive RAS signaling during communication with your TE30.	The default value is <b>1819</b> .
SIP call port	Specifies the port your TE30 uses to send SIP signaling during communication with the network diagnostics tool.	The default value is <b>5160</b> .

Parameter	Description	Setting
Test network after exiting conference	Specifies whether to perform a ping test after your TE30 exits a conference. Ping results are recorded in logs.	The default value is <b>Enable</b> .

**Step 2** Select **Save**.

----**End**

# 4 Display and Camera

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## About This Chapter

Before using the TE30, connect your video devices to it and set the video parameters.

Typically, video devices include video input devices, such as a camera, DVD player, and computer, and video output devices, such as displays. To enable your TE30 to deliver HD video quality, ensure that the video input and output devices support 720p, 1080p, or higher resolutions.

### [4.1 Configuring Video Output](#)

After connecting all the video cables, set the video output parameters, such as output mode, resolution, refresh rate, and stretch mode.

### [4.2 Configuring Video Input](#)

Correct video input settings enable your TE30 to properly display video input from the built-in camera and VGA IN port.

### [4.3 Selecting and Controlling a Camera](#)

Select local and remote video sources and control the local and remote cameras to obtain the desired view.

### [4.4 Saving and Using Camera Presets](#)

Camera presets are camera positions you store ahead of time. Each camera preset stores the camera pan, tilt, and zoom (PTZ) settings. You can easily control the camera by switching between its presets.

## 4.1 Configuring Video Output

After connecting all the video cables, set the video output parameters, such as output mode, resolution, refresh rate, and stretch mode.

### Background

Your TE30 has two video output ports: VGA OUT and MAIN OUT HD. The MAIN OUT HD port connects to the HDMI connector of the integrated cable.

Video is sharper at a higher resolution. Select the video resolution that matches the resolution of the monitor connected to your TE30.

**Table 4-1** lists the resolutions supported by the video output ports in each output mode.

**Table 4-1** Available video resolutions in each output mode

Output Mode	Video Resolution
<b>VGA OUT</b>	
VGA	800 x 600 pixels, 1024 x 768 pixels, 1280 x 1024 pixels, 720p and 1080p
YPrPb	720p and 1080p
<b>MAIN OUT HD</b>	
DVI	1024 x 768 pixels, 1280 x 1024 pixels, 720p, and 1080p
HDMI	720p and 1080p

Video is smoother at a higher refresh rate. Select the refresh rate that matches the refresh rate of the monitor connected to your TE30. **Table 4-2** lists the refresh rates available for each video resolution.

**Table 4-2** Available refresh rates for each resolution

Video Resolution	Refresh Rate (Hz)
800 x 600 pixels	56, 60, 72, 75, or 85
1024 x 768 pixels	60, 70, 75, or 85
1280 x 1024 pixels	60, 75, or 85
720p	<ul style="list-style-type: none"> <li>● 60 if the output mode is VGA</li> <li>● 50 or 60 if the output mode is DVI, YPrPb, or HDMI</li> </ul>

Video Resolution	Refresh Rate (Hz)
1080p	<ul style="list-style-type: none"> <li>● 60 if the output mode is VGA</li> <li>● 24, 25, 30, 50, or 60 if the output mode is DVI, YPrPb, or HDMI</li> </ul>

## Procedure

- Step 1** Choose **Advanced Settings > Settings > Video > Common Settings > Video Output**. Set the common video output parameters by referring to [Table 4-3](#).

**Table 4-3** Common video output parameters

Parameter	Description	Setting
GUI	Specifies the video output port for the remote controlled UI.  During a conference, you can configure your TE30 to display video on one monitor and the remote controlled UI on another monitor by setting this parameter to a value different from the <b>MAIN OUT HD</b> value.	The default value is <b>MAIN OUT HD</b> .
Caption output	Specifies the video output port for captions.  <b>NOTE</b> This parameter takes effect only when the caption type is set to T.140.	The default value is <b>MAIN OUT HD</b> .
Main output interface	Specifies the main output port.  Only the main output port supports combined picture output. For details about the combined picture function, see <a href="#">8.4 Adjusting the Screen Layout</a> .	The default value is <b>MAIN OUT HD</b> .  To ensure video quality, retain the default value.
Dual-screen	Specifies whether the TE30 displays the video and presentation on separate displays.  You can enable this function only when your TE30 is connected to two displays.	The default value is <b>Disable</b> .

- Step 2** Select **Save**.

- Step 3** Choose **Advanced Settings > Settings > Video > Video Output**. Set the advanced video output parameters by referring to [Table 4-4](#).

**Table 4-4** Advanced video output parameters

Parameter	Description	Setting
Name	Specifies the output port name to help you identify ports during a conference.	<ul style="list-style-type: none"> <li>● The default value for the MAIN OUT HD port is <b>HDMI OUT</b>.</li> <li>● The default value for the VGA OUT port is <b>VGA OUT</b>.</li> </ul>
Output mode	<p>Specifies the format of the video received by the display.</p> <ul style="list-style-type: none"> <li>● <b>VGA</b>: Select this option if you use a VGA cable to connect the monitor to the TE30 VGA OUT port.</li> <li>● <b>YPrPb</b>: Select this option if you use a VGA-YPrPb cable to connect the monitor to the TE30 VGA OUT port.</li> <li>● <b>HDMI</b>: Select this option if you use an integrated cable to connect the monitor HDMI port to the TE30 MIC/TV/LAN/POWER port.</li> <li>● <b>DVI</b>: Select this option if you use an integrated cable to connect the monitor DVI port to the TE30 MIC/TV/LAN/POWER port.</li> </ul>	<ul style="list-style-type: none"> <li>● The default value for the MAIN OUT HD port is <b>HDMI</b>.</li> <li>● The default value for the VGA OUT port is <b>VGA</b>.</li> </ul>
Video resolution	Specifies the resolution for each video output port. The available options vary depending on your settings of <b>Output mode</b> . <b>Table 4-1</b> lists the resolutions supported by the video output ports in each output mode.	The default value is <b>1080p</b> .
Refresh rate	Specifies the video refresh rate. The available options vary depending on your settings of <b>Video resolution</b> . <b>Table 4-2</b> lists the refresh rates available for each video resolution.	The default value is <b>60Hz</b> .



Parameter	Description	Setting
Stretch mode	<p>Specifies how to adjust the aspect ratio to fit the video into the screen.</p> <ul style="list-style-type: none"> <li>● <b>Stretch</b>: The aspect ratio is changeable.</li> <li>● <b>No stretch</b>: The aspect ratio is not changeable.</li> <li>● <b>Intelligent stretch</b>: Your TE30 crops the video to an appropriate size and stretches the video to full screen while maintaining the original aspect ratio. For example, to change a wide-screen video to a narrow-screen video, your TE30 crops the left and right edges of the wide-screen video and stretches the video to full screen.</li> </ul>	The default value is <b>Stretch</b> .
Automatic layout mode	<p>Specifies the display mode for the presentation and video.</p> <p><b>NOTE</b> This parameter applies only to the main output port.</p> <ul style="list-style-type: none"> <li>● <b>Full screen</b>: Your TE30 displays the video or presentation in full screen in the following priority sequence: remote presentation, local presentation, remote video, and local video.</li> <li>● <b>PiP</b>: The Picture in Picture (PiP) function is enabled to display the presentation and video.</li> <li>● <b>2 panes</b>: The presentation and video are displayed in two panes.</li> <li>● <b>3 panes (a) or 3 panes (b)</b>: The presentation and video are displayed in three panes.</li> </ul>	The default value is <b>Full screen</b> .
Small window position	<p>Specifies the position of the PiP window on the screen.</p> <p>This parameter is available only when <b>Automatic layout mode</b> is set to <b>PiP</b>.</p> <p><b>NOTE</b> This parameter applies only to the main output port.</p>	The default value is <b>Lower right corner</b> .

**Step 4** Select **Save**.

----**End**

## 4.2 Configuring Video Input

Correct video input settings enable your TE30 to properly display video input from the built-in camera and VGA IN port.

### Background

Your TE30 has a built-in camera and cannot be connected to external cameras.

Your TE30 also provides a VGA IN port, which can be connected to a computer VGA port.

### Procedure

- Step 1** Choose **Advanced Settings > Settings > Video > Video Input**. Set the video input parameters by referring to [Table 4-5](#).

**Table 4-5** Video input parameters

Parameter	Description	Setting
Name	Specifies the video input port name to help you identify ports during a conference.	This name contains 1 to 64 characters.
Initial position	<p>Specifies the position of the built-in camera when you start the TE30.</p> <ul style="list-style-type: none"> <li>● <b>Auto</b>: The camera returns to its initial position after startup.</li> <li>● <b>Preset 1</b>: The camera returns to this preset after startup.</li> </ul> <p><b>NOTE</b> Each camera preset stores the camera pan, tilt, and zoom (PTZ) settings. For details about how to set presets, see <a href="#">4.4 Saving and Using Camera Presets</a>.</p>	The default value is <b>Auto</b> .
Moving speed	<p>Specifies the movement and zoom speed for the camera at your site.</p> <ul style="list-style-type: none"> <li>● Select <b>Slow</b> for accurate positioning.</li> <li>● Select <b>Fast</b> for quick positioning.</li> <li>● Select <b>Medium</b> for medium-paced positioning.</li> </ul>	The default value is <b>Medium</b> .

Parameter	Description	Setting
Stretch mode	<p>Specifies how your TE30 adjusts the input video based on the video encoding format.</p> <ul style="list-style-type: none"> <li>● <b>Stretch</b>: stretches the video to full screen without a fixed aspect ratio.</li> <li>● <b>No stretch</b>: displays the video in full screen with a fixed aspect ratio. Black borders may appear at the upper and lower parts of the monitor.</li> <li>● <b>Intelligent stretch</b>: crops the video to an appropriate size and stretches the video to full screen while maintaining the original aspect ratio. For example, to change a wide-screen video to a narrow-screen video, your TE30 crops the left and right edges of the wide-screen video and stretches the video to full screen.</li> </ul>	The default value is <b>No stretch</b> .

**Step 2** Select **Save**.

----**End**

You can also specify whether a remote site can control the camera at your site by performing the following:

Choose **Advanced Settings > Settings > Video > Common Settings > Video Input**. Set the **Remote control** parameter.

## 4.3 Selecting and Controlling a Camera

Select local and remote video sources and control the local and remote cameras to obtain the desired view.


### 4.3.1 Selecting a Camera


To control a camera, first select it.

#### Background

When the TE30 is not in use during a conference, you can only select and control the local camera. When the TE30 is in use during a conference, you can select and control the local and remote cameras.

#### Procedure

**Step 1** Press  on the remote control to toggle between the local or remote camera. If multiple local or remote cameras are available, use the following method to select a specific camera.

**Step 2** Press  on the remote control and select the desired camera from the list displayed in the lower right corner on the screen.

---End

## 4.3.2 Adjusting the Focal Length

You can change the magnification of distant objects by adjusting the focal length of the camera.

**Step 1** Select .


**Step 2** Select **Adjust Focus** and adjust the focal length.

---End




## 4.3.3 Controlling a Camera

You can control pan, tilt, and zoom (PTZ) actions for a local or remote camera.

### Procedure

**Step 1** Press  on the remote control.

**Step 2** On the camera control screen, perform any of the following:

- Press  to toggle between local and remote cameras. The text in the upper left corner indicates the camera that is currently being controlled (local or remote).
- Press navigation keys on the remote control to turn the camera lens.
- Press  to zoom in or  to zoom out.

---End

### Follow-up Procedure

You can restore a local or remote camera to its default position as follows: Go to the camera control screen. Press **OK** on the remote control. Then follow the onscreen instructions.

## 4.4 Saving and Using Camera Presets

Camera presets are camera positions you store ahead of time. Each camera preset stores the camera pan, tilt, and zoom (PTZ) settings. You can easily control the camera by switching between its presets.

If a camera supports PTZ functions, you can create and save a maximum of 30 camera presets. A camera preset remains valid until it is deleted or changed.

[Table 4-6](#) lists camera preset specifications.

**Table 4-6** Camera preset specifications

Endpoint	Number of Camera Presets	Whether Data Is Lost After Restart
Local	30	No
Remote	6	Yes


## Saving a Camera Preset

A camera preset stores the camera PTZ settings.

If you select a preset number that has already been saved as another preset, the new camera preset replaces the exiting one.

To save a camera preset:

**Step 1** Set the camera lens position. For details, see [4.3 Selecting and Controlling a Camera](#).

**Step 2** Select , select **Save Preset**, select a number, and press **OK** on the remote control to save the camera preset to the selected number.

---End

## Moving a Camera to a Preset

If you have saved camera presets for the TE30, you can tap a preset number to apply that preset to the camera.


To move a selected camera to a camera preset:

**Step 1** Select  and select **Switch Preset**.

**Step 2** Select a camera preset number and press **OK** on the remote control to apply that preset to the camera.

---End

## Deleting a Camera Preset

To delete a camera preset, select the preset number and press  on the remote control.

# 5 Microphone and Speaker

---

## About This Chapter

Your TE30 provides a built-in microphone. Alternatively, you can connect external microphone arrays or other audio devices to the TE30 as audio input sources. Before using the TE30, connect the required audio input devices to the TE30 and set audio input parameters.

### [5.1 Connecting an Audio Input Device](#)

For better sound pickup quality, you can connect a VPM220 microphone array (VPM220 for short) or VPM220W wireless microphone array (VPM220W for short) to your TE30.

### [5.2 Connecting a Speaker](#)

You can connect your TE30 to external speakers for increased audio output and better audio quality.

### [5.3 Configuring Audio](#)

Before using your TE30 to join a conference, set the audio parameters to gain the best possible audio experience.

## 5.1 Connecting an Audio Input Device

For better sound pickup quality, you can connect a VPM220 microphone array (VPM220 for short) or VPM220W wireless microphone array (VPM220W for short) to your TE30.

Before connecting any audio input device to your TE30, familiarize yourself with each audio input port so that you can quickly and properly make the connections. [Table 5-1](#) provides information about the audio input ports.

**Table 5-1** Audio input ports

Port	Type	Supported Audio Feature
LINE IN	3.5 mm audio port	Stereo
MIC/TV/LAN/POWER	Proprietary port	Audio picked up by microphone arrays

### 5.1.1 Connecting a VPM220

The VP220 provides 360° sound pickup and an optimal pickup range of six meters. Use the 10 m HD-AI cable provided with the VPM220 to connect the HD-AI connector of the TE30 integrated cable to the VPM220 IN port. Once the connection is set up, your TE30 automatically uses the VPM220 instead of its built-in microphone to pick up sound.

VPM220 status indicators quickly provide information about the VPM220 working status. [Table 5-2](#) describes the status indicators.

**Table 5-2** VPM220 status indicators

Indicator Status	VPM220 Status
All red	Microphones in all the three directions are muted.
All blue	Microphones in all the three directions are unmuted or working correctly.
All blue and blinking in turn clockwise	<ul style="list-style-type: none"> <li>● The VPM220 has started correctly and is obtaining an ID.</li> <li>● The VPM220 is reconnecting to the TE30.</li> </ul>
All off	The VPM220 is in sleep mode.

For more information, see the *HUAWEI VPM220 Microphone Array User Guide* and *HUAWEI VPM220 Microphone Array Quick Start Guide*.

## 5.1.2 Connecting a VPM220W

After a VPM220W connects to the TE30 over Wi-Fi, the TE30 automatically uses the VPM220W instead of its built-in microphone to pick up sound.

### Prerequisites

The Wi-Fi hotspot function has been enabled on the TE30. Wi-Fi parameters have been set as follows:

- The encryption mode has been set to WPA-PSK or WPA2-PSK.
- DHCP has been enabled, and **Start IP address** and **End IP address** have been set correctly.

For details, see [Setting Wi-Fi Hotspot Parameters](#).

### Procedure

**Step 1** Press the power button at the bottom of the VPM220W to power it on.

The VPM220W automatically scans for available Wi-Fi networks.

- If a VPM220W was once connected to your TE30, the connection between the two is automatically set up, and you can skip the following steps.
- If the VPM220W is used for the first time or fails to obtain an IP address, proceed to [Step 2](#) and [Step 3](#).

**Step 2** Touch and hold the center button on the VPM220W surface for 5 seconds.

A confirmation dialog box is displayed.

**Step 3** Select **Confirm**.

The VPM220W sets up a WPS connection with the TE30 and attempts to obtain an IP address. After the VPM220W obtains an IP address, its indicator is steady blue.

---End

VPM220W status indicators quickly provide information about the VPM220W working status. [Table 5-3](#) describes the status indicators.

**Table 5-3** VPM220W indicator status

Indicator Status	VPM220W Status
Microphone indicators all red	Microphones in all the three directions are muted and working correctly (not in sleep mode).
Microphone indicators all blue	Microphones in all the three directions are unmuted and working correctly (not in sleep mode).
Microphone indicators off	The VPM220W is in sleep mode or powered off.



Indicator Status	VPM220W Status
Microphone indicators blinking blue in turn clockwise	The VPM220W has started correctly and is obtaining an IP address. The VPM220W is reconnecting to the TE30.
Microphone indicators blinking blue at the same time	The VPM220W is being upgraded.
Wi-Fi indicator steady red	The Wi-Fi connection is faulty or the Wi-Fi signal is weak.
Wi-Fi indicator blinking red	The VPM220W cannot connect to the TE30 over Wi-Fi.
Battery level indicator off	The battery level is normal.
Battery level indicator red	The battery level is lower than 3.65 V.
Battery level indicator blinking red	The battery level is lower than 3.4 V.
Charging status indicator slowly blinking blue	The VPM220W is being charged.
Charging status indicator steady blue	Charging is complete.
Charging status indicator off	The VPM220W is not placed on the charger dock.

For details, see the *HUAWEI VPM220W Microphone Array User Guide* and *HUAWEI VPM220W Microphone Array Quick Start Guide*.

### 5.1.3 Connecting Other Audio Input Devices

You can connect other audio input devices, such as a computer or mobile phone, to the TE30 LINE IN port.

## 5.2 Connecting a Speaker

You can connect your TE30 to external speakers for increased audio output and better audio quality.

Before you connect a speaker to your TE30, familiarize yourself with the available audio output ports so that you can quickly and correctly make the connections.

**Table 5-4** lists the audio output port.

**Table 5-4** Audio output port

Port	Type	Supported Audio Feature
LINE OUT	3.5 mm audio port	Stereo

Use an audio cable to connect an external speaker to the TE30 LINE OUT port.

## 5.3 Configuring Audio

Before using your TE30 to join a conference, set the audio parameters to gain the best possible audio experience.

### Procedure

- Step 1** Choose **Advanced Settings > Settings > Audio**. Set the audio parameters by referring to [Table 5-5](#) and [Table 5-6](#).

**Table 5-5** Audio input parameters

Parameter	Description	Setting
Built-in MIC 1 Built-in MIC 2 LINE IN 1 LINE IN 2	Specify whether to enable MIC or LINE IN ports. If such a port is disabled, your TE30 cannot receive audio input from the device connected to that port.  You can use this parameter to specify audio sources for the left and right audio channels in stereo mode.  MIC 1 and LINE IN 1 ports are used for the left audio channel input source, and MIC 2 and LINE IN 2 are used for the right audio channel input source.	These parameters are selected by default.
Gain	Adjusts the volume for the MIC 1, MIC 2, LINE IN 1, and LINE IN 2 ports.	Value range: -12 dB to +12 dB The default value is <b>+0dB</b> .
Volume indicator	Displays volume in real time.	No default value is set for this parameter.
Microphone array battery level	Displays the microphone array battery level in real time.	No default value is set for this parameter.

Parameter	Description	Setting
Switch controls	<p>Specifies whether audio signals collected by audio input devices, excluding the microphone array, are transmitted to your TE30 when you turn off the microphone array.</p> <ul style="list-style-type: none"> <li>● <b>MIC array only:</b> Your TE30 can receive audio signals collected by audio input devices, excluding the microphone array, when you turn off the microphone array.</li> <li>● <b>All audio inputs:</b> Your TE30 cannot receive audio signals collected by any audio input devices when you turn off the microphone array.</li> </ul> <p>To enable your TE30 to receive audio signals again, perform any of the following:</p> <ul style="list-style-type: none"> <li>● Press the button on the microphone array to enable this function.</li> <li>● Press the microphone button on the remote control to turn on the microphone array only or all audio input devices, depending on the <b>Switch controls</b> value.</li> <li>● On the TE30 web interface, choose <b>Device Control &gt; Audio Control</b> and select the audio input ports you want to enable.</li> <li>● On the remote controlled UI, choose <b>Advanced Settings &gt; Settings &gt; Audio &gt; Audio Input</b> and select the audio input ports you want to enable.</li> </ul>	The default value is <b>MIC array only</b> .
Turn to Mute	Specifies whether to mute the microphone at your site when the camera rotates to prevent noise caused by the rotation.	The default value is <b>Enable</b> .

**Table 5-6** Volume and audio effect parameters

Parameter	Description	Setting
Speaker volume	Adjusts the speaker volume.	Press navigation keys on the remote control to move the slider. Value range: 0-15 The default value is <b>15</b> .
Left Right	Displays the current volume of the speaker's left and right audio channels.	No default value is set for this parameter.
Alert tone volume	Adjusts the alert tone volume.	Press navigation keys on the remote control to move the slider. Value range: 0-3 The default value is <b>3</b> .
Sound Effect	For details, see <a href="#">Table 8-2</a> .	-

**Step 2** Select **Save**.

----**End**

# 6 Conference

---

## About This Chapter

You can create a conference or answer an incoming call to join a conference.

### [6.1 Answering an Incoming Call and Exiting a Conference](#)

You can specify how your TE30 handles incoming calls. You can also exit a conference anytime.

### [6.2 Setting Conference Parameters](#)

Your TE30 is ready for videoconferencing using its default conference settings, but you can customize these conference settings based on the site requirements.

### [6.3 Using Voice Dialing](#)

With voice dialing, you can initiate or join a conference by speaking a site name.

### [6.4 Initiating a Conference](#)

Your TE30 enables you to initiate a conference in multiple ways.

### [6.5 Sharing a Presentation](#)

With the presentation sharing function, you can connect a VGA input source, such as a computer or DVD player, to your TE30 and share the VGA input source content with remote sites while those sites can still view the video of your site.

### [6.6 Creating a Favorite Conference](#)

If you need to regularly join certain conferences, you can save those conferences as favorite conferences. You can then quickly join a favorite conference without resetting conference parameters.

### [6.7 Scheduling a Conference](#)

On your TE30, you can schedule a specific time to hold a conference.

### [6.8 Joining an Authentication Conference](#)

If you do not know how many sites are expected to join the conference, set the number of anonymous sites and hold an authentication conference. A site can join the authentication conference by calling the specified conference access number.

### [6.9 Managing the Address Book](#)

The address book stores site information. You can add, edit, and delete site entries.

