

WS550 450Mbps Wireless Router

User Guide



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1 Product Overview

Supported Features

The WS550 450Mbps Wireless Router (WS550 for short) is a high-speed wireless router designed for home and small office use. This chapter describes the features supported by the WS550.

- Ethernet provides rugged stability, and with the WPS button, zero configuration is required for connections to multiple devices.
- Network range allows any device in a home to be connected with a transmission rate of up to 450Mbps.
- A powerful firewall is provided with a flexible network configuration and quality of service (QoS) strategy, enabling different home devices to enjoy high-speed and high-quality broadband services.

Smart Wi-Fi coverage

When the WS550 is connected to Huawei wireless routers and repeaters that support the smart Wi-Fi coverage feature, wireless parameters of these devices are automatically synchronized, which simplifies user configuration. What's more, smart Wi-Fi coverage helps wireless devices automatically detect and connect to the wireless router or repeater with the best signal reception.

Easy configuration and management

Access the web management page from your computer, smart phone, or tablet to easily configure WS550. You can also install the Huawei HiLink app on your smart phone or tablet to manage your router.

High-Speed Ethernet Connectivity

The WS550 provides WAN ports for Ethernet-enabled devices to access the Internet at high speeds.

Routing

The WS550 supports routing. It can obtain an IP address through PPP dial-up or Dynamic Host Configuration Protocol (DHCP), which provides simultaneous access for multiple devices.

WLAN

The WS550 supports multiple WLAN protocols, including 802.11b/g/n (2.4 GHz). Adopting 802.11n multiple-input multiple-output antennas (MIMO) technology, the WS550 delivers a wireless transmission rate of up to 450Mbps with its three antennas. In addition, the WS550 supports multiple wireless encryption modes to provide a secure, reliable, and high-speed WLAN.

Bandwidth Control

The WS550 supports bandwidth control and allocates bandwidth to different computers within your home based on Internet access requirements. Your family can then access the Internet, play online games, and watch videos without interfering with each other.

WDS Wireless Bridging

The wireless distribution system (WDS) function in wireless bridging mode enables you to set up wireless connections between wireless routers to implement large-scale WLAN coverage.

Firewall

The powerful built-in firewall effectively protects against viruses and malicious attacks.

ARP Attack Protection

You can bundle an IP address and MAC address bi-directionally, which effectively protects your LAN from Address Resolution Protocol (ARP) attacks.

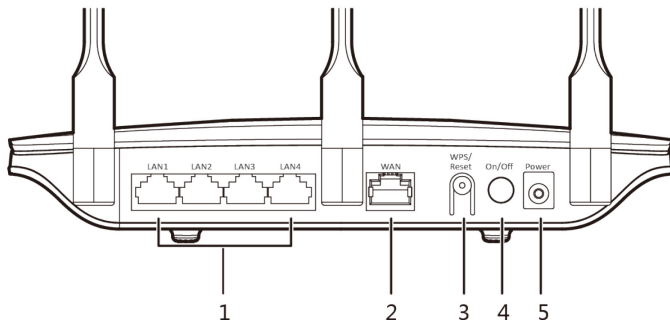
Parental Controls

Parents can control their children's computer usage by placing time limits on usage duration or forbidding access to certain websites.

Energy-saving

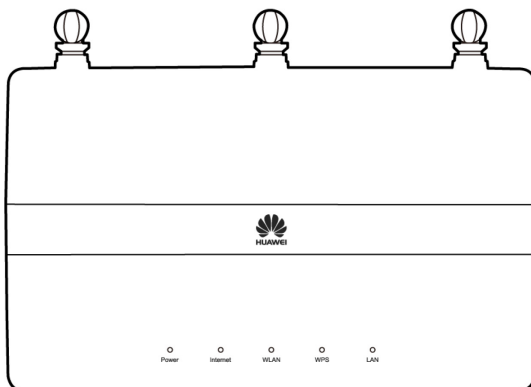
Automatic switch to energy-saving state when no service is detected, Wi-Fi function enabled and disabled as scheduled.

Ports and Buttons



No.	Item	Description
1	LAN1~LAN4	Connects to Ethernet devices, such as computers, set-top boxes (STBs), and switches.
2	WAN	Connects to an Ethernet device that provides Internet access, such as a modem or switch.
3	WPS/Reset	<ul style="list-style-type: none">● WPS button: Press the WPS button to start Wi-Fi protected setup (WPS) negotiation while the WS550 is powered on.● Reset button: Press Reset button (more than 6 seconds) to restore to its default settings while the WS550 is powered on. <p>ⓘ A reset will result in all custom data and settings being lost. Use with caution.</p>
4	On/Off	Powers the WS550 on or off.
5	Power	Connects to a power adapter.

Indicators



Indicator	Status	Description
Power	Steady on	The WS5550 is powered on.
	off	The WS5550 is powered off.
Internet	Steady on	The WS5550 WAN port is connected to the Internet.
	Off	The WS5550 WAN port is not connected to any device.
WLAN	Steady on	The WS5550 has WLAN enabled. <div> <i>!</i> The WS5550 has WLAN enabled by default, so the WLAN LED is steady on while the WS5550 is powered on. </div>
	off	WLAN is disabled.
WPS	Steady on	The WS5550 is connected to a wireless client, such as a computer with a wireless network adapter, over the WLAN using the Wi-Fi Protected Setup (WPS) function.
	Blinking	The WS5550 is attempting to connect to a wireless client over the WLAN using the WPS function.
	Off	WPS is disabled.
LAN	Steady on	A LAN port is connected to a computer or other Ethernet device through a network cable.
	off	No LAN port is connected to a computer or other Ethernet device.

2 Hardware Installation

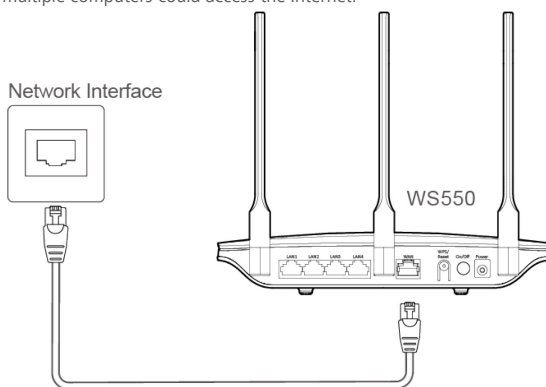
Selecting an Installation Location

Place the WS550 on a well-ventilated even surface without exposure to direct sunlight. For the best possible performance, take note of the following:

- Make sure there are no obstacles, such as concrete or wooden walls, between the computer and WS550.
- Ensure that the computer and WS550 are far from electric appliances that generate strong magnetic or electric fields, such as microwave ovens.

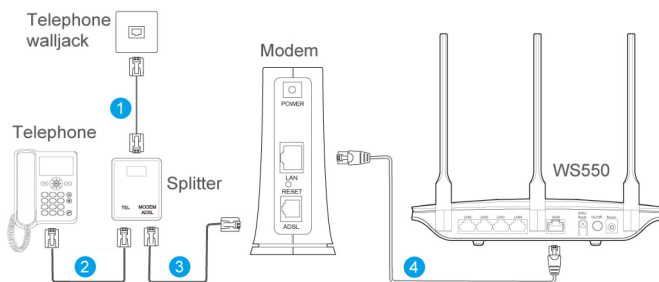
Connecting the WS550 on an Ethernet Broadband Network

If you have subscribed to the Ethernet Broadband, you can connect the WS550 to an Ethernet port, so that multiple computers could access the Internet.



