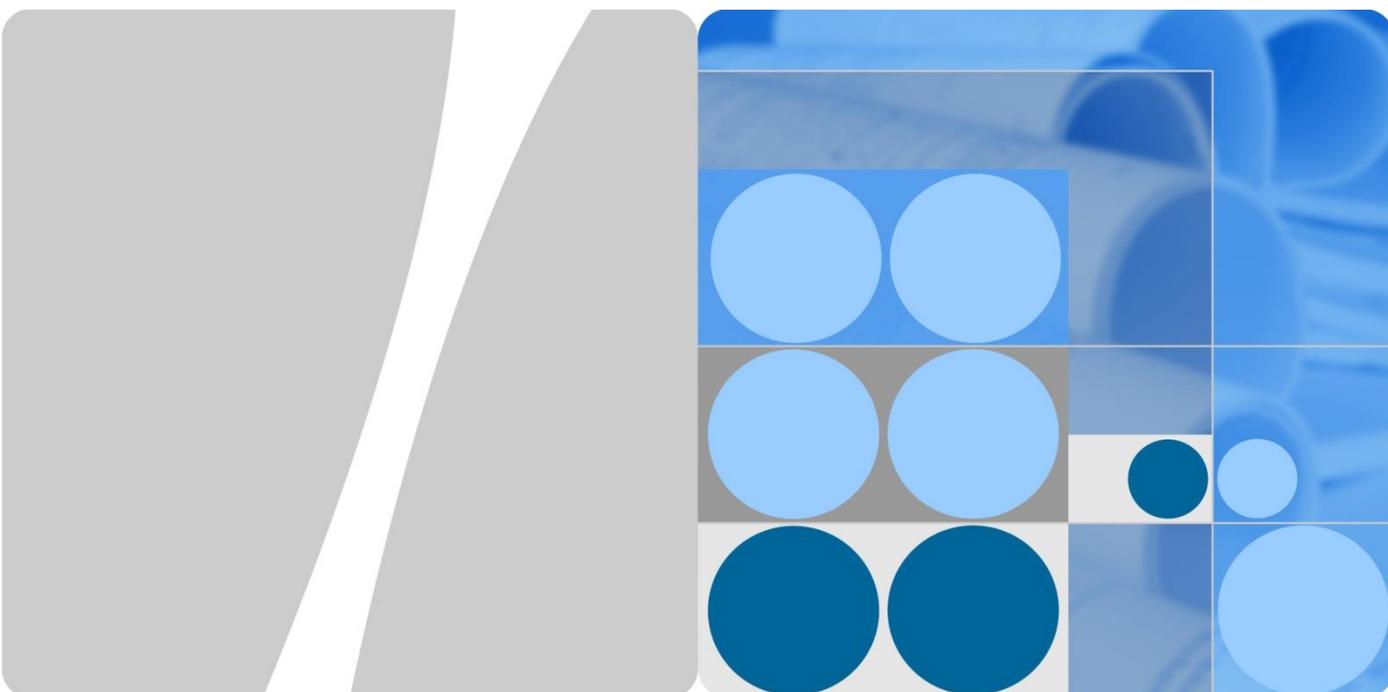


Part Number: 203355



HUAWEI Router WS5200

Product Description

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1 Overview

1.1 Introduction

Figure 1-1 Appearance



Gigabit Ethernet Ports & Wi-Fi

Five fiber broadband gigabit Ethernet ports,
11AC dual-band gigabit Wi-Fi with a speed of up to 1200 Mbps.

Better Wi-Fi Coverage

Extra wide quad antennas with anti-interference design to provide strong signal and better Wi-Fi coverage.

5 GHz Preferred for Better Experience

Priority usage of 5 GHz Wi-Fi band over 2.4 GHz band when signal strength is equal to increase connection speeds.

Wi-Fi Automatic Optimization

Dynamically detect signal noise nearby and optimize Wi-Fi channels to increase Wi-Fi quality.

