

HUAWEI HG532c Home Gateway

## **User Guide**



HUAWEI HG532c Home Gateway  
V100R001

## User Guide

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### Huawei Technologies Co., Ltd.

**Address:**            Huawei Industrial Base  
                          Bantian, Longgang  
                          Shenzhen 518129  
                          People's Republic of China

**Website:**            <http://www.huawei.com>

**Email:**                [terminal@huawei.com](mailto:terminal@huawei.com)

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# 1 Warnings and Precautions

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Thank you for purchasing the HUAWEI HG532c Home Gateway (hereinafter referred to as the HG532c).

To use the device properly and safely, read these warnings and precautions carefully and strictly observe them during operation. Unless otherwise specified, the term "device" refers to 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.
- 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, Authorisation 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](http://www.huaweidevice.com/certification). You are recommended to visit the Web site regularly for up-to-date information.

## EU Regulatory Conformance

This device should be installed and operated with a minimum distance of 20 cm between the antenna and all persons.

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For the declaration of conformity, visit the Web site [www.huaweidevice.com/certification](http://www.huaweidevice.com/certification).

**CE0678** 

Notice: This device can be operated in all European countries.

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.

## **Federal Communications Commission (FCC) Statement**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device complies with part 68 of the FCC Rules.

This device should be installed and operated with a minimum distance of 20 cm between the antenna and all persons.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

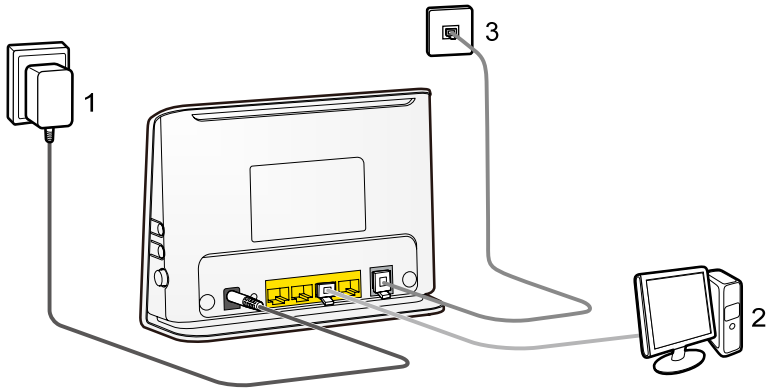
Warning: Changes or modifications made to this device not expressly approved by Huawei Technologies Co., Ltd. may void the FCC authorization to operate this device.

# **2 Connecting the Cables and Getting Started**

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## **2.1 Simple Connection**

If your telephone line is used for the broadband network access only and do not need to use a telephone, take the following figure as a reference for connecting the cables.



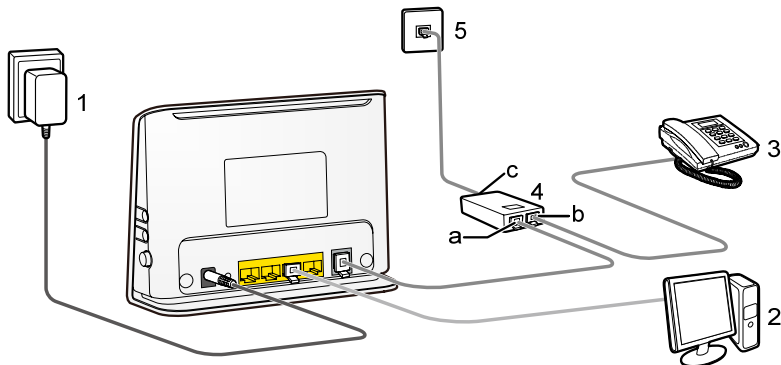
1. Telephone jack on the wall

2. Power adapter

3. Computer

## 2.2 Connecting One Telephone

If your telephone line is used for both the broadband network access and a telephone connection, take the following figure as a reference for connecting the cables.



1. Power adapter

2. Computer

3. Telephone

4. Splitter

5. Telephone jack on the wall

a. MODEM interface

b. PHONE interface

c. LINE interface

## 2.3 Getting Started

Press down the ON/OFF button on the side of the HG532c to power on the HG532c.

