Quick Start Guide

AR100, AR120, AR150, AR160, AR200,
AR1200, AR2200, AR3200, and AR3600 Series
Enterprise Routers

Issue: 21 (2021-09-09)
Part Number: 31505422

1 About This Guide

Thank you for purchasing a Huawei AR series router. This guide describes how to install AR100, AR120, AR150, AR160, AR200, AR1200, AR2200, AR3200, and AR3600 series routers. It also explains how to log in to your router for the first time.

- The installation, cable connection, and login methods for most AR series routers are similar. This guide uses the AR1220 as an example.
- Figures in the document are for reference only and may be different from actual devices.
- Any procedural differences between models are specified at the start of each section.

For more information, see the **Hardware Installation and Maintenance Guide** for your router on the Huawei support website.

2 Packing List

- Chassis (with the product model on the nameplate)
- Power cable
- Power adapter (only delivered with the AR100/AR120/AR150/AR160/AR200 series routers)
- Installation accessory package:
  - Ground cable
  - **Quick Start Guide**
  - Rubber pads
  - Console cable
  - Warranty Card
  - Mounting brackets
  - Locking latches
  - Screws

> **NOTE**
>
> - The numbers and types of items in the installation accessory package differ for different product models.
> - The installation accessory package of an AR100/AR120/AR150/AR160/AR200 series router does not include the console cable and mounting brackets.
> - Only the installation accessory package of an AR2204E-D/AR2204E-D-27GE/AR2220E/AR2240/AR2240C/AR3200 series/AR3600 series router includes the console cable.

3 Safety Guidelines

- To ensure personal and equipment safety, observe all the safety precautions on the equipment and in this document. **WARNING** and **CAUTION** items do not cover all the safety precautions and are only supplementary to the safety precautions.
- Follow all the safety precautions and instructions provided by Huawei. The safety precautions outlined in this document are only requirements of Huawei and do not include general safety requirements. Huawei is not liable for any consequence that results from violation of regulations pertaining to safe operations or safety codes pertaining to design, production, and equipment use.

⚠️ **WARNING**

- Laser beams will cause eye damage. Do not look into bores of optical modules or optical fibers without eye protection.
- Do not install power cables while the power is on.
- Do not turn on the power until you have finished installing the chassis and connecting cables.

👁 **CAUTION**

- This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.
- Take ESD protection measures during router installation and maintenance. For example, wear ESD gloves or an ESD wrist strap.
- Do not place other objects on the router.

4 Site Environment

- Do not place this product in an environment with flammable or explosive gases, or smoke.
- The installation site must be free from leaking or dripping water, heavy dew, and humidity. If the relative humidity is high, use dehumidifiers or dehumidifying air conditioners.
- The installation site must be well ventilated. Ensure that air vents on the equipment are not blocked.
- Do not install the equipment in a dusty environment.
- Leave at least 50 mm clearance at the rear and both sides of the chassis for heat dissipation.
- If multiple routers are installed in a cabinet/rack, leave at least 1 U (44.45 mm) distance between each two routers.
- The WLAN functions on the 5.15 GHz–5.35 GHz band for the equipment are restricted to indoor use only in the UK, Hong Kong, and all European Union countries.
- Ensure that the temperature and humidity at the installation site meet the router operation requirements. For the specific requirements, see the **Hardware Description** for your router on the Huawei support website.
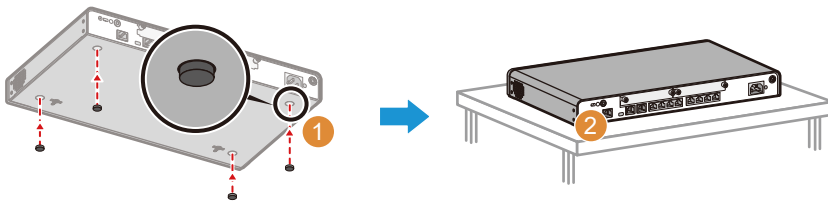
5 Installing the Router

Scenario 1: Desk Mounting

Before You Start

- The AR100, AR120, AR150, AR160, AR200, and AR1200 series routers can be desk-mounted.
- Do not stack routers on top of or closely next to each other.
- Some router models provide a security slot (🔒) on the panel of the chassis. You can install a security lock (separately purchased) in this slot to protect the router against theft.

