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Warnings and Precautions

To use the device properly and safely, read these warnings and precautions carefully and strictly observe them during operation. Unless otherwise specified, the device described in this section includes the device and its accessories.

Basic Requirements

- During storage, transportation, and operation of the device, keep it dry and prevent it from colliding with other objects.
- Do not dismantle the device. In case of any fault, contact an authorized service center for assistance or repair.
- Without authorization, no organization or individual can change the mechanical, safety, or performance design of the device.
- When using the device, observe all applicable laws and regulations and respect the legal rights of other people.

Environmental Requirements for Using the Device

- Before connecting and disconnecting cables, stop using the device, and then disconnect it from the power supply. Ensure that your hands are dry during operation.
- Keep the device far from sources of heat and fire, such as a heater or a candle.

- Keep the device far from electronic appliances that generate strong magnetic or electric fields, such as a microwave oven or a refrigerator.
- Place the device on a stable surface.
- Place the device in a cool and well-ventilated indoor area. Do not expose the device to direct sunlight.
- Place the device in a cool and well-ventilated indoor area. Do not expose the device to direct sunlight. Use the device in an area with a temperature ranging from 0°C to 40°C.
- Do not block the openings on the device with any object. Reserve a minimum space of 10 cm around the device for heat dissipation.
- Do not place any object (such as a candle or a water container) on the device. If any foreign object or liquid enters the device, stop using the device immediately, power it off, remove all the cables connected to it, and then contact an authorized service center.
- During thunderstorms, power off the device, and then remove all the cables connected to it to prevent it from getting damaged due to lightning strikes.

Precautions for Using Wireless Devices

- When using the device, ensure that the antenna of the device is at least 20 cm away from all persons.
- Do not use the device where using wireless devices is prohibited or may cause interference or danger.

- The radio waves generated by the device may interfere with the operation of electronic medical devices. If you are using any electrical medical device, contact its manufacturer for the restrictions on the use of the device.
- Do not take the device into operating rooms, intensive care units (ICUs), or coronary care units (CCUs).

Areas with Inflammables and Explosives

- Do not use the device where inflammables or explosives are stored, for example, in a gas station, oil depot, or chemical plant. Otherwise, explosions or fires may occur. In addition, follow the instructions indicated in text or symbols.
- Do not store or transport the device in the same box as inflammable liquids, gases, or explosives.

Accessory Requirements

- Use only the accessories supplied or authorized by the device manufacturer. Otherwise, the performance of the device may get affected, the warranty for the device or the laws and regulations related to telecommunications terminals may become null and void, or an injury may occur.
- Do not use the power adapter if its cable is damaged. Otherwise, electric shocks or fires may occur.

- Ensure that the power adapter meets the specifications indicated on the device nameplate.
- Ensure that the power adapter meets the requirements of Clause 2.5 in IEC60950-1/EN60950-1 and it is tested and approved according to national or local standards.

Safety of Children

Keep the device and its accessories out of the reach of children. Otherwise, they may damage the device and its accessories by mistake, or they may swallow the small components of the device, causing suffocation or other dangerous situations.

Maintenance

- If the device is not used for a long time, power it off, and then remove all the cables connected to it.
- If any exception occurs, for example, if the device emits any smoke or unusual sound or smell, stop using the device immediately, power it off, remove all the cables connected to it, and then contact an authorized service center.
- Do not trample, pull, or overbend any cable. Otherwise, the cable may get damaged, causing malfunction of the device.
- Before cleaning the device, stop using it, power it off, and then remove all the cables

connected to it.

- Use a clean, soft, and dry cloth to clean the device shell. Do not use any cleaning agent or spray to clean the device shell.

Disposal and Recycling Information



This symbol on the device (and any included batteries) indicates that the device (and any included batteries) should not be disposed of as normal household garbage. Do not dispose of your device or batteries as unsorted municipal waste. The device (and any batteries) should be handed over to a certified collection point for recycling or proper disposal at the end of its life.

- For more detailed information about the recycling of the device or batteries, contact your local city office, the household waste disposal service, or the retail store where you purchased this device.
- The disposal of this device is subject to the Waste from Electrical and Electronic Equipment (WEEE) Directive of the European Union. The purpose for separating WEEE and batteries from other waste is to minimize any environmental impact and health hazard due to the presence of hazardous substances.

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 Web site www.huaweidevice.com/certification. You are recommended to visit the Web site regularly for up-to-date information.

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- For the declaration of conformity, visit the Web site www.huaweidevice.com/certification.