After you power on the HG532c, the Power indicators turns on and the ADSL indicator blinks (for less than three minutes), which indicates that the HG532c is being activated. After the ADSL indicator blinking, the Power and ADSL indicators keep solid on, which indicates that the HG532c is working properly.

## 3 Setting the Network-Access Parameters

The HG532c supports ADSL2+ uplink and High-Speed Packet Access (HSPA) uplink through Huawei HSPA data card. Realizes dynamic mutual backup of voice and data services through the DSL link and HSPA link.

### 3.1 Configuring the HSPA uplink

When the HG532c is working through Huawei HSPA data card, you need to install the Huawei HSPA data card on the HG532c so that your PC can connect to the Internet through HSPA uplink. To create a HSPA uplink connection, do as follows:

**Step 1** Log in to the Web-based configuration utility.

1. Launch the Internet Explorer on your computer. Enter **http://192.168.1.1** in the address bar, and then press **Enter**.
2. In the displayed dialog box, enter the user name and the password, and then click **Login**.

By default, both the user name and the password are **admin**. After the user name and the password are verified, you can access the Web-based configuration utility.

**Step 2** Click **Basic > WAN** in the navigation tree to display the **WAN Connection Page**.

**Step 3** Click the connection whose name is **ttyUSB0**.

**Step 4** Select **Enable** for **WAN connection**.

**Step 5** Enter the APN and the Dial number that are provided by the network operator in the **APN** text box and the **Dial number** text box.

**Step 6** Enter the user name and password in the **User name** and **Password** text boxes that you can configure.

**Step 7** Click the **Submit** button to finish the UMTS settings.

If you want to verify the PIN code of your SIM card, then do as follows:

**Step 1** Click **Advanced > PIN** in the navigation tree to display the **PIN Page**.

**Step 2** Enter the original PIN number in the **PIN** text box.

**Step 3** Click the **Submit** button to finish the settings on the **PIN Page**.



Use the default values for the other parameters. In general, they do not need to be configured.

## 3.2 Configuring the ADSL uplink

By configuring the HG532c and your computer, you can choose any of the following methods to surf the Internet:

- Accessing the Network Through the Embedded PPP Dial-Up Software on the HG532c
- Accessing the Network Through the PPP Dial-Up Software on Your Computer

### Accessing the Network Through the Embedded PPP Dial-Up Software on the HG532c

If you select this method for accessing the network, the HG532c starts to set up a dial-up connection automatically after the startup. You can access the network after you power on your computer. You do not need to install any special dial-up software on your computer or perform dial-up operations on your computer. To configure the HG532c and your computer for the network access, do as follows:

**Step 1** Verify the HG532c and the PC have connected properly, and the PC has obtained the IP address.

**Step 2** Log in to the Web-based configuration utility of the HG532c.

**Step 3** Enable the embedded dial-up function.

1. In the navigation tree on the left of the Web-based configuration utility, choose **Basic > WAN**.
2. Select a PVC from the connection list.
3. Select **Route** from the **Connection mode** drop-down combo box.
4. Enter the VPI and VCI parameters that are provided by the network operator in the **VPI/VCI** text boxes.
5. Select **PPPoE** from the **Connection type** drop-down combo box.
6. Enter the **user name** and **password** that are provided by the network operator in the Username and Password text boxes, keep the default settings of other parameters.
7. Click **Submit**.

After you complete the preceding settings, you can surf the Internet.

You need to perform the preceding operations on a computer once only. The next time when you power on your computer, you can surf the Internet without any configuration.

### Accessing the Network Through the PPP Dial-Up Software on Your Computer

If you select this method for accessing the network, you need to install and configure the dial-up software on your computer. In addition, you need to perform dial-up

operations on your computer upon each startup. To configure the HG532c and your computer for the network access, do as follows:

**Step 1** Set the working mode of the HG532c to **Bridge**.

1. In the navigation tree on the left of the Web-based configuration utility, choose **Basic > WAN**.
2. Select a PVC from the connection list.
3. Select **Bridge** from the **Connection mode** drop-down combo box.
4. Click **Submit**.

