

Huawei OptiXstar K251a-20

Quick Start

Issue	01
Date	2025-10-16



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1 Product Overview

Huawei OptiXstar K251a-20 is a sub FTTR for the Huawei iFTTR OptiXstar F50 Plus. It supports ultra-gigabit broadband access through upstream fibers and provides users with ultra-gigabit dual-band Wi-Fi and ultra-gigabit network ports.

Figure 1-1 Device Appearance

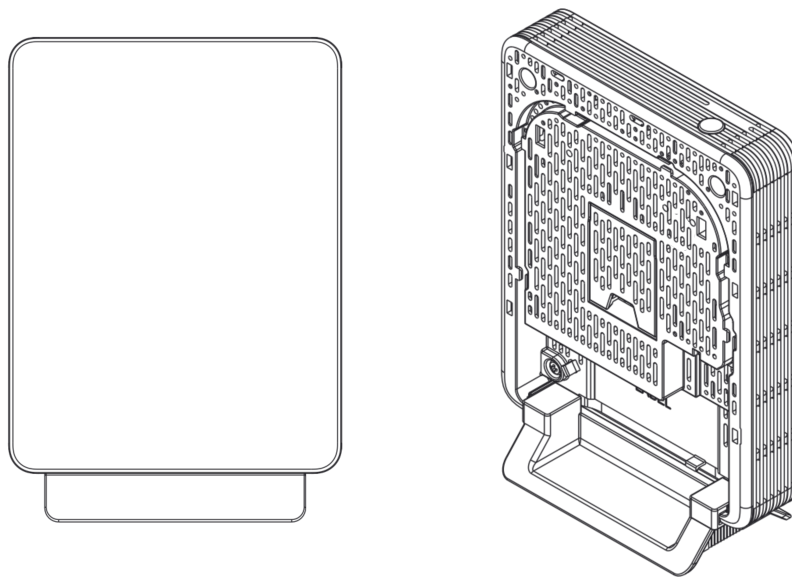
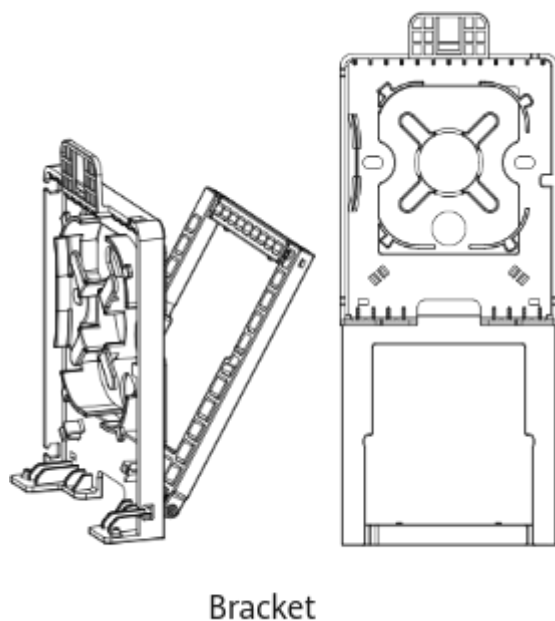


Figure 1-2 Mounting accessories



NOTE

- The appearance shown in this document may be different from the actual appearance of the product. The actual product prevails.
- This device is recommended only for single room Wi-Fi coverage.
- Working mode of the device: bridge mode.
- The storage temperature and humidity of the product is compliant with ETSI EN 300 019-1-1 Class 1.2.
- The valid storage period of the product is nine months. The valid storage period refers to the period during which the product can be stored in a storage environment that meets the ETSI EN 300 019-1-1 Class 1.2 standard without performance degradation.
- When operating optical fibers, pay attention to the operation safety according to the following laser hazard level.

CLASS 1 LASER PRODUCT

Accessibility Statement

For visually impaired users, you can obtain the product documentation in electronic format and read it online.

The product documentation describes the meanings of indicator colors and blinking status, and the relative positions and functions of each port and button, so that people with visual impairment can use the product properly.

We will continue to improve our products to adapt to the latest technologies and changes in user requirements, and provide users with accessibility functions and services.

2 Placing the Device

The device can be placed vertically on a desk, clamped in a socket panel, embedded in a 86-type box, or mounted on a wall.



CAUTION

Do not install the device and user cables outdoors or in an outdoor cabinet.