## 6.1 Answering an Incoming Call and Exiting a Conference

You can specify how your TE30 handles incoming calls. You can also exit a conference anytime.

### Answering an Incoming Call

Depending on your configuration, your TE30 automatically answers a call or prompts you to answer a call manually:

- If you set **Answer Mode** to **Answer call automatically** and the TE30 is not in use during a conference, the TE30 automatically answers the call.
- If you set **Answer Mode** to **Manual**, your TE30 prompts you to handle the call. You can then use the remote control to answer or reject the call.

#### NOTE

To set the answer mode, choose **Advanced Settings > Settings > Conference > Normal**.

### Exiting a Conference

When you are in a conference, you can exit by disconnecting your site from the conference.

**Step 1** Press  on the remote control.

**Step 2** When prompted, select **OK**.

---End

## 6.2 Setting Conference Parameters

Your TE30 is ready for videoconferencing using its default conference settings, but you can customize these conference settings based on the site requirements.

### Background

General conference parameters apply to the following conferences:

- Point-to-point conferences initiated by your site
- Multipoint conferences initiated by your site
- Conferences that your site joins by answering a call from a remote site

To initiate an H.239 dual stream conference, set the video and H.239 parameters. To initiate a single stream conference, just set the video parameters. For details about the H.239 dual stream mode, see [6.5 Sharing a Presentation](#).

### Setting General Conference Parameters

**Step 1** Choose **Advanced Settings > Settings > Conference > Normal**. Set the general conference parameters by referring to [Table 6-1](#).

**Table 6-1** General conference parameters

Parameter	Description	Setting
Answer Mode	<p>Specifies how your TE30 handles an incoming call.</p> <ul style="list-style-type: none"> <li>● <b>Manual:</b> Your TE30 prompts you to handle the incoming call.</li> <li>● <b>Answer call automatically:</b> Your TE30 automatically answers the incoming call when not being used in a conference.</li> </ul>	The default value is <b>Manual</b> .
Open do not disturb right	<p>Specifies whether the do-not-disturb function is available to all users.</p> <p>This function prevents users from being disturbed by incoming calls. If this function is enabled, common users can enable or disable the do-not-disturb function under <b>Advanced Settings &gt; Utilities</b>.</p>	This parameter is selected by default.
Mute local audio for answered calls	Specifies whether the TE30 turns off all the sounds generated at your site when your TE30 joins a conference. If you select this parameter, no remote site can hear your site.	This parameter is deselected by default.
Call parameter configuration	Specifies whether to display a dialog box for setting the call type and rate when you initiate a point-to-point call. If you do not select this parameter, your TE30 uses the default call type and rate.	This parameter is deselected by default.
Site called during startup	<p>Specifies the site your TE30 automatically calls after startup.</p> <ul style="list-style-type: none"> <li>● <b>None:</b> The TE30 does not call any sites.</li> <li>● <b>Select site from address book:</b> The TE30 displays the address book screen from which you can specify the site you want your TE30 to call after its startup.</li> </ul>	The default value is <b>None</b> .

Parameter	Description	Setting
Wi-Fi network preferred	Specifies whether to prioritize a Wi-Fi network when both wireless and wired networks are available.  This parameter is available only when Wi-Fi is enabled. For details, see <a href="#">3.4 Setting Wi-Fi Parameters</a> .	This parameter is deselected by default.
Call times	Specifies the maximum number of attempts your TE30 calls a specified site after startup.	The default value is <b>1</b> . The maximum value is <b>10</b> . If you set this parameter to <b>0</b> , your TE30 does not call the specified site after startup.
Default call bandwidth	Specifies the default data transmission rate for your TE30. <b>NOTE</b> If this parameter is set incorrectly, the video quality is affected, or the call might even fail to be set up.	The default value is <b>1920kbps</b> .

**Step 2** Select **Save**.

----End

## Setting Advanced Conference Parameters

**Step 1** Choose **Advanced Settings > Settings > Conference > Advanced**. Set the advanced conference parameters by referring to [Table 6-2](#).

**Table 6-2** Advanced conference parameters

Parameter	Description	Setting
Audio protocol	Specifies the audio protocol your TE30 uses to encode audio.	The default value is <b>Auto</b> .



Parameter	Description	Setting
Audio and video protocols	<p>Specifies the audio and video protocol capability of your TE30.</p> <p>Using the audio or video protocol that you select, your TE30 negotiates the audio or video capability with a remote endpoint to set up a call.</p> <p>If you do not select an audio or video protocol under <b>Audio and Video Protocols</b>, you cannot select that protocol for <b>Video protocol</b>, <b>H.239 video protocol</b>, or <b>Audio protocol</b>.</p>	All protocols are selected by default.
Video protocol	<p>Specifies the video protocol your TE30 uses to encode video.</p> <p>During a non-multi-stream conference, its video protocol is the video protocol the TE30 uses at your site.</p> <ul style="list-style-type: none"> <li>● If you select <b>Auto</b>, <b>Video resolution</b> is available.</li> <li>● If you do not select <b>Auto</b>, you must set <b>Video resolution</b> and <b>Video frame rate</b>.</li> </ul>	The default value is <b>Auto</b> .
Video resolution	<p>Specifies the video format. The available options vary depending on the <b>Video protocol</b> value.</p> <p>When <b>Video protocol</b> is set to <b>Auto</b>, set this parameter to either of the following:</p> <ul style="list-style-type: none"> <li>● <b>Smooth</b>: Your TE30 uses a high frame rate to ensure smooth video.</li> <li>● <b>Sharp</b>: Your TE30 uses a high video resolution to ensure sharp video.</li> </ul>	The default value is <b>Auto</b> .
Video frame rate	<p>Specifies the frame rate used during video encoding.</p> <p>Video is smoother at a higher refresh rate and sharper at a lower frame rate.</p>	<p>The default value is <b>Auto</b>.</p> <p>It is recommended that you retain the default value.</p>

Parameter	Description	Setting
Video resolution	<p>Specifies the video resolution.</p> <ul style="list-style-type: none"> <li>● <b>Smooth</b>: Your TE30 uses a high frame rate to ensure smooth video.</li> <li>● <b>Sharp</b>: Your TE30 uses a high video resolution to ensure sharp video.</li> </ul>	The default value is <b>Sharp</b> .
Prevent little packet loss	Specifies whether to prevent little packet loss to avoid artifacts.	<p>This parameter is deselected by default.</p> <p>If all participant endpoints are on the same private network, select this parameter.</p>
Enable H.239	<p>Specifies whether you can share presentations during conferences.</p> <p><b>NOTE</b> After you select this parameter, the following parameters are available: <b>H.239 video protocol</b>, <b>H.239 video bandwidth type</b>, <b>H.239 video resolution</b>, <b>H.239 video bandwidth (%)</b>, and <b>Presentation plug-and-share</b></p>	This parameter is selected by default.
H.239 video protocol	<p>Specifies the video protocol your TE30 uses to encode presentations.</p> <ul style="list-style-type: none"> <li>● If you select <b>Auto</b>, you must also set <b>Presentation resolution</b>.</li> <li>● If you do not select <b>Auto</b>, you must set <b>H.239 video resolution</b>.</li> </ul>	The default value is <b>Auto</b> .
H.239 video resolution	Specifies the presentation format. The available options vary depending on the <b>H.239 video protocol</b> value.	The default value is <b>Auto</b> .
Presentation resolution	<p>Specifies the presentation video resolution.</p> <ul style="list-style-type: none"> <li>● <b>Smooth</b>: Your TE30 uses a high frame rate to ensure smooth video.</li> <li>● <b>Sharp</b>: Your TE30 uses a high video resolution to ensure sharp video.</li> </ul>	The default value is <b>Sharp</b> .

Parameter	Description	Setting
H.239 video bandwidth type	<p>Specifies the mode for setting the presentation video bandwidth.</p> <ul style="list-style-type: none"> <li>● <b>Auto</b>: Your TE30 automatically sets the presentation video bandwidth based on the bandwidth available.</li> <li>● <b>Manual</b>: You must manually set <b>H.239 video bandwidth(%)</b>.</li> </ul>	The default value is <b>Auto</b> .
H.239 video bandwidth(%)	<p>Specifies the percentage of call bandwidth that presentations can occupy.</p>	The default value is <b>50</b> .
Presentation plug-and-share	<p>Specifies whether your site automatically shares presentations with remote sites once presentation input is detected.</p>	The default value is <b>Disable</b> .
Conference line type	<p>Specifies the type of line used during a conference.</p> <p>If you select <b>Auto</b> and your TE30 has registered with a network gatekeeper (GK), your TE30 preferentially uses H.323 to initiate a conference.</p>	The default value is <b>Auto</b> .
Conference bandwidth	<p>Specifies the transmission bandwidth for a conference.</p> <p>If your TE30 accesses an E1 network through an IP line, set this parameter to <b>Limited</b> for better conference video quality.</p>	The default value is <b>Normal</b> .
Dynamic bandwidth	<p>Specifies whether the TE30 implements the following if the packet loss rate increases due to insufficient network bandwidth: The TE30 automatically decreases the conference bandwidth until constant packet loss no longer occurs or the conference bandwidth is decreased to 64 kbit/s. If constant packet loss is detected, the TE30 dynamically adjusts bandwidth to recover stable conference quality within 1 minute.</p>	<p>This parameter is deselected by default.</p> <ul style="list-style-type: none"> <li>● When the network is running properly, do not select this parameter.</li> <li>● When the network is not running properly, select this parameter.</li> </ul>

Parameter	Description	Setting
reserved presentation bandwidth	<p>Disable this parameter if your site is not going to send or receive presentations during a conference and the <b>Received</b> value for <b>Presentation bandwidth [frame rate]</b> is not -.</p> <p>If this parameter is disabled, the <b>Received</b> value for Presentation bandwidth [frame rate] restores to - when you rejoin the conference.</p> <p><b>NOTE</b> To view the <b>Presentation bandwidth [frame rate]</b> value, choose <b>Advanced &gt; Diagnostics &gt; Status &gt; Conference</b>.</p>	The default value is <b>Enable</b> .
Preferred IP protocol	<p>Specifies the protocol that IP sites preferentially use.</p> <p>When <b>Line type</b> is set to <b>Auto</b> for IP sites, your TE30 uses this protocol to call the IP sites.</p>	The default value is <b>H.323</b> .

**Step 2** Select **Save**.


----End

## 6.3 Using Voice Dialing

With voice dialing, you can initiate or join a conference by speaking a site name.

### Prerequisites

To enable the endpoint to correctly recognize a site, pay attention to the following:


- Use standard pronunciation and avoid regional accents.
- The content you speak must be the same as the name of the site you want to call. Voice dialing does not support searches by keywords or approximate string matching.
- Voice dialing applies only to a single site defined in the address book . A site name can contain a maximum of 64 characters, excluding special characters such as @, #, and %.

### Context

After you speak the name of a site, the endpoint searches the address book and initiates a call based on search results.

The endpoint can recognize words, letters, digits, and combinations of words or letters with digits.

## Procedure

**Step 1** On the **Call** screen, select **Start a voice dialing** and press  or **OK** on the remote control.


**Recognizing...** is displayed.

 **NOTE**

When **Recognizing...** is displayed, speak within 3 seconds as failure to do so causes unsuccessful voice dialing. If you speak for more than 3 seconds, the endpoint only recognizes the content spoke within 3 seconds.

**Step 2** Speak the full name of a site within 3 seconds.

For example, if a site name is Beijing area, you must speak Beijing area to call the site. If you speak Beijing or area, the endpoint will not initiate a call to the site.



- If the endpoint finds only one matching record, it directly initiates a call.
- If the endpoint finds two or more matching records, you must select one and press the  key on the remote control to initiate a call.

---End

## 6.4 Initiating a Conference

Your TE30 enables you to initiate a conference in multiple ways.



Your TE30 displays the conferencing screen after startup. You can also access the conferencing screen using either of the following methods:

- Press  on the remote control.
- Select  from the option bar.

On the conferencing screen, use either of the following methods to initiate a conference:



### From the Call Screen

Perform any of the following:

- In the text box, enter the name or IP address of the site you wish to call. Then press **OK** or  on the remote control.
- From the address book, select the site or group you wish to call. Then press **OK** or  on the remote control.

 **NOTE**

You can configure a Lightweight Directory Access Protocol (LDAP) address book on your TE30. For details, see [6.9.2 Managing the Network Address Book](#).

- Select  or press and hold  on the remote control. Then say the name of the site you wish to call.



- This function applies only to the sites defined in the address book.
- If only one entry in the address book matches the site name you said, your TE30 calls the site directly. If multiple entries are available, you must manually select the desired site to place the call.

## From the Conference Schedules Screen

You can join an ongoing conference or initiate a favorite conference.

## Prerequisites

Your TE30 has registered with a GK, and conference entries are available on the **Conference Schedules** screen.




## Background

If your TE30 has registered with a GK, you can download information about scheduled conferences from the ResourceManager (RM) to the conference list on the TE30. You can then check the details of the scheduled conferences.


You can also schedule conferences. For details, see [6.7 Scheduling a Conference](#). The scheduled conferences are displayed on the **Conference Schedules** screen.

If you exit a multipoint conference while the conference is still going, this conference also appears on the **Conference Schedules** screen from which you can rejoin the conference.

The following three icons are used to indicate conference status:


- : The conference is in progress.
- : The conference has not yet started.
- : The conference is a favorite conference.

## Procedure

From the **Conference Schedules** screen, select a favorite or ongoing conference and press **OK** or  on the remote control.



## From the Conference History Screen

The conference history contains the records of conferences your TE30 initiated or attended and sites your TE30 placed calls to or received calls from. You can select a record from the conference history and initiate the conference.

From the **Conference History** screen, select a conference and press **OK** or  on the remote control to initiate the conference.

## Follow-up Procedure

Choose **Advanced Settings > Address Book > Conference History**. Then perform either of the following:

- To delete a conference, select  next to the conference. To save the sites involved in a conference to the address book, select  next to the conference.
- To edit a conference, select the conference and press **OK** on the remote control.

## 6.5 Sharing a Presentation

With the presentation sharing function, you can connect a VGA input source, such as a computer or DVD player, to your TE30 and share the VGA input source content with remote sites while those sites can still view the video of your site.

### Prerequisites

- You have used a VGA cable to connect the video output port of the presentation source to the TE30 VGA IN port.
- H.239 has been enabled on your TE30. For details, see [Table 6-2](#).


### Background


During a dual-stream conference using H.239, two independent channels of video streams (that is, the video and presentation) can be transmitted.

If **Presentation plug-and-share** listed in [Table 6-2](#) is set to **Enable**, your Te30 automatically shares presentations with remote sites once presentation input is detected.

### Procedure

Press  on the remote control to share a presentation.

To stop sharing a presentation, press  on the remote control.

To select a presentation source or stop sharing a presentation, you can also select  on the option bar and then the desired operation.

## 6.6 Creating a Favorite Conference

If you need to regularly join certain conferences, you can save those conferences as favorite conferences. You can then quickly join a favorite conference without resetting conference parameters.

### Procedure

**Step 1** Choose **Advanced Settings > Conference Schedules > Conference**.

**Step 2** Select **Create**.

**Step 3** Select **Add Site**.

You can add sites by selecting **Address Book**, **Others**, or **LDAP Address Book**.

**Step 4** On the **Options** screen, set the conference parameters by referring to **Table 6-3**.

**Table 6-3** Conference parameters

Parameter	Description	Setting
Rate	Specifies the transmission rate for the conference.	The default value is <b>1920kbps</b> .
Continuous presence	Specifies the maximum number of site videos that can be viewed simultaneously during the conference. After continuous presence is broadcast, the sites in the conference can view the videos of multiple sites simultaneously.  If you select <b>OFF</b> for this parameter, the conference does not support continuous presence.	The default value is <b>OFF</b> .
Anonymous H.323 sites Anonymous PSTN sites Anonymous SIP sites	Specify the number of H.323, PSTN, and SIP anonymous sites that are allowed to join the conference. Anonymous sites are sites without defined numbers. For example, to allow five H.323 anonymous sites to join the conference, set the <b>Anonymous H.323 sites</b> parameter to <b>5</b> . To avoid H.323 anonymous sites from joining the conference, set the <b>Anonymous H.323 sites</b> parameter to <b>0</b> .  <b>NOTE</b> If <b>Conference line type</b> is set to <b>SIP</b> on the conference settings screen, you only need to set <b>Anonymous SIP sites</b> , <b>Conference control password</b> , and <b>SRTP conference</b> .	The default value is <b>0</b> .
Conference control password	Specifies the password to the conference. This password is required in the following situations: <ul style="list-style-type: none"><li>● A site wants to obtain the chair control rights to chair the conference.</li><li>● An anonymous site wants to join an authentication conference.</li></ul>	The value can contain a maximum of 32 digits.





Parameter	Description	Setting
H.235 conference	<p>Specifies whether to use H.235 to encrypt media streams.</p> <ul style="list-style-type: none"> <li>● <b>Insecure conference:</b> No data transmitted during the conference is encrypted.</li> <li>● <b>Secure media conference:</b> Media streams are encrypted using H.235.</li> </ul>	The default value is <b>Insecure conference</b> .
SRTP conference	<p>Specifies whether to use Secure Real-Time Transport Protocol (SRTP) to encrypt media streams.</p> <ul style="list-style-type: none"> <li>● <b>Insecure conference:</b> No data transmitted during the conference is encrypted.</li> <li>● <b>Secure media conference:</b> Media streams are encrypted using SRTP.</li> </ul>	The default value is <b>Insecure conference</b> .
Paying site	<p>Specifies the party that pays for the conference.</p> <ul style="list-style-type: none"> <li>● <b>Local site:</b> Your site pays for the conference.</li> <li>● <b>Another site:</b> Another site pays for the conference. If you select this option, the user name and password of the account are required when you use this account to pay for the conference.</li> </ul>	The default value is <b>Local site</b> .

**Step 5** Enter a name for the conference and select **Save**.

---End

You can also perform the following operations on conferences:

- To schedule or immediately initiate a favorite conference, select it and press **OK** on the remote control. On the displayed screen, specify the time for the conference you wish to schedule or initiate.
- To modify a favorite conference, select it and press  next to the conference.
- To delete a favorite conference from the favorite conference list, select it and press  next to the conference.

## 6.7 Scheduling a Conference

On your TE30, you can schedule a specific time to hold a conference.

### Prerequisites

- The TE30 has registered with a GK, and the **Huawei GK** parameter has been selected. For details, see [3.2 Setting H.323 Parameters](#).
- The TE30 is not in use during a conference.

### Background

You can schedule only H.323 conferences on the TE30.

### Procedure

**Step 1** Choose **Advanced Settings > Conference Schedules > Conference**.

**Step 2** Schedule a conference using either of the following methods:

- Select a conference from **Conference**, set **Start time** and **Conference duration** (ranging from 30 minutes to 360 minutes), and select **Schedule**.
- Select **Create**. Set the site and conference parameters, set **Start time** and **Conference duration**, and select **Schedule**.

----End

When the conference is scheduled, you can view its information or delete it on the **Schedule** screen.

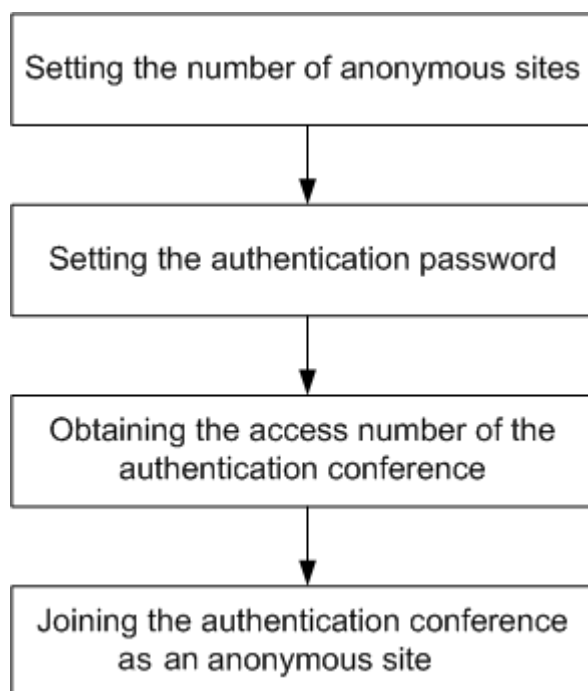
## 6.8 Joining an Authentication Conference

If you do not know how many sites are expected to join the conference, set the number of anonymous sites and hold an authentication conference. A site can join the authentication conference by calling the specified conference access number.

### Background

[Figure 6-1](#) outlines the procedure for joining an authentication conference.

**Figure 6-1** Procedure for joining an authentication conference




- Setting the number of anonymous sites: Set the number of anonymous sites when initiating a conference. For details, see [Table 6-3](#).
- Setting the authentication conference password: When initiating the conference, set **Conference control password**, which functions as the authentication conference password. Anonymous sites must enter this password to join the conference. If **Conference control password** is left blank, anonymous sites can join the conference without entering any password.
- Obtaining the access number of the authentication conference: You can obtain this number if you request chair control rights after the conference starts. Alternatively, choose **Advanced Settings > Diagnostics > Status > Conference** to query the access number. Anonymous sites can ask the chair site for the access number and authentication conference password. Nevertheless, they cannot use their endpoints to call the chair site because the chair site is already in the conference.
- Joining the authentication conference as an anonymous site: Anonymous PSTN sites can join the conference by dialing the audio access number, and anonymous IP sites can join the conference by dialing the video access number.

## Procedure

**Step 1** Check the necessary resources.

- At the chair site: Check that the conference has available anonymous site resources, and you have obtained the audio or video access number of the conference as well as the authentication conference password.
- At your site: Check that the site has registered with the GK or SIP server.

**Step 2** Press  on the remote control.

**Step 3** Enter the access number of the authentication conference.

**Step 4** Set the call type and rate.



Select the highest rate supported by your TE30 to increase the chance for successful calls.

**Step 5** Select **Call**.

If the authentication conference is password-protected, the TE30 plays an interactive voice response (IVR), prompting you to enter the password. If the conference is not password-protected, you can join the conference after selecting the desired language.

----End

## 6.9 Managing the Address Book

The address book stores site information. You can add, edit, and delete site entries.

The address book saves time because you do not need to enter site information to initiate a conference and prevents entry of incorrect IP addresses.



You can save sites listed in the conference history to the address book. To do so, choose **Advanced**

**Settings > Address Book > Conference History** and select  next to the desired sites.

### 6.9.1 Managing the Local Address Book

You can add, delete, or edit site information in the local address book.

Choose **Advanced Settings > Address Book**.

#### Adding a Site


After you add a site, it is saved to the local address book.

#### Background

The following parameters are important site attributes: **Name**, **Number**, **Rate**, **Type**, and **IP address**.