**Step 2** Install and configure the PPP dial-up software on your computer.

The PPP dial-up software is pre-installed on certain computer operating systems. To create a dial-up connection, do as follows (taking the Windows XP operating system as an example):

1. Choose **Start > All Programs > Accessories > Communications > Network Connections**.
2. Click **Create a new connection** in **Network Tasks** to display the **New Connection Wizard** window, and then click **Next**.
3. Select **Connect to the Internet**, and then click **Next**.
4. Select **Set up my connection manually**, and then click **Next**.
5. Select **Connect using a broadband connection that requires a user name and password**, and then click **Next**.
6. Enter the name (as desired) of the dial-up connection in **ISP Name**, and then click **Next**.
7. Select **Anyone's use** or **My use only**, and then click **Next**.
8. Enter the user name and password provided by the network operator and used for the dial-up connection, and then click **Next**.
9. Select **Add a shortcut to this connection to my desktop**, and then click **Finish**.

An icon for the dial-up connection is displayed on the desktop of your computer.

You need to perform the preceding operations only once for creating a network connection. After the network connection is created, to access the network, double-click the icon for the dial-up connection, and then click **Connect** in the displayed dialog box.



# 4 Configuring the Wireless Network Connection

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If a wireless network adapter is installed on your computer, you can connect your computer to the HG532c through a wireless connection.



The hardware installation methods and driver installation methods of wireless network adapters provided by different companies vary from each other. For details, see the installation guide provided by the wireless network adapter provider.

## Setting Up a Wireless Connection Through the WPS Button

The HG532c supports the Wi-Fi Protected Setup (WPS) function. If your network adapter also supports the WPS function, you can use the WPS function to set up a wireless connection between your PC and the HG532c quickly. To set up a wireless connection, do as follows:

- Step 1** Enable the wireless network function, and set the wireless network name and access password of the HG532c, do as follows (taking the authentication type WPA-PSK as an example):
1. Log in to the Web-based configuration utility of the HG532c.
  2. In the navigation tree on the left of the Web-based configuration utility, choose **Basic > WLAN**.
  3. Select the **Enable WLAN** option.
  4. Enter a wireless network name in the **SSID** text box.
  5. Select **WPA-PSK** from the **Security** drop-down combo box.
  6. Enter an access password in the **WPA pre-shared key** text box.
  7. Select **AES** from the **WPA encryption** drop-down combo box.
  8. Click **Submit** to save the settings.
- Step 2** Press the WPS button of the HG532c to enable the HG532c to enter the WPS negotiation state.
- Step 3** Enable the WPS negotiation function of the wireless network adapter on your PC within two minutes, and then wait for a moment (typically 10s and at most 120s).

The WPS indicator of the HG532c becomes on from the blinking state, indicating that the HG532c is connected to your PC through the WLAN. This state lasts 300s. Then the WPS indicator turns off.



If the WPS indicator does not blink, it indicates that the WPS function cannot be enabled. Note that the WPS function can be used only when the wireless network function is enabled and the wireless network security mode of the WLAN is set to WPA-PSK or WPA2-PSK.

## Setting Up a Wireless Connection Manually

If your network adapter does not support the WPS function, you can set up a wireless connection between your PC and the HG532c manually. To manually set up a wireless connection, use either of the following methods:

- Use the tool provided by your network adapter

For details, see the user guide of your network adapter.

- Use the wireless configuration software provided by the operating system of your PC

This section takes Windows XP as an example and describes how to set up a wireless connection between your PC and the HG532c manually, do as follows:

**Step 1** Enable the wireless network function, and set the wireless network name and access password of the HG532c.

1. Log in to the Web-based configuration utility.
2. In the navigation tree on the left of the Web-based configuration utility, choose **Basic > WLAN**.
3. Select the **Enable WLAN** option.
4. Enter a wireless network name in the **SSID** text box.
5. Select **WPA-PSK** from the **Security** drop-down combo box.
6. Enter an access password in the **WPA pre-shared key** text box.
7. Select **AES** from the **WPA encryption** drop-down combo box.
8. Click **Submit** to save the settings.