Installation Procedure

Step 1 Attach four rubber pads to the bottom.
Step 2 Place the router on a desk.

Step 3 (Optional) Install a security lock.
Step 4 Connect the ground cable to the ground point.

Scenario 2: Wall Mounting

Before You Start

- The AR100, AR120, AR150, AR160, AR200, and AR1200 series routers can be wall-mounted.
- Before drilling holes in a wall, make sure there are no power cables in the wall to avoid electric shock.
- Ensure that there are no flammable or explosive materials near the router and no obstructions within 100 mm around the router.
- The panel with interfaces must face down to protect the interfaces from water.
- The distance between two installation holes of the AR100 series, AR129CV, AR129CVW, AR129CGVW-L, AR169CVW, and AR169CVW-4B4S routers is 120 mm.
- The distance between two installation holes of the AR161EW, AR161EW-M1, AR169EW, and AR169EGW-L routers is 185 mm.
- The distance between two installation holes of the AR120 (except the AR129CV, AR129CVW, AR129CGVW-L) /AR150/AR200 /AR160 (except the AR169CVW, AR169CVW-4B4S, AR161EW, AR161EW-M1, AR169EW, AR169EGW-L) series routers is 130 mm.
- The distance between two installation holes of the AR1200 series routers is 270 mm.
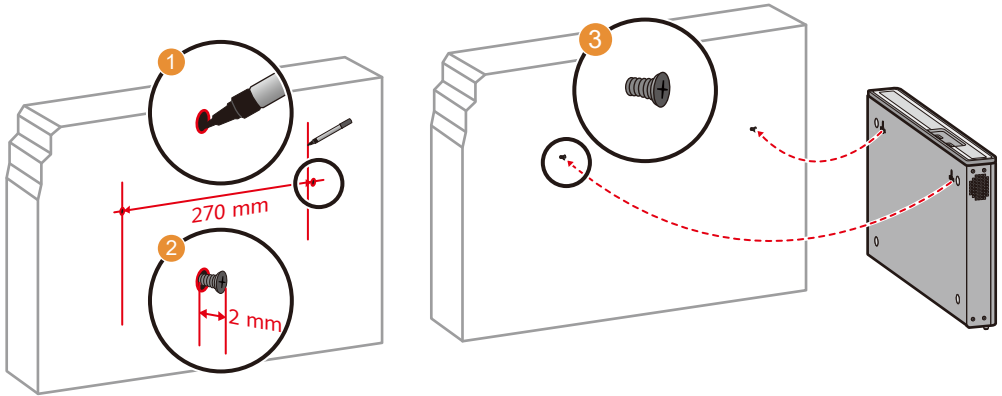
Installation Procedure

Step 1 Use the marker to mark installation hole positions. The distance between two installation holes is 270 mm.

Step 2 Fix M4 mounting screws against the wall and leave 2 mm distance away from the wall.

Step 3 Hang the router on the mounting screws.

Step 4 Connect the ground cable to the ground point.