#### Procedure

**Step 1** On the **Address Book** screen, select **All Sites**.

**Step 2** If no site is displayed, select **Add site**. If sites are displayed, select  next to any site.

**Step 3** In **Create Site**, name the site you wish to add.

The value can consist of digits, letters, and special characters, such as @ # %.

**Step 4** Set the site parameters by referring to **Table 6-4**.

**Table 6-4** Site parameters

Parameter	Description	Setting
Category	Specifies the category of the site.	The default value is <b>Ordinary site</b> . <ul style="list-style-type: none"> <li>● <b>Ordinary site</b>: Select this option for a traditional videoconferencing site.</li> <li>● <b>Telepresence site</b>: Select this option for a Huawei telepresence site.</li> <li>● <b>CT site</b>: Select this option for a Cisco TelePresence site.</li> </ul>
Type	Specifies the line the site uses to access the videoconferencing network. <ul style="list-style-type: none"> <li>● If you select <b>IP</b>, your TE30 uses the protocol specified <b>Preferred IP protocol</b> to call the site.</li> <li>● If you set <b>Category</b> to <b>CT site</b>, the available value for this parameter is <b>SIP</b>.</li> </ul>	The default value is <b>H.323</b> .
Number	Specifies the site number used to place calls between sites. <ul style="list-style-type: none"> <li>● IP, E1, T1, 4E1, basic rate interface (BRI), and H.323 phone site numbers are allocated by the videoconferencing service provider.</li> <li>● PSTN site numbers are telephone numbers.</li> </ul>	No default value is set for this parameter.
IP address	Specifies the site IP address. <b>NOTE</b> This parameter is unavailable if you set <b>Category</b> to <b>IP address</b> .	No default value is set for this parameter.
Rate	Specifies the call rate for the line selected for a remote endpoint. The call rates supported vary depending on the type of the site you wish to call.	The default value is <b>8Mbps</b> . Select the highest available call rate.

Parameter	Description	Setting
URI	Specifies the uniform resource identifier (URI) of the site, for example, <b>abcd@huawei.com</b> . <b>NOTE</b> This parameter available only when <b>Type</b> is set to <b>IP</b> , <b>H.323</b> , or <b>SIP</b> .	No default value is set for this parameter.
Country/Region code	Specifies the country or area where your TE30 is located. This parameter is mandatory when <b>Type</b> is set to <b>ISDN</b> or <b>PSTN</b> .	No default value is set for this parameter.
Area code	Specifies the area code for the site. Set this parameter based on the <b>Country/Region code</b> value. This parameter is mandatory when <b>Type</b> is set to <b>ISDN</b> or <b>PSTN</b> .	No default value is set for this parameter.
Line 1 #1 Line 1 #2 Line 2 #1 Line 2 #2 Line 3 #1 Line 3 #2	Specify the numbers your TE30 uses to call the site. These parameters are available only for ISDN sites. You can set two numbers for each BRI line. <ul style="list-style-type: none"> <li>● When the ISDN site rate is set to a value ranging from 64 kbit/s to 512 kbit/s, set <b>Line 1 #1</b> only because you only need to dial that number to call the site.</li> <li>● If the ISDN site rate is set to 2, 3, 4, 5, or 6 x 64 kbit/s, set the other required parameters as well because you need to dial the BRI line numbers one by one to call the site. <b>Line 1 #2</b> specifies the second number of the first BRI line.</li> </ul>	No default value is set for these parameters.

**Step 5** Select **Save**.

The new site is listed in **Address Book**.

---End

## Creating a Group

If certain sites regularly join the same conference, you can define these sites as a group.

**Step 1** On the **Address Book** screen, select **All Groups**.

**Step 2** If no group is displayed, select **Add Group**. If groups are displayed, select  next to any group.

**Step 3** In **Create Group**, name the group.

The name cannot contain only digits.

**Step 4** Select the sites you wish to add to the group.

After being selected, a site has a check mark (✓) displayed before it and is listed in the group box.

**Step 5** Select **Save**.

The new group is listed in the group list on the **Address Book** screen.

----End


## Modifying, Deleting, and Searching for a Site Entry

You can modify, delete, and search for a site entry in the address book.

### Modifying a Site Entry

Select a site or group, press **OK** on the remote control, and modify the site or group settings.

### Deleting a Site Entry

Select  next to the desired site or group to delete it from the address book.

### Searching for a Site Entry

Enter the search criteria in the **Search** text box. The displayed query results are filtered in real time based on what you enter.

For example, after you enter W in the text box, the sites whose names start with W are displayed in the site list. To perform an exact search for a site, enter the whole name of the site in the text box.

## 6.9.2 Managing the Network Address Book

A network address book stores the addresses of the sites in the videoconferencing system. You can download a network address book to update the entries in the local address book in batches.

Network address books can be stored on:

- File Transfer Protocol over SSL (FTPS) or File Transfer Protocol (FTP) server
- LDAP server

### Managing the FTPS or FTP Network Address Book

With FTPS or FTP server parameters set, you can use your TE30 to access the server and download the network address book.

## Configuring the FTPS or FTP Network Address Book

**Step 1** Choose **Advanced Settings > Settings > Network > Network Address Book > Network Address Book**. Set the network address book parameters by referring to [Table 6-5](#).

**Table 6-5** Network address book parameters

Parameter	Description	Setting
Enable network address book	Specifies whether to enable the network address book. If you enable this function, set the other parameters listed in this table.	The default value is <b>Disable</b> .
Synchronize automatically	Specifies whether your TE30 automatically downloads site entries from the network address book to the local address book.	The default value is <b>Disable</b> .
FTPS	Specifies whether to use FTPS to encrypt data through the SSL and ensure data integrity. If FTPS is not used, the TE30 uses FTP, which is insecure.	This parameter is selected by default. To improve communication security, retain the default value.
Local records prevail if duplicates exist	Specifies whether the following function is enabled: If some entries in the network address book on the FTPS or FTP server already exist in the local address book, these entries remain unchanged when the local address book is updated.	The default value is <b>Disable</b> .
Prompt users during update	Specifies whether a message is displayed to prompt you to update the local address book if the versions of the network and local address books are different. When you confirm the update, site information in the network address book is downloaded to the local address book.	The default value is <b>Enable</b> .
Clear local records during update	Specifies whether your TE30 automatically clears the local address book when updating the local address book.	The default value is <b>Disable</b> .
Server address	Specifies the IP address of the server that stores the network address book.	No default value is set for this parameter.
File path	Specifies the save path to the network address book on the server.	No default value is set for this parameter.
User name Password	Specify the user name and password your TE30 uses to access the network address book.	No default value is set for this parameter.



**Step 2** Select **Save**.

---End

## Downloading the FTPS or FTP Network Address Book

On the **Address Book** page, select **Synchronize automatically**. The TE30 then automatically downloads the network address book when it is powered on.

If you have not selected this function, or if you need to update the network address book again, you can select **Update** on the **Address Book** screen.

### NOTE

The downloaded address book is saved in vCard format. The file name extension is vcf.

## Managing the LDAP Network Address Book

With the LDAP server parameters set correctly, the TE30 can access the LDAP server and search the LDAP network address book for the required sites.

## Configuring the LDAP Server

**Step 1** Choose **Advanced Settings > Settings > Network > Network Address Book > LDAP Server**. Set the LDAP server parameters by referring to [Table 6-6](#).

**Table 6-6** LDAP server parameters

Parameter	Description	Setting
Server address	Specifies the LDAP server IP address.	No default value is set for this parameter.
Port	Specifies the port used to connect to the LDAP server.	The default value is <b>389</b> .
Base DN (distinguished name)	Specifies the distinguished name (DN) of the entry at which a specified search starts.	No default value is set for this parameter.
Authentication type	Specifies the type of LDAP server authentication. <ul style="list-style-type: none"> <li>● <b>General</b>: Use the user name and password for authentication.</li> <li>● <b>Secured</b>: Perform authentication, including authentication on digital certificates, based on the Secure Sockets Layer (SSL) protocol. If you select this value, you must also set <b>Domain name</b>.</li> <li>● <b>Anonymous</b>: No authentication is performed. The LDAP server is accessible to all users.</li> </ul>	The default value is <b>General</b> .

Parameter	Description	Setting
SSL encryption	Specifies whether the SSL protocol is used to encrypt data streams sent to and received from the LDAP server.	This parameter is deselected by default.
User name and Password	Specifies the user name and password used for LDAP server authentication.	Their default values are both <b>admin</b> . The value can consist of digits, letters, and special characters, such as @ # %.
Domain name	Specifies the domain name used for LDAP server authentication. This parameter is mandatory when <b>Authentication type</b> is set to <b>Secured</b> .	No default value is set for this parameter.
Synchronize automatically	Specifies whether your TE30 regularly updates the <b>LDAP Address Book</b> entries in the local address book. If you select this parameter, you must also set <b>Automatic update interval</b> and <b>Local records prevail if duplicates exist</b> .	This parameter is selected by default.
Local records prevail if duplicates exist	Specifies whether the following function is enabled: If some entries in the network address book on the LDAP server already exist in the local address book, these entries remain unchanged when the local address book is updated.	This parameter is deselected by default.
Automatic update interval	Specifies the interval for updating the <b>LDAP Address Book</b> entries in the local address book.	The default value is <b>24 h</b> .




**Step 2** Select **Save**.

---End

## Searching the LDAP Network Address Book for Sites

After the LDAP server parameters are set, your TE30 can communicate with the LDAP server properly. On the **Address Book** page, you can search for sites stored in the LDAP network address book. [Table 6-7](#) lists the online status icons for LDAP sites.

**Table 6-7** Online status icons

Icon	Description
 A green square icon with the text "LDAP" in white, positioned above two horizontal white lines.	Available
 A red square icon with the text "LDAP" in white, positioned above two horizontal white lines.	Busy
 A grey square icon with the text "LDAP" in grey, positioned above two horizontal grey lines.	Offline

# 7 Conference Control

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## About This Chapter

During a multipoint conference, you can control the video and audio of participant sites using conference control functions.

Only one site can chair a conference. Another site can chair the conference only after the current chair site releases its chair control rights.

The chair site has access to the functions for viewing sites, enabling or disabling voice activation, adding sites, setting continuous presence, releasing chair control rights, ending the conference, and broadcasting sites.

### [7.1 Customizing Conference Control Functions to Be Displayed](#)

You can customize the conference control functions you wish to display on the **Conference control** screen to quickly access these functions.

### [7.2 Performing Conference Control](#)

On the TE30, you can manage the audio and video of participant sites by performing conference control operations.

## 7.1 Customizing Conference Control Functions to Be Displayed

You can customize the conference control functions you wish to display on the **Conference control** screen to quickly access these functions.

### Background

The following conference control functions are displayed by default: **Continuous Presence**, **Discussion**, **Give floor**, **Voice activation**, **Add site**, **Request floor**, **Enable Chair Control**, **Lock conference**, and **Restore Auto Continuous Presence**.

### Procedure

**Step 1** Choose **Advanced Settings > Settings > Display > Personalize > Select conference control operation**. Select the conference control functions you wish to display on the **Conference control** screen.

**Step 2** Select **Save**.

----End

## 7.2 Performing Conference Control

On the TE30, you can manage the audio and video of participant sites by performing conference control operations.

The chair site has access to all conference control functions. Non-chair sites have access to only four conference control functions: **Request chair**, **Request floor**, **View site**, and **Revoke chair**.

#### NOTE

The **Revoke chair** function is available only to the site that initiates or pays for a conference.

### View Site

On the **View Site** screen, you can view a single site or multiple sites in turn at preset intervals.

#### NOTE

During multipoint conferences hosted by standalone MCUs, your TE30 supports multiple continuous presence views.

The function for viewing sites differs between that for a non-chair site and that for the chair site.

- Non-chair site

The function for viewing sites is available when no site is being broadcast and no continuous presence is displayed during a conference.

Non-chair sites can view the sites connected to their own MCUs or MCUs of the same level only.

- Chair site  
The chair site has full access to view the participant sites in the conference except when the TE30 is broadcasting sites in turn.

## Broadcast Site

The chair site can broadcast any of the participant sites (except for an audio-only site) in a conference and broadcast multiple sites (including the chair site) in turn at preset intervals.

When a site is broadcast, all non-chair sites are limited to viewing the broadcast site while the chair site can view any site in the conference.

To stop broadcasting, select **Stop** or **Discussion** using the remote control.

The **Stop** function is available when a site is being broadcast. When the chair site stops broadcasting sites, all the sites in the conference can view any other sites.

## Give Floor

Using this function, the chair site can give the floor to a site and mute all the other sites.

After the chair site gives the floor to a site, the video and sound of this site are broadcast, and all the sites are muted, except the chair site and the site given the floor. To give the floor to a site, access the **Give Floor** screen, scroll to the site, and press **OK** on the remote control.

To take back the floor, select **Discussion**.

## Lock Presentation

During a conference, the chair site can lock the presentation sharing right of a single site or the entire conference.

### NOTE

Before using this function, ensure that the MCU and service software used along with your TE30 support this function.

- To lock the presentation sharing right of a single site, select **Lock Conference** and then that site. After the chair site locks the presentation sharing right of a site, only the site can share its presentation. To enable the other sites to share presentations, unlock the presentation sharing right of the site.
- To lock the presentation sharing right of a conference, select **Lock Conference**. After the chair site locks the presentation of the conference, any site in the conference can share a presentation only when no other site is doing so.

## Sites Requesting Floor

During a conference, after a non-chair requests the floor, the site is added to the floor requesting site list. The chair site can select a site from this list to give the floor to that site. The video of that site is then broadcast and the microphones of all the sites are muted, except those at the chair site and the site given the floor.

Once given the floor, the site is removed from the floor requesting site list.

## Call Site

You can place a call to a site that is not in the conference. The site joins the conference after answering the call.

### NOTE

If the conference is charged, the resources of the videoconferencing system and your account balance determine whether the called site can join the conference.

To call all absent sites included in the conference site list into the conference, select **Call All** on the **Call Site** screen.

## Disconnect Site

The chair site can disconnect a participant site from the conference. The site exits the conference automatically upon being disconnected.

## Delete Site



During a conference, the chair site can delete a site that is present in or absent from the conference.

After being deleted, the site is removed from the site list and not related to the conference any more. To enable the site to join the conference again, the chair site must add the site to the conference by using the **Add Site** function.

## Mute/Unmute MIC

After you have muted the microphone of a site, the other sites in the conference cannot hear the site. To reverse that, unmute the site microphone.


Depending on the microphone status of a remote site, you can mute or unmute the remote microphone after selecting the site:


- : indicates that the microphone of the site is not muted. You can press **OK** to mute the microphone.
- : indicates that the microphone of the site is muted. You can press **OK** to unmute the microphone.

## Mute/Unmute Speaker

After you have muted the speaker of a site, the site cannot hear the current conference. To enable the site to hear the conference, unmute the speaker.

Depending on the speaker status of a remote site, you can mute or unmute the remote speaker after selecting the site:

- : indicates that the speaker of the site is not muted. You can press **OK** to mute the speaker.

- : indicates that the speaker of the site is muted. You can press **OK** to unmute the speaker.

## Request Chair

The conference chair site can use more conference control functions than other sites.

Only non-chair sites can request chair control rights when no chair site exists in a conference.

Audio-only sites cannot request chair control rights.

## Request Floor

If a non-chair site wants to speak during a conference, the site can request the floor from the chair site.

The **Request Floor** function is available when the conference already has the chair site. When a site requests the floor, the request is submitted to the chair site. The chair site can then determine whether to give the floor to the site.

- If the chair site gives the floor to the site, the site is broadcast, and all the sites, except the chair site and the site given the floor, are muted.
- If the chair site does not give the floor to the site, the conference status remains unchanged.

## Continuous Presence

The continuous presence function simultaneously displays the videos of two or more sites on the same monitor. The number of sites to be displayed and the layout of the site videos vary depending on continuous presence modes.

### NOTE

This function is available only when continuous presence resources have been reserved for the conference.

To set continuous presence:

Select a pane. From the drop-down list box in the displayed dialog box, select the site whose video you wish to display in the pane. Then select **OK**.

If a site already exists in the pane selected, the site is displaced by the site you just select.

To delete all the sites from continuous presence views, select **Delete All**.

## Revoke Presentation

During a dual-stream conference where the **Presentation** mode is adopted, if a non-chair site is sharing its presentation, the chair site can revoke the presentation sharing right of this site.

A site stops sharing its presentation after its presentation sharing right is revoked.

## Voice Activation

Voice activation is used in discussion mode. When voice activation is enabled, the site with the highest volume is displayed to other sites in the conference.

Based on your experience, set **Sensitivity** to enable voice activation.



- If the volume of one or more sites exceeds the voice activation threshold, the video of the site with the highest volume is broadcast.
- If the voice activation threshold is not exceeded, the conference status does not change.

To disable voice activation, select **Disable** from the **Voice Activation** drop-down list box.

## Release Chair

A non-chair site can request chair control rights only after the chair site releases the chair control rights.

## Discussion

The chair site can enable the discussion function to cancel certain ongoing site control or conference control operations, such as broadcasting sites.

This function is used to cancel the following operations performed by the chair site:

- Broadcast site
- Mute Speaker
- Mute Microphone
- Give floor

In discussion mode:

- Audio: All sites have unmuted microphones, and the audio from all these sites is mixed and broadcast to every site.
- Video: The video viewed by each site does not change and each site can view the video of any other site.

## Add Site

During a conference, the chair site can add sites to the current conference.

If a site is successfully added to the conference, the site becomes a participant of the conference. You can add a site no matter whether it included or not included in the address book.

## Revoke Chair

After the chair control rights are revoked, no chair site exists in the conference. Sites in the conference can then request to chair the conference.

This function is available only to the site that initiates or pays for the conference.


## Extend Conference

This function enables you to extend a conference that is not likely end as scheduled.

Before extending a conference, ensure that the videoconferencing resources and your account balance are sufficient. To increase the chances of success, extend the conference by a maximum of 30 minutes at a time.

## End Conference

If a conference is complete before the scheduled time, you can use this function to end it in advance.

To end a conference, select **End Conference** or press  on the remote control on the **Conference Control** screen.

# 8 Video and Audio

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## About This Chapter

During a conference, you can control the video and audio of the participant sites.



### [8.1 Adjusting Video Display Effects](#)

You can adjust the video display effects by modifying the settings for the picture offset, sampling phase, and other picture parameters.

### [8.2 Adjusting Audio Effects](#)

You can adjust audio effects by modifying the settings for the audio input, sound effects, and volume.

### [8.3 Adjusting the Speaker Volume at Your Site](#)

You can adjust the speaker volume at your site by pressing  or  on the remote control.

### [8.4 Adjusting the Screen Layout](#)

By adjusting the screen layout, you can view multiple videos on the same monitor.

### [8.5 Selecting Video Sources](#)

You can specify video input ports for the local video, local presentation, and remote video.

### [8.6 Hiding the Local Video](#)

During a conference, you can hide the video of your site if you do not want the video to be seen by remote sites. When this function is enabled, the video of your site is displayed as a blue screen at remote sites.

## 8.1 Adjusting Video Display Effects

You can adjust the video display effects by modifying the settings for the picture offset, sampling phase, and other picture parameters.

### 8.1.1 Adjusting the Picture Offset

If the displayed video deviates from its normal position, adjust the picture offset.

#### Background

A picture offset may occur in video input or output, such as the computer desktop, when the video is displayed on the monitor screen.

#### Procedure

- Step 1** Choose **Advanced Settings > Settings > Video > Image Offset**.
  - Step 2** Select **VGA IN** or **VGA OUT**.
  - Step 3** Select **Horizontal offset** or **Vertical offset** and move the slider to make adjustments.
- End

### 8.1.2 Adjusting the Sampling Phase

If a blurring or slight jitter issue occurs in the video shown on the display device, you can adjust the sampling phase to address the issue.

#### Prerequisites

The VGA or YPbPr video signal source is used.

#### Background

Images input through a VGA or YPbPr port, such as the computer desktop, may suffer from blurring or slight jitter issues.

#### Procedure

- Step 1** Choose **Advanced Settings > Settings > Video > Sampling Phase > VGA IN**.
  - Step 2** Move the slider to adjust the sampling phase.
- End

### 8.1.3 Setting Video Parameters

On your TE30, you can set its video parameters, including the video mode, noise reduction, and video resolution. You can view the video result of your settings on the monitor connected to your endpoint.

## Procedure

Choose **Advanced Settings > Settings > Video > Video Parameters**. Set the video parameters by referring to **Table 8-1**.

**Table 8-1** Video parameters

Parameter	Description	Setting
Built-in camera		
Picture mode	<p>Specifies the output video display effect.</p> <ul style="list-style-type: none"> <li>● <b>Standard</b>: reproduces video more faithfully.</li> <li>● <b>Vivid</b>: delivers brighter video with cooler colors.</li> <li>● <b>Natural</b>: delivers video with warmer colors.</li> <li>● <b>User defined</b>: delivers video with custom settings. After you select this option, you can set the following parameters: <ul style="list-style-type: none"> <li>- <b>Aperture</b>: Sharpens video edges and contours to preserve the impression of clarity and fine details. Over-sharpening will make video less realistic.</li> <li>- <b>Saturation</b>: Adjusts the grayscale of each color. The higher the saturation, the brighter a color.</li> </ul> </li> </ul>	The default value is <b>Standard</b> .

Parameter	Description	Setting
2A mode	<p>Specifies the mode for setting the exposure and white balance parameters.</p> <p><b>Auto:</b> In this mode, the built-in camera automatically selects the optimum exposure and white balance settings based on the ambient environment.</p> <p><b>Manual:</b> In this mode, you must manually set the following exposure and white balance parameters:</p> <ul style="list-style-type: none"> <li>● <b>Brightness gain:</b> adjusts the video brightness.</li> <li>● <b>Shutter speed:</b> adjusts the shutter speed.</li> <li>● <b>Iris:</b> adjusts the aperture.</li> <li>● <b>Red gain:</b> adjusts the brightness of red signals.</li> <li>● <b>Blue gain:</b> adjusts the brightness of blue signals.</li> </ul>	The default value is <b>Auto</b> .
Noise reduction	Removes noise artifacts from video. A larger value causes the video to have less noise but detail may also be lost.	The default value is <b>Low</b> .
Video resolution	Specifies the video output resolution for the camera.	The default value is <b>1080P 60Hz</b> .
Image inversion	<p>Specifies whether the video input from the camera is rotated by 180 degrees.</p> <p>If the video is displayed in a reverse direction, you can enable this function.</p>	The default value is <b>Disable</b> .
VGA IN		
Brightness	<p>Specifies the video output level that changes the brightness of the video displayed on the monitor.</p> <p>The brightness increases with this value.</p>	<p>Value range: 0-100</p> <p>The default value is <b>50</b>.</p>

Parameter	Description	Setting
Contrast	Adjusts color levels to facilitate the distinction between two colors.  If the contrast is higher, the difference between the light and dark extremes of a color is more distinct.	Value range: 0-1000 The default value is <b>500</b> .
Saturation	Adjusts the grayscale of each color.  The higher the saturation, the brighter a color.	Value range: 0-100 The default value is <b>50</b> .
Hue	Adjusts the video color shade.	Value range: 0-360 The default value is <b>0</b> .