 WARNING

1. Install devices only by professional personnel. Do not install devices without permission.
During device installation, the installation professional personnel needs to inform the user of how to log in to the web configuration page and scan the QR code to view the Quick Start documentation. The IP address, login user name, and password of the web configuration page need to be provided to the user.
 2. For your safety, install an accessible disconnection device on the outside of the product. The disconnection device and the product must be installed by professional personnel. Installation and disassembly are not allowed without permission. At the same time, be sure to disconnect the power supply before installation and removal by professional personnel.
 3. Before installation, disconnect the power supply. In the 86-type electrician box, ask professional personnel to lead out the cables from the wall. Keep a certain distance between the cables to avoid contact with each other.
 4. Do not use detergents, gasoline, ammonia water, or corrosive chemical reagents to clean the device.
 5. This product is only suitable for installation on concrete or non-flammable surfaces.
 6. During the installation, use protective terminals to protect the optical fiber to prevent the end face of the optical fiber from being contaminated.
 7. The tools and auxiliary materials that are not delivered with the equipment must be prepared by professional personnel.
 8. Before using the device, read [Safety Information](#) carefully. Follow these precautions and instructions to ensure optimal product performance and to avoid danger and legal or regulatory violations.
-

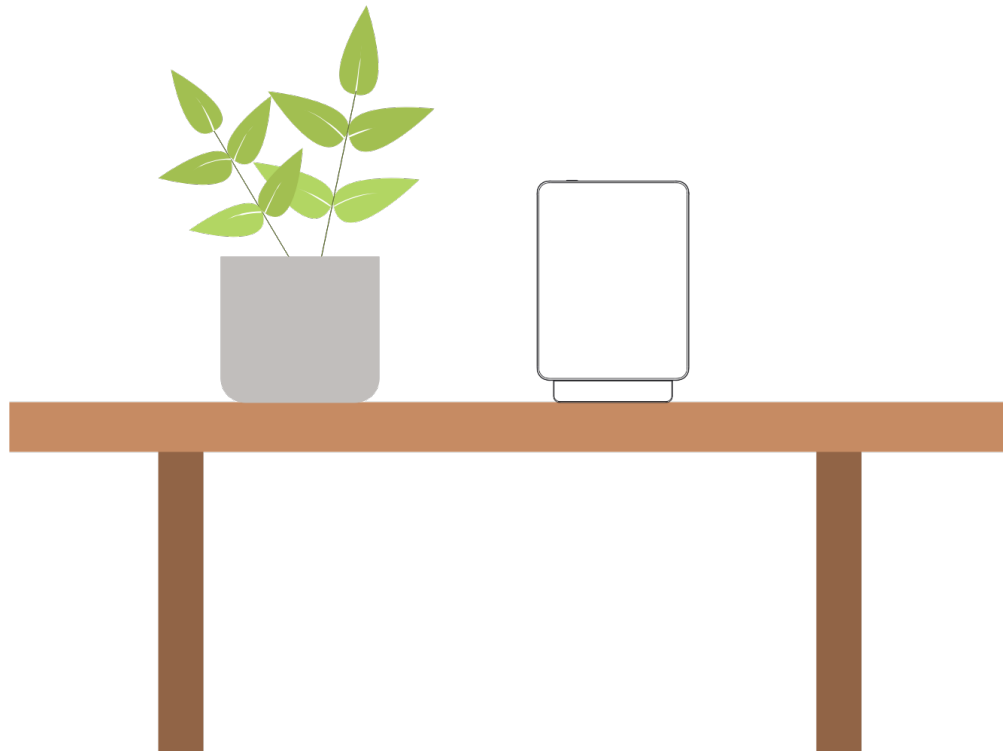
 NOTE

- Suitable for hotels, families and other places. For different household types, match products as needed.
- Please use the international standard 86-type electrician box for installation.
- Keep the device away from electrical appliances that generate strong magnetic or electric fields, such as microwave ovens.
- All diagrams in this document may be different from the actual product. These differences do not affect the functions of the product.

2.1 Stand up on the desktop

After connecting optical fibers, network cables, and power cables to the device, place the device vertically on the desk.

Figure 2-1 Stand up on the desktop



NOTE

When the device is placed vertically on a desk, if the device is connected to a bent network cable, the device may not be stable on the desk. Users are advised to arrange the network cable before connecting the device.

2.2 Clamped in a socket panel

NOTE

This installation mode is not recommended for users with limited mobility.