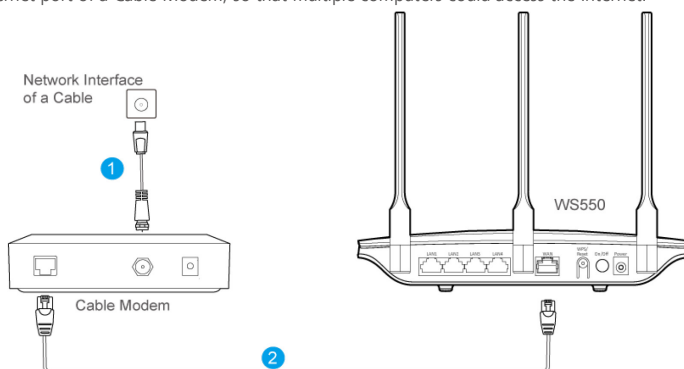
Connecting the WS550 on a DSL Broadband Network

If you have subscribed to digital subscriber line (DSL) broadband, you can connect the WS550 to a telephone port for Internet access, so that multiple computers could access the Internet.



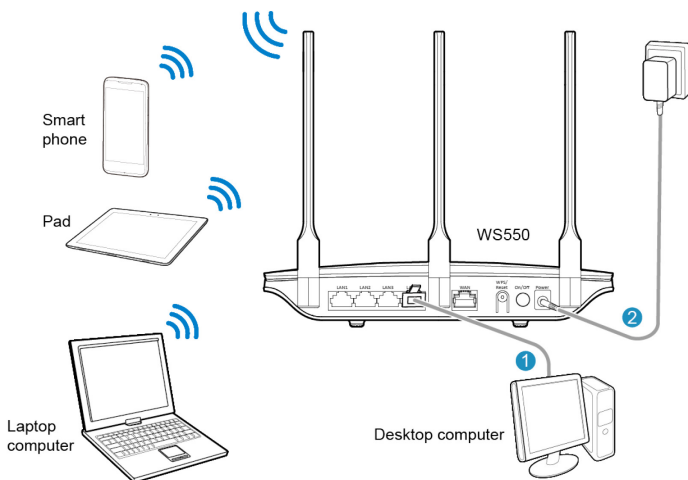
Installing the WS550 on a Cable Broadband Network

If you have subscribed to the cable broadband network, you can connect the WS550 to an Ethernet port of a Cable Modem, so that multiple computers could access the Internet.



Connecting a Computer or Other Devices

When the WS550 had been accessed to the network normal, you can add the Laptop computer, desktop computer, set-top box, pad, smart phone and other devices to the network.



Powering On

To power on the WS550, press its **On/Off** button.

After the WS550 is powered on, the WS550 indicator turns on. The following table lists how the indicators behave when the WS550 is operating correctly. If the indicators do not behave as expected, ensure that everything is plugged in correctly.

Indicator	Expected State
Power	Steady on
Internet	Steady on
WLAN	Steady on
WPS	Steady off
LAN	Steady on (A LAN port is connected to a computer or other Ethernet device through a network cable.)

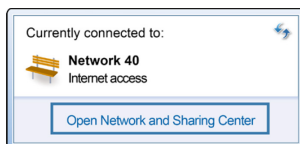
3 Setting Network Parameters

Setting the Computer IP Address

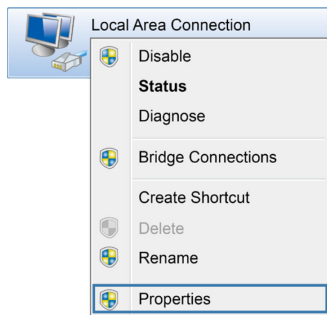
Before logging in to the WS550 web management page, set the IP address of the computer that will be used for the login.

On Windows 7

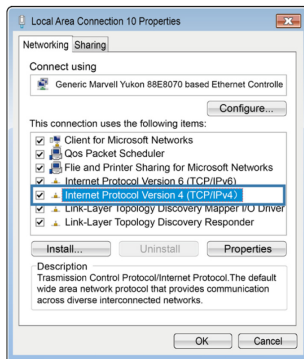
1. Click  in the lower right corner of your desktop. Choose **Open Network and Sharing Center**.



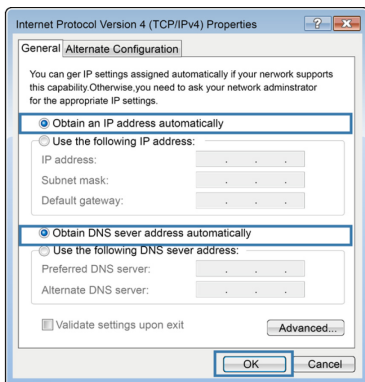
2. Choose **Change adapter settings**. Right-click **Local Area Connection** and choose **Properties**.



3. Double-click **Internet Protocol Version 4 (TCP/IPv4)**.



4. Select **Obtain an IP address automatically** and **Obtain DNS server address automatically**. Click **OK**.



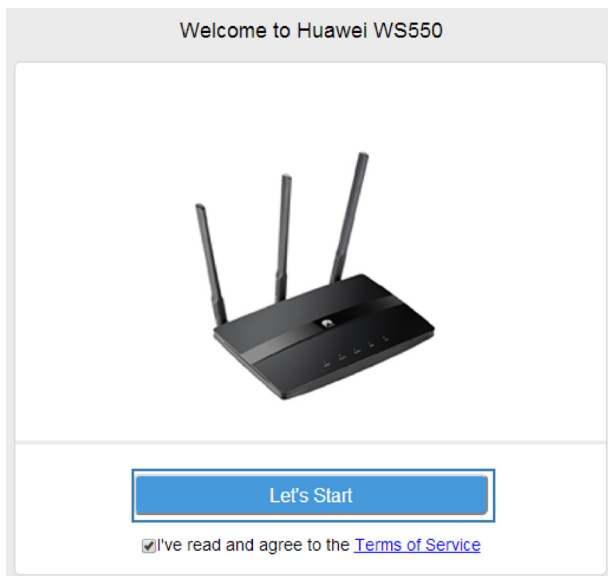
Initial configuration

When using the WS550 for the first time, configure it as follows:

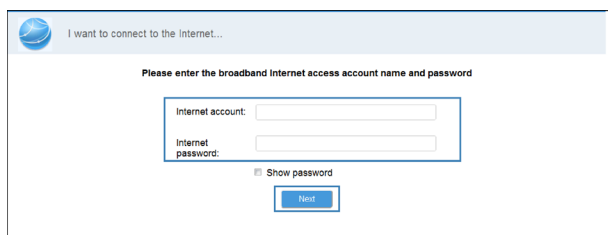


Before configuring the WS550 ensure that the computer used for the configuration is connected to it and has been configured to automatically obtain an IP address or assigned with a static IP address.

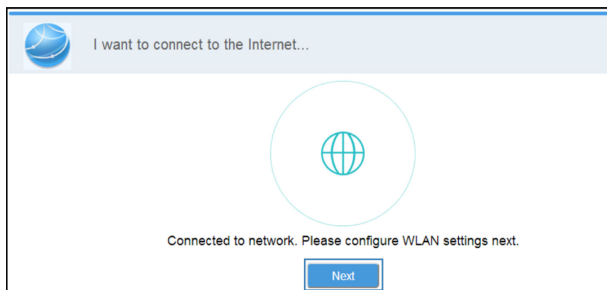
1. Open a browser on the computer, enter 192.168.3.1 in the address box, and press **Enter**.
2. Click **Let's Start**.



3. The WS550 automatically checks your Internet connection method (dial-up connection for example). Follow the onscreen instructions to set the Internet access parameters, and click **Next**.