## 8.1.4 Customizing Onscreen Status Icons

You can customize the status icons to be displayed on screens.



### Packet Loss Rate Icon

To set thresholds (A and B) for the packet loss rate, choose **Advanced Settings > Settings > Display > Packet Loss Threshold**.

By comparing the packet loss rate on the current network with threshold A and threshold B, the TE30 determines whether to display the packet loss rate icon on the remote controlled UI. The policy is as follows:

#### NOTE

Threshold A must be less than threshold B. Their value ranges are 0.1% to 100%. The default values for threshold A and threshold B are **1%** and **5%**, respectively.

- If the packet loss rate is less than or equal to threshold A, no packet loss rate icon is displayed.
- If the packet loss rate is between threshold A and threshold B,  is displayed.
- If the packet loss rate is greater than or equal to threshold B,  is displayed.

### Other Icons

A status icon is displayed on screens if the following conditions are met:

- You have set the icon as follows:  
Choose **Advanced Settings > Settings > Display > Icon** and select the icon.
- The function that corresponds to the status icon has been enabled.

## 8.2 Adjusting Audio Effects

You can adjust audio effects by modifying the settings for the audio input, sound effects, and volume.

### Background

For details about how to adjust the audio input and volume, see [5.3 Configuring Audio](#). This section only describes how to adjust sound effects.

### Procedure

- Step 1** Choose **Advanced Settings > Settings > Audio > Sound Effect**. Set the sound effect parameters by referring to [Table 8-2](#).



**Table 8-2** Sound effect parameters



Parameter	Description	Setting
Ringtone	Specifies the ringtone for incoming calls.	The default value is <b>Default</b> .
Locally output sound from AUDIO IN	Specifies whether to allow the audio input from the LINE IN port to be heard at your site.	This parameter is deselected by default.
AUDIO IN remote output	Specifies whether to allow the audio input from the LINE IN port to be heard at remote sites.	This parameter is selected by default.
Bass Middle Treble	Adjusts the equalizers by moving the sliders.	Value range: -6 dB to +6 dB The default value is <b>+0dB</b> .

- Step 2** Select **Save**.

---End

## 8.3 Adjusting the Speaker Volume at Your Site

You can adjust the speaker volume at your site by pressing  or  on the remote control.

Press  to increase the volume or  to decrease the volume. Changing the volume affects only the sound you hear at your site.



## 8.4 Adjusting the Screen Layout

By adjusting the screen layout, you can view multiple videos on the same monitor.

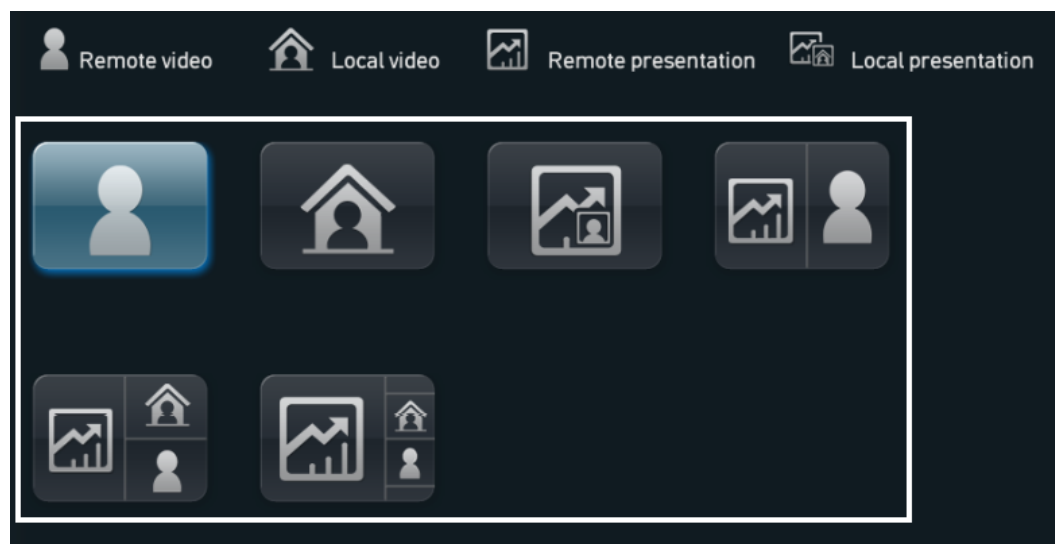


Only the main output port supports combined picture output. For details, see [Table 4-4](#).

To adjust the screen layout, use either of the following methods:

- Press  on the remote control to switch between the full screen, Picture in Picture (PiP), two-pane, and three-pane modes.
- Select  from the option bar and select a desired layout from the following:
  - Remote video in full screen
  - Local video in full screen
  - Combination of the local video, remote video, local presentation, and remote presentation in PiP, two-pane, or three-pane mode

**Figure 8-1** Screen layouts



In addition to the six layout icons shown in the preceding figure, you may see the icon for the local or remote presentation if:

- A presentation source is connected to your site. When this happens, the icon for the local presentation is displayed.
- Your site receives a presentation shared by a remote site. When this happens, the icon for the remote presentation is displayed.

The icon for the local presentation disappears if the local presentation source is disconnected from the TE30. The icon for the remote presentation disappears if the remote presentation sharing stops.


Before a conference starts, you can set the position of the PiP window on the screen. For details, see [Table 4-4](#).

## 8.5 Selecting Video Sources

You can specify video input ports for the local video, local presentation, and remote video.


## Selecting the Local Video Source

**Step 1** Press  on the remote control to switch to the local video mode.

**Step 2** Press  **23** on the remote control. In the lower right corner of the screen, select a video feed as the local video source.

----End


## Selecting the Local Presentation Source

Select  from the option bar. Then specify a video feed as the local presentation source.

## Selecting the Remote Video Source

During a conference, you can select a remote video source to view this remote video.

**Step 1** Press  on the remote control to switch to the remote video mode.

**Step 2** Press  **23** on the remote control. In the lower right corner of the screen, select a video feed as the remote video source.

----End

# 8.6 Hiding the Local Video

During a conference, you can hide the video of your site if you do not want the video to be seen by remote sites. When this function is enabled, the video of your site is displayed as a blue screen at remote sites.


## Background

The TE30 is in use during a conference.

## Procedure

**Step 1** Choose **Advanced Settings > Utilities > Hide Video (Off)**. When prompted, confirm that you want to enable the function for hiding the local video.

**Step 2** Select **Save**.

After the function for hiding the local video is enabled,  may be displayed in the lower right corner of the video in full screen depending on your configurations.

### NOTE

For details about how to display the preceding icon, see [8.1.4 Customizing Onscreen Status Icons](#).

----End

# 9 Captions

## About This Chapter

You can create a caption on your TE30. In addition, you can share the caption with remote sites during a conference.

Your TE30 supports T.140 and non-T.140 captions. [Table 9-1](#) describes the differences between these two types of captions.

**Table 9-1** Differences between T.140 and non-T.140 captions

Non-T.140 Caption	T.140 Caption
Superimposed on the video of your site and sent with the video to remote sites	Sent to remote sites independently and displayed on remote monitors, but not superimposed on the video of your site
Can be sent and received by SIP and H.323 endpoints	Can be sent and received only by H.323 endpoints.
Can be sent and received by all endpoints	Can be sent and received only by endpoints that support T.140 captions
Can be sent from endpoints that are in a conference only	Can be sent from any of the following in a conference: <ul style="list-style-type: none"> <li>● Endpoint used at the chair site</li> <li>● SMC2.0</li> <li>● Endpoint used by either party during a point-to-point call</li> </ul>

### [9.1 Specifying Caption Settings](#)

Caption settings include the caption font size, color, and background.

### [9.2 Creating a Banner or Caption](#)

You can create and preview a banner or caption on your TE30.

### [9.3 Sharing a Banner or Caption](#)

After you create a banner or caption, you can share it with remote sites.

### [9.4 Sending an Instant Message](#)

During a conference, you can send instant messages to remote sites.

## 9.1 Specifying Caption Settings

Caption settings include the caption font size, color, and background.

### Procedure

- Step 1** Choose **Advanced Settings > Settings > Display > Caption**. Set the caption parameters by referring to **Table 9-2**.

**Table 9-2** Caption parameters

Parameter	Description	Setting
Font size	Specifies the font size for banners and middle and bottom captions.	Default values: <ul style="list-style-type: none"> <li>● For banners, the default value is <b>Largest</b>.</li> <li>● For middle and bottom captions, the default value is <b>Medium</b>.</li> </ul>
Background color	Specifies the background color of banners and middle and bottom captions in any of 64 colors.	Default values: <ul style="list-style-type: none"> <li>● For banners, the default color is red.</li> <li>● For middle and bottom captions, the default color is gray.</li> </ul>
Font color	Specifies the foreground color of banners and middle and bottom captions in any of 64 colors.	The default color is white.
Effect	Specifies the display effect for banners and middle and bottom captions.	Default value: <ul style="list-style-type: none"> <li>● For banners, the default value is <b>Center</b>.</li> <li>● For middle captions, the default value is <b>Scroll upward</b>.</li> <li>● For bottom captions, the default value is <b>Scroll leftward</b>.</li> </ul>
Scrolling speed	Specifies the scroll rate for middle and bottom captions.	Adjust the rate based on the preview. The default value is <b>Fast</b> .
Transparency	Specifies banner or caption transparency.	The default value is <b>Half transparent</b> .

Parameter	Description	Setting
Scrolling speed	Specifies the percentage of the banner or bottom caption height to the entire screen.	The default value is <b>10%</b> .
Font Type	Specifies the font type of captions.	The default value is <b>Boldface</b> .
Bold	Specifies whether banners or captions are displayed in bold.	<ul style="list-style-type: none"> <li>● For banners, this parameter is selected by default.</li> <li>● For middle and bottom captions, this parameter is deselected by default.</li> </ul>
Line spacing	Specifies the vertical spacing between lines when there are multiple lines of middle captions.	The default value is <b>Small</b> .
Sharing mode	Specifies the type of the caption to be shared, T.140 or non-T.140. For the differences between T.140 and non-T.140 captions, see <a href="#">Table 9-1</a> .	The default value is <b>T.140</b> .

**Step 2** Select **Save**.

----End

## 9.2 Creating a Banner or Caption

You can create and preview a banner or caption on your TE30.

### Procedure

**Step 1** Choose **Advanced Settings > Utilities**.

The **Utilities** screen is displayed.

**Step 2** Select **Middle Caption**, **Banner**, or **Bottom Caption**.

**Step 3** Select **New** and compose the desired banner or caption.

----End

After a banner or caption is created, you can preview, share, or edit it.

## 9.3 Sharing a Banner or Caption

After you create a banner or caption, you can share it with remote sites.

## Prerequisites

The TE30 is in use during a conference, and a banner or caption has been created.

## Procedure

**Step 1** Choose **Advanced Settings > Utilities**.

The **Utilities** screen is displayed.

**Step 2** Select **Middle Caption, Banner, or Bottom Caption**.

**Step 3** Select the desired banner or caption and select **Send**.

----End

## 9.4 Sending an Instant Message

During a conference, you can send instant messages to remote sites.

### Prerequisites

The TE30 is in use during a conference. Both the sending and receiving parties support T.140 captions. For details about how to configure T.140 caption parameters, see [Table 9-2](#).

### Background

Instant messages are a type of the T.140 caption.

SIP and audio-only sites do not support instant messages.

### Procedure

**Step 1** Select .

**Step 2** In the displayed **Instant Message** dialog box, select the site to which you wish to send an instant message.

**Step 3** Enter the message.

**Step 4** Select **Send**.

----End

The message is sent to the remote site. When receiving the message, the remote site can view or close the message.

# 10 Security

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## About This Chapter

Your TE30 provides security features and configurations.

### [10.1 Security Features](#)

Your TE30 provides a variety of security features, including protocol anti-attack measures and authentication on debug users, web interface users, and web requests.

### [10.2 Specifying Security Settings](#)

Security settings include those for the administrator password and upgrade password. These settings are also used to determine whether to enable encryption and support remote logins.



## 10.1 Security Features

Your TE30 provides a variety of security features, including protocol anti-attack measures and authentication on debug users, web interface users, and web requests.

### Debug User Authentication

- To debug your TE30, you must log in with the required user name and password in Telnet or Secure Shell (SSH) mode.

Telnet clients use plaintext to communicate with the TE30. For details about how to enable this function, see [10.2.3 Supporting Remote Logins](#).

SSH clients use ciphertext to communicate with the TE30. When the SSH login function is enabled, a maximum of three concurrent SSH logins are allowed. For details about how to enable the SSH login function, see [10.2.3 Supporting Remote Logins](#). SSH logins are recommended for users who want to perform debugging.

- The administrator user name for debugging is **debug**. The administrator password for debugging is **Change\_Me**. You cannot change this user name.
- Available debug module services vary depending on user levels.

### Web Interface User Authentication

- Only users with authenticated passwords can log in to the TE30 web interface.
- To ensure security, configure the TE30 to use HTTPS to transmit the user name and password to the server during login authentication.

### Web Request Authentication

- When a user requests to access a specified web page or submits a servlet request, the TE30 checks whether the user's session identifier is valid and the user is authorized to perform the operation.
- The server implements the final authentication on the user.
- The server verifies user-generated data. Before transmitting this data to clients, the server encodes it using HyperText Markup Language (HTML) to prevent malicious code and cross-site scripting attacks.
- Web security software is used to scan the web server and applications to ensure that no high-risk vulnerability exists.

### Protocol Anti-Attack Measures

- The communication port matrix is provided in the product documentation. Do not enable the services and ports not mentioned in the communication port matrix.

The communication port matrix contains the following information: available ports, transport layer protocols used by the ports, network elements (NEs) that use the ports to communicate with peer NEs, application layer protocols used by ports and description of the services at the application layer, information about whether services at the application layer can be disabled, authentication modes adopted by the ports, and port functions, such as control traffic and data traffic.

- The Real-Time Transport Protocol (RTP) and Transport Layer Security (TLS) are supported to encrypt voice services.
- Robustness testing tools are used to scan protocols to ensure that no high-risk vulnerability exists.
- By default, the TE30 uses FTPS to encrypt data through the Secure Sockets Layer (SSL) to ensure data integrity.

## 10.2 Specifying Security Settings

Security settings include those for the administrator password and upgrade password. These settings are also used to determine whether to enable encryption and support remote logins.

### 10.2.1 Setting the Administrator Password

To prevent endpoint parameter settings from being modified by unauthorized users, anyone who wants to access the **Settings** screen must provide the administrator password.

#### Procedure

- Step 1** Choose **Advanced** > **Settings** > **Secured** > **Password**. Set the administrator password parameters by referring to [Table 10-1](#).

**Table 10-1** Administrator password parameters

Parameter	Description	Setting
Current password New password Confirm password	Specifies the new administrator password for the remote controlled UI.	The default value is <b>12345678</b> .  The password contains 8 to 32 characters.  To improve device security, set a password at your first login.
Encryption advanced settings	Specifies whether to encrypt the <b>Advanced</b> screen of the remote controlled UI.  If this parameter is enabled, you must enter the administrator password to access the <b>Advanced</b> screen. If this parameter is disabled, the administrator password is required only when you select <b>Settings</b> on the <b>Advanced</b> screen.	This parameter is deselected by default.

- Step 2** Select **Save**.

----End

## 10.2.2 Enabling Encryption

You can enable encryption to improve video communication security.

### Background

On an IP network, which is neither quality-guaranteed nor secure, encryption can be used to increase video communication security. Both parties involved in communication must support encryption; otherwise, encryption fails.

### Procedure

- Step 1** Choose **Advanced Settings > Set > Security > Encryption** and select an encryption policy.
- **Disable:** No stream is encrypted.
  - **Enable:** Stream encryption is mandatory. If you select this option, your TE30 can attend encrypted conferences only.
  - **Maximum interconnectivity:** Streams are encrypted only when a call is set up. If the other party does not support encryption, no stream is encrypted.
- Step 2** Select **Save**.

----End

## 10.2.3 Supporting Remote Logins

You can specify whether remote users can log in to the TE30 to manage it using the TE30 web interface, SSH, or Telnet.

### Web-based Login

- Step 1** Choose **Advanced > Settings > Secured > Web Login**. Set the web-based login parameters by referring to [Table 10-2](#).

**Table 10-2** Web-based login parameters

Parameter	Description	Setting
Web Login	Specifies whether to allow for logins using the TE30 web interface. If you select this parameter, you must also set the administrator user name and password.	This parameter is selected by default.

Parameter	Description	Setting
Administrator name Current password New password Confirm password	Specify the user name and password used to log to the TE30 web interface.	<p>The administrator name cannot be left blank and contains a maximum of 64 case-sensitive characters.</p> <p>In <b>New password</b>, enter a string of 6 to 32 characters.</p> <p>In addition, it must include at least two of the following: uppercase letter, lowercase letter, digit, or special character.</p> <p>The default administrator name is <b>admin</b>.</p> <p>The default administrator password is <b>Change_Me</b>.</p> <p>To protect against unauthorized access, change the password at your first login.</p>
SSL encryption	<p>Specifies whether to enable Security Socket Layer (SSL) encryption to improve transmission security.</p> <p>When SSL encryption is enabled, the touch panel must use HTTPS to connect to the TE30.</p>	<p>When the data to be transferred must be highly secured, it is recommended that you select <b>SSL encryption</b>.</p> <p>This parameter is selected by default.</p>
Monitor video	<p>Specifies whether to allow remote users to log in to the TE30 web interface to view local and remote videos and presentations and take pictures. For details, see <a href="#">11.4.11 Capturing Photos</a>.</p>	<p>This parameter is deselected by default.</p> <p><b>NOTICE</b> This function involves privacy protection. Ensure that its use complies with local laws and regulations.</p>

**Step 2** Select **Save**.

---End

## SSH and Telnet Login

**Step 1** Choose **Advanced Settings > Settings > Secured > SSH/Telnet**. Set the SSH and Telnet login parameters by referring to [Table 10-3](#).

**Table 10-3** SSH and Telnet login parameters

Parameter	Description	Setting
Telnet Login	Specifies whether remote users can log in to the TE30 in Telnet mode for maintenance and configuration purposes, such as querying system logs and status information.	This parameter is selected by default. The default user name and password for telnet to the endpoint are <b>debug</b> and <b>Change_Me</b> respectively. To protect against unauthorized access, change the password at the first login. <b>NOTE</b> <b>Telnet Login</b> is deselected before delivery.
SSH	Specifies whether to enable SSH, which improves transmission security and prevents information disclosure.	This parameter is selected by default. The default user name and password for log in to the endpoint using SSH are <b>debug</b> and <b>Change_Me</b> respectively. To protect against unauthorized access, change the password at the first login.

**Step 2** Select **Save**.

---End

## 10.2.4 Setting the Upgrade Password

You can set the password required to upgrade the TE30 software using the upgrade tool.

**Step 1** Choose **Advanced > Settings > Secured > Upgrade password**. Set the upgrade password parameters by referring to [Table 10-4](#).

**Table 10-4** Upgrade password

Parameter	Description	Setting
Upgrade password	Specifies the password required to upgrade the TE30 software using the upgrade tool.	Default value: <b>Change_Me</b> The password contains 6 to 32 characters. In addition, it must include at least two of the following: uppercase letter, lowercase letter, digit, or special character. To improve device security, set a password at your first login.

**Step 2** Select **Save**.

----**End**

# 11 Web-based Remote Management

---

## About This Chapter

Your TE30 supports remote management using its web interface. From this web interface, you can set parameters, view settings, and control the TE30.

The major features for operating the TE30 using the web interface are as follows:

- A computer is used to access the IP network where the TE30 is located.
- When you log in to the TE30 web interface, the TE30 web pages are displayed.
- A maximum of three users can simultaneously log in to the TE30 web interface. The administrator can configure the TE30, while common users can customize only personal settings.
- A user who uses the remote control to operate the TE30 has higher rights than any user who logs in to the TE30 using the TE30 web interface. The former can grant the control right to or revoke the control right of the latter.
- On the TE30 web interface, you can import and export address books and configuration files.
- You can import license files on the web interface.
- When inputting information in quantity, such as adding sites to an address book, use the web interface, which is more convenient than using the remote control.

### [11.1 Enabling Web-based Login](#)

After web-based login is enabled, you can log in to the TE30 using its web interface.

### [11.2 Configuring the Web Browser](#)

To remotely manage the TE30 using its web interface, configure the web browser on your computer.

### [11.3 Logging In to the TE30 Web Interface](#)

To remotely manage the TE30 in web mode, log in to its web interface.

### [11.4 Getting to Know Web Interface Functions](#)

The functions provided by your TE30 are reorganized on its web interface so you can conveniently use these functions with a web browser.

## 11.1 Enabling Web-based Login

After web-based login is enabled, you can log in to the TE30 using its web interface.

Web-based login must be enabled or disabled on the remote controlled UI. For details, see [10.2.3 Supporting Remote Logins](#).

## 11.2 Configuring the Web Browser

To remotely manage the TE30 using its web interface, configure the web browser on your computer.

### Background

The following procedure uses Internet Explorer 8.0 as an example of how to configure a browser. The methods for configuring other browser versions are similar.

### Procedure

- Step 1** Open Internet Explorer 8.0.
  - Step 2** Choose **Tools > Internet Options** and select the **Security** tab.
  - Step 3** Select **Custom level**. Then select **Enable** for all options under **Scripting** and **Downloads**.
  - Step 4** Select **OK**.
  - Step 5** Select **Trusted sites** and then **Sites**.
- The **Trusted sites** dialog box is displayed.
- Step 6** In the **Add this website to the zone** text box, enter your TE30 IP address. Then select **Add**.
  - Step 7** Select **Close**.
  - Step 8** Select the **Privacy** tab. Then move the slider to **Medium**.
  - Step 9** Select **OK**.

The configuration is complete.

----End

#### NOTE

To ensure that information can be properly displayed, if you choose to skip [Step 5](#) through [Step 7](#), choose **Tools > Pop-up Blocker > Turn Off Pop-up Blocker** from the menu bar of Internet Explorer.

To set Firefox, do the following:

Start the Firefox. On the menu bar, choose **Tools > Options**. On the **Main** tab, select **Show the Downloads window when downloading a file**. On the **Privacy** tab, select **Accept cookies from sites**. Then select **OK**.



## 11.3 Logging In to the TE30 Web Interface

To remotely manage the TE30 in web mode, log in to its web interface.

### Procedure

**Step 1** Open Internet Explorer.

**Step 2** In the address box, enter the TE30 IP address, such as **10.10.10.10**.

**Step 3** Press **Enter**.

The login page is displayed.