WARNING

1. It is recommended that the operation be performed by an engineer with an electrician certificate.
 2. Before the installation, disconnect the power supply.
-

Step 1 Remove the cover of a socket panel and loosen the screws. Open the folding bracket, clamp it behind the socket panel, and tighten the screws to secure the cover.

NOTICE

You only need to loosen the screws on the panel, and do not need to remove the screws.

Figure 2-2 Remove the cover and loosen the screws

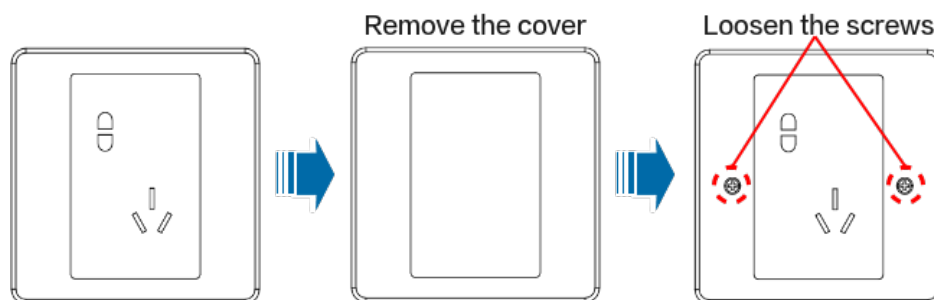
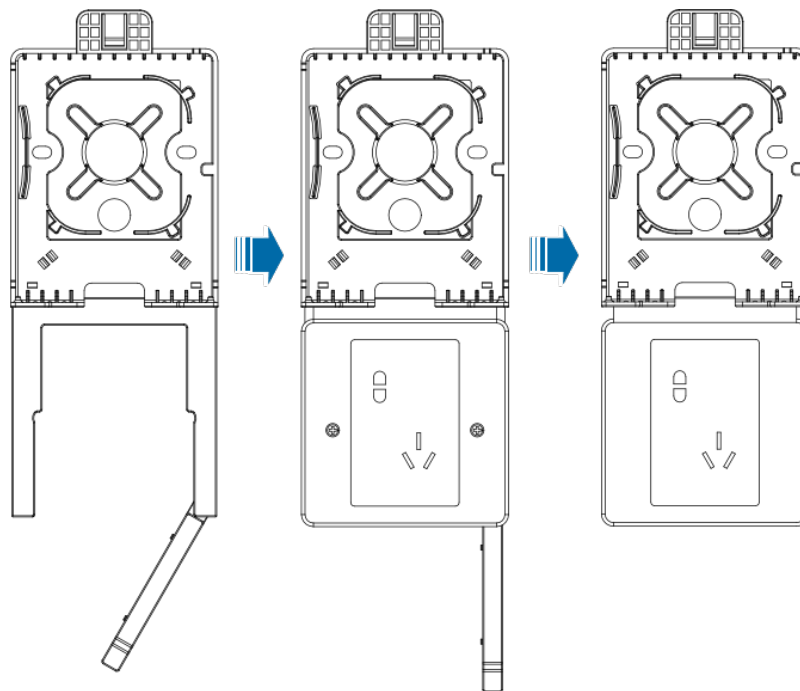


Figure 2-3 Clamp the bracket behind the socket panel

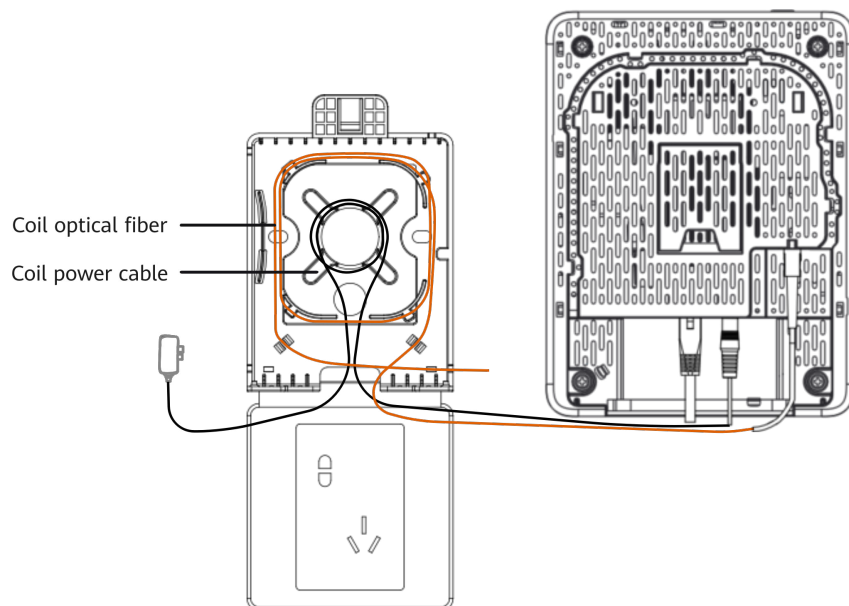


Step 2 Connect cables, such as optical fibers, network cables, and power cables, coil the cables at the rear of the device or in the bracket, and secure the cables with adhesive tapes.