1.2 Button/Ports

Figure 1-2 Button/Ports



Table 1-1 Buttons and ports

No.	Button/Port	Description
1	Hi button	<p>The indicator will flash red slowly when the router discovers a device that supports HUAWEI HiLink. You can press the Hi button to connect the device to the router's Wi-Fi.</p> <p>By pressing the Hi button, you can also enable WPS to connect a WPS device to the router.</p> <p> NOTE</p> <p><i>Devices that support HUAWEI HiLink include: HUAWEI routers, HUAWEI mobile phones (EMUI 5.0 or later), etc.</i></p>
2	Power port	Connect the power adapter to this port.
3	WAN port	The blue port that connects to the Internet (e.g., a fiber optic modem/broadband modem/cable modem).
4	LAN ports	The grey ports that connect to network devices such as a computer.
5	Reset button	When the router is powered on, you can use a pointed object to press and hold the reset button for more than two seconds until the indicator turns off. The router should now be restored to factory settings.

1.3 Indicator

Figure 1-3 Indicator

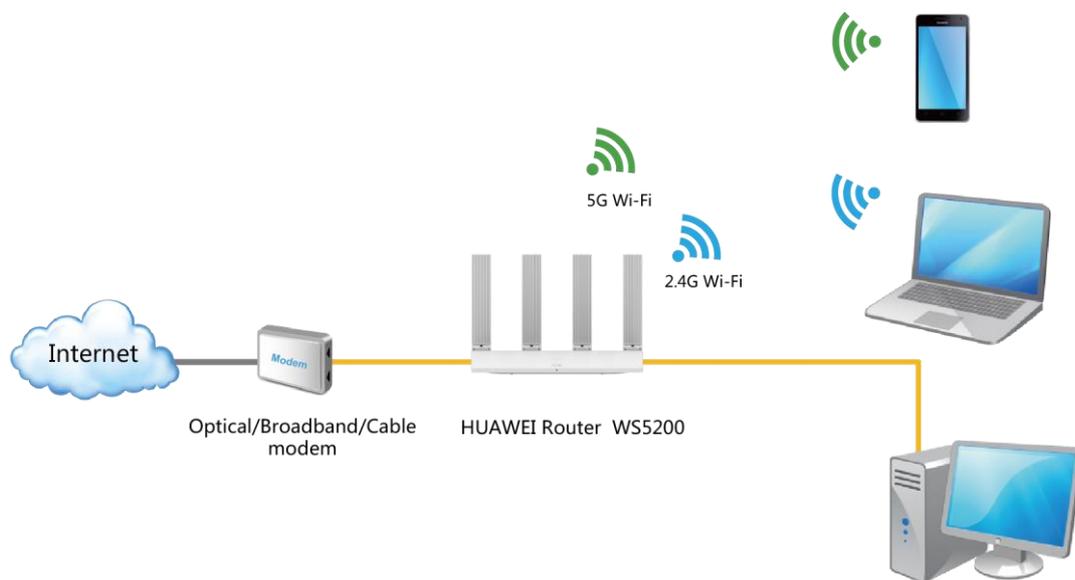


Table 1-2 Indicator and ports

Router Status	Indicator Status	Description
Powering on	Steady red	The router is starting up.
Connecting to the Internet	Steady green	The router is connected to the Internet.
	Steady red	The router is not connected to the Internet.
Connecting through HUAWEI HiLink	Slowly flashing red	The router has discovered a device that supports HUAWEI HiLink. For example, another HUAWEI router, a HUAWEI mobile phone (EMUI 5.0 or later), etc.
	Quickly flashing red	The router is pairing with the device that supports HUAWEI HiLink.
	Quickly flashing red and turning to steady green or red	HUAWEI HiLink pairing is successful. Steady green: the router is connected to the Internet. Steady red: the router is not connected to the Internet.
	Slowly flashing red	HUAWEI HiLink pairing failed. The router rediscovered the device.
Upgrade in progress	Quickly flashing green	The router is being updated.

1.4 Network Architecture

Figure 1-4 Network architecture



NOTE

— Optical fiber (or telephone line/Ethernet cable)

— Ethernet cable

2.4 GHz Wi-Fi

5 GHz Wi-Fi

2 Functions and Features

2.1 Automatically identifying Internet access mode

The router can automatically identify your Internet access mode (PPPoE/DHCP). No manual operation is required.