**Step 4** Fill in **User name** and **Password**.

#### NOTE

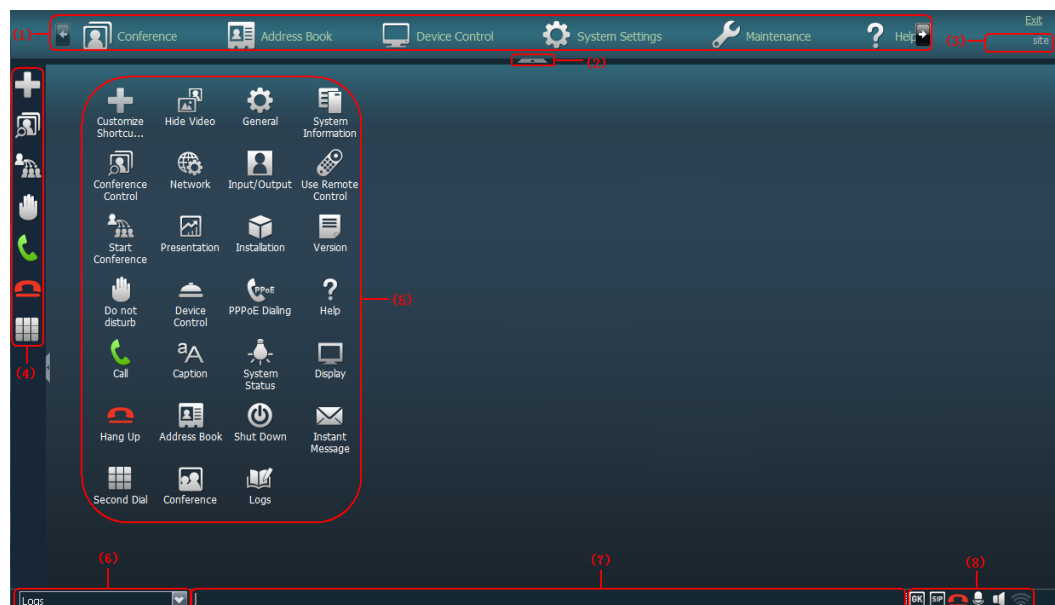
- The default user name and password are **admin** and **Change\_Me** respectively.

**Step 5** From the **Language** drop-down list, select a language.

**Step 6** Select **Log In**.

The home page is displayed, as shown in **Figure 11-1**.

**Figure 11-1** Home page of the TE30 web interface



- |                   |                              |  |                  |
|-------------------|------------------------------|--|------------------|
| (1) Menu bar      | (2) Expand/Collapse button   | (3) Area for displaying your site name | (3) Shortcut bar |
| (5) Desktop icons | (6) Area for displaying logs | (7) Area for displaying messages       | (8) Status icons |

----End

## 11.4 Getting to Know Web Interface Functions

The functions provided by your TE30 are reorganized on its web interface so you can conveniently use these functions with a web browser.

The following are the functions unique to the web interface:

- Importing and exporting an address book
- Importing and exporting settings
- Importing a license file
- Customizing the shortcut bar and desktop icons
- Site map
- Conference control page, site list, and site template
- Conference controls
- Importing a certificate
- Recording
- Backing up settings
- Capturing photos

### 11.4.1 Importing and Exporting an Address Book

From the TE30 web interface, you can export an address book to the local computer or a server. This facilitates site information editing. You can also import a modified address book to the TE30 after which the records in the address book are displayed on the address book page.

#### Background

The exported address book is saved to a file in vCard format. The file name extension is vcf.

For example, you can export the address book of endpoint A, modify the records in the address book, and then import these records to the address book of endpoint B.

The exported contacts file may contain personal information. Keep the file in a safe location to prevent personal information disclosure.

#### Exporting an Address Book

To export an address book:

**Step 1** Log in to the web interface of endpoint A. Choose **Address Book > Address Book**.

**Step 2** Select **Export from Local Address Book**.

**Step 3** Save the records to file A.

----End

#### Modifying Records in the Address Book

After exporting the address book of endpoint A to file A, modify its records as follows:

Use a text editor to open file A. Based on the notes of the parameters in the file, modify file A so that it applies to endpoint B. Save the modified file as file B.

## Importing the Address Book

To import the address book to endpoint B:

**Step 1** Log in to the web interface of endpoint B. Choose **Address Book > Address Book**.

**Step 2** Select **Import to Local Address Book** and select file B to import.

**Step 3** Select **Import**.

----End

## 11.4.2 Importing and Exporting Settings

On the TE30 web interface, you can import and export settings. If your TE30 is restored to its default settings, you can import previously exported settings.

### Procedure

**Step 1** Log in to the TE30 web interface. Choose **System Settings > Installation**.

The **Installation** page is displayed.

**Step 2** Select **Import/Export Settings**.

The **Import/Export Settings** page is displayed.

**Step 3** Select **Export Settings** to export or **Import Settings** to import.

----End

## 11.4.3 Importing License Files

Some functions, such as Wi-Fi and recording, on your TE30 require license files. To use these functions, you must import the required license files.

### Prerequisites

You have obtained the latest license files.

#### NOTE

Using your contract number and device serial number, you can download license files from <http://enterprise.huawei.com>.

### Background

Your TE30 can start properly even if no license file is loaded on it or the loaded license file expires. After the TE30 starts, you can set parameters, import license files, upgrade software, and place calls at a rate of up to 768 kbit/s.

After a license file is updated, the original license file expires. For example, after you purchase an official license, the trial license expires.

## Procedure

**Step 1** Log in to the TE30 web interface. Choose **System Settings > Installation**.

The **Installation** page is displayed.

**Step 2** Click **Import License**.

The **File Upload** dialog box is displayed.

**Step 3** Select the license file you wish to import and click **Import**.

**Step 4** Click **Back** when **OK** is displayed.

 **NOTE**

The new license file takes effect after you restart the TE30.

---End

## 11.4.4 Customizing Shortcut Bar and Desktop Icons

You can customize the shortcut bar and desktop icons on the TE30 web interface so you can conveniently perform desired operations using these icons.

### Background

The following procedure uses customizing shortcut bar icons as an example.

### Procedure

**Step 1** Log in to the TE30 web interface. Choose **System Settings > Display**.

**Step 2** Click the **User defined** tab.

**Step 3** Click **Shortcut Bar Icons**.

The **Shortcut Bar Icons** dialog box is displayed.

**Step 4** Add or delete shortcut bar icons.

**Step 5** Click **Save**.

---End

## 11.4.5 Accessing the Site Map

You can quickly navigate to a desired page using the site map.

To access the site map:

Log in to the TE30 web interface. Choose **Help > Site Map**.

## 11.4.6 Using the Site List

If there are multiple sites on the address book page, conference-related pages, or other pages, you can sort the sites based on their attributes, such as by name, number, line type, and start time.

From the site lists on certain pages, you can click the letter range (such as A-E) in the upper right corner to display the sites whose names start with letters within that range.

## 11.4.7 Conference Control Page

The conference control page of the TE30 web interface is a user-friendly page on which you can perform conference control functions, select a site group, and sort the sites.



This section does not apply if the TE30 is connected to an IMS network and the conference is managed by the portal provided by the IMS.

---

### Template for Viewing Sites in Turn

You can preset and save a site viewing order in a template. Then, you can conveniently view the sites in this order without any additional configurations.

To configure a template to view sites in turn, perform the following steps:

- Step 1** Log in to the TE30 web interface. Obtain the chair control rights and choose **Conference > Conference Control**.

The conference control page for the chair site is displayed.

- Step 2** Enable **View in Turn** and set the site viewing order.

----End

To view the sites in the order saved in a template, click **Use Template** and select the desired template from the drop-down list box.

### Site Template

A site template helps you easily group sites based on their regions and types. In this template, sites are identified by name.

To configure a site template, perform the following steps:

- Step 1** Choose **Address Book > Site Template**.

The page for defining a site template is displayed.

- Step 2** Create a site template, add groups to the template, and add sites to the groups.

- Step 3** Click **Save**.

Once saved, a site template is displayed under **Template Name**.

When one of the sites in the site template is in a conference, the site template name is listed in the  drop-down list box on the **Conference Control** page.

----End

## Video Monitoring

On the conference control page for the chair site, you can view the video and presentation of a remote site. You can also adjust the sizes of the video and presentation. In this way, you can monitor the status and video quality of the remote site.

### 11.4.8 Importing a Certificate

You can import client, server, and SiteCall certificates into the TE30. These certificates can be used to identify users, certificate authorities, and servers to improve communication security.

#### Prerequisites

You have downloaded the required certificate from a SIP server or certificate authority.

#### Procedure

**Step 1** Log in to the TE30 web interface. Choose **System Settings > Installation**.

The **Installation** page is displayed.

**Step 2** Click **Import Certificate**.

The **File Upload** dialog box is displayed.

**Step 3** Select the desired certificate type.

#### NOTE

- To import a certificate for registration using the Transport Layer Security (TLS), select **Client certificate**.
- To import an HTTPS security certificate, select **Server certificate**.
- To import a certificate for SiteCall security, select **Multipoint conference certificate**.

**Step 4** Select the certificate you wish to import and click **Import**.

**Step 5** Click **Back** when **OK** is displayed.

----End

### 11.4.9 Recording a Conference

Your TE30 can record conferences if your site is the chair site.

#### Prerequisites

- The recording server is online.

#### NOTE

Check the recording server's online status from RM.

- Your TE30 is in a multipoint conference hosted by a standalone MCU, such as the HUAWEI VP8660.
- The ongoing multipoint conference supports recording.
- Your site is chairing the conference.

## Background

When you are using a standalone MCU to schedule or initiate a conference, set the following on your TE30:

- Set **Conference line type** in advanced conference settings to **H.323**, **SIP**, or **Auto**. For details about the settings, see [6.2 Setting Conference Parameters](#).
- When you are scheduling or initiating a conference on an MCU, select **Support recording** under conference settings.

## Procedure

**Step 1** Log in to the TE30 web interface. Choose **Conference > Control Recording**.

**Step 2** Click **Start**.

The recording starts.

----End

## Follow-up Procedure

To stop recording, click **Stop**.

## 11.4.10 Backing Up Settings

The administrator can use the **One-Click Backup** function to create a configuration backup file for the TE30. If some parameter settings under **System Settings** are inadvertently deleted or modified, you can use this backup file to restore all the settings in the **System Settings** area to pre-backup settings.

## Background

If a configuration backup file is already stored on your TE30, the new configuration backup file replaces the original one when you back up the settings again.

## Procedure

**Step 1** Log in to the TE30 web interface. Choose **System Settings > Installation**.

The **Installation** page is displayed.

**Step 2** Click **One-Click Backup**.

**Step 3** On the **One-Click Backup** page, click **Back Up Settings**.

The TE30 then starts to create a configuration backup file. You are notified when the backup is complete.

----End

## Follow-up Procedure

To restore all the settings in the **System Settings** area to the latest pre-backup settings, select **Restore Settings**. Your endpoint will then restart and restore the settings.

## 11.4.11 Capturing Photos

To ensure that a conference runs smoothly, you may need to monitor how the TE30 operates and whether the local and remote videos are displayed properly in the conference room. From the TE30 web interface, you can capture photos and view local and remote videos and presentations.


### Prerequisites

The web login and video monitoring functions have been enabled. For details, see [10.2.3 Supporting Remote Logins](#).

### Procedure

**Step 1** Log in to the TE30 web interface. Choose **Device Control > Video Control**.

 **NOTE**

When you are on the **Video Control** page,  appears on the endpoint display to indicate that video monitoring is enabled.

**Step 2** Select the source you wish to take a photo of and click **Capture**.

**Step 3** In the displayed window, right-click the captured picture.

**Step 4** Choose **Save Picture As** and save the picture.

----End



# 12 Troubleshooting

---

## About This Chapter

This chapter describes the problems you might encounter when using your TE30 and provides solutions.

[12.1 Web Interface](#)

[12.2 Network](#)

[12.3 Video](#)

[12.4 Audio](#)

[12.5 Conference Initiation](#)

[12.6 Conference Control](#)

[12.7 Viewing Help on the User Interface](#)

[12.8 Obtaining Technical Support](#)

## 12.1 Web Interface

**Table 12-1** lists the troubleshooting methods for problems that may arise on the TE30 web interface.

**Table 12-1** methods for troubleshooting TE30 web interface problems

Problem	Possible Cause	Solution
A message is displayed to indicate that your TE30 failed to connect to the Internet or download images.	The latest patches for the operating system or Internet Explorer are not installed.	Install the latest patches for the operating system and Internet Explorer.
	The security level of Internet Explorer is too high, or your TE30 IP address has not been added to the list of trusted sites.	<ol style="list-style-type: none"> <li>From the Internet Explorer menu bar, choose <b>Tools &gt; Internet Options</b>.</li> <li>Click the <b>Security</b> tab, <b>Trusted sites</b>, and then <b>Sites</b>.</li> <li>In <b>Add this Web site to the zone</b>, enter your TE30 IP address. Then click <b>Add</b>.</li> <li>Click <b>OK</b>.</li> </ol>
Button text is not fully displayed.	Internet Explorer is set to ignore the font styles specified on web pages. In this case, the font specified by your TE30 cannot be recognized.	<ol style="list-style-type: none"> <li>From the Internet Explorer menu bar, choose <b>Tools &gt; Internet Options</b>.</li> <li>Under <b>Appearance</b> on the <b>General</b> tab, click <b>Accessibility</b>.</li> <li>In the <b>Accessibility</b> dialog box, deselect all options.</li> <li>Click <b>OK</b>.</li> </ol>
If Internet Explorer 6 is used, the TE30 web interface responds to operations slowly.	The JavaScript engine of Internet Explorer 6 is not upgraded, or the required patches are not installed.	<ul style="list-style-type: none"> <li>● Install Microsoft Windows Script 5.7 (recommended).</li> <li>● Install the patches.</li> </ul>

Problem	Possible Cause	Solution
The records of the local address book cannot be exported.	The pop-up blocker is enabled on your browser.	<ul style="list-style-type: none"> <li>● If Internet Explorer is used: On the Internet Explorer menu bar, choose <b>Tools &gt; Pop-up Blocker &gt; Turn Off Pop-up Blocker</b>.</li> <li>● If the Firefox is used: Choose <b>Tools &gt; Options</b>. On the <b>General</b> tab, select <b>Show the Downloads window</b> when downloading a file. On the <b>Privacy</b> tab, select <b>Accept cookies from sites</b>. Then click <b>OK</b> to save the settings.</li> </ul>

## 12.2 Network

**Table 12-2** lists the troubleshooting methods for problems that may arise on the network.

**Table 12-2** Methods for troubleshooting common network problems

Problem	Possible Cause	Solution
When you attempt to use Telnet to access the TE30, a message is displayed to indicate that the number of connections to the TE30 has reached the limit.	The number of connections to the TE30 has reached 7.	Disconnect some Telnet connections.
	If the interval between two connection attempts is less than 10 minutes, the TE30 counts these two attempts as separate connections. When such connection attempts are frequent, the connection limit, which is 7, is easily reached. For example, when network faults are rectified immediately after they occur, Telnet connections are reestablished while the Telnet resources remain occupied.	If no data is transmitted through a Telnet connection for 10 minutes, the connection breaks automatically. Wait 10 minutes or longer to allow some Telnet connections to break, before you try to access the TE30 by Telnet.



## 12.3 Video


**Table 12-3** lists the troubleshooting methods for video problems.

**Table 12-3** Methods for troubleshooting video problems

<b>Problem</b>	<b>Possible Cause</b>	<b>Solution</b>
While the TE30 is powered on and not in a conference, the monitor does not display the remote controlled UI or the video of your site.	The monitor is powered off.	Power on the monitor.
	The video channel of the monitor is incorrect.	Use the remote control to select the correct video channel.
	The video settings of the TE30 or monitor are incorrect. For example, the brightness is set to 0.	Retain the default values for the video parameters on the TE30 and monitor.
	The video cable connection is not secure.	Secure the video cable between the TE30 and monitor.
While the TE30 is powered on and not in use during a conference, the monitor displays the video of your site but cannot display the remote controlled UI.	No monitor is connected to the output port for the remote controlled UI or the connected monitor is faulty.	Connect a monitor to the output port for the remote controlled UI and verify the video settings on the monitor.
	The TE30 does not respond to remote control operations.	Telnet to the TE30. If you fail to operate the TE30, it is malfunctioning. In this case, restart the TE30. If the problem persists, contact the local distributor for maintenance.
While the TE30 is in use during a conference, the monitor displays the video of your site but cannot display the video of any remote site.	A local or remote loopback test is being performed.	Stop all local and remote loopback tests.
	Check the call statistics. If the value of <b>Video bandwidth [frame rate]</b> is 0, no video is sent from remote sites.	Contact the remote site administrator to resolve this problem.
	If the remote video is displayed as a blue screen, the remote site is blocking its video by sending a blue screen.	Contact the remote site administrator to resolve this problem.
	The video output port is set to display the video of your site.	Set the video output port to display the video of a remote site.
The video of your site is in black and white or flickers in black and white.	The mode adopted by the video output port is set incorrectly.	<ul style="list-style-type: none"> <li>● Ensure that the mode adopted by the video output port and the cable in use match each other.</li> <li>● Verify that the cable is connected correctly. Replace the cable if necessary.</li> </ul>

Problem	Possible Cause	Solution
<p>While the TE30 is in use during a conference, the video of a remote site is not clear. For example, there are artifacts, frozen images, or discontinuity in the video output.</p>	<p>Faults occur in the local video module.</p>	<p>Perform a local video loopback test. If the video quality is poor, faults occur in the local video module. In this case, send the TE30 to the local distributor for maintenance.</p>
	<p>The remote camera is set to focus on a close or distant scene. When the remote camera is not set to automatic focus and the scene captured by a remote camera changes, the captured video becomes unclear.</p>	<p>Set the remote camera to automatic focus.</p>
	<p>Incorrect audio protocols are specified for conferences whose data transmission rates are lower than or equal to 256 kbit/s. To view the data transmission rate of a conference, access the <b>Status</b> screen. For example, if the conference rate is 256 kbit/s and the audio bandwidth is 64 kbit/s, the video bandwidth is only 196 kbit/s. In this case, the video quality is poor.</p>	<p>If the conference rate is lower than 256 kbit/s, set the audio protocol to G.728 to reduce the bandwidth used for audio transmission.</p>
	<p>Only low video bandwidth is available for your site because the network is busy.</p>	<p>Do not initiate conferences during network busy hours.</p>
	<p>The quality of a network connection device, such as an optical fiber transceiver, is poor. As a result, certain data is lost during transmission.</p>	<p>Replace the related network connection device.</p>
<p>While the TE30 is in use during a conference, the video of a remote site can be displayed continuously but the video quality is not satisfactory.</p>	<p>Ask the remote site administrator to perform a local video loopback test. If the video quality is good, the video frame rate set at the remote site is too high.</p>	<p>Ask the administrator of the remote site to disconnect from the conference, set the video frame rate to a smaller value, and join the conference again.</p>
<p>While the TE30 is not in use during a conference, the video displayed on</p>	<p>The video settings of the TE30 are inappropriate.</p>	<p>Retain the default values for the video parameters on the TE30 and monitor.</p>

Problem	Possible Cause	Solution
the monitor is too bright or too dark.	The video settings of the monitor are inappropriate.	Retain the default values for the video parameters on the TE30 and monitor.
	The camera is faulty.	Send the TE30 to the local distributor for maintenance.
While the TE30 is in use during a conference and a remote site is sharing its computer desktop, the local VGA display cannot display the shared computer desktop.	The resolution of the remote computer exceeds the maximum resolution supported by the TE30.	Ask the remote site administrator to change the resolution and refresh rate of the remote computer to those the TE30 supports.
	The local VGA display is not supported.	Replace the local VGA display with a supported display.
A computer is connected to the TE30, but the local VGA display does not show the computer desktop.	The capability of the VGA display is limited. The resolution or refresh rate of the local SXGA output is too high to be supported by the VGA display.	Set the resolution and refresh rate of the local SXGA output to those the VGA display supports.
	The TE30 supports only certain combinations of resolutions and refresh rates. The combination of the resolution and refresh rate set on the computer, however, is not supported by the TE30. In this case, the local site cannot display or properly display the computer desktop.	Set the resolution and refresh rate of the computer used for the VGA input to those the TE30 supports.
On the camera control screen,  ,  , and navigation keys on the remote control cannot be used to control the camera.	The camera you wish to control is not selected.	Access the camera control screen and select the camera you wish to control.
	Camera settings are incorrect.	Verify the camera settings.
While the TE30 is in use during a conference and the monitor displays the video of a remote site, after you press	The remote control is disabled on the remote camera.	Ask the remote site administrator to enable the remote camera control at the remote site.

Problem	Possible Cause	Solution
 or navigation keys on the remote control, the video remains unchanged. That is, you cannot control the remote camera.	The camera settings are incorrect or the control cable of the camera is not securely connected.	Ask the remote site administrator to verify the camera settings or securely connect the camera control cable.