**Step 2** Enable the wireless configuration service provided by Windows XP.

1. Right-click **My Computer**, and then choose **Manage** from the shortcut menu.
2. In the **Computer Management** window, choose **Computer Management (Local) > Services and Applications > Services**.
3. From the services listed in the right pane of the **Computer Management** window, right-click **Wireless Zero Configuration**, and then choose **Properties** from the shortcut menu.
4. In the **Wireless Zero Configuration Properties (Local Computer)** dialog box, check whether **Service status** is **Started**. If not, click **Start**.
5. Click **OK** to close the dialog box, and then close the **Computer Management** window.

**Step 3** Configure the wireless network connection on your computer.

1. Choose **Start > All Programs > Accessories > Communications > Network Connections**.
2. In the **Network Connections** window, right-click **Wireless Network Connection** to display a shortcut menu, and then select **View Available Wireless Networks** from the shortcut menu.
3. In the **Wireless Network Connection Properties** dialog box, select **Wireless Networks**.
4. Select **Use Windows to configure my wireless network settings**.
5. Click **View Wireless Networks**.
6. In the **Wireless Network Connection** dialog box, select the WLAN with the same name that is configured in Step 1, and then click **Connect** in the lower right corner of the window.
7. In the displayed dialog box, enter the access password that is preset in Step 1, and then click **Connect**.

After the password is authenticated, **Connected** is displayed in the upper right corner of the WLAN icon in the WLAN list, indicating that a wireless connection is set up between you PC and the HG532c.

8. Close the **Wireless Network Connection** dialog box.
9. In the **Wireless Network Connection Properties** dialog box, click **OK**.

## 5 Configuring the HG532c

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### 5.1 Changing the Administrator Password Used for Logging In to the Web-Based Configuration Utility

For safety reasons or to make the password easy to remember, you can change the administrator password for login after logging in to the Web-based configuration utility.

To change the password, do as follows:

- Step 1** Log in to the Web-based configuration utility.
- Step 2** Choose **Maintenance > Account** in the navigation tree to display the system management page.
- Step 3** Select **admin** from the **User name** drop-down combo box.
- Step 4** Enter the Current password and the new password. Then enter the new password again in the **Confirm password** text box for confirmation.

### Step 5 Click **Submit**.

After you change the password successfully, the current page jumps to the page for logging in to the Web-based configuration utility. To log in to the Web-based configuration utility, enter the new password, and then click **OK**.



If you forget the user name or password that has been changed, you can restore the default settings of the HG532c by pressing and holding the Reset button for over six seconds. Then, the user name and password that are used for logging in to the Web-based configuration utility are restored to default values. After you restore the default settings, however, your customized data is lost. Therefore, use this function with caution.

## 5.2 Enabling or Disabling the Wireless Network Function

You can quickly enable or disable the wireless network function by pressing the WLAN button on the HG532c. To enable the wireless network function, press and hold the WLAN button for over one second, and then release the button. You can disable the wireless network function in the same way. The WLAN indicator shows whether the wireless network function is enabled.

In addition, you can enable or disable the wireless network function through the Web-based configuration utility. To enable or disable the wireless network function, do as follows:

**Step 1** Log in to the Web-based configuration utility.

**Step 2** In the navigation tree on the left, choose **Basic** > **LAN**.

**Step 3** Choose the **WLAN** page.

**Step 4** Select or not select **Enable WLAN** option button.

**Step 5** Click **Submit**.



You can refer to the state of the WLAN indicator to check whether the wireless network function is enabled. If the WLAN indicator is on, the wireless network function is enabled.