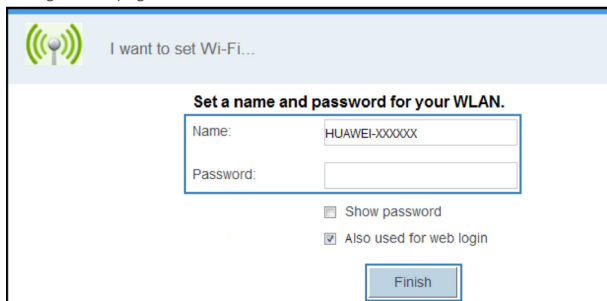
The image shows a screen titled "I want to connect to the Internet...". Below the title, it says "Please enter the broadband Internet access account name and password". There are two input fields: "Internet account:" and "Internet password:". Below these fields is a checkbox labeled "Show password". At the bottom, there is a blue button labeled "Next".

4. Click **Next** to configure the WS550's Wi-Fi network.

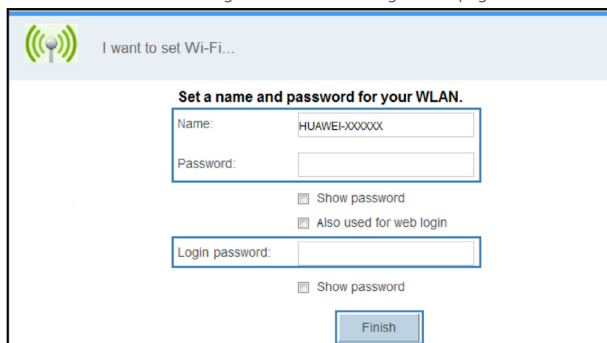


5. Enter the information required under **Name** and **Password** for the Wi-Fi network, and click **Finish**.

- If **Also used for web login** is selected, the Wi-Fi password can be used to log in to the web configuration page.



- If **Also used for web login** is not selected, besides **Name** and **Password**, **Login password** must also be set to log in to the web configuration page.



Logging In to the Web Management Page

The WS550 provides an intuitive web management page where you can view or set the WS550 parameters.



Before you log in to the WS550 web management page, ensure that the computer used for the login is connected to the WS550 and has been configured to automatically obtain an IP address or assigned with a static IP address.

1. Open a browser. In the address box, enter 192.168.3.1. Press **Enter**.
2. Enter the login password. Click **Log in**.

The screenshot shows a web management page titled "Login". It features a password input field with a key icon and the placeholder text "Password". Below the input field is a blue button labeled "Log in".

Setting Network Access Parameters

If this is your first time logging in to the WS550's web management page, you can quickly set its network connection parameters. If you need to configure the WS550 after that, use the configuration wizard on the web management page.

1. Log in to the web management page.
2. Choose **Home > Start Wizard**. Select your Internet connection mode.

The screenshot shows the "Internet" tab in the web management page. It displays a section titled "I want to ... Connect to the Internet" with a list of connection modes:

- ☒ **Connect automatically**
Device will try to access the Internet automatically.
- ☐ **Connect with user account**
When you subscribed to your Internet service, you received a connection account and password from your provider. This applies to most home networks.
- ☐ **Connect without user account**
When you subscribed to your Internet service, you did not receive a connection account and password from your provider. This applies to school or enterprise networks.

At the bottom right, there is a link "More Internet connection modes" and two buttons: "Cancel" and "Next".

- Refer to the following table to configure the network connection.

Scenario	Connection Type
When you are unsure of the network connection you subscribed to, you can select this mode that the device will detect the network connection automatically.	Connect automatically
The account name and password are provided by your Internet Service Provider (ISP).	Connect with user account
No parameter is provided by your ISP. The IP address is automatically assigned by the ISP.	Connect without user account

3. Set WLAN parameters.

- If you selected **Connect with user account**, enter the parameters provided by your Internet Service Provider (ISP) and click **Next**.
- If you selected **Connect without user account**, click **Next**.

4. Choose **Home** tab, click **Set Up WLAN**, set WLAN parameters, click **Save**.



If you reset Wi-Fi password, the login password to the web management page will remain unchanged.

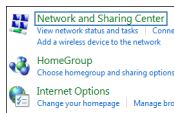
Setting Dial-Up Connection Parameters

When the WS550 works in Bridge mode you need to perform this operation. Otherwise you do not need to perform this operation.

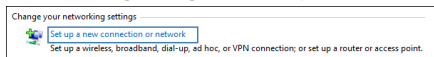
Before setting dial-up connection parameters, verify that the WS550 is correctly connected to your computer and you have the dial-up connection account name and password provided by your Internet service provider (ISP). This section demonstrates how to set up a Point-to-Point Protocol over Ethernet (PPPoE) connection on Windows.

On Windows 7

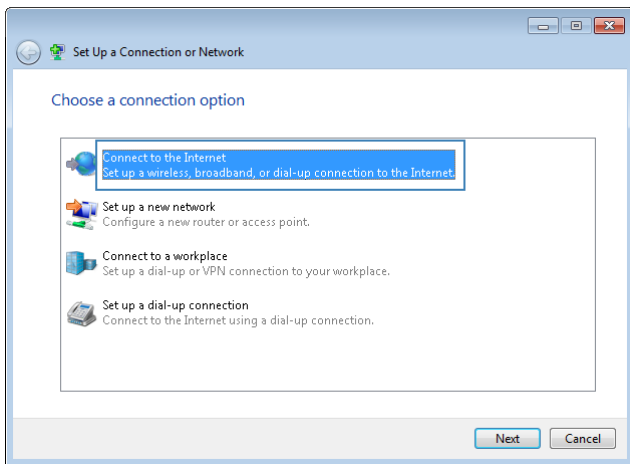
1. Choose **Start > Control Panel > Network and Internet > Network and Sharing Center**.



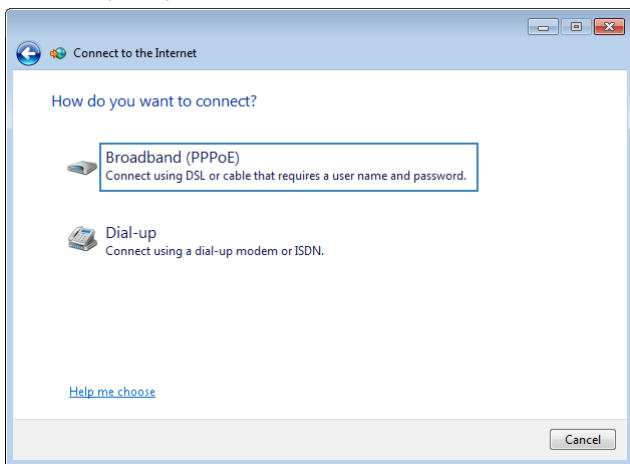
2. Under **Change your networking settings**, click **Set up a new connection or network**.



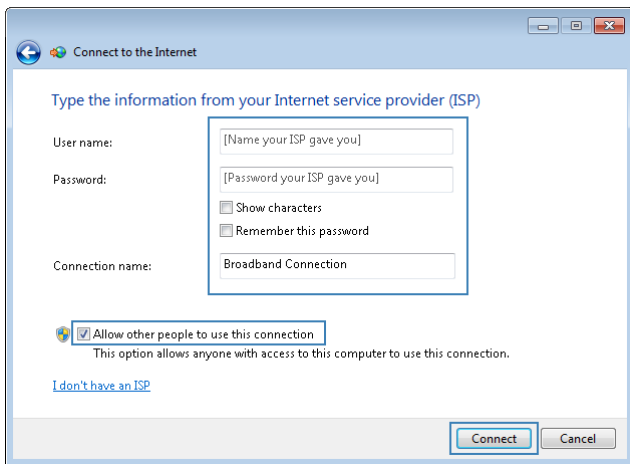
3. In the **Set Up a Connection or Network** window, select **Connect to the Internet** and click **Next**.