## 12.4 Audio

**Table 12-4** lists the troubleshooting methods for audio problems.

**Table 12-4** Methods for troubleshooting audio problems

Problem	Possible Cause	Solution
While the TE30 is in use during a conference, no audio is delivered from the local monitor.	<p>Perform an audio test to check whether the problem occurs at your site or a remote site.</p> <p>If no audio is delivered from the monitor during the audio test, the problem exists at your site.</p>	<ul style="list-style-type: none"> <li>● If the chair site has muted the speaker of your site, contact the chair site to resolve this problem.</li> <li>● If the monitor volume is adjusted to the lowest, restore the volume to its default value.</li> <li>● If the TE30 volume is adjusted to the lowest, restore the volume to its default value.</li> <li>● If the audio cable is connected incorrectly or insecurely, reconnect the audio cable from the TE30 to the monitor.</li> </ul>

Problem	Possible Cause	Solution
	<p>If audio is properly delivered from the monitor during the audio test, the problem occurs at the remote site.</p>	<ul style="list-style-type: none"> <li>● The microphone at the remote site has been muted or the chair site has muted this microphone. In this case, contact the chair site to resolve this problem.</li> <li>● No sound pickup device, such as a microphone, is connected to the audio input port. In this case, set the audio source again or connect a sound pickup device to the corresponding port.</li> <li>● The related sound pickup device is powered off. In this case, power on the device.</li> <li>● The audio cable is connected insecurely. In this case, reconnect the audio cable to the TE30.</li> </ul>
<p>While the TE30 is in use during a conference, only the sound from your site can be delivered from the monitor and you cannot hear other sites.</p>	<p>A loopback test is being performed at your site.</p>	<p>Stop all local and remote loopback tests.</p>

## 12.5 Conference Initiation

**Table 12-5** lists the troubleshooting methods for problems you may encounter during conference initiation.



**Table 12-5** Methods for troubleshooting common problems with conference initiation

Problem	Possible Cause	Solution
<p>Your site and a remote site cannot call each other using site numbers.</p>	<p>Your site or the remote site has not registered with a GK. A GK is responsible for translating site numbers into IP addresses. If either your site or the remote site does not register with a GK, the translation cannot be implemented, and your site cannot place a call to the remote site using the site number.</p> <p>If a remote site places a call to your site by site number, it will receive a message from the GK indicating that your site has not registered with the GK, and the call cannot be set up.</p>	<p>Verify GK registration settings and register your site and the remote site with a GK.</p>
	<p>The local or remote endpoint is not connected to an IP network.</p>	<ol style="list-style-type: none"> <li>1. Verify that the TE30 is connected to an IP network. Specifically, the LAN indicator on the rear panel of the TE30 is steady green.</li> <li>2. From the remote controlled UI, choose <b>Advanced Settings &gt; Diagnostics &gt; Network Test</b>. Enter the IP address of the remote site and start a Ping test. If the Ping test fails, a network error has occurred. In this case, contact the administrator.</li> <li>3. From the remote controlled UI, choose <b>Advanced Settings &gt; Settings &gt; Network &gt; IP</b>. Verify IP network settings.</li> </ol>

Problem	Possible Cause	Solution
<p>Your site cannot place a call to a remote site using the IP address of the remote site.</p>	<p>The local or remote endpoint is not connected to an IP network.</p>	<ol style="list-style-type: none"> <li>1. Verify that the TE30 is connected to an IP network. Specifically, the LAN indicator on the rear panel of the TE30 is steady green.</li> <li>2. From the remote controlled UI, choose <b>Advanced Settings &gt; Diagnostics &gt; Network Test</b>. Enter the IP address of the remote site and start a Ping test. If the Ping test fails, a network error has occurred. In this case, contact the administrator.</li> <li>3. From the remote controlled UI, choose <b>Advanced Settings &gt; Settings &gt; Network &gt; IP</b>. Verify IP network settings.</li> </ol>
	<p>NAT settings are incorrect. Specifically, the local endpoint is on a private network while the remote endpoint is on a public or different private network. Check whether your TE30 can communicate with a public network. If the TE30 cannot, NAT settings are incorrect.</p>	<p>Choose <b>Advanced Settings &gt; Settings &gt; Network &gt; Firewall</b> and verify NAT settings.</p>
	<p>The GK with which the local or remote endpoint registers does not support the function for placing calls using IP addresses.</p>	<p>Choose <b>Advanced Settings &gt; Settings &gt; Network &gt; IP &gt; H.323</b> at your site and the remote site, respectively. Then, disable GK functions.</p>
<p>After the TE30 starts, it fails to register with the GK.</p>	<p>The parameters (GK address, encryption password, and user name) used for GK registration are incorrect.</p>	<p>On the TE30 web interface, choose <b>Advanced Settings &gt; Settings &gt; Network &gt; IP &gt; H.323</b> and correct the settings.</p>
	<p>Another site with the same number as your site has already registered with the GK.</p>	<p>Contact the videoconferencing system administrator to check whether another site with the same number as your site has already registered with the GK. If such a site exists, change the user name of your site.</p>

Problem	Possible Cause	Solution
	<p>The TE30 is disconnected from an IP network.</p>	<ol style="list-style-type: none"> <li>1. Verify that the TE30 is connected to an IP network. Specifically, the LAN indicator on the rear panel of the TE30 is steady green.</li> <li>2. From the remote controlled UI, choose <b>Advanced Settings &gt; Diagnostics &gt; Network Test</b>. Enter the IP address of the remote site and start a Ping test. If the Ping test fails, a network error has occurred. In this case, contact the administrator.</li> <li>3. From the remote controlled UI, choose <b>Advanced Settings &gt; Settings &gt; Network &gt; IP</b>. Verify IP network settings.</li> </ol>
	<p>NAT settings are incorrect. Specifically, the local endpoint is on a private network while the GK is on a public network. Check whether your TE30 can communicate with a public network. If the TE30 cannot, NAT settings are incorrect.</p>	<p>Choose <b>Advanced Settings &gt; Settings &gt; Network &gt; Firewall</b> and verify NAT settings.</p>
	<p>The GK listening port, such as port 1719, is restricted by the network firewall.</p>	<p>Contact the videoconferencing system administrator to resolve this problem.</p>
<p>A predefined conference fails to be initiated on the TE30.</p>	<p>The TE30 is disconnected from an IP network.</p>	<ol style="list-style-type: none"> <li>1. Verify that the TE30 is connected to an IP network. Specifically, the LAN indicator on the rear panel of the TE30 is steady green.</li> <li>2. From the remote controlled UI, choose <b>Advanced Settings &gt; Diagnostics &gt; Network Test</b>. Enter the IP address of the remote site and start a Ping test. If the Ping test fails, a network error has occurred. In this case, contact the administrator.</li> <li>3. From the remote controlled UI, choose <b>Advanced Settings &gt; Settings &gt; Network &gt; IP</b>. Verify IP network settings.</li> </ol>

Problem	Possible Cause	Solution
	<ul style="list-style-type: none"> <li>Your site is set to pay for the conference but does not have sufficient account balance.</li> <li>Another site is set to pay for the conference but does not have sufficient account balance, or account number or password entered is incorrect.</li> </ul>	Enter the correct account number and password and top up the related account.
	Multiple conferences are currently being held while port resources on the videoconferencing system are insufficient.	Wait until the resources are available. Alternatively, reduce the number of sites attending the conference and then add sites as required after the conference is held successfully.

## 12.6 Conference Control

**Table 12-6** lists the troubleshooting methods for common problems you may encounter during conference control.

**Table 12-6** Methods for troubleshooting conference control problems

Problem	Possible Cause	Solution
While the TE30 is in use during a conference, you cannot view the desired site.	A site in the conference is being broadcast, and all the sites must view that site except the chair site and broadcast site.	Ask the chair site to stop site broadcast.
	A site is having the floor, and non-chair sites cannot view other sites.	Ask the chair site to enable the discussion function.
	The chair site has enabled the <b>Voice Activation</b> function.	Ask the chair site to disable the <b>Voice Activation</b> function.
	No video is sent from the site you wish to view.	Ask the related site administrator to troubleshoot the site video.
	The <b>View Site</b> function is restricted on the RM.	Contact the videoconferencing system administrator to resolve this problem.

## 12.7 Viewing Help on the User Interface

The TE30 user interface includes web interface and remote controlled UI, providing context-sensitive help and operation guide.

Context-sensitive help includes status icons and configuration verification messages that are displayed in context on web pages. For example, if certain settings on the system settings screen are incorrect, a message will be displayed to indicate where the error exists and how to rectify the error.

The operation guide describes how to operate the user interface. When you are using the TE30 and the provided user guide is not available, you can press **?** to display this operation guide on the user interface.

## 12.8 Obtaining Technical Support

This Huawei support website provides an efficient and real-time communication platform where you can obtain technical documents, submit technical questions, service requests, and troubleshooting questions, and provide your feedback about improvements to Huawei products. To seek technical help over the Internet, please visit <http://enterprise.huawei.com>.

Provide the following information to help Huawei engineers answer your questions:

- Serial number of your TE30 (To view the serial number, choose **Advanced Settings > Diagnostics > System Information > Version.**)
- Software version (To view version information, choose **Advanced Settings > Diagnostics > System Information > Version.**)
- Network information (To view this information, choose **Advanced Settings > Diagnostics > Settings > Network.**)
- Diagnostic and troubleshooting measures that you have taken

# 13 Maintenance

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## About This Chapter

This chapter describes maintenance and troubleshooting methods to help you maintain and troubleshoot the TE30 during use.

### [13.1 Preventive Maintenance](#)

You must periodically check the working environment, cable connection, communication network connection, and audio-visual input and output of your TE30. This ensures that the TE30 and its peripheral equipment work properly.

### [13.2 Software Upgrade](#)

Your TE30 supports the following software upgrade methods: automatic, locally, using the bootrom system, and from the TE30 web interface.

### [13.3 Restoring Default Settings](#)

If software update fails causing your TE30 to malfunction, use the **Restore Default** function to restore your TE30 to its default settings.

### [13.4 Configuring the NTP Server](#)

The Network Time Protocol (NTP) server is used for system synchronization and ensures time accuracy.

### [13.5 Setting the Sleep and Wakeup Modes](#)

Your TE30 supports the sleep and wakeup modes. You can set the sleep, automatic startup, and automatic shutdown times.

### [13.6 Setting Number Key Functions](#)

You can configure the number keys on the remote control to implement two-stage dialing or camera preset control.

### [13.7 Using Diagnostics Methods](#)

On the TE30, you can perform the following diagnostic tests: sound and color bar tests, network tests, loopback tests, and remote control tests.

## 13.1 Preventive Maintenance

You must periodically check the working environment, cable connection, communication network connection, and audio-visual input and output of your TE30. This ensures that the TE30 and its peripheral equipment work properly.

### 13.1.1 Checking the Working Environment Periodically

To ensure that your TE30 can function properly, check the working environment periodically.

**Table 13-1** lists the items to be checked.



If any of the items does not meet the requirements, power off the TE30 and take measures to improve the environment. Ensure that the TE30 is used only when all the listed items meet the requirements.

---

**Table 13-1** Checking the working environment

Item	Requirement
Operating temperature	0°C to 40°C
Operating humidity	10% to 80% RH

### 13.1.2 Checking Cable Connection Periodically

For preventive maintenance purposes, you need to check the audio, video, and communication cables periodically.

#### Audio and Video Cables

Periodically (once a week is recommended) check that the cables connecting peripheral equipment and the power supply to the TE30 are securely connected.

Check cable connections. If any of the cables are loose, reconnect the cables securely. Then power on the TE30 to verify cable connections.

#### Communication Cables

Periodically (once a week is recommended) check whether the communication cables connected to the TE30 work properly.



Power on the TE30 and call some remote endpoints using different methods, such as calling over a broadband network.

- If a call is set up successfully, the communication cable works properly for the call mode used.
- If a call cannot be set up, verify that the cables are connected correctly and securely and the communication parameters are set correctly. If the problem persists, contact the videoconferencing network administrator to check the network.

### 13.1.3 Viewing System Status

Knowing system status at any given time helps to better maintain the TE30.

Use any of the following methods to access the **Status** screen and view system status:

- Press  on the remote control and select **Status**.
- Select  from the option bar.
- Choose **Advanced Settings > Diagnostics > Status**.

The following information is displayed on the **Status** screen:

- Line status: includes the IP address, GK status, site number, SIP information, and running duration
- Call status: includes the line rate, video rate (frame rate), presentation rate (frame rate), audio rate, video packet loss rate, presentation packet loss rate, audio packet loss rate, conference participating duration, and presentation token. Call status is displayed only when your TE30 is in use during a conference.
- Conference parameters: includes the call bandwidth, video protocol, video bandwidth (frame rate), audio protocol, audio bandwidth, presentation protocol, presentation bandwidth (frame rate), remote number, H.235 encryption status, conference ID for video access, conference ID for audio access, ISDN trunk number, conference ID for ISDN access, and password for conference authentication. Conference parameters are displayed only when your TE30 is in use during a conference.
- Input port status: includes the video information about the built-in camera and VGA IN port. For example, **DVI 1080p 60Hz** indicates that the input mode, video resolution, and refresh rate of the built-in camera are DVI, 1080p, and 60 Hz. respectively.

### 13.1.4 Viewing System Information

System information helps you maintain your TE30.

#### Procedure

Choose **Advanced Settings > Diagnostics > System Information**.

The following information is displayed on the **System Information** screen:

- Version information: includes the endpoint model, serial number, software version, hardware information, logical version, and microphone array version.
- Specification information: includes audio, video, ports, bandwidth, SIP, built-in MCU, dual stream, security, and other main features of the TE30.



## 13.1.5 Querying Logs

Your TE30 logs all non-query events in real time, including user activities and commands. The logs help with device maintenance, fault identification, and auditing.

### Background

Your TE30 can store a maximum of 100,000 log records. When the memory for recording logs is full, new logs can still be recorded. The latest log will simply replace the oldest one.

Logs are sorted by time. You can turn pages to view more entries. To display the details of a log, scroll to the log and select **Details**.

Each log contains the following information:

- Event time
- Event level
- Endpoint-defined event type
- Event details

To search for a log, select **Query** and specify the search criteria.

### Procedure

Choose **Advanced Settings > Diagnostics > Logs**. Then select the log you wish to view.

## 13.2 Software Upgrade

Your TE30 supports the following software upgrade methods: automatic, locally, using the bootrom system, and from the TE30 web interface.



### NOTICE

During the upgrade, do not power off the TE30 to prevent irreversible faults.

---

**Table 13-2** describes the differences between the four upgrade methods.

**Table 13-2** TE30 upgrade methods

Upgrade Method	Description
Automatic upgrade	With the automatic upgrade function enabled and automatic upgrade parameters set, your TE30 obtains upgrade files from the specified server and installs the upgrade files when the preset upgrade interval arrives. For details, see <a href="#">13.2.1 Automatic Upgrade</a> .
Local upgrade	Download the upgrade software to a computer, connect the computer to the TE30 directly or over the LAN, and upgrade the TE30. For details, see <a href="#">13.2.2 Upgrading the TE30 Locally</a> .

Upgrade Method	Description
Upgrade using the bootrom system	If upgrading the TE30 using its normal system fails due to a power failure or other causes, you can use the bootrom system to complete the upgrade. For details, see <a href="#">13.2.3 Upgrading the TE30 Using the Bootrom System</a> .
Upgrade from the TE30 web interface	On the TE30 web interface, manually upgrade the TE30 or set it to upgrade automatically. For details, see <a href="#">13.2.4 Upgrading the TE30 on Its Web Interface</a> .

Before the upgrade, complete the following:

- Read the Release Notes to understand the contents to be upgraded and precautions required to be taken during the upgrade.
- Obtain the current software version.
- Back up the settings on the TE30, such as the communication settings and address book.

## 13.2.1 Automatic Upgrade

With the automatic upgrade function enabled and automatic upgrade parameters set, your TE30 obtains upgrade files from the specified server and installs the upgrade files when the preset upgrade interval arrives.

### Procedure

**Step 1** Choose **Advanced Settings > Settings > Installation > Auto Upgrade Settings**.

**Step 2** Set the automatic upgrade parameters by referring to [Table 13-3](#).

**Table 13-3** Automatic upgrade parameters

Parameter	Description	Setting
Auto upgrade	Specifies whether the automatic upgrade function is enabled. If you select this parameter, you must also set <b>Upgrade interval</b> , <b>Server address</b> , <b>User name</b> , and <b>Password</b> . Your TE30 will obtain upgrade files from the specified server and install them when the preset upgrade interval is reached.	This parameter is deselected by default.
Enable wireless MIC auto update	Specifies whether to automatically update the wireless microphone after it is connected to the TE30.	This parameter is selected by default.

Parameter	Description	Setting
Upgrade interval	Specifies the upgrade interval.	The default value is <b>0.5 h</b> . Value range: 0.5 h to 24 h.
Server address	Specifies the IP address of the server that stores the upgrade files for your TE30.	This parameter cannot be left blank. Example: http://200.55.55.100/
User name and Password	Specify the user name and password your TE30 uses to access the server that stores the required upgrade files.	No default value is set for this parameter.

**Step 3** Select **Save**.

---End

## 13.2.2 Upgrading the TE30 Locally

You can use a computer to locally upgrade the TE30.

Before the upgrade, ensure that:

- The target software is saved to the computer.
- The computer is connected to the TE30 using a straight-through cable, crossover cable, or switch.

### Upgrading a Single TE30

You can upgrade a single TE30 using the upgrade program installed on a computer.

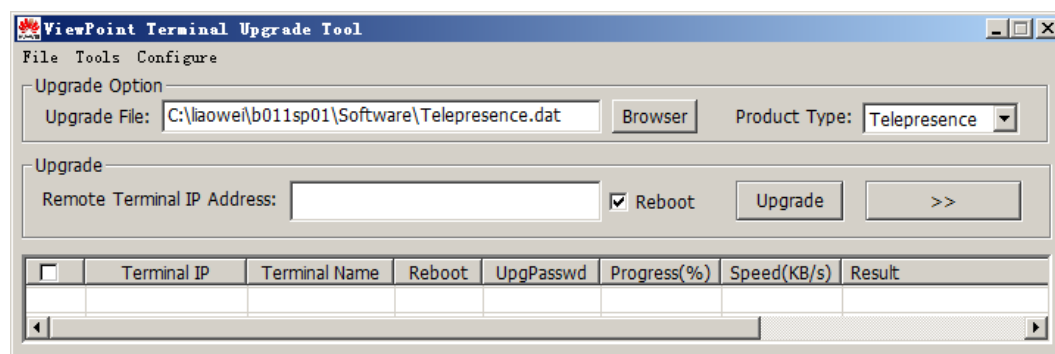
#### Procedure

**Step 1** Power on the computer and TE30.

**Step 2** Extract the compressed software upgrade package on the computer.

**Step 3** Run **UpgMaster.exe** to display the window shown in [Figure 13-1](#).

**Figure 13-1** Upgrading the TE30 locally



**Step 4** Click **Browser** and select the **Telepresence.dat** file.

**Step 5** Enter your TE30 IP address, such as 10.10.10.10.

**NOTE**

If **Reboot** is selected during the upgrade, the TE30 automatically restarts after the upgrade.

**Step 6** Click **Upgrade**.

**Step 7** In the displayed dialog box, enter the upgrade password and click **OK**.

----End

## Upgrading Multiple TE30s in Batches

You can upgrade multiple TE30s in batches using the upgrade program installed on a computer.

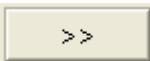
### Procedure

**Step 1** Power on the computer and TE30.

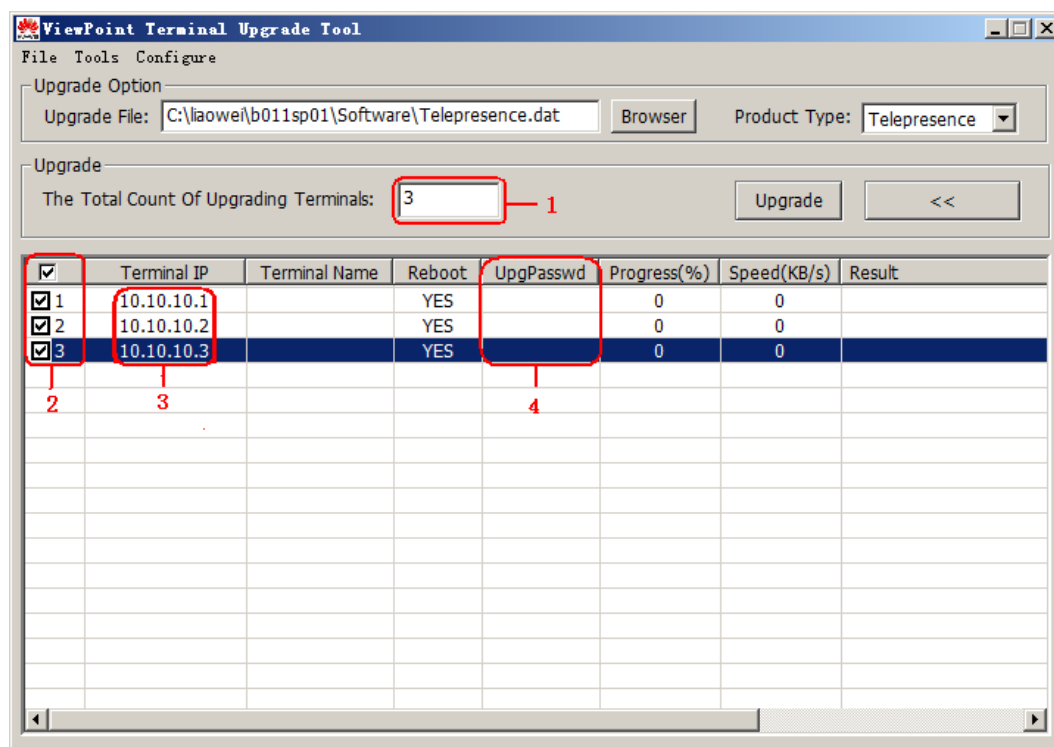
**Step 2** Extract the compressed software upgrade package on the computer.

**Step 3** Run **UpgMaster.exe** to display the window shown in **Figure 13-2**.

**Step 4** Click **Browser** and select the **Telepresence.dat** file.

**Step 5** Click  to display the window as shown in **Figure 13-2**.

**Figure 13-2** Upgrading multiple TE30s in batches



**Step 6** In the area circled in red and marked as 1, enter the number of the TE30s you wish to upgrade, for example, 3.

**Step 7** In the area circled in red and marked as 3, enter the IP addresses of the TE30s you wish to upgrade.

**Step 8** In the area circled in red and marked as 4, enter the upgrade passwords of the TE30s you wish to upgrade.

**Step 9** In the area circled in red and marked as 2, select the TE30s you wish to upgrade and click **Upgrade**.

**NOTE**

To improve upgrade efficiency when the network bandwidth is insufficient, you can press **Ctrl+ALT+C** in the window shown in [Figure 13-2](#), and then set the upgrade policy in the displayed window.

**Step 10** In the displayed dialog box, enter the upgrade password and click **OK**.

----End

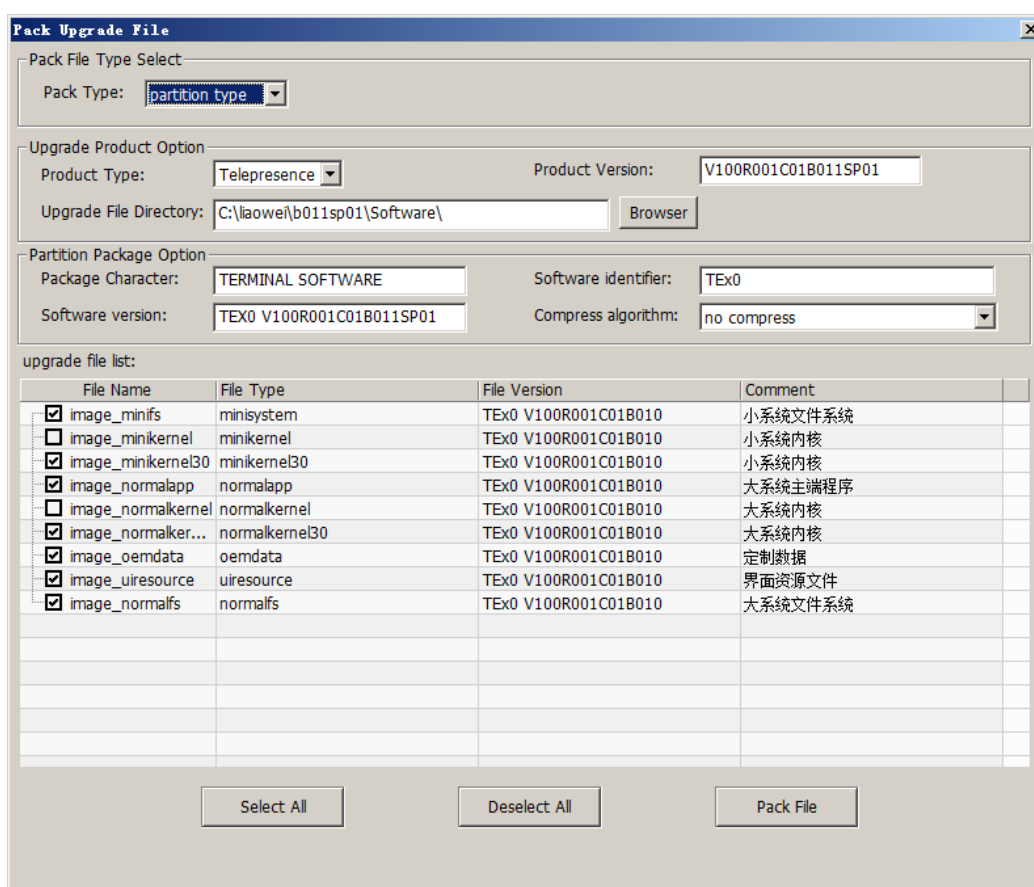
## Upgrading Specified Software Modules

You can upgrade specified software modules using the upgrade program installed on the computer.