NOTICE

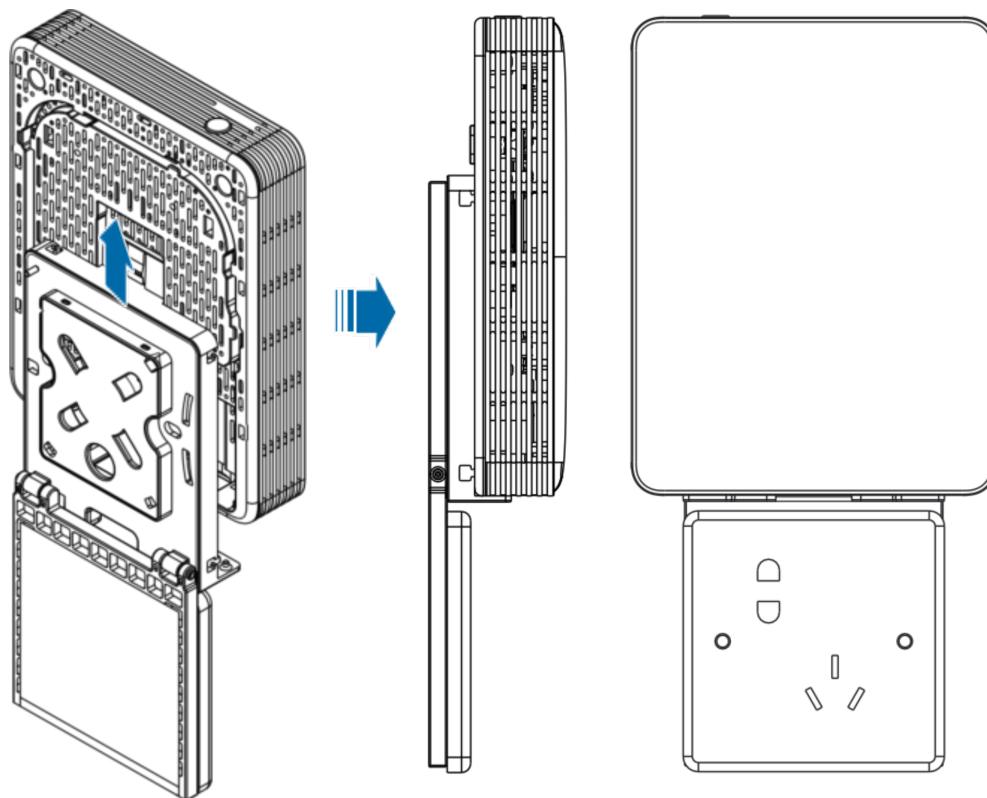
- The outer ring of the bracket is used to coil optical fiber, and the inner ring is used to coil power cable.
- When coiling fibers, exercise caution to prevent the fibers from being bent or damaged.

Figure 2-4 Connect cables



Step 3 Insert the card hole at the rear of the device into the buckle of the bracket to secure the device.

Figure 2-5 Insert the device



----End

2.3 Embedded in a 86-type box

NOTE

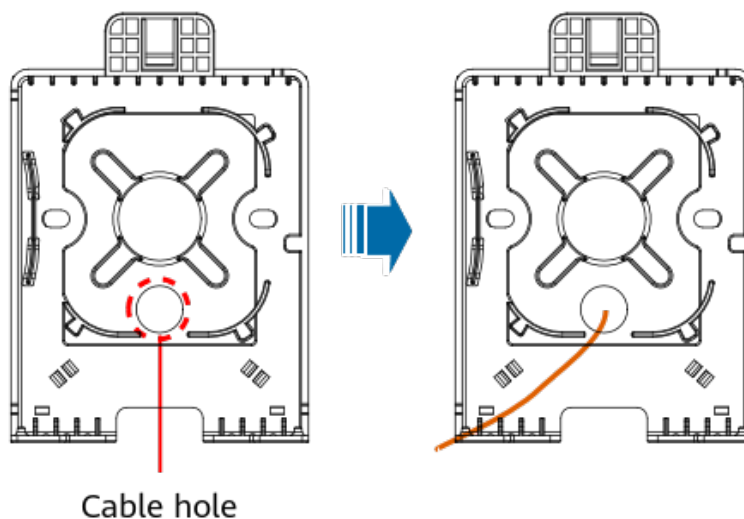
This installation mode is not recommended for users with limited mobility.