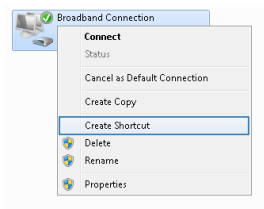
4. Click **Broadband (PPPoE)**.



5. In **User name** and **Password**, enter the dial-up connection account name and password provided by your ISP. In **Connection name**, name the dial-up connection. Select or deselect **Allow other people to use this connection**. Then click **Connect**.



6. Return to the **Network and Sharing Center** page. Click **Change adapter settings**. Right-click the icon for the dial-up connection you just set up and choose **Create Shortcut** from the shortcut menu. In the displayed dialog box, click **Yes**.



After you successfully set up a PPPoE connection, a dial-up connection icon is displayed on your computer desktop.

To connect to the Internet, double-click the dial-up connection icon. In the displayed dialog box, click **Connect**.

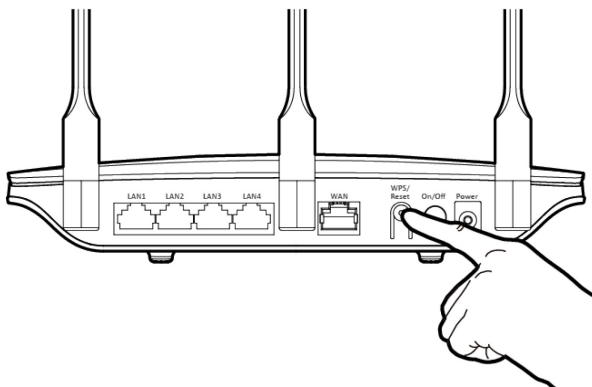
4 Wireless Connection Setup

Setting Up a Wireless Connection Using the WPS Button

Push the WPS button once to quickly set up a wireless connection between the WS550 and any WPS-capable device.

Before you set up a wireless connection using the WPS button, the wireless device (laptop, tablet, or mobile phone) to connect to the WS550 is WPS-capable.

1. Press the WPS button on the wireless device to start WPS negotiation. For details, see the user guide for the wireless device.
2. Within 2 minutes, press and hold the **WPS/Reset** button on the WS550 for 1 second or more. The WPS indicator blinks.



When the WPS indicator on the WS550 is steady on, a connection between the WS550 and wireless device is set up. The WPS indicator is on for 300 seconds.

Manually Setting Up a Wireless Connection

The wireless configuration software provided by Windows is used as an example to describe how to set up a wireless connection.

Before setting up a wireless connection, record the WLAN name and password of the WS550.



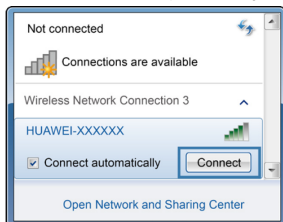
For the WS550's default Wi-Fi network name, check the nameplate at its bottom. By default, the WS550's Wi-Fi network is not password protected.

On Windows 7

1. Click  in the lower right corner of your desktop.



2. From the wireless network list, select the WLAN provided by the WS550. Click **Connect**.



3. In the displayed dialog box, enter the WLAN password and click **OK**.



4. In the wireless network list, check the WLAN connection status. If the status is **Connected**, the computer is wirelessly connected to the WS550.



5 Network Security

Improving WLAN Security

Changing Your WLAN Name and Password

WLAN access requires the WLAN name and password. To improve your WLAN security, regularly change your WLAN name and password.

1. Log in to the web management page.
2. Choose **Home Network** tab.
3. In the navigation tree, choose **WLAN Settings**.
4. Select **WLAN Encryption** configuration page.
5. In **SSID**, enter a new WLAN name.
6. In **WPA pre-shared key**, enter a new WLAN password.
7. Click **Save**.

The screenshot shows the 'Home Network' tab selected in the top navigation bar. On the left, the 'WLAN Settings' option is highlighted in the navigation tree. The main content area is titled 'WLAN Settings' and includes a description: 'Your smart phone or wireless-capable computer can access the internet through WLAN.' Below this, there are expandable sections for 'Smart Coverage', 'Basic Settings', and 'WLAN Encryption'. The 'WLAN Encryption' section is expanded, showing the '2.4 GHz Frequency Band' settings. The 'SSID' field contains 'HUAWEI-X0000X'. Under 'Encryption Settings', 'Security mode' is set to 'WPA-PSK/WPA2-PSK' and 'WPA encryption mode' is set to 'TKIP+AES'. The 'WPA pre-shared key' field is filled with asterisks. There is a 'Hide broadcast' checkbox which is currently unchecked. A 'Save' button is located at the bottom right of the configuration area.



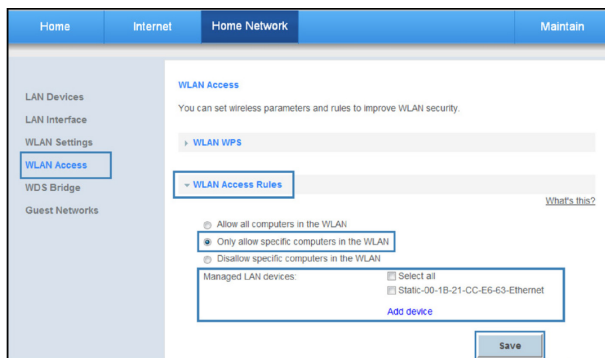
After the SSID had been changed, your computer should use the new ones to establish a wireless connection to the WS550.

Allowing Only Specified Computers to Access Your WLAN

To prevent unauthorized access to your WLAN, you can specify which devices are allowed to access your WLAN.

1. Connect a computer and the WS550 via wireless.
2. Log in to the web management page.
3. Choose **Home Network** tab.
4. In the navigation tree, choose **WLAN Access**.
5. Select **WLAN Access Rules** configuration page.

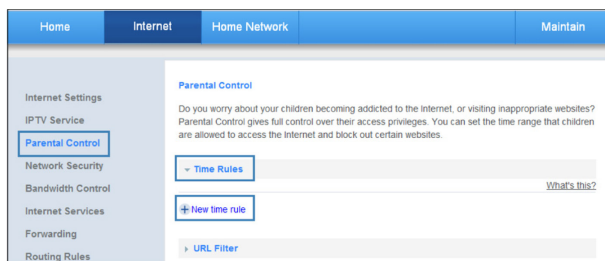
6. Select the **Only allow specific computers in the WLAN** check box.
7. In **Managed LAN devices**, select the computer name for you wanted.
8. Click **Save**.



Controlling Computer Internet Access

You can set the period during which the PCs are not allowed to access the Internet.

1. Log in to the web management page.
2. Choose **Internet** tab.
3. In the navigation tree, choose **Parental Control**.
4. Select **Time Rules** configuration page.
5. Click **New time rule**.



6. In **Rule name**, enter a filtering rule name you specified.
7. In **Internet access allowed**, enter a time zone you specified.
8. In **Apply to**, select the computer name for you wanted.
9. Click **Save**.

Filtering Out Inappropriate Websites

Use URL filtering to prevent certain websites from being accessed.

1. Log in to the web management page.
2. Choose **Internet** tab.
3. In the navigation tree, choose **Parental Control**.
4. Select **URL Filter** configuration page.
5. Click **New URL filter**.

6. In **URL to block**, enter the Web site address you specify.
7. Select the **Manually specify devices** check box.
8. In **Apply to**, select the computer name for you wanted.
9. Click **Save**.