Scenario 3: Cabinet/Rack Mounting

Before You Start

- AR series routers can be installed in a 19-inch standard cabinet/rack. Cabinets purchased from other vendors must have enough space for equipment installation.
- If the distance between front and rear mounting rails is not within the required range, install guide rails or a tray in the cabinet/rack to support the chassis. Guide rails or trays are not delivered with the product and must be purchased separately.
- Cabinet mounting is not recommended for Wi-Fi-capable routers.
- If routers with the 3G or LTE function are installed in a cabinet, use indoor remote antennas for the routers. Install indoor remote antennas on the primary 3G or LTE interfaces on the routers.
- The AR100 series, AR129CV, AR129CVW, AR129CGVW-L, AR169CVW, and AR169CVW-4B4S routers cannot be installed in a cabinet.
- In this document, AR2204E series refer to AR2204-51GE-P, AR2204-51GE, AR2204-51GE-R, AR2204-48GE-P, AR2204-27GE-P, AR2204-27GE, AR2204-24GE, AR2204E, AR2204XE, AR2204XE-DC, AR2204E-D-27GE, and AR2204E-D.

Some router models have specific installation requirements. Refer to the following table for details about your router model.
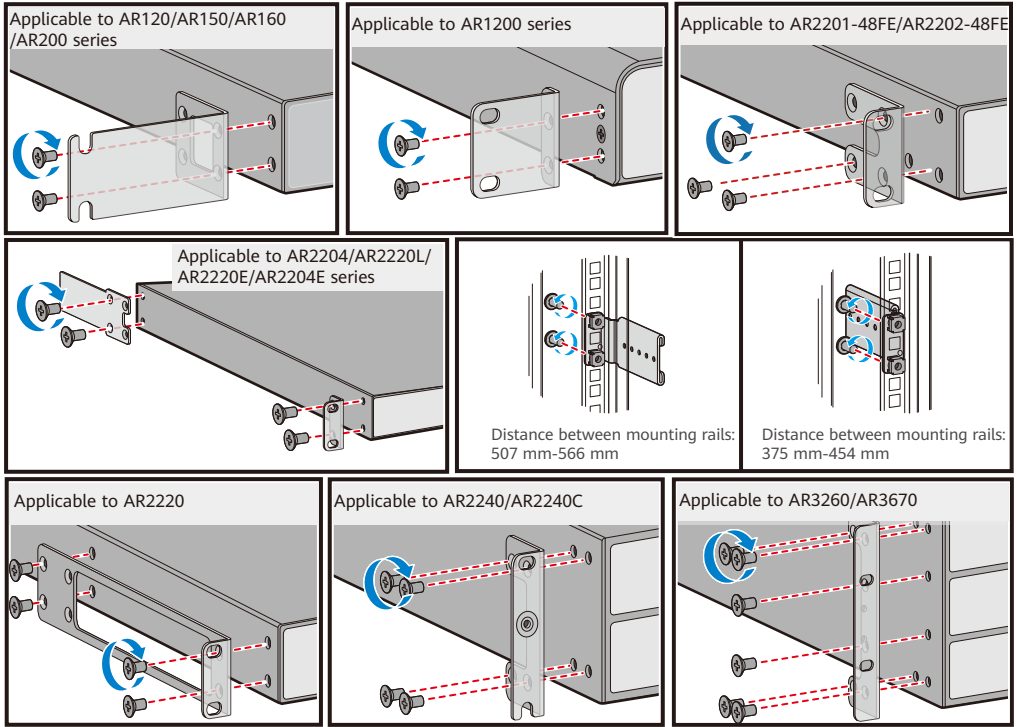
AR2204/AR2220L/AR2220E/AR2204E series

- Ensure a distance of 375–454 mm or 507–566 mm between the front and rear mounting brackets.
- Leave 1 U between the floating nuts on each front mounting rail, and 1 U between those on the rear rails. Ensure the lower floating nut on each mounting rail is level with those on the other mounting rails.

AR2220/AR2240/AR2240C/AR3260/AR3670

Chassis is heavy, so it is recommended that you install guide rails (separately purchased) in the cabinet to support the chassis.

Step 1 Attach mounting brackets to the router with M4 screws. Determine the mounting method according to the brackets delivered with your router.