CAUTION

The device cannot be installed in an 86-type electrician box with strong current. It can be installed only in an 86-type electrician box that is empty or has only weak current.

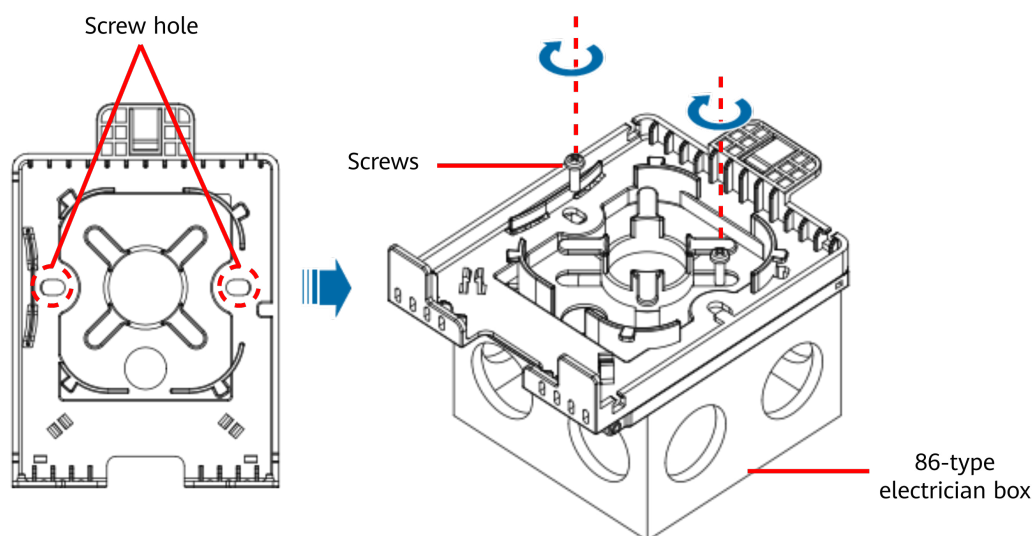
Step 1 Lead the cable out of the wall through the cable hole of the bracket.

Figure 2-6 Lead the cable out



Step 2 Align the bracket with the screw holes on the 86-type electrician box, and install the screws to fix the bracket. Do not tighten the screws too tightly.

Figure 2-7 Install the screws to fix the bracket

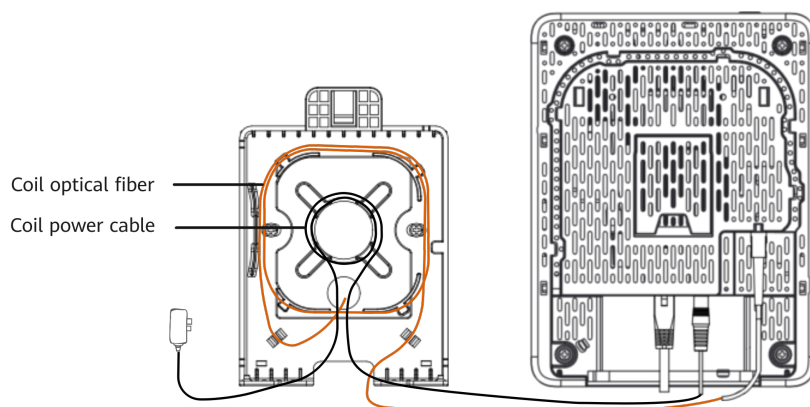


Step 3 Connect cables, such as optical fibers, network cables, and power cables, coil the cables in the bracket, and secure the cables with adhesive tapes.