NOTE

PPPoE, DHCP, static IP, and bridge are the most commonly used Internet access modes and are all supported by HUAWEI Router WS5200.

2.2 Learning the Internet settings of old routers

- Supports obtaining the broadband account and password from your old router without manual input. Especially when you forget your broadband account or password, you can copy them from your old router to access the Internet.
- Supports the cloning of your old router's MAC address. When broadband is enabled, some service providers will bind your broadband account to a MAC address to limit the number of Internet devices, and only allow bound devices to access the Internet. To resolve this issue, the MAC address cloning feature allows the router to use the MAC address of a bound device to access the Internet.

2.3 Multi-router network distribution

- Supports network expansion by connecting multiple HUAWEI HiLink routers using the HiLink button.
- Supports network expansion by connecting multiple HUAWEI HiLink routers using Ethernet cables.
- Supports the auto-sync of your router's Wi-Fi configurations: If the Wi-Fi name, password, or router management password is changed on your primary router, the configuration will automatically sync to the others HUAWEI HiLink routers.
- If there are multiple routers in your home, your Wi-Fi device will be automatically switched to a better-performing router.

2.4 Connecting to your old router (through wired bridge or wireless repeater mode) to form a network

- You can use an Ethernet cable to cascade HUAWEI Router WS5200 to an old router and form a network. In this case, HUAWEI Router WS5200 works as the secondary router.
- HUAWEI Router WS5200 can also connect to your old router's Wi-Fi as a wireless repeater. When it functions as a wireless repeater, it has the same Wi-Fi name and password as your old router. There will be only one Wi-Fi network in your home.



NOTE

If you have two HUAWEI routers that support HUAWEI HiLink, using HUAWEI HiLink to connect the two routers will be more convenient.

2.5 Ensuring privacy with multiple security mechanisms

- HUAWEI Router WS5200 controls Wi-Fi access and disconnects unwanted devices to prevent unauthorized access.
- It supports guest Wi-Fi. You can set up a dedicated Wi-Fi network for your guests. Guests have access to the guest Wi-Fi but cannot manage the router or access other devices on the home network. This allows you to protect the security and privacy of your home network.
- You can hide your Wi-Fi name to improve network security. If a Wi-Fi name is hidden, wireless devices (like PCs and mobile phones) cannot search for the Wi-Fi name. To connect a wireless device to a hidden Wi-Fi network, you must enter the correct Wi-Fi name.
- The built-in firewall can protect you from DoS/ARP attacks by scanning all data communication between the Internet and your home network.
- It supports DMZ feature that allows you to expose the DMZ host to the Internet, while other devices are protected by the firewall. For example, when setting up a server, you can set the computer connected to the external network as the DMZ host to allow it to provide Internet services while ensuring the security of other devices on your home network.

2.6 Power-saving features

- The router supports three different power modes: Wall (highest power consumption), Standard, and Sleep (lowest power consumption) to cater to your different needs at different time of the day and in different environments.
- Wi-Fi timer allows you to disable Wi-Fi during specific time periods (such as after midnight or when you're at work) in order to reduce power consumption.

2.7 Parental control

The parental control feature allows you to set Internet access time limits and restrict access to certain websites to keep your family members (especially minors) protected.

2.8 Router management

You can access your router's web-based management page from your computer, mobile phone or tablet. Alternatively, you can download and install HUAWEI SmartHome app on your mobile phone or tablet for faster configuration.

2.9 Supporting VPN passthrough

Supports VPN passthrough (requires VPN dialing from LAN device).

2.10 Other supported features

- NAT and NAPT (RFC 1631, RFC 2663, RFC 2766, and RFC 3022)
- DHCP server and clients
- DNS proxy
Proxy for DNS queries from its connected devices to speed up DNS responses.
- DDNS proxy
The router will associate its dynamic WAN IP to a fixed domain name. This allows you to use a fixed domain name to access the router's services over the Internet instead of having to manually check the WAN IP address of the router each time.
- Universal Plug and Play (UPnP)
Computers in the LAN can request the router to automatically switch the port. This allows computers connected to the Internet to access the resources on any LAN computers when needed, allowing you to enjoy a more stable network while playing computer games or using apps to download files.