Applicable to AR120/AR150/AR160/AR200 series

Applicable to AR1200 series

Applicable to AR2201-48FE/AR2202-48FE

Applicable to AR2204/AR2220L/AR2220E/AR2204E series

Distance between mounting rails: 507 mm-566 mm

Distance between mounting rails: 375 mm-454 mm

Applicable to AR2220

Applicable to AR2240/AR2240C

Applicable to AR3260/AR3670

Step 2 Install four floating nuts on front mounting rails, two on each side. Install the floating nuts in two mounting holes with one hole between them.

Step 3 Hold bottom of the router and push the router into the cabinet.

Step 4 Use M6 screws to secure the router onto the cabinet/rack.

Step 5 Connect the ground cable to the ground point.

1 U

M6 screw
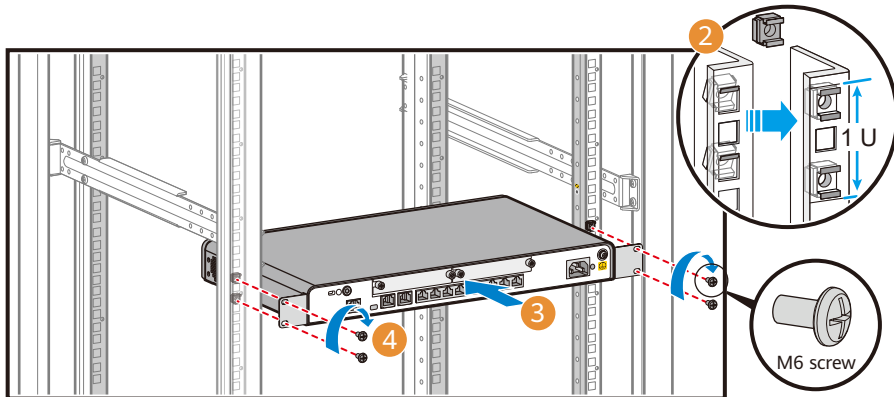
6 Installing Cards

Before You Start

- The methods for installing SIC, WSIC, XSIC, and SRU cards into SIC, WSIC, XSIC, and SRU slots are the same. The procedure in scenario 1 installs a SIC card into a SIC slot without removing the guide rail.
- Slots can be combined into a bigger slot on an AR router. The procedure in scenario 2 installs a WSIC card into two SIC slots with the guide rail removed.
- For information about the cards supported by your model, see Cards in the **Hardware Description** of your router on the Huawei support website.
- All cards are hot swappable.
- Before installing a card, wear an ESD wrist strap or ESD gloves.
- When installing a card, slowly push it into the slot. If you feel resistance or find the card inclined, pull the card out and push it into the slot again. Do not push the card with force; otherwise, the connectors on the card and router backplane may be damaged.
- Install filler panels in vacant slots.

Scenario 1: Not Removing Guide Rails
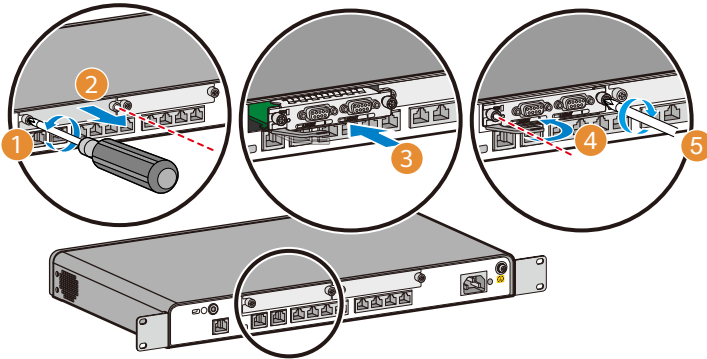
Installation Procedure

Step 1 Use a Phillips screwdriver to loosen the captive screw on the filler panel counterclockwise.

Step 2 Pull the filler panel out by the captive screw. Keep the filler panel for future use.

Step 3 Turn the eject lever of the card 45 degrees outward. Push the card into the chassis with your thumbs.