## 5.3 Changing the Wireless Network Name and the Access Password

To change the name and access password for the wireless network, do as follows (taking the authentication type WPA-PSK as an example):

- Step 1** Log in to the Web-based configuration utility.
- Step 2** In the navigation tree on the left, choose **Basic** > **LAN**.
- Step 3** Choose the **WLAN** page.
- Step 4** Enter a wireless network name in the **SSID** text box.
- Step 5** Select **WPA-PSK** from the **Security** drop-down combo box.
- Step 6** Enter an access password in the **WPA pre-shared key** text box.
- Step 7** Select **TKIP** from the **WPA encryption** drop-down combo box.
- Step 8** Click **Submit** to save the settings.

## 5.4 Setting Up a Wireless Connection Through the WPS Protocol

The HG532c supports the WPS technology. By using this technology, the HG532c can connect to a wireless terminal easily and safely. During the connecting process, you do not need to enter the name and access password of the WLAN network.

To use the WPS function, your wireless network adapter should support the WPS function. Meanwhile, you need to set the encryption type of the WLAN to **WPA-PSK** or **WPA2-PSK**.

To set up a wireless connection by using a wireless network adapter through the WPS protocol, do as follows:

- Step 1** Enable the WPS function.
  1. Log in to the Web-based configuration utility.
  2. In the navigation tree on the left, choose **Basic** > **LAN**.
  3. Choose the **WLAN** page.
  4. Select **Enable** for **WPS**.
  5. Click **Submit**.
- Step 2** Launch the WPS client software of the wireless network adapter of the computer. Perform operations based on the software user interface to display the interface of searching for the wireless network.
- Step 3** Press the WPS button on the side panel of the HG532c within two minutes.

The WPS indicator of the HG532c blinks in green, which indicates that the connection between the HG532c and the wireless network adapter is being set up through the WPS function. After a few seconds (normally 10s to 120s), the WPS indicator of the HG532c turns solid on in orange (this state lasts for 300s), which indicates that the connection between the HG532c and the wireless network adapter is set up successfully.



The WPS applications may vary with different types of wireless network adapters. For details about the configuration and operations of the WPS application, refer to the operation guide provided by the application provider.

## 5.5 Changing the IP Address Used for Logging In to the Web-Based Configuration Utility

To make the login IP address easy to remember, you can change the IP address after logging in to the Web-based configuration utility.

To change the IP address, do as follows:

- Step 1** Log in to the Web-based configuration utility.
- Step 2** In the navigation tree on the left, choose **Basic > LAN**.
- Step 3** Choose the **DHCP** page.
- Step 4** Enter a new IP address as desired in the **IP address** text box. Then, enter a subnet mask in **Subnet mask**.
- Step 5** Click **Submit**.



To log in to the Web-based configuration utility after you change the IP address successfully, you need to launch the Internet Explorer, and then enter the new IP address in the address bar. Ensure that the IP address of the computer is in the same network segment as that of the HG532c so that the computer can access the Web-based configuration utility.

## 5.6 Restoring Default Settings



After you restore the default settings, your customized data is lost. Therefore, use this function with caution.

You can quickly restore the default settings of the HG532c by pressing the Reset button on the rear panel. To restore the default settings, press and hold the Reset button for over six seconds after the HG532c is powered on, and then release the button.

In addition, you can restore the default settings of the HG532c through the Web-based configuration utility. To restore the default settings through the Web-based configuration utility, do as follows:

- Step 1** Log in to the Web-based configuration utility.

**Step 2** In the navigation tree on the left, choose **Maintenance > Device**.

**Step 3** Choose the **Reset** page.

**Step 4** Click the **Restore Default Settings** button.

After the preceding operations, the current page jumps to the login page. You can log in to the Web-based configuration utility by entering the default user name and password that are **admin**.

## 6 FAQs

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How can I quickly enable or disable the wireless network function?

Press and hold the WLAN button for over one second, and then release the button to enable or disable the wireless network function. The WLAN indicator shows whether the wireless network function is enabled.

How can I quickly restore the default settings of the terminal?

To restore the default settings, press and hold the Reset button on the rear panel for over six seconds after the HG532c is powered on, and then release the button.

What can I do if I cannot access the Internet through the terminal?