URL Filter [What's this?](#)

☒ [Edit](#) [Delete](#)

URL to block:

Manually specify devices: ☒

Apply to

☐ Select all

☒ Static-00-1B-21-CC-E6-63-Ethernet

[Add device](#)

Controlling Computer Bandwidth

By configuring bandwidth control policies, you can control the bandwidth of computers connected to the WS550 in the following ways:

- Determine the minimum bandwidth allocated to specific computers to help ensure the Internet access speed for those computers.
- Determine the maximum bandwidth certain computers can occupy so that bandwidth remains available to other computers.

1. Log in to the web management page.
2. Choose **Internet** tab.
3. In the navigation tree, choose **Bandwidth Control**.
4. Select **Bandwidth Control** configuration page.
5. Select **Enable bandwidth control**.
6. In **Egress bandwidth** and **Ingress bandwidth**, enter the desired rates.
7. Click **Save**.

Home Internet Home Network Maintain

Internet Settings

IPTV Service

Parental Control

Network Security

Bandwidth Control

Internet Services

Forwarding

Routing Rules

Bandwidth Control [What's this?](#)

Bandwidth Control helps you properly allocate bandwidth based on different Internet access requirements of users so that different Internet activities, such as browsing web pages, playing games, and watching movies do not affect each other.

☒ Enable bandwidth control:

Egress bandwidth: 0 kbits

Ingress bandwidth: 0 kbits

You can configure different bandwidth control policies for different computers.

The configuration procedure is as follows:

1. Click **New**.
2. In **Traffic classifier name**, name the bandwidth control policy you want to add.
3. From the **Schedule priority** drop-down list box, select a priority level.

- In **Download min**, **Download max**, **Upload min** and **Upload max**, enter the desired rates.
- From the **Traffic management type** drop-down list box, select a traffic management type.
 - IP QoS classification:** In **IP address**, enter the IP address scope of the computer you want to control.
 - MAC QoS classification:** From the **MAC address** drop-down list box, select the MAC address of the computer you want to control.
 - LAN QoS classification:** From the **LAN interface** drop-down list box, select the LAN port of the computer you want to control.
 - Application QoS classification:** From the **Application** drop-down list box, select the application type you want to control.
- Click **Save**.

☒
Edit
Delete

Traffic classifier name:

Schedule priority: Default

Download min: kbit/s

Download max: kbit/s

Upload min: kbit/s

Upload max: kbit/s

DSCP mark: [-1 - 63]

Traffic management type: IP QoS classification

IP address: . . .

~ . . .

Cancel Save

Configure the Firewall to Prevent Attacks on the Internet

The Description of Firewall Level

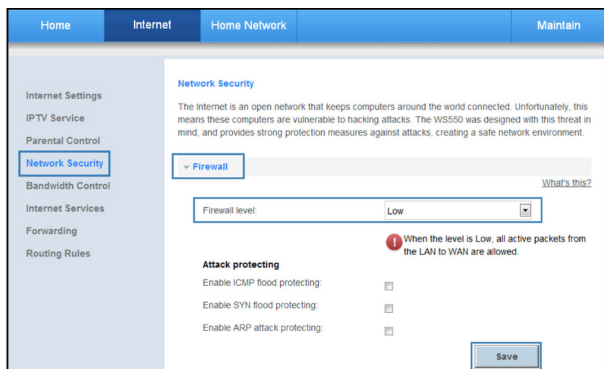
The preset protective levels of the firewall are as follows:

Level	Description
High	When you set the firewall level of the router to High , only the FTP / DNS / HTTP packet is allowed to pass through.
Low	When you set the firewall level of the router to Low , the packets from the LAN to the WAN are allowed to pass through.
Disabled	When you set the firewall level of the router to Disabled , all data packets are allowed to pass through.

Configuring the Firewall

The WS550 provides a firewall to help secure its WLAN and any devices connected to it. Set the firewall level based on site requirements to quickly configure the firewall.

1. Log in to the web management page.
2. Choose **Internet** tab.
3. In the navigation tree, choose **Network Security**.
4. Select **Firewall** configuration page.
5. In **Firewall level**, select the firewall level you specified.
6. Click **Save**.



6 WLAN Configuration

Expanding WLAN Coverage

To expand WLAN coverage, use the wireless distribution system (WDS) to set up a wireless connection between two WS550 devices.

For example, if your house is too large to be fully covered by the WLAN provided by one WS550(A) device, add another WS550(B) device and set up a wireless connection between these two devices using the WDS. The WLAN coverage is then expanded.

To set up a WDS connection, ensure that the wireless channels, SSIDs, WLAN password and security modes of the wireless devices are consistent with the WDS security settings, and that only one router has its DHCP server enabled. To avoid IP address conflicts, ensure that all wireless devices interconnected through a WDS have different web login URLs.

1. Find and record the wireless MAC addresses of the two WS550.
 - a. Log in to the web management page.
 - b. Choose **Home Network** tab.
 - c. In the navigation tree, choose **WDS Bridge**.
 - d. Select **2.4 GHz Frequency Band** configuration page.
 - e. Set **Enable** to Enable.
 - f. Under **WLAN MAC Address**, find a character string that is similar to **88:E3:AB:9B:55:28**. This value is the wireless MAC address of the WS550.

The screenshot shows the 'WDS Bridge' configuration page. The left sidebar has a navigation tree with 'WDS Bridge' selected. The main content area has tabs for 'Home', 'Internet', 'Home Network' (selected), and 'Maintain'. Below the tabs, there's a title 'WDS Bridge' and a descriptive paragraph. A dropdown menu shows '2.4 GHz Frequency Band'. A red message box states: 'You can enable WDS only when WLAN channel is not set to AUTO.' Below this, the 'Enable' checkbox is checked. The 'Channel' is set to 'AUTO'. The 'WLAN MAC address' field contains '88 E3 AB 9B 55 28'. The 'Remote bridge MAC address' field is empty with a dotted pattern. There are 'Scan' and 'Save' buttons. At the bottom, there are fields for 'SSID', 'BSSID', and 'Signal'.

2. Set the WLAN parameters of the two WS550.
 - a. Log in to the web management page.
 - b. Choose **Home Network** tab.
 - c. In the navigation tree, choose **WLAN Settings**.
 - d. Select **WLAN Encryption** configuration page. Set the same value for the **SSID** and **WPA pre-shared key** about the two WS550, click **Save**.

The screenshot shows the 'WLAN Settings' page with the 'Basic Settings' tab selected. The left sidebar contains a navigation tree with 'WLAN Settings' highlighted. The main content area has a sub-header 'WLAN Settings' and a description: 'Your smart phone or wireless-capable computer can access the Internet through WLAN.' Below this are three expandable sections: 'Smart Coverage', 'Basic Settings', and 'WLAN Encryption'. The 'WLAN Encryption' section is expanded, showing fields for '2.4 GHz Frequency Band' (SSID: HUAWEI-XXXXXX), 'Encryption Settings' (Security mode: WPA-PSK/WPA2-PSK, WPA encryption mode: TKIP+AES, WPA pre-shared key: *****), and a 'Hide broadcast' checkbox. A 'Save' button is at the bottom right.

- e. Select **Advanced Settings** configuration page. Set the same value for the **Channel** about the two WS550, and click **Save**.

The screenshot shows the 'WLAN Settings' page with the 'Advanced Settings' tab selected. The left sidebar is the same as the previous screenshot. The main content area shows the 'WLAN Encryption' section collapsed and the 'Advanced Settings' section expanded. Under '2.4 GHz Frequency Band', the 'Transmission mode' is set to '802.11b/g/n' and the 'Channel' is set to '1'. Other settings include 'Enable WMM (QoS)' checked, '11n bandwidth' set to '40 MHz', and '11n guard interval' set to 'Short'. A 'Save' button is at the bottom right.