NOTICE

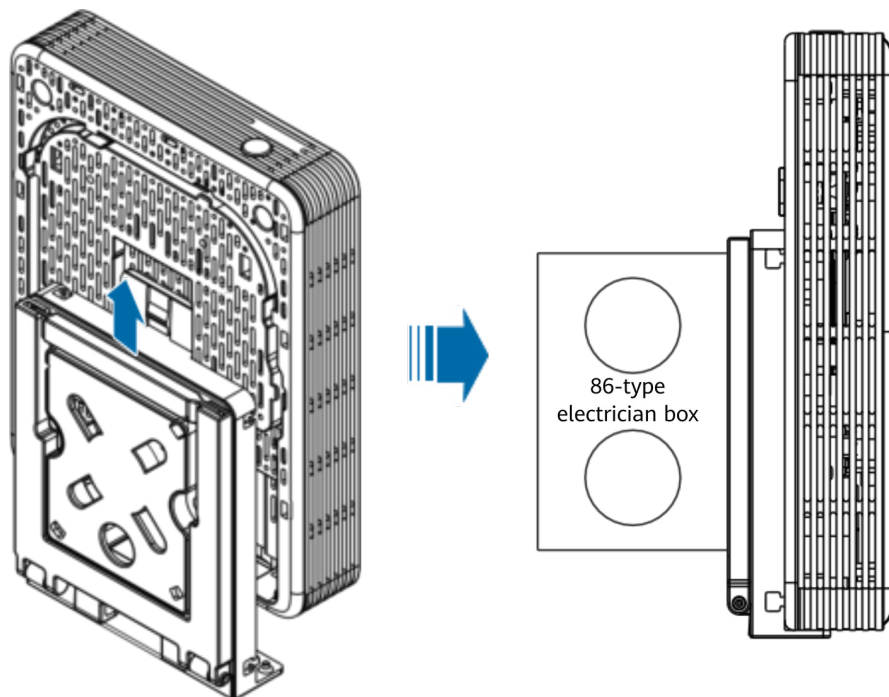
- The outer ring of the bracket is used to coil optical fiber, and the inner ring is used to coil power cable.
- When coiling fibers, exercise caution to prevent the fibers from being bent or damaged.

Figure 2-8 Connect cables



Step 4 Insert the card hole at the back of the device into the buckle of the bracket to secure the device. Then, the device is installed in the 86-type electrician box.

Figure 2-9 Insert the device



----End

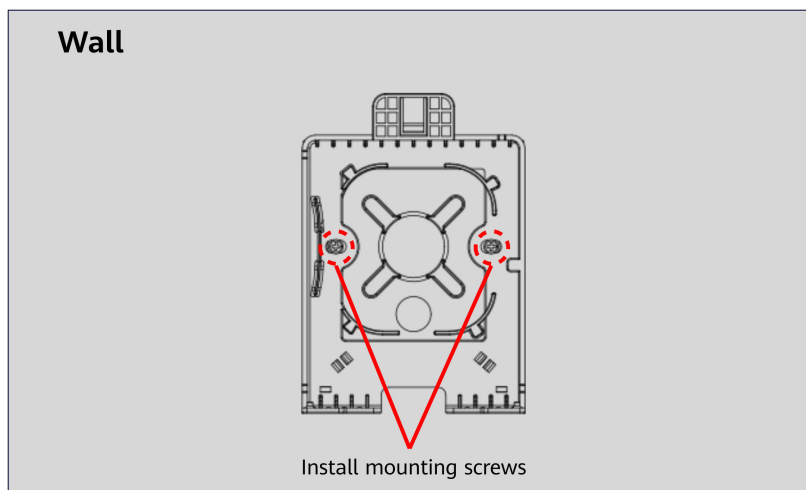
2.4 Mounted on a Wall

NOTE

For users with limited mobility, the installation distance must be considered.
The installation height must be greater than 800 mm and less than 1100 mm. The minimum horizontal distance is 450 mm.

Step 1 Secure the bracket to a wall using screws.