## Procedure

- Step 1** Power on the computer and TE30.
- Step 2** Extract the compressed software upgrade package on the computer.
- Step 3** Run **UpgMaster.exe** to display the window shown in **Figure 13-2**.
- Step 4** Click **Browser** and select the **Telepresence.dat** file.
- Step 5** Press **Ctrl+ALT+P** to display the window shown in **Figure 13-3**.
- Step 6** Select the software modules you wish to upgrade.

**Figure 13-3** Selecting the software modules you wish to upgrade



- Step 7** Click **Pack File** to pack the selected software modules into a .dat file. Save the file to the computer.
- Step 8** Close the window shown in **Figure 13-3**.
- Step 9** In the window shown in **Figure 13-2**, click **Browser** and select the .dat file created and saved in **Step 7**.
- Step 10** Click **Upgrade**.
- Step 11** In the displayed dialog box, enter the upgrade password and click **OK**.

----End

## 13.2.3 Upgrading the TE30 Using the Bootrom System

If upgrading the TE30 using its normal system fails, you can use the bootrom system to complete the upgrade.

### Prerequisites

- A copy of the target software is available on the computer.
- The computer has been connected to the TE30 using a crossover cable or a switch.

### Context

The bootrom system is used for upgrades when the endpoint software malfunctions. This method can be repeatedly used and ensures successful software upgrades provided that there are no hardware failures.

### Procedure

**Step 1** While the TE30 is restarting or powering on, press and hold the MODE button for 3 seconds.

The TE30 enters the bootrom system.

#### NOTE

At this time, the TE30 has two IP addresses available: the static IP address of the normal system and the default IP address (192.168.1.1). If the normal system IP address cannot be used for connection setup or the TE30 fails to obtain any IP address because of the dynamic IP address or other causes, you can use the default IP address for upgrades.

**Step 2** Use Telnet to log in to the TE30. Run the **mnt upgswitch on** command to enable the bootrom system upgrade function.

#### NOTE

The bootrom system upgrade function is disabled by default.

**Step 3** Extract the compressed software upgrade package on the computer.

**Step 4** Run the upgrade program **UpgradeTool.exe**.

The upgrade dialog box is displayed.

**Step 5** Select **Browser** and select the .dat file.

**Step 6** Enter your TE30 IP address, for example, 192.168.1.1. Then click **Upgrade**.

**Step 7** In the displayed dialog box, click **OK** to start the upgrade.

**Step 8** Restart the TE30.

----End

## 13.2.4 Upgrading the TE30 on Its Web Interface

On the TE30 web interface, you can configure your TE30 to be upgraded online automatically or manually. You can also upgrade it using a local upgrade file.

## Upgrading the TE30 Online

**Step 1** Log in to the TE30 web interface. Choose **System Settings > Installation**.

The **Installation** page is displayed.

**Step 2** Click **Auto Upgrade Settings**.

The **Auto Upgrade Settings** page is displayed.

**Step 3** Set the upgrade parameters by referring to **Table 13-3**.

**Step 4** Perform either of the following:

- If you did not enable automatic upgrade, click **Manual upgrade** to manually upgrade the TE30.
- If you enabled automatic upgrade, click **Save**. To upgrade the TE30 immediately, you can also click **Manual upgrade**.

----End

## Upgrading the TE30 Using a Local Upgrade File

**Step 1** Choose **Maintenance > Upgrade**.

The **File upload dialog** dialog box is displayed.

**Step 2** Click **Select File** and select the **Telepresence.dat** file on your computer.

**Step 3** Click **Import**.

The TE30 starts the upgrade.

----End

The TE30 automatically restarts when the upgrade is complete.

## 13.3 Restoring Default Settings

If software update fails causing your TE30 to malfunction, use the **Restore Default** function to restore your TE30 to its default settings.

The **Restore Default** function only restores system settings to default settings. Other information stored on the TE30 will not be lost. For example, site information in the address book remains unchanged.

### Procedure

**Step 1** Choose **Advanced Settings > Settings > Installation > Restore Default**.

**Step 2** In the displayed dialog box, enter the TE30 serial number and select **OK**.



 **NOTE**

- To view the serial number of your TE30, choose **Advanced Settings > Diagnostics > System Information > Version**.
- Press and hold the MODE button for about 10 seconds, and the TE30 will be restored to its default settings and restart. After the TE30 is restored to its default settings, its IP address is reset to 192.168.1.1.

---End

## 13.4 Configuring the NTP Server

The Network Time Protocol (NTP) server is used for system synchronization and ensures time accuracy.

### Procedure

**Step 1** Choose **Advanced Settings > Settings > General > Date and time**. Set the NTP parameters by referring to [Table 2-4](#).

**Step 2** Select **Save**.

---End

## 13.5 Setting the Sleep and Wakeup Modes


Your TE30 supports the sleep and wakeup modes. You can set the sleep, automatic startup, and automatic shutdown times.

To reduce power consumption, you can configure your TE30 to enter sleep mode after it has been idle for a predefined period of time.

### Procedure

**Step 1** Choose **Advanced Settings > Settings > General > Power supply**. Set the sleep and automatic startup and shutdown parameters by referring to [Table 13-4](#).

**Table 13-4** Sleep and automatic startup and shutdown parameters

Parameter	Description	Setting
Shut Down	Specifies whether the TE30 can be powered off. If you set this parameter to <b>Disable</b> , you can only restart the TE30 or place it in sleep mode after you press  on the remote control.	The default value is <b>Enable</b> .

Parameter	Description	Setting
Enter sleep mode	Specifies the period after which the TE30 enters sleep mode if you do not perform any operations.  If you set this parameter to <b>Never</b> , the TE30 will never enter sleep mode.	The default value is <b>Never</b> .
Wake-on-LAN	Specifies whether you can use an encapsulation tool to remotely power on or wake the TE30.	The default value is <b>Disable</b> .
Scheduled power-on	Specifies whether the TE30 automatically powers on at predefined time.  If you enable this function, you must also set <b>Scheduled power-on time</b> .	The default value is <b>Disable</b> .
Scheduled power-on time	Specifies the time when the TE30 automatically powers on.  The value format depends on the value set for <b>Time format</b> .	The default value is <b>0:0</b> , which corresponds to the <b>24-hour</b> value of the <b>Time format</b> parameter.
Scheduled power-off	Specifies whether the TE30 automatically powers off at specified time.  If you enable this function, you must also set <b>Scheduled power-off time</b> .	The default value is <b>Disable</b> .
Scheduled power-off time	Specifies the time when the TE30 automatically powers off.  The value format depends on the value set for <b>Time format</b> .	The default value is <b>0:0</b> , which corresponds to the <b>24-hour</b> value of the <b>Time format</b> parameter.

**Step 2** Select **Save**.

When the TE30 is in sleep mode, the status indicator is still steady on.

----**End**

 **NOTE**

To directly place the TE30 in sleep mode, press  on the remote control and select **Sleep**.

## Follow-up Procedure

The TE30 wakes up from sleep mode once any operation is performed on it. For example, the TE30 wakes up if there is an incoming call, you perform an operation on the remote control, or you connect to the TE30 from its web interface.

When the automatic shutdown time arrives, the TE30 displays a dialog box and begins a 10-second countdown. If you select **No**, the TE30 will not power off. If you select **Yes**, or do not select any option within 10 seconds, the TE30 automatically powers off.

## 13.6 Setting Number Key Functions

You can configure the number keys on the remote control to implement two-stage dialing or camera preset control.


When your TE30 is not in use during a conference and the full screen mode is adopted, the number keys on the remote control do not support two-stage dialing and can only be used to control camera presets.

### Procedure

**Step 1** Choose **Advanced Settings > Settings > General > Select number key function** and select either of number key functions:

- **Second Dial**: If you select this option, you can press number keys as prompted to perform two-stage dialing.
- **Control camera preset**: If you select this option, you can press a number key to move the camera to the preset bound to that key.

 **NOTE**

To toggle between these two options, press  on the remote control.

**Step 2** Select **Save**.

----End

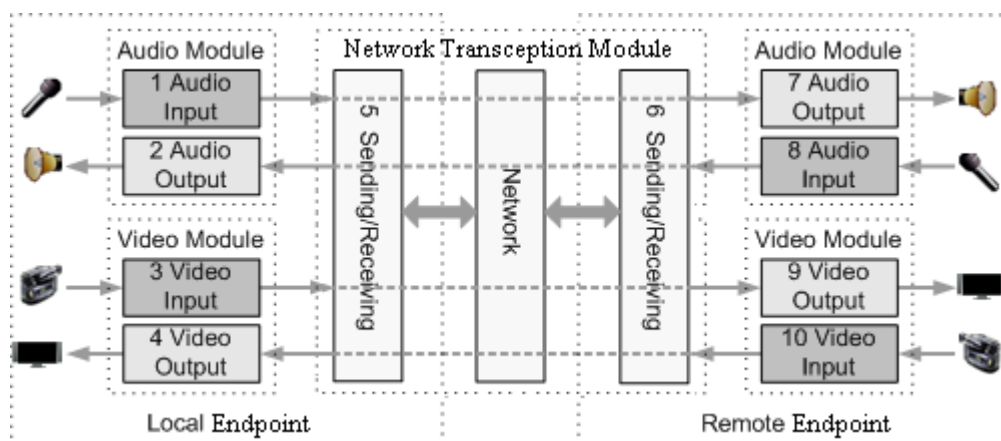
## 13.7 Using Diagnostics Methods

On the TE30, you can perform the following diagnostic tests: sound and color bar tests, network tests, loopback tests, and remote control tests.

Choose **Advanced Settings > Diagnostics**. Use the diagnostics methods available on the displayed **Diagnostics** screen.

**Figure 13-4** shows the TE30 diagnostics model.

**Figure 13-4** TE30 diagnostics model



**Figure 13-4** shows the diagnostics of three modules: audio module, video module, and network transception module.

Audio signals are transmitted in the following signal path:

- Local microphone → 1 → 5 → Communication network → 6 → 7 → Remote speaker
- Local speaker ← 2 ← 5 ← Communication network ← 6 ← 8 ← Remote microphone

Video signals are transmitted in the following signal path:

- Local camera → 3 → 5 → Communications network → 6 → 9 → Remote monitor
- Local monitor ← 4 ← 5 ← Communications network ← 6 ← 10 ← Remote camera

## Sound and Color Bar Tests

**Table 13-5** describes sound and color bar tests.

**Table 13-5** Sound and color bar tests

Test	Item to Be Tested	Signal Stream
Sound	2 audio output	2 → Speaker
Color bar	4 video output	4 → Monitor

- To perform a sound test, choose **Sound & Color Bar Test > Sound Test**. While the test audio stored on your TE30 plays, check the sound quality.
- To perform a color bar test, choose **Sound & Color Bar Test > Color Bar Test**. While seven color bars are displayed on the monitor, check the color display quality.

## Loopback Tests

During a loopback test, your TE30 transmits audio or video data through a channel to simulate actual working conditions and tests whether the output is satisfactory. You can perform a local

loopback test to check the network connection at your site or a remote loopback test to check the network connection at a remote site. While a remote loopback test is being performed, data is transmitted from your site to a remote site and then back to your site. [Table 13-6](#) describes loopback tests.



## CAUTION

- To enable your TE30 to communicate with other endpoints, stop the loopback test.
- You cannot perform a loopback test on remote video during a dual-stream conference.

**Table 13-6** Loopback tests

Test	Item to Be Tested	Signal Stream
Audio loopback	Local audio module	Microphone → 1 → 2 → Speaker
Video loopback	Local video module	Camera → 3 → 4 → Monitor
Digital loopback	Local audio and video modules	The TE30 performs local audio and video loopback tests simultaneously.
Remote audio loopback	<ul style="list-style-type: none"> <li>● Remote audio module</li> <li>● Network transmission</li> </ul>	Microphone → 1 → 5 → 6 → 7 → 8 → 6 → 5 → 2 → Speaker
Remote video loopback	<ul style="list-style-type: none"> <li>● Remote video module</li> <li>● Network transmission</li> </ul>	Camera → 3 → 5 → 6 → 9 → 10 → 6 → 5 → 4 → Monitor
Remote digital loopback	<ul style="list-style-type: none"> <li>● Remote audio and video modules</li> <li>● Network transmission</li> </ul>	The TE30 performs remote audio and video loopback tests simultaneously.

## Network Tests

**Table 13-7** Network tests


Test	Item to Be Tested	Signal Stream
Network	IP access	Endpoint → LAN or public network

Before a network test, ensure that your TE30 is connected to an IP network and IP parameters are set correctly.

- If your TE30 is on a public network: In **IP address**, enter an IP address that is in a different network segment from your TE30 IP address. Then select **Start**. If the test is successful, the gateway settings and IP address of your TE30 are correct.

- If your TE30 is on a private network: In **IP address**, enter a public IP address. Then select **Start**. If the test is successful, the gateway settings, NAT address, and IP address of your TE30 are correct.

## Remote Control Tests

Test the keys on the remote control to check whether they are functioning properly. If only some of the keys are tested, you can exit the **Remote Control Test** screen by pressing and holding  on the remote control.

When all the keys are tested, the **Remote Control Test** screen automatically exits.

The normal operating distance of the remote control is 6 meters. Its performance may be affected under strong light.

If the remote control does not work, verify that:

- The TE30 is powered on.
- The positive and negative charges of the battery are connected correctly.
- The battery has sufficient power left.
- There are no special fluorescent or neon signs nearby.

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# A Safety Precautions

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For safety purposes, carefully read through these safety precautions and observe them during operation.

## Basic Precautions

- Keep the device dry and secure from collision during storage, transportation, and operation of the device.
- Do not attempt to dismantle the device by yourself. In case of any fault, contact the appointed maintenance center for assistance or repair.
- Without prior written consent, no organization or individual is permitted to make any change to the structure or safety and performance design of the device.
- While using the device, observe all applicable laws, directives, and regulations, and respect the legal rights of others.

## Environmental Precautions

- Place the device in a well-ventilated place. Do not expose the device to direct sunlight.
- Install the device strictly according to the requirements of the manufacturer.
- Do not place any object on the top of the device. Reserve a minimum space of 10 cm at the four sides of the device for heat dissipation.
- Do not place the device on or near inflammable materials such as foam.
- Keep the device away from heat source or fire, such as a radiator or a candle.
- Keep the device away from any household appliances with strong electromagnetic fields, such as a microwave oven, refrigerator, or mobile phone.

## Operating Precautions

- Do not allow children to play with the device or accessories. Swallowing the accessories may be fatal.
- Use the accessories such as the power adapter and battery provided or authorized only by the manufacturer.
- Ensure that the device does not get wet. If water gets into the device, disconnect the power supply immediately and unplug all the cables connected to the device, such as the power cable, telephone cable, and RF cable, and then contact the appointed maintenance center.

- Before plugging or unplugging any cable, shut down the device and disconnect the power supply. While plugging or unplugging any cable, ensure that your hands are dry.
- Do not step on, pull, or overbend any cable. Otherwise, the cable may be damaged, leading to malfunction of the device.
- Do not use old or damaged cables.
- In lightning weather, disconnect the device from the power supply and unplug all the cables connected to the device.
- Keep the power plug clean and dry, to prevent electric shock or other dangers.
- If the device is not used for a long time, disconnect the power supply and unplug the power plug.
- If smoke, sound, or smell is emitted from the device, stop using the device immediately, disconnect the power supply, unplug the power plug and other cables, and remove the batteries. Then, contact the appointed maintenance center for repair.
- Ensure that no object (such as metal shavings) enters the device through the heat dissipation vent.
- Before connecting any other cable, connect the ground cable of the device. Do not disconnect the ground cable until you have disconnected all the other cables.
- Ensure that the three-phase power socket is grounded properly. The neutral line and the live line cannot be connected inversely.
- Do not scratch or abrade the shell of the device. The shed painting may lead to skin allergy or malfunction of the device. If the shed painting material drops into the host, a short circuit may occur.

## Cleaning Precautions

- Before cleaning the device, stop using it, disconnect the power supply, and unplug all the cables connected to the device, such as the power cable, telephone cable, and RF cable.
- Do not clean the device shell with any cleaning solution or cleanser spray. Use a piece of soft cloth to clean the device shell.

## Battery Usage Precautions of the Remote Control

- Use only the recommended battery. Pay attention to the polarity of the batteries while installing them.
- If a battery does not fit in the device, do not apply force. Otherwise, the battery may leak or explode.
- To reduce the risk of explosion, do not use batteries of different types together. For example, do not use an alkaline battery and a Mn-Zn battery together. It is recommended that you use batteries provided or recommended by the manufacturer.
- Do not use a new battery with an old battery. When you replace batteries, replace all of them at the same time.
- If you are not going to use the device for a long time, remove all the batteries.
- If any battery leaks, emits smoke, or emits abnormal smell, stop using it immediately.
- If the battery fluid comes in contact with your skin or clothes, rinse with water immediately and seek medical assistance.



- If the battery fluid goes into your eyes, do not rub your eyes. Rinse your eyes with water immediately and seek medical assistance.

## LCD Usage Precautions

- Do not expose the LCD to direct sunlight.
- Do not scratch or strike, apply force to, or place heavy objects on top of the LCD.
- Do not watch the LCD screen for extended periods of time. This may harm your eyes or blur your vision.

## LCD Cleaning Precautions

- According to the instructions in the attached manual, use a piece of soft cloth to remove dust from the surface of the LCD.
- Do not clean the LCD with volatile solvents, such as alcohol, benzene, or a dilution agent. Do not keep the LCD in contact with a rubber or plastic materials for long periods of time. This will deteriorate the surface gloss of the LCD.

## Wireless Product Usage Precautions

- Keep the wireless device away from magnetic storage devices, such as a magnetic card or a floppy disk to prevent loss of the stored information.
- Stop using the wireless device and disconnect it from the power supply in places where using of wireless devices is prohibited or using of a wireless device may lead to interference or danger.
- Unplug the wireless device from the terminal and turn off the terminal close to a high-precision controlled electronic device, such as an audiphone, a pacemaker, fire alarm, or an automatic gate. Otherwise, this will lead to malfunction of the electronic device.
- The user who uses an electronic assistant medical-treatment device needs to confirm with the service center regarding the effects of the radio wave on this device.
- Do not take the wireless device to the operation theater, Intensive Care Unit (ICU), or the Coronary Care Unit (CCU).
- When using the device, ensure that the antenna of the device is at least 20 cm away from all parts of your body.
- In the area with inflammable or explosive materials, turn off your wireless device and follow the relevant instructions given on the label to prevent an explosion or fire.
- Use your wireless device and its accessories in a clean and dust-free environment. Ensure that the wireless device does not come in contact with flame or a lit cigarette.
- Ensure that the wireless device and its accessories are dry.
- Do not drop, throw, or bend your wireless device.
- Do not place the wireless device and its accessories in areas with extreme temperatures.

## Reduction of Hazardous Substances

This device is compliant with the EU Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) Regulation (Regulation No 1907/2006/EC of the European Parliament and of the Council) and the EU Restriction of Hazardous Substances (RoHS) Directive (Directive 2002/95/EC of the European Parliament and of the Council). For more information about the

REACH compliance of the device, visit the website [www.huaweidevice.com/certification](http://www.huaweidevice.com/certification). You are recommended to visit the website regularly for up-to-date information.

## Statement on a Class A Product

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

## European Regulatory Compliance

The TE30 complies with the following European directives and regulations.

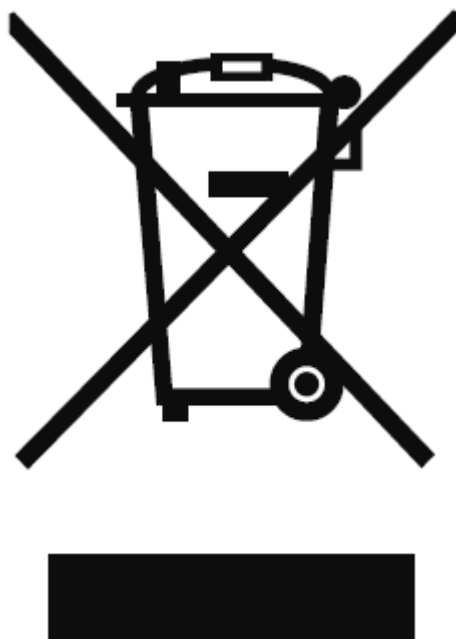
- 1999/5/EC (R&TTE)
- 2002/95/EC & 2011/65/EU (RoHS)
- EC NO. 1907/2006 (REACH)
- 2002/96/EC (WEEE)

The TE30 complies with Directive 2002/95/EC, 2011/65/EU and other similar regulations from the countries outside the European Union, on the RoHS in electrical and electronic equipment. The TE30 does not contain lead, mercury, cadmium, and hexavalent chromium and brominated flame retardants (Polybrominated Biphenyls (PBB) or Polybrominated Diphenyl Ethers (PBDE)) except for those exempted applications allowed by RoHS directive for technical reasons.

The TE30 complies with Regulation EC NO. 1907/2006 (REACH) and other similar regulations from the countries outside the European Union. Huawei will notify to the European Chemical Agency (ECHA) or the customer when necessary and regulation requires.