Please select the same non-adaptive channel for **Channel**.

3. Set the web login IP addresses for the WS550 (A) and WS550 (B) to be different but on the same network segment.
 - a. Log in to the web management page.
 - b. Choose **Home Network** tab.
 - c. In the navigation tree, choose **LAN Interface**.
 - d. Select **LAN Interface Settings** configuration page.

- e. In **IP address**, enter the WS550's IP addresses. For example, set the WS550 (A)'s IP address to 192.168.3.1 and the WS550 (B)'s to 192.168.3.100.
- f. Click **Save**.

The screenshot shows the 'Home Network' tab selected. In the left sidebar, 'LAN Interface' is highlighted. The main content area is titled 'LAN Interface' and contains a description: 'Your computer connects to a LAN interface to access the internet. You can adjust the interface parameters according to LAN IP address allocation.' Below this are two expandable sections: 'LAN Interface Status' and 'LAN Interface Settings'. The 'LAN Interface Settings' section is expanded, showing fields for 'IP address' (192, 168, 3, 100), 'Server subnet mask' (255, 255, 255, 0), and 'Device name' (mediarouter). A 'Save' button is at the bottom right.

4. Configure the DHCP function of the WS550 (A).



Please ensure that the WS550 (B) has its DHCP server disabled.

- a. Log in to the web management page.
- b. Choose **Home Network** tab.
- c. In the navigation tree, choose **LAN Interface**.
- d. Select **DHCP Server** configuration page.
- e. Set **DHCP Server** to Enable.
- f. Click **Save**.

The screenshot shows the 'Home Network' tab selected. In the left sidebar, 'LAN Interface' is highlighted. The main content area is titled 'LAN Interface' and contains a description: 'Your computer connects to a LAN interface to access the internet. You can adjust the interface parameters according to LAN IP address allocation.' Below this are two expandable sections: 'LAN Interface Status' and 'LAN Interface Settings'. The 'LAN Interface Settings' section is expanded, showing a 'DHCP Server' section. The 'DHCP Server' section is expanded, showing fields for 'Start IP address' (192, 168, 3, 2), 'End IP address' (192, 168, 3, 254), 'DNS mode' (CPE acts as the DNS proxy), and 'Lease duration' (1 day). A 'Save' button is at the bottom right.

5. Configure the WDS function of the WS550 (B).



Please ensure that the WS550 (A) has its WDS server disabled.

- a. Log in to the web management page.
- b. Choose **Home Network** tab.
- c. In the navigation tree, choose **WDS Bridge**.
- d. Select **2.4 GHz Frequency Band** configuration page.
- e. Set **Enable** to Enable.
- f. In **Remote bridge MAC address**, enter the wireless MAC address of other WS550.
- g. Click **Save**.

The screenshot shows the 'Home Network' tab selected in the top navigation bar. On the left sidebar, 'WDS Bridge' is highlighted under the 'WLAN Access' section. The main content area is titled 'WDS Bridge' and contains the following elements:

- A descriptive paragraph about the WDS function.
- A dropdown menu for 'Frequency Band' with '2.4 GHz' selected.
- An 'Enable' checkbox that is checked.
- A 'Channel' dropdown menu with '1' selected.
- A 'WLAN MAC address' field with the value '88 E3 AB 9B 55 28'.
- A 'Remote bridge MAC address' field with a dotted pattern for input.
- A 'Scan' button.
- A 'Save' button.
- A table at the bottom with columns for 'SSID', 'BSSID', and 'Signal'.

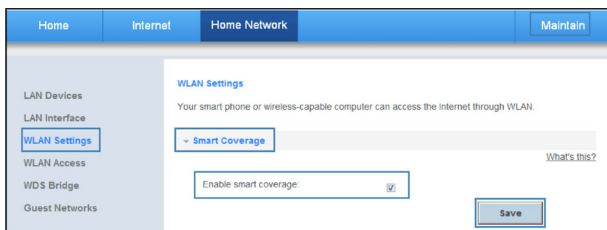


You can also click **Scan**, then the wireless MAC address in the list of scanned wireless LAN, and then add it.

Turning On Smart Coverage

Your WS550 supports smart coverage. When you have multiple Huawei devices that support smart coverage in your home, such as Huawei wireless routers or the wireless range extenders, you can enable the smart coverage function on all these devices to enable them to synchronize their wireless settings and form one large wireless network. This means your devices will automatically connect to the strongest wireless network whether you're in the living room, study, or bedroom -- the full benefits of a smart connected home.

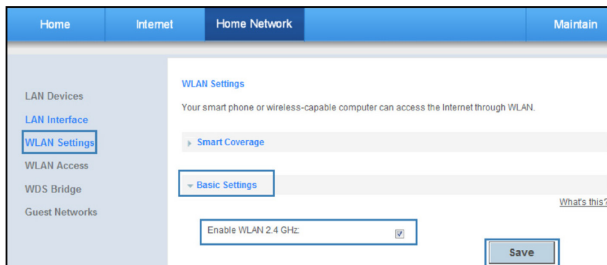
1. Log in to the web management page.
2. Choose **Home Network** tab.
3. In the navigation tree, choose **WLAN Settings**.
4. Select **Smart Coverage** configuration page.
5. Select the **Enable smart coverage** check box.
6. Click **Save**.



Enabling and Disabling the WLAN on the WS550

You can use the web-based configuration utility to enable to disable the WLAN function.

1. Log in to the web management page.
2. Choose **Home Network** tab.
3. In the navigation tree, choose **WLAN Settings**.
4. Select **Basic Settings** configuration page.
5. Select **Enable WLAN 2.4 GHz**.
 - Select **Enable WLAN 2.4 GHz** to enable the wireless network function.
 - Clear **Enable WLAN 2.4 GHz** to disable the wireless network function.
6. Click **Save**.



7 Maintenance Guide

Changing the IP Address Used to Log In to the Web Management Page

The IP address used to log in to the WS550 web management page is the WS550 IP address. For security or other purposes (for instance, if the default WS550 IP address conflicts with that of another device on the same network), you can change the WS550 IP address.

1. Log in to the web management page.
2. Choose **Home Network** tab.
3. In the navigation tree, choose **LAN Interface**.
4. Select **LAN Interface Settings** configuration page.
5. In **IP address**, enter a new IP address (Such as: 192.168.6.1).
6. Click **Save**.

The screenshot shows the WS550 web management interface. At the top, there are four tabs: Home, Internet, Home Network (selected), and Maintain. On the left, a navigation tree lists LAN Devices, LAN Interface (selected), WLAN Settings, WLAN Access, WDS Bridge, and Guest Networks. The main content area is titled 'LAN Interface' and contains a description: 'Your computer connects to a LAN interface to access the Internet. You can adjust the interface parameters according to LAN IP address allocation.' Below this, there are two expandable sections: 'LAN Interface Status' and 'LAN Interface Settings' (selected). The 'LAN Interface Settings' section contains three fields: 'IP address' (set to 192.168.6.1), 'Server subnet mask' (set to 255.255.255.0), and 'Device name' (set to mediarouter). A 'What's this?' link is next to the IP address field. Below these fields, a note states: 'You can access the WS550 from http://mediarouter.home.' and a 'Save' button is at the bottom right.

Use the new IP address to log in to the web management page.

Changing the Web Management Page Password

The correct password is required to log in to the web management page. Regular changes to the web management page password can effectively prevent unauthorized users from logging in and modifying important parameters.