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- Notice: Observe the national local regulations in the location where the device is to be used. This device may be restricted for use in some or all member states of the European Union (EU).
- Notice: This device may be operated in all member states of the EU.
France: Outdoor use limited to 10 mW e.i.r.p. within the band 2454-2483.5 MHz.
Italy: For private use, a general authorisation is required if WAS/RLAN's are used outside own premises. For public use, a general authorisation is required.
- **Luxembourg:** General authorisation required for network and service supply.

- **Norway:** This subsection does not apply for the geographical area within a radius of 20 km from the centre of Ny-Ålesund.

Thank You for Purchasing the LTE CPE!

Generally, the LTE CPE will be replaced by the CPE in this guide. The following symbols are used in this guide:



A note provides additional information about a topic.



A tip provides an alternative method or shortcut to perform an action.



A caution warns you about potential problems or specific precautions that need to be taken.

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Before You Begin

Check the following items in the product package:

- LTE CPE B593
- Power adapter
- Ethernet cable
- USB cable
- Quick Start Guide



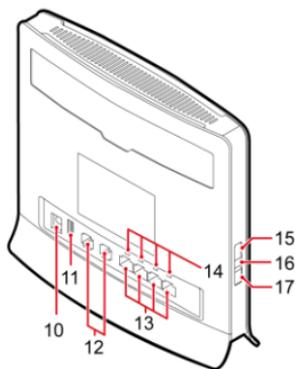
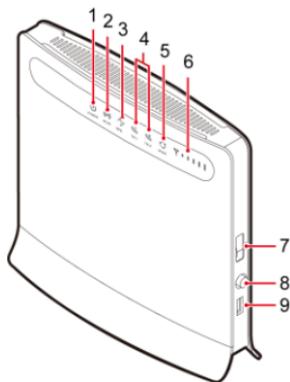
If you find anything missing or damaged, contact the vendor.

Getting to Know the CPE



The figures in this guide are provided only for reference, see the actual product for details.

Exterior



1	POWER indicator	2	WLAN indicator	3	WPS indicator
4	TEL indicator	5	MODE indicator	6	SIGNAL indicator
7	SIM card slot	8	POWER button	9	USB host
10	POWER port	11	USB port	12	TEL ports
13	LAN ports	14	LAN indicators	15	WPS button
16	RESET button	17	WLAN button		

Indicator

The CPE provides indicators on the front and rear panels. The following table describes the states of each indicator.

Indicator	State	Description
POWER	On	The CPE is powered on.  Only when the POWER indicator is steady on for more than 60s, a major fault occurs. In this case, you need to contact the operator for repair.

Indicator	State	Description
	Off	The CPE is powered off.
TEL1/TEL2	On	This indicator is on when the CPE of the calling or called party is in off-hook state.
	Blinking	This indicator blinks when the CPE is not switched to the off-hook state during a call.
	Off	This indicator is off when the CPE is hooked off and there is no calling party.
MODE	Blue	This indicator is constantly blue when the CPE has accessed the LTE network but no data is transferred. This indicator is blinking blue when the CPE has accessed the LTE network and data is transferred.
	Green	This indicator is constantly green when the CPE has accessed the UMTS network but no data is transferred. This indicator is blinking green when the CPE has accessed the UMTS network and data is transferred.
	Orange	This indicator is constantly orange when the CPE has accessed the GSM network but no data is transferred. This indicator is blinking orange when the CPE has accessed the GSM network and data is transferred.
	White	This indicator is blinking white when the CPE is accessing the wireless network.

Indicator	State	Description
	Red	This indicator is constantly red when the CPE fails to access the wireless network or the CPE does not access the wireless network.
	Mulberry	This indicator is on when the SIM cannot be identified or the PIN is not entered or the PIN check fails.
	Off	This indicator is off when the CPE does not access the wireless network.
WLAN	On	The WLAN function is enabled.
	Blinking	This indicator is blinking when data is transferred through the WLAN.
	Off	The WLAN function is disabled.
LAN1–LAN4	On	This indicator is on when an Ethernet device has been connected to the relevant port.
	Blinking	Data is being transmitted over the corresponding port.
	Off	This indicator is off when an Ethernet device is not connected to the relevant port.
SIGNAL	On	This is a five-bar indicator. The more bars that are on, the stronger the wireless signals.
	Off	This indicator is off when no signal is detected.

Indicator	State	Description
WPS	Regular blinking	Authentication for WPS accessing is implementing. The indicator blinks not more than two minutes.
	Irregular blinking	An event or alarm occurs. You need to log in to the WEB UI and perform related operations.
	On	The WPS function is enabled.
	Off	The WPS function is disabled.
All indicators except the POWER indicator	Blinking	The CPE is performing an update configuration, such as an upgrade or resetting. In this period, to prevent a serious damage, do not power off the CPE.

On: An indicator is turned on.