Figure 2-10 Secure the bracket

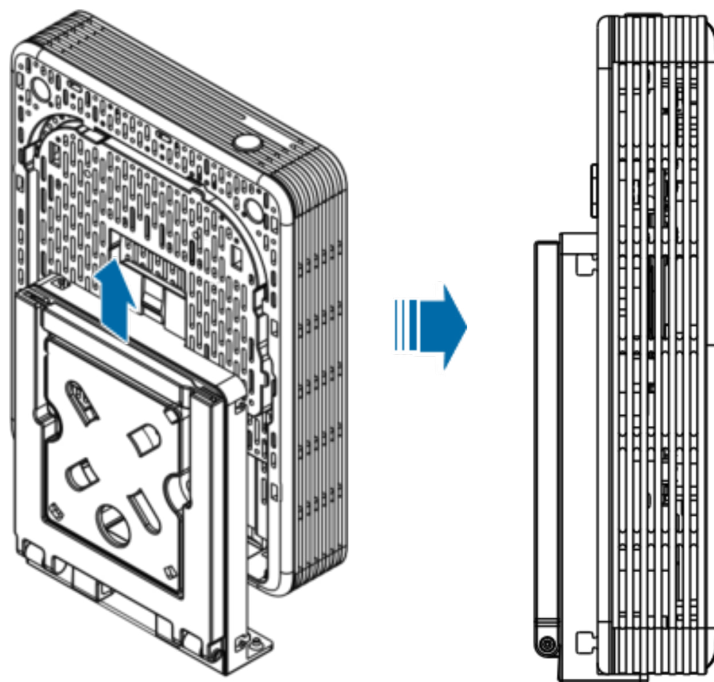


Step 2 After connecting fibers, network cables, and power cables to the device, mounted device onto the buckles on the bracket to secure the device.

NOTICE

- Determine whether to coil the cable based on the length of the redundant cable. If the cable is too long, coil the cable at the rear of the device or in the bracket and then secure the device.
 - The outer ring of the bracket is used to coil optical fiber, and the inner ring is used to coil power cable.
-

Figure 2-11 Insert the device



----End

3 Connecting Cables

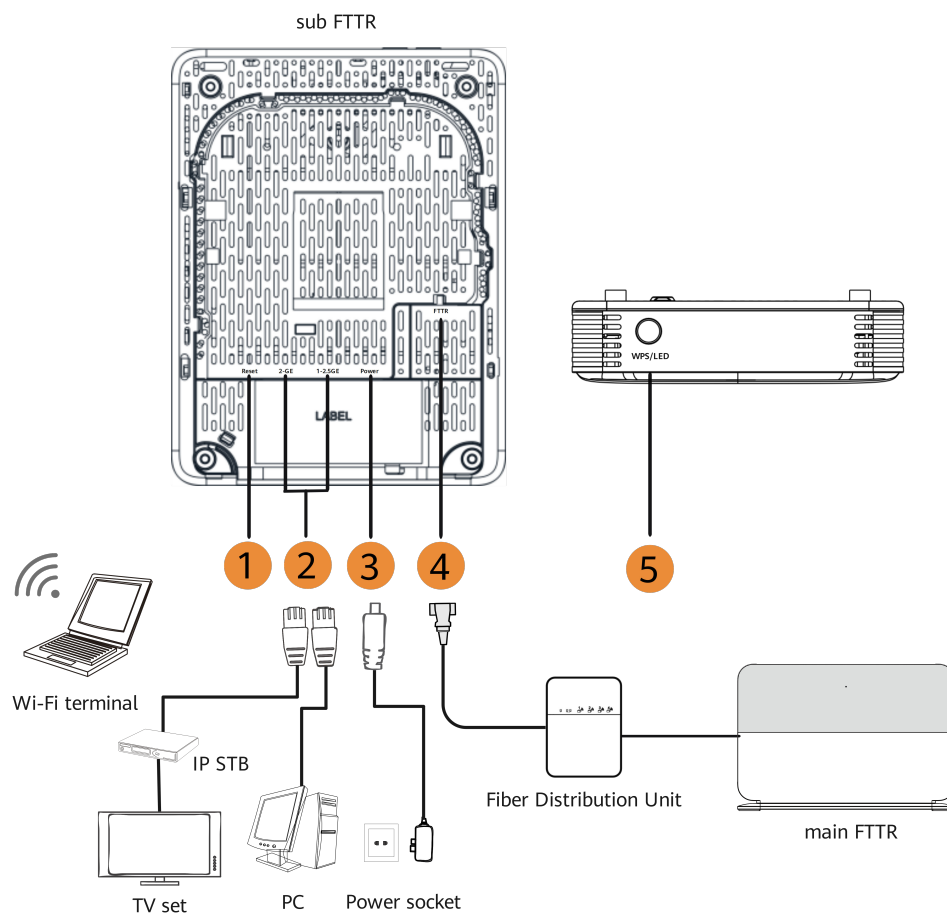
NOTE

When expanding Wi-Fi at your home, a professional needs to connect the sub FTTR to the main FTTR using optical network components. In this case, the sub FTTR automatically synchronizes the Wi-Fi parameters of the main FTTR. The Wi-Fi of the main FTTR is used for service provisioning and maintenance. You can use the dual-band Wi-Fi of the sub FTTR.