Step 4 Rotate the ejector lever inward to lock the card after the card is completely in the chassis.

Step 5 Use the Phillips screwdriver to fasten the captive screws clockwise.

Installation Procedure

Step 1 Use a Phillips screwdriver to loosen the captive screws on the filler panels on the two SIC slots counterclockwise.

Step 2 Pull the filler panel out by the captive screw. Keep the filler panel for future use.

Step 3 Use the Phillips screwdriver to loosen the screw on the guide rail.

Step 4 Remove the guide rail in the middle of the chassis.

Step 5 Turn the eject lever of the card 45 degrees outward. Push the card into the chassis with your thumbs.

Step 6 Rotate the ejector lever inward to lock the card after the card is completely in the chassis.

Step 7 Use the Phillips screwdriver to fasten the captive screws clockwise.
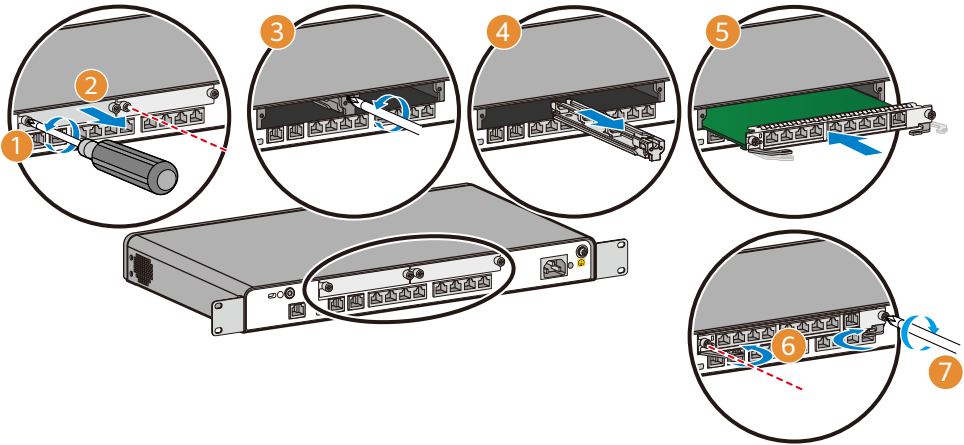
7 Connecting Cables

Before You Start

- Power cables must be more than 10 cm away from signal cables.
- Optical fibers must be used with optical modules.
- The bend radius of optical fibers must be larger than 40 mm.
- For the ground cable, attach the M4 lug to the router and the M6 lug to the ground point.
- If your router uses AC power supply, use AC power cables in compliance with local standards.
- If your router uses DC power supply, ensure that the positive and negative cables are connected to the positive and negative poles correctly.
- Antennas need to be installed for routers that provide the Wi-Fi or LTE/3G functions.
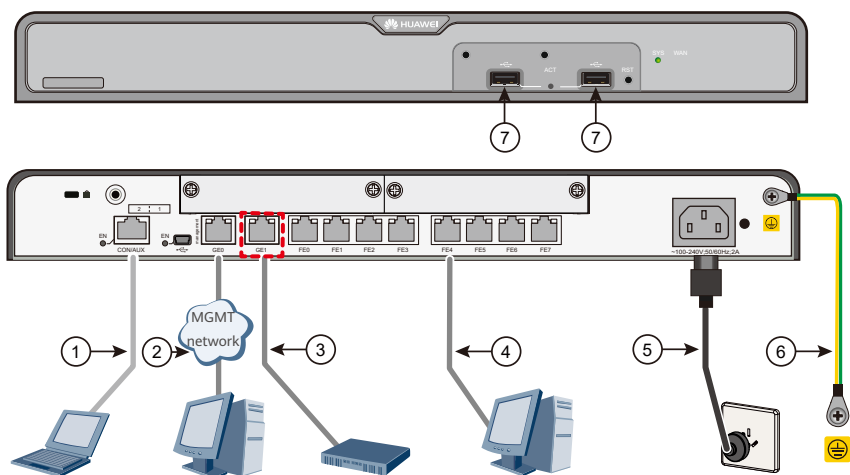
No.	Item	Connect To	No.	Item	Connect To
1	Console cable	Operation terminal (usually a PC)	5	AC power cable	External power source
2	Ethernet cable	Operation terminal (usually a PC)	6	Ground cable	Protection ground
3	Ethernet cable	Upstream network device	7	USB port	USB flash drive
4	Ethernet cable	Switch or PC	–	–	–