Blinking: An indicator blinks at regular intervals.



Regular blinking: This indicator blinks at regular intervals, such as on for 0.5s and off for 0.5s.

Irregular blinking: This indicator blinks at irregular intervals. For example: in each 1.6s, the indicator remains on for two short periods of 0.3s with a quick blink between them and then remains off for 1s.

Off: An indicator is turned off.

Ports and Buttons

Item	Description
POWER	This port is for connecting to a power adapter.
TEL1/TEL2	These ports are connecting to telephones or faxes (optional).
LAN1–LAN4	These ports are for connecting to computers, switches, or other LAN devices.
RESET	<ul style="list-style-type: none"><li data-bbox="252 522 940 581">■ You can restart the CPE by holding down this button for 2 to 5 seconds.<li data-bbox="252 609 940 668">■ You can restore the default settings of the CPE by holding down this button for more than 5 seconds. <p data-bbox="252 696 940 774"> Restoring the default settings of the CPE will override all the previous settings.</p>
WLAN	<ul style="list-style-type: none"><li data-bbox="252 812 940 871">■ You can enable/disable the WLAN function by holding down this button for 2 to 3 seconds.

Item	Description
	<ul style="list-style-type: none"><li data-bbox="252 156 943 215">■ You can enable the Wi-Fi function by holding down this button for more than 3 seconds.
WPS	This is the WPS switch.
SIM	This slot is for inserting the SIM.
USB	<p data-bbox="252 377 632 401">This port is for inserting the USB device.</p> <p data-bbox="252 422 930 468"> This port is not for connecting the USB host device, such as a PC.</p>

Connecting the CPE

Before you connect the CPE, read Warnings and Precautions carefully.



Power off the CPE and remove all cables from the CPE in thunderstorms.

Do not touch the external antenna of the CPE, which may be heated in use.

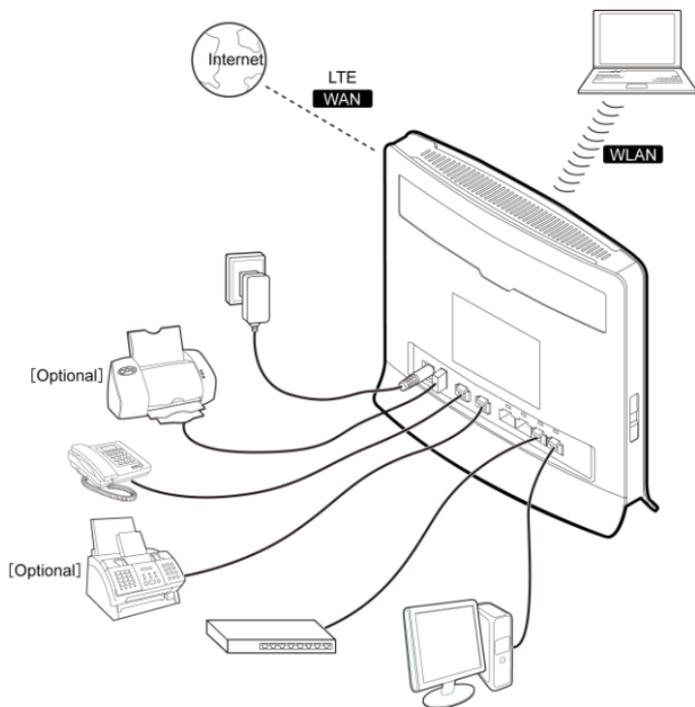
Placing the CPE

- Place the CPE in open environments. Otherwise, concrete and wooden walls may affect the transmission of wireless signals.
- Keep the CPE away from the household electrical appliances that produce strong electric or magnetic fields, such as micro-wave ovens, refrigerators, or disc satellite antennas.

Connecting Devices to the CPE



Connect devices to the CPE according to the actual situations. The following figure is for reference only.



To connect devices to the CPE, do as follows:

1. Connect the CPE to the power.

Connect the AC outlet of the power adapter to the POWER port of the CPE.

2. Connect other devices to the CPE.

- Connect LAN devices, such as computers or switches, to the LAN ports of the CPE by using cables.
- Connect telephones or faxes to the TEL ports of the CPE by using telephone lines.

3. Start the CPE.

Press the POWER button to start the CPE.



After the CPE is started, you can modulate the position and direction of the CPE to catch the strongest wireless signals. The strength of wireless signals is shown in the five-bar signal indicator.

Configuration Requirements for the PC

Your PC must meet the following requirements for configuring the CPE. Otherwise, the operation performance may be degraded.