NOTICE

The appearance shown in this document may be different from the actual appearance of the product. The actual product prevails.

Figure 3-1 Cable connection diagram



NOTE

- The interfaces and buttons on the lower rear of the device are displayed from left to right: **Reset**, **2-GE**, **1-2.5GE**, **Power**, **FTTR** (Corresponds to No. 1 to No. 4 in the following table).
- The **WPS/LED** button is located on the top of the device (Corresponds to No. 5 in the following table).

Table 3-1 Ports and Buttons Description

No.	Interface or button	Description
1	Reset	When the device is starting, use a needle-shaped object to press and hold this button for more than 2 seconds until indicator turn off. After the device restarts and the indicator turns on, the factory settings are restored. NOTE Exercise caution when pressing the button. If you cannot access the Internet after the device is restored to factory settings, contact your service provider for help.
2	2-GE (First Ethernet port from left to right)	The port is auto-negotiated to a LAN port when connected to a computer or STB, and to a WAN port when connected to the LAN port of a main FTTR. • GE port supports 10/100/1000 Mbit/s auto-sensing. • 2.5GE port supports 10/100/1000/2500 Mbit/s auto-sensing.
	1-2.5GE (Second Ethernet port from left to right)	
3	Power	Connects to the power adapter.
4	FTTR	Connects to the main FTTR to implement fiber-to-room transmission. The type of the optical connector connected to the optical port can be SC/APC.
5	WPS/LED	Indicator and WPS integrated switch. • Short press: Turns the indicator on or off. • Press and hold for more than 3 seconds: Enables the WPS pairing function.

4 Indicator Description

There is an indicator on the front panel of the device.

Table 4-1 Indicator Description

Indicator Status	Description
Steady white	The device is started and is connected to the upstream network.
Blinking white slowly (once every 6 seconds)	Wi-Fi upstream transmission.
Blinking white quickly (twice per second)	The device is started but is not connected to the uplink network. The device is connecting to the network.
Steady red	The device is being powered on or is faulty.
Blinking red slowly (once per second)	Enable the WPS pairing function and wait for the STA WPS pairing. (You need to press the WPS button on the sub FTTR to trigger the indicator blinking. The timeout period is 2 minutes.)
Blinking red quickly (twice per second)	The device is performing WPS pairing. (The indicator stops blinking after the STA pairing is complete.)

 NOTE

If the sub FTTR is not powered on, all indicators are off.

5 FAQs

NOTE

- You are advised to use the latest browser to log in to the web configuration page. Chrome 58/Edge 14/Firefox 54/Safari 10/Opera 55 or later is recommended. If the browser of an earlier version is used, compatibility issues may occur.
- You can query the running status of each service unit on the web page of the device.
- If an exception occurs during using the device and the fault persists by referring to the following FAQs, contact the professional service personnel of the carrier.

5.1 How to set up a network?

In the network where the sub FTTR is connected to the FTTR, the network settings of the main FTTR are synchronized. No further configuration is required.

5.2 How to restore the factory settings of the device?

Press and hold the Reset button of the device for more than 2 seconds using a needle, and release the button after the indicator turns off. After the device restarts and the red indicator turns on, the factory settings are restored.

NOTE

After the sub FTTR is restored to factory settings, connect it to the main FTTR. The device automatically synchronizes the configuration of the main FTTR. The sub FTTR does not need to be configured.

5.3 How to change the Wi-Fi name and password of the device?

For the FTTR all-optical Wi-Fi solution, you are advised to change the Wi-Fi name and password on the main FTTR. The sub FTTR automatically synchronizes the modification.

5.4 How do I log in to the web page of the device in an FTTR network?

After the sub FTTR is connected to the FTTR network, the FTTR network automatically assigns an IP address to the device. The device can be accessed through this IP address.

NOTE

You can view the IP address on the main FTTR or NCE. The login password is the same as that on the main FTTR.

5.5 How can I retrieve my login password?

1. Restore the factory settings of the main FTTR. The sub FTTR automatically synchronizes the modification.
Press and hold the Reset button of the main FTTR for more than 10 seconds using a needle, and release the button after the indicator turns off. After the device restarts and the red indicator turns on, the factory settings are restored.
2. Enter the IP address in the address box of a browser and press **Enter**. For details about the IP address, see the product nameplate.
3. Follow the guide to set administrator login password. You can also set the Wi-Fi password as the device management password.