**Step 1** Check whether the Power indicator on the terminal is solid on.

If the Power indicator is off, perform further checks as follows:

1. Ensure that the terminal is turned on.
2. Ensure that electricity comes from the socket and that the power input from the socket meets the requirements described on the label of the terminal power adapter. If the voltage is unsteady, for example, if the voltage is too high or too low, do not use the terminal. Wait until the voltage restores to its normal level, and then use the terminal.
3. Ensure that the terminal is properly connected to the socket through the power adapter.

If the Power indicator is still off, contact an authorized maintenance center.

**Step 2** After powering on the terminal, wait for about three minutes. Then, check whether the ADSL indicator on the terminal is solid on.

If the ADSL indicator blinks for a long time, perform further checks as follows:

1. Ensure that telephone lines are properly connected. Pay special attention to the connections between the telephone lines and the splitter.
2. Ensure that the terminal or telephone lines are far from the electric

appliances that generate strong magnetic or electric fields. Replace telephone lines when necessary.

If the ADSL indicator still blinks and does not turn solid on, contact your network operator.

**Step 3** Check whether the LAN indicator of the terminal is on.

If the LAN indicator is off, perform further checks as follows:

1. Ensure that the network adapter of the computer is enabled.
2. Ensure that the network cable between the terminal and the computer is properly connected. Remove and then insert the network cable or replace the network cable when necessary.

If the LAN indicator is still off, contact an authorized maintenance center.

**Step 4** Check whether the driver for the network adapter is properly installed. Take a computer that runs Windows XP as an example. To check whether the driver for the network adapter is installed, do as follows:

1. On the desktop, right-click **My Computer**, and then choose **Manage**.
2. In the navigation tree of the **Computer Management** window, choose **Device Manager**.
3. In the right pane of the **Computer Management** window, click **Network adapters** to view the information about the network adapter of the computer.

If no network adapter is found or if a question mark (?) or an exclamation mark (!) is displayed next to the icon of the network adapter, you can infer that the driver for the network adapter is not properly installed. In this case, re-install the driver for the network adapter of the computer.

**Step 5** Ensure that you have entered the correct user name and user password that are required by the PPP dial-up software.

The user name and the user password are provided by your network operator.

**Step 6** Check whether you can use the PPP dial-up software to dial successfully.

If you cannot use the PPP dial-up software to dial successfully, perform further checks as follows:

1. Stop the PPP dial-up software and then power off the terminal. After five minutes, power on the terminal, and then use the PPP dial-up software to dial again.
2. Restore the default settings of the terminal.

If the problem persists, contact your network operator.

**Step 7** Check whether the proxy server of the Web browser is correctly configured. Take the Internet Explorer installed on a computer that runs Windows XP as an example. To check whether the proxy server of the



Web browser is correctly configured, do as follows:

1. Launch the Internet Explorer.
2. Choose **Tools > Internet Options**.
3. In the **Internet Options** dialog box, click the **Connections** tab.
4. In the **Local Area Network (LAN) settings** group box, click **LAN Settings**.
5. In the **Proxy server** group box of the **Local Area Network (LAN) Settings** dialog box, ensure that the **Use a proxy server for your LAN (These settings will not apply to dial-up or VPN connections)**, check box is cleared.

**Step 8** Try to access multiple Web sites to check whether the terminal can access these Web sites.

If the terminal still cannot access Web sites, contact your network service provider.

What can I do if Web pages often cannot be displayed during Web page browsing and can be displayed after the terminal is restarted?

**Step 1** Ensure that the terminal and other devices, such as telephones or fax machines, are connected to telephone lines through a splitter.

For details about how to install a splitter, see the related description in the manual.

**Step 2** Ensure that telephone lines are properly connected.

If the telephone lines are improperly connected, the stability of the network connection is affected.

**Step 3** Check the positions of your terminal and your computer. Ensure that they are far from electric appliances, such as microwave ovens, refrigerators, or cordless telephones, that generate strong magnetic or electric fields.

If the problem persists, contact your service provider.

What can I do if sometimes the terminal cannot access the Internet through a WLAN connection or if the WLAN connection is unsteady?