1. Log in to the web management page.
2. Choose **Maintain** tab.
3. In the navigation tree, choose **Account Management**.
4. Select **Modify Login Password** configuration page.
5. In **Current password**, enter the currently used password.

6. In **New password**, enter a new password, in **Confirm password**, enter the new password again.
7. Click **Save**.

The screenshot shows the WS550 web management interface. At the top, there are four tabs: Home, Internet, Home Network, and Maintain. The Maintain tab is selected. On the left side, there is a navigation tree with the following items: System Information, Account Management (highlighted with a blue box), Device Management, System Logs, One Key Diagnostics, Tools, ECO Setting, and Statistics. The main content area is titled 'Account Management' and contains the text: 'Your username and password are needed when logging in to the web page. Frequently changing the user name and password can help prevent unauthorized users from accessing the page and modifying important parameters.' Below this text is a button labeled 'Modify Login Password' (highlighted with a blue box). Underneath the button is a form with three input fields: 'Current password:', 'New password:', and 'Confirm password:'. At the bottom right of the form is a 'Save' button.

After the password is changed, the login page is displayed. Enter your new password to log in.



If you forget the password, you can restore the default settings by pressing and holding the **WPS/Reset** button on the rear panel of the WS550 for over 6 seconds. The password used for logging in to the web management page is then restored to their default values. After the WS550 is restored to its default settings, all user customized data will be lost. Perform this operation with caution.

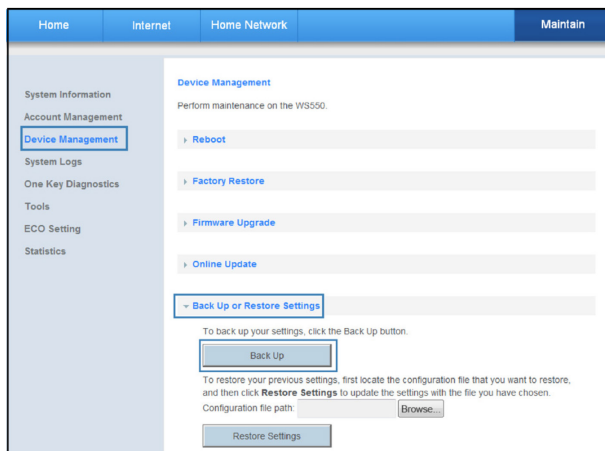
Configuration Backup

WS550's backup configuration function is applicable to the following scenario: When updating the configuration parameters fails or when you want to quickly restore the router to the familiar configuration state. It is recommended that you regularly back up WS550's configuration file to help you quickly restore the desired configuration parameters.



Before modifying WS550's configuration parameters for another time, backup its configuration file.

1. Log in to the web management page.
2. Choose **Maintain** tab.
3. In the navigation tree, choose **Device Management**.
4. Select **Back Up or Restore Settings** configuration page.
5. Click **Back Up**, in the displayed dialog box, set the name and storage location of the configuration file. Then click **OK**.



 Please save the WS550's configuration file and remember its storage location for necessary.

For example, if you need to use the WS550 in different network environments always, you can configure the relevant parameters in these network environments and back up them carefully.

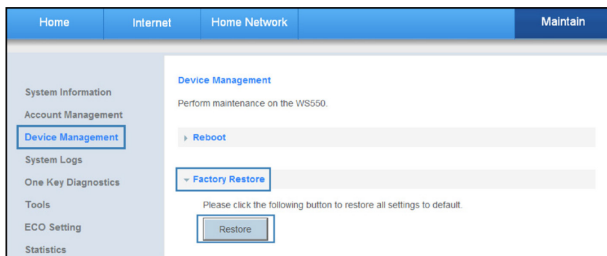
If you want to change the network environment later, you can import the configuration file directly to restore the default configuration without any configuration again.

Restoring Default Settings

Using the Configuration Tool

If the WS550 parameter settings were configured incorrectly, log in to the web management page to reload the default configuration file and restore the WS550 to its default settings. Perform this operation with caution. After the WS550 is restored, all custom data and settings will be lost.

1. Log in to the web management page.
2. Choose **Maintain** tab.
3. In the navigation tree, choose **Device Management**.
4. Select **Factory Restore** configuration page.
5. Click **Restore**.
6. In the displayed dialog box, click **OK**.

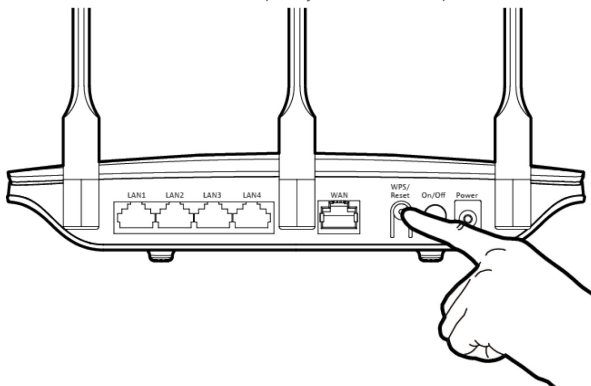


Using the Reset Button

If you forget the login password to the web management page or could not access the web management page, use the reset button on the WS550 rear panel to restore the WS550 to its default settings. Perform this operation with caution. After the WS550 is restored, all custom data and settings will be lost.

To restore the WS550 to its factory settings, power on the WS550 and press and hold the **WPS/Reset** button for at least 6 seconds until all the indicators turn off.

The WS550 will restart, which will cause temporary network interruptions.



After the WS550 is restored to its default settings, change the computer IP address so that it is in the same network segment as the 192.168.3.1 default IP address.

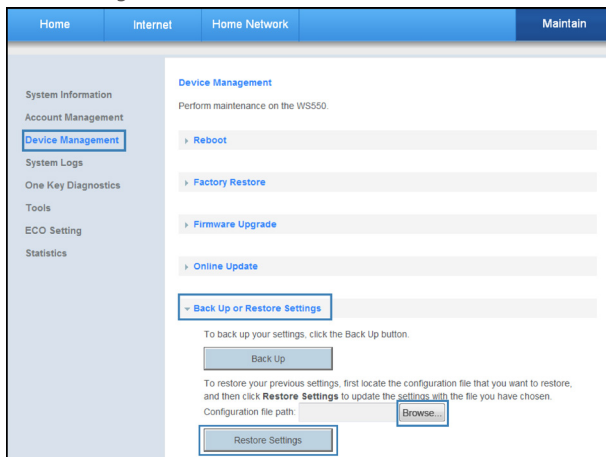
Restoring Configuration by Importing Backup File

If your operations fail after multiple configurations or you want to quickly restore the WS550 to the familiar configuration state, you can upload the backup configuration file to restore the configuration.

Please regularly back up WS550's configuration file to your computer. For example, back up WS550's configuration file before updating its configuration parameters or before restoring it to the factory default settings.

1. Log in to the web management page.
2. Choose **Maintain** tab.
3. In the navigation tree, choose **Device Management**.
4. Select **Back Up or Restore Settings** configuration page.
5. Click **Browse....** In the displayed dialog box, select the backup configuration file.

6. Click **Restore Settings**.



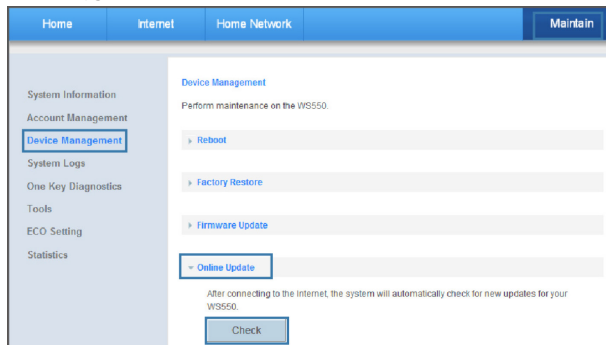
i During importing the configuration file, do not power off the WS550; otherwise, the restoring of the WS550 to the normal state may fail.