The TE30 complies with Directive 2002/96/EC on waste electrical and electronic equipment (WEEE). Huawei is responsible for recycling its end-of-life devices, and please contact Huawei local service center when recycling is required. Huawei strictly complies with the EU Waste Electrical and Electronic Equipment Directive (WEEE Directive) and electronic waste management regulations enacted by different countries worldwide. In addition, Huawei has established a system for recycling and reuse of electronic wastes, and it can provide service of dismantling and recycling for WEEE. By Huawei recycling system, the waste can be handled environmentally and the resource can be recycled and reused fully, which is also Huawei WEEE stratagem in the word. Most of the materials in TE30 are recyclable, and our packaging is designed to be recycled and should be handled in accordance with your local recycling policies.

In accordance with Article 11(2) in Directive 2002/96/EC (WEEE), TE30 were marked with the following symbol: a cross-out wheeled waste bin with a bar beneath as below:



## FCC Part 15

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device does not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

If this device is modified without authorization from Huawei, the device may no longer comply with FCC requirements for Class A digital devices. In that a case, your right to use the device may be limited by FCC regulations. Moreover, you may be required to correct any interference to radio or television communications at your own expense.



### CAUTION

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.



### NOTICE

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user authority to operate the equipment.

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This device has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the device is operated in a commercial environment.

This device generates, uses and radiates radio frequency energy. If it is not installed and used in accordance with the instructions, it may cause harmful interference to radio communications.

Operation of this device in a residential area is likely to cause harmful interference. In this case the user will be requested to correct the interference at his or her own expense.

## Canada Regulatory Compliance

- RSS-Gen statement

This device complies with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

- RSS-210 statement:

This device complies with Industry Canada RSS-210. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio RSS-210. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

- RSS-102 statement:

The device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS-102 RF exposure, users can obtain Canadian information on RF exposure and compliance.

Le dispositif rencontre l'exemption des limites courantes d'évaluation dans la section 2.5 de RSS 102 et la conformité à l'exposition de RSS-102 rf, utilisateurs peut obtenir l'information canadienne sur l'exposition et la conformité de rf.

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

Cet équipement est conforme à l'exposition aux rayonnements IC limites établies pour un environnement non contrôlé. Cet émetteur ne doit pas être Co-placé ou ne fonctionnant en même temps qu'aucune autre antenne ou émetteur. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre le radiateur et votre corps.

# B Technical Specifications

Knowing technical specifications of the TE30 helps you better use it.

**Table B-1** lists the technical specifications of the TE30.

**Table B-1** Technical specifications

Category	Item	Specifications
Standards compliance	Multimedia frame protocol	ITU-T H.323 and IETF SIP
	Video standard	H.264 SVC, H.264 HP, H.264 BP, H.263, H.263+, and H.261
	Audio standard	G.711, G.722, G.728, G.722.1*, G.722.1C*, AAC-LD, HWA-LD, G.711A, and G.711U
	Dual-stream standard	ITU-T H.239 and SIP
	Network standard	TCP/IP, FTP, FTPS, DHCP, SNMP, Telnet, SSH, HTTP, HTTPS, PPPoE, RTP, RTCP, and SNTP
	Communication standard	H.221, H.225, H.230, H.231, H.233, H.234, H.235, H.241, H.242, H.243, H.245, H.281, H.283, H.350, H.460, and T.140
	Protocol for signaling and media stream encryption	H.235
Conference bandwidth	IP	64 kbit/s to 4 Mbit/s
Video	Input	VGA and built-in Camera

Category	Item	Specifications
	Output	VGA/YPrPb and HDMI
	Video resolution	1080p30 with a minimum bandwidth of 512 kbit/s (Optional) 720p60 with a minimum bandwidth of 512 kbit/s (Optional) 720p30 with a minimum bandwidth of 384 kbit/s 4SIF/4CIF with a minimum bandwidth of 128 kbit/s SIF/CIF with a minimum bandwidth of 64 kbit/s SQSIF/SQCIF/QSIF/QCIF with a minimum bandwidth of 64 kbit/s
	Presentation resolution	Input: 1920 x 1200, 1080p (1920 x 1080), 1600 x 1200, 1680 x 1050, 1600 x 900, XGA+ (1400 x 1050), 1440 x 900, WXGA (1366 x 768), 1360 x 768, SXGA (1280 x 1024), 1280 x 960, WXGA (1280 x 800), 1280 x 600, WXGA (1280 x 768), 720p (1280 x 720), 1152 x 864, XGA (1024 x 768, SVGA (800 x 600), and VGA(640 x 480)  Output: 1920 x 1080, 1280 x 1024, 1280 x 720, 1024 x 768, 800 x 600 Coding/ Decoding resolution: 1920 x 1080, 1280 x 1024, 1280 x 720, 1024 x 768, 800 x 600
Other video features	VideoIntensifier, ViewProcessing, and Super Error concealment	
Audio	Input	Microphone array and 3.5 mm LINE IN port
	Output	HDMI and 3.5 mm LINE OUT port

Category	Item	Specifications
	Audio processing	Acoustic echo cancellation (AEC), acoustic noise suppression (ANS), automatic gain control (AGC), VoiceClear, and AudioEnhancer
MIC/TV/LAN/POWER port	Functions as an HDMI, Ethernet, microphone, or power port using the integrated cable.	
USB port	USB	USB2.0
Power and power supply	Operating voltage and frequency	100-240 V AC, 50 or 60 Hz; 12 V DC
	Maximum power consumption	60 W
Physical specifications	Codec dimensions (H x W x D)	157 mm x 235 mm x 167 mm (6.18 in. x 9.25 in. x 6.57 in.)
	Package dimensions (H x W x D)	260 mm x 415 mm x 235 mm (10.23 in. x 16.33 in. x 9.25 in.)
	Weight	2.1 kg (4.63 lb)
	Package Weight	4.7 kg (10.36 lb)
Infrared remote control port	Infrared signal reception	NEC
Built-in camera	Imaging component	2-megapixel and 1/3 type CMOS imaging chip
	Resolution	1080p60 (1920 x 1080 pixels) and 720p (1280 x 720 pixels)

Category	Item	Specifications
	Lens	Zoom: 12 x optical Focal length: $f = 3.9-46.8$ Aperture: F1.8 to F2.8 Maximum horizontal angle: $72^{\circ}$ Panning angle: $\pm 100^{\circ}$ ; tilting angle: $\pm 30^{\circ}$ Camera presets: 30 for the local camera and 6 for a remote camera Automatic white balance (AWB), automatic exposure (AE), and autofocus (AF) Three picture modes: standard, vivid, and natural
	Exposure mode	Automatic and manual
	White balance	Automatic and manual

 **NOTE**

The dimensions may vary depending on the actual product. The dimensions provided in the preceding table are for your reference only.



# C Videoconferencing Room Layout

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When using the TE30, pay attention to your sitting posture to avoid problems associated with your back. Do not stare at the monitor screen for a long time. This may harm your eyes or blur your vision.

## Layout Precautions

- Ensure that there are no large or moving objects behind you. Otherwise, the video cannot be viewed clearly.
- Do not use striped patterns as the background.
- Do not hold a conference in a room that generates a lot of echoing.
- Do not place the TE30 near a sound source.

## Lighting Precautions

To ensure high video quality, do not turn the lens towards bright lights.

# D Default Settings

To better use your TE30, get to know the default values of common user names and passwords.

**Table D-1** lists the default user names and passwords for the TE30.

**Table D-1** Default user names and passwords

Item	Default Setting
Administrator password for the remote controlled UI	<b>12345678.</b>
Administrator user name and password for the TE30 web interface	The default user name and password are <b>admin</b> and <b>Change_Me</b> respectively.
Upgrade password	<b>Change_Me.</b>
User name and password for logging in to the TE30 in Telnet mode	<ul style="list-style-type: none"> <li>● Debug user: The default user name and password are <b>debug</b> and <b>Change_Me</b> respectively..</li> <li>● Administrator: The default user name and password are <b>admin</b> and <b>Change_Me</b> respectively.</li> <li>● Test user: The default user name and password are <b>test</b> and <b>Change_Me</b> respectively.</li> <li>● Common user: The default user name and password are <b>user</b> and <b>Change_Me</b>.</li> <li>● Touch panel user: The default user name and password are <b>apiuser</b> and <b>Change_Me</b>.</li> </ul>
Default IP address after the TE30 is restored to its default settings	192.168.1.1

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# E Terminology

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## Numerics

- 1080i** 1080i is the shorthand name for a format of high-definition video modes. 1080 denotes the number of horizontal scan lines - also known as vertical resolution - and the letter i stands for interlaced. In the alternate format of high-definition video mode, known as 1080p, the p would stand for progressive scan. 1080i is generally used in place of 1440x1080, at a frame rate of 29.97 (30000/1001), while 1080p is usually used in place of 1920x1080 (full HD), at a frame rate of 23.976 fps (24000/1001).
- 1080p** 1080p is the shorthand name for a category of HDTV video modes. The number 1080 represents 1,080 lines of vertical resolution (1,080 horizontal scan lines), while the letter p stands for progressive scan (meaning the image is not interlaced). 1080p can be referred to as full HD or full high definition although 1080i is also "Full HD" (1920x1080 pixels). The term usually assumes a wide-screen aspect ratio of 16:9, implying a horizontal resolution of 1920 pixels. This creates a frame resolution of 1920×1080, or 2,073,600 pixels in total. The frame rate in hertz can be either implied by the context or specified after the letter p (or i), such as 1080p30, meaning 30 Hz.
- 2 panes** Users see two sites on one monitor in two panes. The two panes are of the same size. Each pane is about 1/4 of the screen. Use 2-pane as an adjective.
- 2CIF** 2CIF defines a video with a resolution of 352 × 576 pixels and using progressive scanning.
- 2SIF** 2SIF defines a video with a resolution of 352 × 480 pixels and using progressive scanning.
- 3 panes** Users see three sites on one monitor in three panes. Each pane is about 1/3 of the screen. Use 3-pane as an adjective.
- 4CIF** 4CIF defines a video resolution of 704 × 576 pixels.
- 4SIF** 4SIF defines a video with a resolution of 704 × 480 pixels and using progressive scanning.

**720p** 720p is the shorthand name for a category of HDTV video modes. The number 720 stands for the 720 horizontal scan lines of display resolution (also known as 720 pixels of vertical resolution), while the letter p stands for progressive scan or non-interlaced. When broadcast at 60 frames per second, 720p features the highest temporal (motion) resolution possible under the ATSC standard. Progressive scanning reduces the need to prevent flicker by filtering out fine details, so sharpness is much closer to 1080i than the number of scan lines would suggest.

## B

**broadcast (site)** All sites, except for the site being broadcast, view the site that is broadcast. On the Broadcast Site screen, users can choose between Broadcast Single and Broadcast in Turn.

**broadcast single (site)** Broadcast one specified site.

**built-in MCU** A built-in unit of an endpoint, using the built-in MCU, the endpoint can hold a multipoint conference that supports multiple functions, such as site access, video exchange, audio mixing, data processing, and signaling interaction.

## C

**call absent (sites)** Place calls to all the sites that are on the site list but are absent from the conference.

**call site** Place a call to a site to add the site to the conference.

**cascading** Multiple MCUs are connected in series at different layers to allow the number of participants to expand beyond what a single MCU can support. In cascading mode, an MCU in an upper layer can control an MCU in a lower layer.

**camera preset** Users can control a camera by zooming, panning, and tilting the camera or changing the focus. Then, users can store this camera position and assign a number to this position. This preset position is a camera preset. During a conference, users can move the camera to a camera preset by selecting the relevant number.

**CIF** CIF (Common Intermediate Format), also known as FCIF (Full Common Intermediate Format), is a format used to standardize the horizontal and vertical resolutions in pixels of YCbCr sequences in video signals, commonly used in video teleconferencing systems. It was first proposed in the H.261 standard.

**continuous presence** A feature in multi-point conferencing that allows the video endpoint to see images from multiple video endpoints at the same time. All parties remain continuously visible or 'present' for the duration of the call and the user can have control over the screen layout. Continuous presence is better suited for team collaboration since it allows participants to see the reactions (body language) of all participants, not just the speaker.

## D

**delete site** Remove a site from the site list.

**dual stream** During a conference, two channels of video streams can be sent or received simultaneously. For example, one channel is used for transmitting video (such as video captured by a camera) and the other channel is used for transmitting presentation (such as a computer desktop). The two channels of videos can be displayed on two displays.

## E

**end conference** End a conference. In this case, all sites leave the conference.

## F

**full-duplex** A full-duplex, or sometimes double-duplex system, allows communication in both directions, and, unlike half-duplex, allows this to happen simultaneously. Land-line telephone networks are full-duplex, since they allow both callers to speak and be heard at the same time. A good analogy for a full-duplex system would be a two-lane road with one lane for each direction.

## G

**G.711** G.711, also known as Pulse Code Modulation (PCM), is a very commonly used waveform codec. G.711 uses a sampling rate of 8,000 samples per second, with the tolerance on that rate 50 parts per million (ppm). Non-uniform quantization (logarithmic) with 8 bits is used to represent each sample, resulting in a 64 kbit/s bit rate. There are two slightly different versions;  $\mu$ -law, which is used primarily in North America, and A-law, which is in use in most other countries outside North America.

**G.722** G.722 is an ITU-T standard 7 kHz wideband speech codec operating at 48, 56 and 64 kbit/s. It was approved by ITU-T in November 1988. Technology of the codec is based on sub-band ADPCM (SB-ADPCM).

**G.728** G.728 is an ITU-T standard for speech coding operating at 16 kbit/s. It is officially described as Coding of speech at 16 kbit/s using low-delay code excited linear prediction.

**give floor** After the chair site gives floor to a site, the other sites view and hear the site. All the sites, except the chair site and the site that is given the floor, are muted.

## H

**H.239** H.239 is an ITU-T recommendation from the H.32x Multimedia Communications' macrofamily of standards for multimedia communications over various networks. The H.239 recommendation is titled "Role management and additional media channels for H.3xx-series terminals". Practical importance of this recommendation is its setting forth a way to have multiple video channels (for example, one for conferencing, another for presentation) within a single session (call).

**H.261** H.261 is a 1990 ITU-T video coding standard originally designed for transmission over ISDN lines on which data rates are multiples of 64 kbit/s. It is one member of the H.26x family of video coding standards in the domain of the ITU-T Video Coding Experts Group (VCEG). The coding algorithm was designed to be able to operate at video bit rates between 40 kbit/s and 2 Mbit/s. The standard supports two video frame sizes: CIF (352x288 luma with 176x144 chroma) and QCIF (176x144 with 88x72 chroma) using a 4:2:0 sampling scheme. It also has a backward-compatible trick for sending still picture graphics with 704x576 luma resolution and 352x288 chroma resolution (which was added in a later revision in 1993).

- H.263** H.263 is a video codec standard originally designed as a low-bitrate compressed format for videoconferencing. It was developed by the ITU-T Video Coding Experts Group (VCEG) in a project ending in 1995/1996 as one member of the H.26x family of video coding standards in the domain of the ITU-T. H.263v2 (H.263+) added support for flexible customized picture formats and custom picture clock frequencies. Previously the only picture formats supported in H.263 had been Sub-QCIF, QCIF, CIF, 4CIF, and 16CIF, and the only picture clock frequency had been 30000/1001 (approximately 29.97) clock ticks per second.
- H.264** H.264/AVC/MPEG-4 Part 10 (Advanced Video Coding) is a standard for video compression. The final drafting work on the first version of the standard was completed in May 2003. H.264/AVC is the latest block-oriented motion-compensation-based codec standard developed by the ITU-T Video Coding Experts Group (VCEG) together with the ISO/IEC Moving Picture Experts Group (MPEG), and it was the product of a partnership effort known as the Joint Video Team (JVT). The ITU-T H.264 standard and the ISO/IEC MPEG-4 AVC standard (formally, ISO/IEC 14496-10 - MPEG-4 Part 10, Advanced Video Coding) are jointly maintained so that they have identical technical content. H.264 is used in such applications as Blu-ray Disc, videos from YouTube and the iTunes Store, DVB broadcast, direct-broadcast satellite television service, cable television services, and real-time videoconferencing.
- H.323** H.323 is a recommendation from the ITU Telecommunication Standardization Sector (ITU-T) that defines the protocols to provide audio-visual communication sessions on any packet network. The H.323 standard addresses call signaling and control, multimedia transport and control, and bandwidth control for point-to-point and multi-point conferences.
- half-duplex** A transmitting mode in which a half-duplex system provides for communication in both directions, but only one direction at a time (not simultaneously). Typically, once a party begins receiving a signal, it must wait for the transmitter to stop transmitting, before replying.
- hang up (site)** Hang up a remote site and remove the site from the conference.
- HD** Refers to a video system of higher resolution than standard-definition (SD) video, most commonly at display resolutions of 1280×720 (720p) or 1920×1080 (1080i or 1080p, full HD). High definition (HD) refers to an increase in display or visual resolution of television formats (HDTV), high definition video (used in HDTV broadcasting, digital film and computer HD video film formats), high definition multimedia interface (HDMI), an all-digital audio and video interface capable of transmitting uncompressed streams and other formats for recording and transmitting visual and audio communications.
- hide video** During a conference, a site can hide its video to prevent other sites from viewing the video of the site.

## I

- intelligent mode** A video transforming mode, in this mode, cut the video first and then stretch the video. Ensure that the aspect ratio of the video remains unchanged. For example, to change a wide-screen video to a narrow-screen video, crop the left and right edges of the wide-screen video, and then stretch the video to full screen.

## L

- lock conference (presentation)** After the chair site locks a conference and if site A is sharing presentation, the other sites in the conference cannot share presentation until site A stops sharing presentation.
- lock site (presentation)** After the chair site locks the presentation, only the site that is currently sharing the presentation can continue sharing presentation. Other sites cannot share presentation.

## P

- presentation** During a conference, the local site can share the content input by a computer with remote sites, such as an excel file, a diagram, or a presentation.

## R

- release chair** Pass the chair control to another site.
- request chair** Request chair rights and become the chair site.
- request floor** Request to speak. During a conference, users can request the floor from the chair site.
- revoke chair** After the chair control rights are revoked, no chair site exists in the conference. If the site that revokes the chair rights wants to become the chair site, the site needs to request chair rights.
- revoke presentation** After the chair site revokes the presentation token, the relevant site stop sharing the presentation.

## S

- S-Video** Separate Video[1], more commonly known as S-Video, also called Y/C, and sometimes incorrectly [2] referred to as Super Video[3], is an analog video signal that carries video data as two separate signals: luma (luminance) and chroma (color). This differs from composite video, which carries picture information as a single lower-quality signal, and component video, which carries picture information as three separate higher-quality signals. S-Video carries standard definition video (typically at 480i or 576i resolution), but does not carry audio on the same cable.
- SIF** Source Input Format (SIF) defined in MPEG-1, is a video format that was developed to allow the storage and transmission of digital video. 625/50 SIF format (PAL/SECAM) has a resolution of (360 or) 352 x 288 active pixels and a refresh rate of 25 frames per second. 525/59.94 SIF Format (NTSC) has a resolution of (360 or) 352 x 240 active pixels and a refresh rate of 29.97 frames per second.
- site group** A group of conference sites. If certain sites attend a conference frequently, users can define these sites as a group to facilitate site management.
- start presentation** Start sharing local-site presentation with remote sites.
- stop broadcasting (site)** Stop broadcasting a site. The other sites stop viewing the site.
- stop presentation** Stop sharing local-site presentation with remote sites.

**SVGA** Super Video Graphics Array or Ultra Video Graphics Array, almost always abbreviated to Super VGA, Ultra VGA or just SVGA or UVGA is a broad term that covers a wide range of computer display standards. Originally, it was an extension to the VGA standard first released by IBM in 1987. Unlike VGA—a purely IBM-defined standard—Super VGA was defined by the Video Electronics Standards Association (VESA), an open consortium set up to promote interoperability and define standards. When used as a resolution specification, in contrast to VGA or XGA for example, the term SVGA normally refers to a resolution of 800 × 600 pixels.

## V

**video** The video is generally output from the HD OUT 1 interface of an HD video terminal and is captured by a camera.

**view single (site)** View any site.

**view site** View any site. On the View Site screen, users can choose between View Single and View in Turn.

**voice activation** This function is used for discussion or arguing scenarios. The site with the loudest voice is broadcast.

## X

**XGA** XGA, the Extended Graphics Array, is an IBM display standard introduced in 1990. Today, it is the most common appellation of the 1024×768 pixels display resolution, but the official definition is broader than that.



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# F Acronyms and Abbreviations

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## Numerics

<b>3G</b>	Third Generation Mobile Telephony
<b>4CIF</b>	4 x Common Intermediate Format

## A

<b>AAC-LD</b>	Advanced Audio Coding-Low Delay
<b>ADSL</b>	Asymmetric Digital Subscriber Line
<b>AES</b>	Advanced Encryption Standard

## B

<b>BNC</b>	Bayonet Neill-Concelman connector
<b>BRI</b>	Basic Rate Interface

## C

<b>CAS</b>	Channel Associated Signaling
<b>CCD</b>	Charge Coupled Device
<b>CCS</b>	Common Channel Signaling
<b>CDMA</b>	Code Division Multiple Access
<b>CIF</b>	Common Intermediate Format
<b>CRC</b>	Cyclic Redundancy Check
<b>CVBS</b>	Composite Video Base Signal

**D**

<b>DES</b>	Data Encryption Standard
<b>DNS</b>	Domain Name Server
<b>DSCP</b>	Differentiated Services Code Point
<b>DVI</b>	Digital Visual Interface

**F**

<b>FTP</b>	File Transfer Protocol
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**G**

<b>GK</b>	Gatekeeper
<b>GMT</b>	Greenwich Mean Time

**H**

<b>HD</b>	High Definition
<b>HDMI</b>	High Definition Multimedia Interface

**I**

<b>IMS</b>	IP multimedia subsystem
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**L**

<b>LDAP</b>	Lightweight Directory Access Protocol
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**M**

<b>MCU</b>	Multipoint Control Unit
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**N**

<b>NAT</b>	Network Address Translation
<b>NTSC</b>	National Television Standards Committee

**P**

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<b>PAL</b>	Phase Alternating Line
<b>PPPoE</b>	PPP Over Ethernet
<b>PRI</b>	Primary Rate Interface
<b>PsF</b>	Progressive segmented Frame
<b>PSTN</b>	Public Switched Telephone Network
<b>PTZ</b>	Pan/Tilt/Zoom
<b>Q</b>	
<b>QoS</b>	Quality of Service
<b>R</b>	
<b>RM</b>	ResourceManager
<b>S</b>	
<b>SDI</b>	Serial Digital Interface
<b>SIP</b>	Session Initiation Protocol
<b>SMB</b>	SubMiniature version B connector
<b>SXGA</b>	Super Extended Graphics Array
<b>U</b>	
<b>USB</b>	Universal Serial Bus
<b>V</b>	
<b>VGA</b>	Video Graphics Array
<b>W</b>	
<b>WCDMA</b>	Wideband Code Division Multiple Access
<b>Wi-Fi</b>	Wireless Fidelity
<b>WOL</b>	Wake on LAN
<b>X</b>	

**XGA**

Extended Graphics Array