**Step 1** Check the positions of your terminal and your computer. Ensure that they are far from the electric appliances, such as microwave ovens, refrigerators, or cordless telephones, that generate strong magnetic or electric fields.

**Step 2** Place your terminal in an open area.

Although radio signals can pass through obstacles, the transmission effects of WLAN radio signals are affected if radio signals pass through too many obstacles, such as cement or wooden walls.

**Step 3** Place your computer close to your terminal.

If your computer is far from your terminal, the effects of the WLAN are affected.

**Step 4** Place your terminal and computer in another direction.

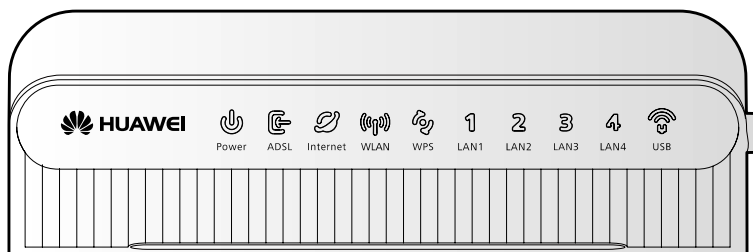
**Step 5** Do not use your terminal to access the WLAN during thunderstorms.

After a broadband terminal is installed, does Internet access degrade call quality or do telephone calls lower the Internet access rate?

No. The terminal uses the frequency division multiplexing (FDM) and splitter technologies to separate voice signals from data signals. Although the two types of signals are transmitted through one telephone line, they are carried by different frequency bands. Therefore, they do not interfere with each other. In this case, you can make a telephone call and access the Internet simultaneously, without degrading call quality or lowering the Internet access rate.

## 7 Appendix

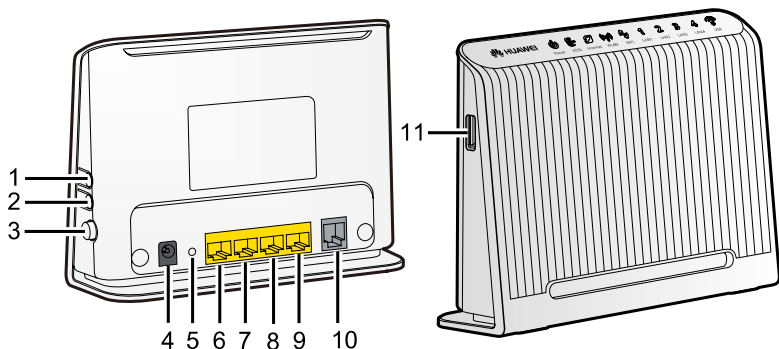
### 7.1 Indicators



Indicator	Status	Description
Power	On	The HG532c is powered on.
	Off	The HG532c is powered off.
ADSL	Blinking	The HG532c is being activated.
	On	The HG532c is activated.
	Off	The HG532c is powered off.

Indicator	Status	Description
Internet	Blinking	Data is being transmitted.
	On	<ul style="list-style-type: none"> <li>• The dial-up operation through the embedded PPP dial-up function of the HG532c succeeded, but no data is being transmitted.</li> <li>• The HG532c works in routing mode.</li> <li>• The WAN connection is set up.</li> <li>• No data is being transmitted.</li> </ul>
	Off	The HG532c is working in bridging mode or the dial-up operation through the embedded PPP dial-up function of the HG532c failed.
WLAN	Blinking	<ul style="list-style-type: none"> <li>• The wireless network function is enabled.</li> <li>• Data is being transmitted through the WLAN.</li> </ul>
	On	<ul style="list-style-type: none"> <li>• The wireless network function is enabled.</li> <li>• No data is being transmitted through the WLAN.</li> </ul>
	Off	The wireless network function is disabled.
WPS	Blinking	The HG532c is attempting to set up a wireless connection with a wireless client (such as a PC on which a wireless network adapter is installed) through the WPS function. This state lasts no more than 120s.
	On	A wireless connection is set up between the HG532c and a wireless client through the WPS function. This state lasts 300s.
	Off	The WPS function is disabled.
LAN1 – LAN4	Blinking	Data is being transmitted through the Ethernet interface.
	On	The Ethernet connection is set up.
	Off	The Ethernet connection is not set up.
USB	Blinking	Data is being transmitted on the USB port.
	On	The USB port is connected.
	Off	The USB port is not connected.