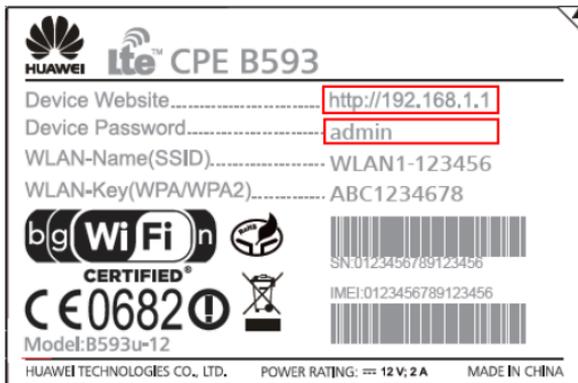
Item	Requirement
CPU	Pentium 500 MHz or higher
Memory	128 MB RAM or higher
Hard disk	Available space of 50 MB
Operating system	Microsoft: Windows XP, Windows Vista, and Windows7 Mac: Mac OS X
Screen resolution	1024 x 768 pixels or higher
Internet browser	Internet Explorer 7.0 or later versions, Firefox 3.5 or later versions, Opera 10 or later versions, Safari 5 or later versions, and Chrome 9 or later versions

Accessing the Web-Based Utility

The Web-Based Utility of the CPE is a web browser-based configuration interface that allows easy device setup, configuration and management through Internet browser.

For example, to access the Web-Based Utility of the CPE from a PC that runs on Windows XP and uses IE 7.0, do as follows:

1. Ensure that the hardware of the CPE is connected correctly.
2. Set the IP address of the connected computer and ensure that the IP address of the computer is in the same segment as that of the CPE.





By default, the IP address of the CPE is 192.168.1.1 and the subnet mask is 255.255.255.0. If the CPE is working as a router, it is recommended that the IP address and DNS settings be obtained automatically.

3. Run the Internet Explorer, enter <http://192.168.1.1> in the address bar and press **Enter**.
4. Enter the password in the login window that opens, and then select **Log In**. After the password is verified, you can perform operations on the Web-Based Utility.

For More Information

For information about more settings and configuration, you can access the Web-Based Utility and select  to refer to the online help.



To read the online help, you need to install the Adobe Reader 6.0 to later versions.

FAQ

The power indicator is not on.

- Check whether the power supply is properly connected.
- Check whether the power adapter meets the requirements on specifications.

Calls cannot get through.

- Ensure that the telephone is working normally and the telephone line is connected correctly.
- Ensure that the CPE works in LTE mode. Otherwise, the VoIP service cannot be used.
- Ensure that the VoIP service is correctly configured in the Web-Based Utility.

If the problem persists, contact the local service provider.

The Web-Based Utility cannot be accessed.

- Ensure that the CPE is started.
- Ensure that the network cable between the CPE and the computer is properly connected.
- Ensure that the IP address of the computer is correct.

If the problem persists, contact the local service provider.

The wireless network cannot be detected.

- Check whether the power adapter is correctly connected.
- Ensure that the CPE is placed in open environments and far away from concrete or wooden obstacles.
- Keep the CPE away from the household electrical appliances that produce strong electric or magnetic fields, such as micro-wave ovens, refrigerators, or disc satellite antennas.

If the problem persists, contact the local service provider.

The power adapter of the CPE is overheated.

- Shut down the CPE when it is not used. Otherwise, the CPE may be overheated after running for a long time.
- Place the CPE in cool and draughty environments.

Specifications

Wireless Network	
Standard	FDD-LTE R8 2009Q4 WCDMA/HSDPA R5/HSUPA R6/HSPA+ R7/DC-HSPA+ R8 GSM/GPRS/EGPRS R99
Frequency	LTE: DD800, 900, 1800, 2100, 2600 UMTS: 900, 2100 GSM: 850, 900, 1800, 1900
Port	
LAN	Four Fast Ethernet (FE) ports
TEL	Two common telephone ports
USB	Two USB host ports
SIM	One SIM slot

Wi-Fi	
Standard	IEEE 802.11b, IEEE 802.11g, IEEE 802.11n
Others	
Ambient temperature for operation	0°C to 40°C
Relative humidity for operation	5% to 95%, non-condensing
Power adapter input	100 to 240 V AC, 50 Hz
Power adapter output	12 V DC, 2 A
Power consumption	< 20 W
Weight	About 500 g
Dimensions (L x W x H)	About 190 mm x 35 mm x 165 mm

Acronyms and Abbreviations

CPE	Customer Premises Equipment
LAN	Local Area Network
VoIP	Voice over Internet Protocol
LTE	Long-Term Evolution
WLAN	Wireless Local Area Network
WPS	Wi-Fi Protected Setup
UMTS	Universal Mobile Telecommunication System
GSM	Global System for Mobile communications

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