8 Logging In to the Router for the First Time

## 8.1 Using the default web login settings

Before You Start

- ■ If the web page is displayed abnormally, the browser version may be too low. Upgrade the browser and log in to the web platform using Mozilla Firefox 12.0 or later, Google Chrome 23 or later, or Internet Explorer 8.0 or later.
- ■ The login page varies according to version.
- ■ You can also scan the QR code on the right to watch the video introducing the procedure for logging in to routers in web mode.

Login Procedure

Step 1 Turn on the power switch on the external power supply and log in to the router after the SYS indicator blinks once every 2 seconds (indicating that the router is running properly).
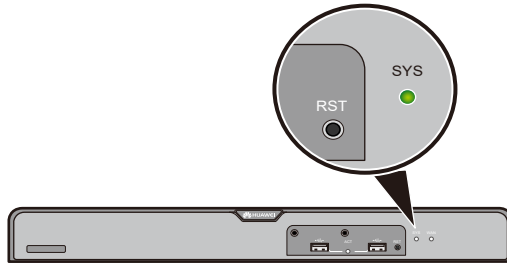

Step 2 Use a network cable to connect a PC to the management interface marked with the Management silkscreen on the router.

> 📓 **NOTE**
>
> If the Management silkscreen is not found on the panel of the router, find the corresponding management interface based on the router model.
> - ● AR150 series: FE3 (Ethernet0/0/3).
> - ● AR160 series: GE0 (GigabitEthernet0/0/0).
> - ● AR200 series: FE6 (Ethernet0/0/6).
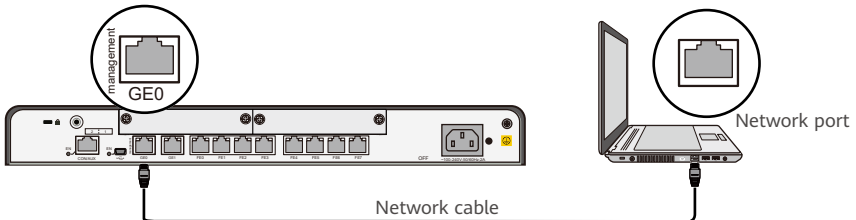
Step 3 Assign the PC with an IP address on the same network segment as the router IP address. The available IP addresses are in the range from 192.168.1.2 to 192.168.1.254, and the subnet mask is 255.255.255.0.

Step 4 Start the browser, enter the URL https://192.168.1.1 in the address box, and press Enter to access the login page.

Step 5 Enter the user name and password, and click **Login** to access the web page.

> **NOTE**
>
> The default username and password are available in AR Router Default Usernames and Passwords (https://support.huawei.com/enterprise/en/doc/EDOC1100182073 If you have not obtained the access permission of the document, see Help on the website to find out how to obtain it.

On the web page, you can configure the router. To switch between the Classics web system and the EasyOperation web system, click **Switch Version** in the upper right corner. For more information, see the **Web-base Configuration** of the product.

If you fail to log in to the web platform, the current software version of the router does not support login using the default web login settings. In this case, try the method in 8.2 Using the configured web login settings.

8.2 Using the configured web login settings

Before You Start

- Install third-party terminal simulation software on the PC by referring to user manual or online help.
- The password entered in interactive mode is not displayed on the screen.