## 7.2 Interfaces and Buttons



No.	Interface or Button	Description
1	WPS	It is used to set up a wireless connection between the HG532c and a wireless terminal easily and safely.
2	WLAN	It is used to enable or disable wireless network function quickly.
3	ON/OFF	It is the power switch and is used to power on or power off the HG532c.
4	Power	It is used to connect the power adapter.
5	Reset	You can press and hold the Reset button for over six seconds to restore the default settings of the HG532c. <b>Note</b> After you restore the default settings, your customized data is lost. Therefore, use this function with caution.
6 - 9	LAN1 – LAN4	It is used to connect to the Ethernet interface on the computer.
10	ADSL	It is used to connect to the MODEM interface on the splitter.
11	USB	It is used to connect the USB device.

## 7.3 Default Settings

Parameter	Setting
IP address of the LAN interface	192.168.1.1
Subnet mask of the LAN interface	255.255.255.0
User name used for logging in to the Web-based configuration utility	admin
Password used for logging in to the Web-based configuration utility	admin
DHCP server function	Enable
Wireless network function	Enable

## 7.4 Technical Specifications

Item	Specification	
Power supply	12 V DC, 1 A	
Power consumption	< 11 W	
Ambient temperature for operation	0°C to 40°C (32°F to 104°F)	
Ambient humidity for operation	5% to 95%, non-condensing	
Dimensions (L × W × H)	156.4 mm × 52 mm × 124.3 mm	
Weight	About 245 g	
Standards	ADSL standards	<ul style="list-style-type: none"><li>• ITU G.992.1 (G.dmt) Annex A</li><li>• ITU G.992.2 (G.lite)</li><li>• ITU G.994.1 (G.hs)</li><li>• ANSI T1.413 Issue 2</li></ul>
	ADSL2 standard	ITU G.992.3 (G.dmt.bis) Annex A
	ADSL2+ standard	ITU G.992.5 Annex A
	WLAN standard	802.11b, 802.11g, 802.11n

Item	Specification	
DSL transmission rates	G.dmt T1.413	<ul style="list-style-type: none"> <li>● Maximum downlink rate: 8 Mbit/s</li> <li>● Maximum uplink rate: 896 kbit/s</li> </ul>
	G.992.5 (ADSL2+)	<ul style="list-style-type: none"> <li>● Maximum downlink rate: 24 Mbit/s</li> <li>● Maximum uplink rate: 1024 kbit/s</li> </ul>
Wireless transmission rates	802.11b	1 Mbit/s, 2 Mbit/s, 5.5 Mbit/s, and 11 Mbit/s
	802.11g	6 Mbit/s, 9 Mbit/s, 12 Mbit/s, 18 Mbit/s, 24 Mbit/s, 36 Mbit/s, 48 Mbit/s, 54 Mbit/s
	802.11n	6.5 Mbit/s, 13.0 Mbit/s, 13.5 Mbit/s, 19.5 Mbit/s, 26.0 Mbit/s, 27.0 Mbit/s, 39.0 Mbit/s, 40.5 Mbit/s, 52.0 Mbit/s, 54.0 Mbit/s, 58.5 Mbit/s, 65.0 Mbit/s, 78.0 Mbit/s, 81.0 Mbit/s, 104.0 Mbit/s, 108.0 Mbit/s, 117.0 Mbit/s, 121.5 Mbit/s, 130.0 Mbit/s, 135.0 Mbit/s, 162.0 Mbit/s, 216.0 Mbit/s, 243.0 Mbit/s, 270.0 Mbit/s, 300.0 Mbit/s

**HUAWEI TECHNOLOGIES CO., LTD.**

Huawei Industrial Base

Bantian, Longgang

Shenzhen 518129

People's Republic of China

[www.huawei.com](http://www.huawei.com)

Part Number: 202263