3 Technical Specifications

3.1 Product Specifications

3.1.1 Chipsets

- CPU: RTL8197FS, single-core 1 GHz processor
- 2.4 G Wi-Fi chip: RTL8197FS (2 x 2 Wi-Fi 2.4 GHz)
- 5 G Wi-Fi chip: RTL8812BRH (2 x 2 Wi-Fi 5 GHz 11ac)

3.1.2 RAM and Flash Memory

- RAM: 128 MB DDR2
- Flash memory: 128 MB NAND FLASH

3.1.3 Wi-Fi

- Supports 802.11b/g/n (2.4 GHz, wireless rates up to 300 Mbps).
- Supports 802.11a/n/ac (5 GHz, wireless rates up to 867 Mbps).
- Supports simultaneous dual-band (11n 2.4 GHz 300 Mbps and 11ac 5 GHz 867 Mbps Wi-Fi, wireless rates up to 1167 Mbps).

 **NOTE**

The data rates shown are theoretical in nature. Actual data rates may vary depending on operating environment, wireless device, and other factors. Data rate comparisons (if any) are for the purpose of scientific explanation, and should be used for reference only.

- Adopts Huawei's unique external 2.4 GHz and 5 GHz built-in dual-band balun antenna for better Wi-Fi coverage.
- Supports the simultaneous access of 32 devices on the 2.4 GHz band and an additional 32 devices on the 5 GHz band.
- Supports AES and TKIP encryption.
- Supports WPA 1.0/WPA 2.0 PSK.
- Supports 5 GHz Wi-Fi prioritization. Your devices that support 802.11v will automatically connect to the faster Wi-Fi.

3.2 Ports

3.2.1 WAN Ethernet Port

10/100/1000 Mbit/s self-adaptive Ethernet port: 1

3.2.2 LAN Ethernet Port

10/100/1000 Mbit/s self-adaptive Ethernet ports: 4

3.3 Power Supply Specification

- Power supply: 12V DC, 1 A
- Power consumption: < 12W
- Input voltage: 100 - 240V AC
- Input voltage frequency: 50 – 60 Hz

3.4 Physical Specifications

- Dimensions (Depth x Width x Height): 205 mm x 120 mm x 36.8 mm
- Package size (Depth x Width x Height): 290 mm x 213 mm x 45 mm
- Weight without packaging: about 306 g
- Weight with packaging: about 618 g
- Operating temperature: 0 °C to 40 °C (32 °F to 104 °F)
- Storage temperature: -40 °C to +70 °C (-40 °F to +158 °F)
- Operating humidity: 5% to 95% RH (non-condensing)
- Storage humidity: 5% to 95%, non-condensing

3.5 Accessories

- Power adapter x 1
- Network cable x 1
- Quick Start Guide and Safety Information x 1

4 Abbreviations

Table 4-1 Abbreviations

Abbreviation	Formal Name
AC	Alternating current
AES	Advanced Encryption Standard
ARP	Address Resolution Protocol
CPU	Central processing unit
CHAP	Challenge Handshake Authentication Protocol
DC	Direct current
DDNS	Dynamic Domain Name Server
DDR	Double Data Rate
DHCP	Dynamic Host Configuration Protocol
DMZ	Demilitarized Zone
DNS	Domain Name System
DoS	Denial of Service
IP	Internet Protocol
LAN	Local Area Network
L2TP	Layer 2 Tunneling Protocol
MAC	Media Access Control
NAT	Network Address Translation
NAPT	Network Address and Port Translation
PAP	Password Authentication Protocol
PPPoE	Point to Point Protocol over Ethernet
PPTP	Point to Point Tunneling Protocol

Abbreviation	Formal Name
PSK	Pre-Shared key
QoS	Quality of Service
TKIP	Temporal Key Integrity Protocol
UPnP	Universal Plug and Play
VPN	Virtual Private Network
WAN	Wide Area Network
WPA	Wireless Fidelity Protected Access