Login Procedure

Step 1 Use a console cable to connect a PC to the Console interface of the router.

Step 2 Start the terminal simulation software, create a connection, configure the connected port, and set communication parameters as follows.

- **Transmission rate: 9600**
- **Parity bit: None**
- **Flow control mode: None**
- **Data bit (B): 8**
- **Stop bit (S): 1**

Step 3 Press **Enter** until the following information is displayed. (The following information is only for reference)
- In V200R005C30 or a later version, the system will prompt you to enter the default password.

```
Login authentication
Username:admin
Password:
Info: The entered password is the same as the default. You are advised to change it to ensure
security.
```

> **NOTE**
>
> The default username and password are available in AR Router Default Usernames and Passwords (https://support.huawei.com/enterprise/en/doc/EDOC1100182073 If you have not obtained the access permission of the document, see Help on the website to find out how to obtain it.

- In a version earlier than V200R005C30, the system will prompt you to configure a password.

```
Please configure the login password (8-128)
Enter Password:
Confirm Password:
```

> **NOTE**
> - After a login password is configured, this password will be required upon the next login if password authentication is used on this user interface.
> - If you forget the login password, restore the password according to the **Troubleshooting**.

After successful login, you can configure the router on the command line interface. For more information, see the **CLI-based Configuration** of the product.

To configure the router using the web-based management system, perform the following steps.

Step 4 Use a network cable to connect the PC to the management interface of the router.

Step 5 Configure a management IP address for the router.

The following example sets the management IP address to 192.168.1.1 and mask length to 24 on GE0/0/0.

```
<Huawei> system-view
[Huawei] interface gigabitethernet 0/0/0
[Huawei-GigabitEthernet0/0/0] ip address 192.168.1.1 24
[Huawei-GigabitEthernet0/0/0] quit
```

Step 6 Enable the Web server function.

```
[Huawei] http server enable
```

Step 7 Configure an HTTPS user and set the user level.

```
[Huawei] aaa
[Huawei-aaa] local-user admin password cipher Admin@huawei
[Huawei-aaa] local-user admin privilege level 15
[Huawei-aaa] local-user admin service-type http
[Huawei-aaa] quit
[Huawei] quit
<Huawei> save
```

Step 8 Start your browser, enter the URL https://192.168.1.1 in the address box, and press Enter to display the login page.

Step 9 Enter account information.

Enter the user name and password configured in step 7 to log in to the router.

You can use the web-based management system to configure the router. For details, see **Web-base Configuration** of the product.

9 Obtaining Product Documentation and Technical Support

- Log in to Huawei enterprise technical support website (https://support.huawei.com/enterprise), and select a specific product model and version to find its documentation.
- Log in to Huawei enterprise support community (https://support.huawei.com/ecommunity) and post your questions in the community.

Huawei Enterprise
Technical Support

10 Open Source Software Notice

In V200R005C20 and later versions, you can open the web login page of your router, and click **Open Source Software Notice** at the lower right corner of the page to view details about the open source software notice.

11 Declaration of Conformity

Hereby, Huawei Technologies Co., Ltd. declares that the radio equipment type is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address:

www.huawei.com/en/product-certification.

12 Supplier's Declaration of Conformity (SDoC)

Unique Identifier: trade name: HUAWEI; product name: Router;
model number: AR100, AR120, AR150, AR160, AR200, AR1200, AR2200, AR3200, and AR3600 series routers
Responsible Party- U.S. Contact Information
Huawei Technologies USA Inc.
5700 Tennyson Parkway, Suite 500
Plano, Texas 75024
Main: 214-919-6000 / TAC Hotline: 877-448-2934
FCC Compliance Statement (for products subject to Part 15)
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.

13 Trademarks and Permissions

and other Huawei trademarks are trademarks of Huawei Technologies Co., Ltd. All other trademarks and trade names mentioned in this document are the property of their respective holders.

Qualification Card

Qualification Card

PASS

HUAWEI