7. Then the WS550 automatically restarts to make the new configuration file useful.

Upgrading Software

The WS550 can be upgraded online using the web management page. Make sure you are connected to the Internet before the upgrade.

1. Log in to the web management page.
2. Choose **Maintain** tab.
3. In the navigation tree, choose **Device Management**.
4. Select **Online Update** configuration page.
5. Click **Check** to upgrade the WS550 to the latest version.



Power Saving Settings

To save power, you can set effective time for your WS550's LED indicators and Wi-Fi function.

1. Log in to the web management page.
2. Choose **Maintain** tab.
3. In the navigation tree, choose **ECO Setting**.
4. Select **ECO Settings** configuration page.
5. Select the **Enable ECO LED** and **Enable ECO WLAN** check boxes.
6. Set **Time**.
7. Click **Save**.

The screenshot shows the web management interface of a WS550 device. At the top, there are four tabs: Home, Internet, Home Network, and Maintain. The Maintain tab is selected. On the left side, there is a navigation tree with the following items: System Information, Account Management, Device Management, System Logs, One Key Diagnostics, Tools, ECO Setting (highlighted with a blue box), and Statistics. The main content area is titled 'ECO' and contains the following text: 'To conserve energy, you can disable the LED indicators and WLAN function for specified periods.' Below this text is a sub-header 'ECO Settings' (highlighted with a blue box). There are two settings: 'Enable ECO LED' and 'Enable ECO WLAN'. Both have checkboxes that are checked. Each setting has a 'Time' field with 'From' and 'to' time selectors, both set to '00:00' and '00:01' respectively. A 'What's this?' link is located to the right of the settings. At the bottom right, there is a 'Save' button (highlighted with a blue box).

Home Internet Home Network Maintain

System Information
Account Management
Device Management
System Logs
One Key Diagnostics
Tools
ECO Setting
Statistics

ECO

To conserve energy, you can disable the LED indicators and WLAN function for specified periods.

ECO Settings [What's this?](#)

Enable ECO LED: ☒
Time: From 00:00 to 00:01

Enable ECO WLAN: ☒
Time: From 00:00 to 00:01

Save

8 Huawei HiLink

Huawei HiLink is a management application for your Huawei home router. With Huawei HiLink, you can easily manage your WS550 from your mobile phone.

- **Device management:** Huawei HiLink enables you to easily manage wireless devices connected to the WS550's Wi-Fi network.
- **Parental control:** Your children can surf the Internet only within periods specified by you.

For more information, scan the following two-dimension code to download Huawei HiLink.



Upgrade your Huawei HiLink regularly to enrich your experience.

9 Reference Operations

Enabling Wireless Configuration on Windows

On Windows 7

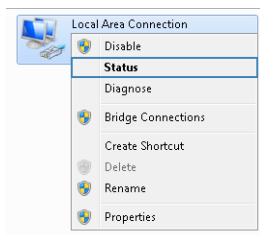
1. Right-click **Computer** and choose **Manage** from the shortcut menu.
2. In the left pane of the **Computer Management** window, choose **Computer Management (Local) > Services and Applications > Services**.
3. In the right pane of the **Computer Management** window, right-click **WLAN AutoConfig** and choose **Properties** from the shortcut menu.
4. In the displayed dialog box, check that **Service status** is **Started**.
5. Click **OK** to close the dialog box. Then close the **Computer Management** window.

Checking the Computer MAC Address

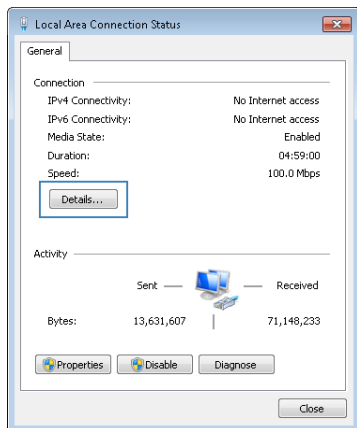
The MAC address, also known as the physical address, is a unique identifier assigned to a network adapter. A MAC address contains six groups of two hexadecimal digits, such as **2C-41-38-8D-75-8D**. This section demonstrates how to check your computer's MAC address.

On Windows 7

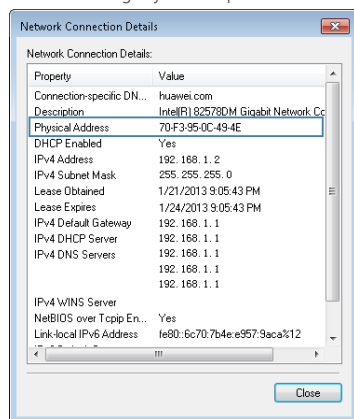
1. Choose **Start > Control Panel > Network and Internet > Network and Sharing Center > Change adapter settings**. Right-click **Local Area Connection** and choose **Status** from the shortcut menu.



2. Click **Details**.



3. In **Network Connection Details**, find the line similar to **Physical Address 70-F3-95-0C-49-4E**. The **70-F3-95-0C-49-4E** string is your computer's MAC address.



10 FAQs

What Can I Do If I Cannot Open the Web Management Page?

1. Open Internet Explorer. Choose **Tools > Internet Options > Connections > LAN settings**, and ensure that all check boxes are deselected.
2. Check that the computer IP address is 192.168.3.*. (* is any integer from 2 to 254.)
3. Check that the cables are securely connected to the WS550.

If the problem persists, restore the WS550 to its default settings.

How Can I Restrict My Computer to Specified Websites?

On the web management page, enable URL filtering and set up a URL whitelist. Your computer can then access only the websites specified in the URL whitelist.

I Often Need to Restart the WS550 to Display Web Pages. What Can I Do?

Verify the following:

1. Cables are securely connected to WS550 ports. Otherwise, network stability may suffer.
2. Your computer and the WS550 are far from electric appliances that generate strong magnetic or electric fields, such as microwave ovens, refrigerators, and cordless telephones.

If the problem persists, contact your Internet Service Provider.

What Is the Difference Between Wireless MAC Address Filtering and MAC Address Filtering?

- Wireless MAC address filtering: controls whether a computer can connect to the WS550 over the WLAN.
- MAC address filtering: controls whether a computer connected to the WS550 can access the Internet.

Can I Change the WLAN Password?

Yes. To improve your WLAN security, regularly change your WLAN password.

11 Appendix

Technical Specifications

Item	Specifications	
Power supply	12 V DC, 0.5 A	
Power consumption	< 6 W	
Ambient operating temperature	0° C to 40° C	
Ambient humidity	5% to 95% RH (non-condensing)	
Dimensions (H x W x D)	32 mm x 210 mm x 135 mm (1.26 in. x 8.27 in. x 5.31 in.), antenna excluded	
Weight	About 260 g	
WLAN standard	802.11b, 802.11g, 802.11n (2.4GHz)	
Wireless transmission rate(2.4G)	802.11b	Up to 11 Mbit/s
	802.11g	Up to 54 Mbit/s
	802.11n (3T3R antenna technology)	Up to 450 Mbit/s

Default Settings

Parameter	Default Value
LAN port IP address	192.168.3.1
LAN port subnet mask	255.255.255.0
WLAN name	Labeled on the product cover
WLAN password	Unencrypted by default

12 For More Help

Please visit <http://consumer.huawei.com/en/support/hotline> for recently updated hotline and email address in your country or region.

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