EchoLife Gateway PON Terminal Quick Start

Safety Information

To use the device properly and safely, read the safety precautions carefully before using the device and strictly observe these precautions when using the device.

Safety precautions:

- Store devices and accessories in temperature –10°C to +35°C and relative humidity 30%–85% RH for at most 9 months. If the ambient temperature or relative humidity is overhigh or overlow, the device may be faulty.
- Used only indoors. Do not lead metallic cables, such as network cables and telephone lines outdoors.
- Do not look directly into the optical port without eye protection.
- Keep the device out of the reach of children as the components or accessories may be swallowed.
- Install the device in strict compliance with the requirements of the supplier. Reserve a space of at least 10 cm above and around the device for heat dissipation. During the installation, keep the device away from electric appliances that generate strong magnetic or electric fields, such as microwave ovens, refrigerators, and mobile phones.
- The described input voltage range should comply with the local power grid. For example, the input voltage of the adapter is 200–240 V AC for European Union; the input voltage of the adapter is 100–140 V AC for America.
- If the power adapter is damaged and its internal circuit is exposed due to manmade factors, do not touch the exposed circuit, which may bring safety risks.
- Only power adapters delivered with the device can be used. Otherwise, the device may be abnormal or unsecure.
- Dry your hands before connecting or disconnecting cables. Stop the device and switch off the power before connecting or disconnecting cables.
- Do not place any object on the device, so that the device will not be damaged due to overheating or deformation.
- Prevent objects, such as metal, from entering the device through the heat dissipation hole.
- Switch off the power and disconnect all cables, including the power cable, optical fiber, and network cable, during periods of lightning activities. The socket-outlet shall be installed near the power adapter and shall be easily accessible. Before use the power adapter, please check no damage on the adapter.
- Do not lead the strength member of the optical fiber or other metal parts indoors. Do not install telephone lines, network cables, power adapters or power adapter cables outdoors. Adopting these measures will help prevent device damage and bodily injuries which are especially prone during thunderstorms.
- If an abnormality occurs, for example, liquid entering the device, smoke, unusual sound, and smell, stop the device immediately, switch off the power, disconnect all cables (such as the power cable, optical cable, and network cable) to the device, and contact the authorized service center.
- Do not disassemble the device without permission. In the case of a device fault, contact the authorized service center.
- Dispose of the packing materials, expired batteries, and old or abandoned devices in accordance to local laws and regulations (recycling them is strongly recommended).
- Do not change the structure, safety design, or performance design of the device without prior authorization.
- The device should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

Fireproof precautions:

- Keep the device away from large heat source equipment, bare flames, and high-power devices, such as electric heaters, candles, and blow drier, to eliminate safety risks.
- If there are aged cables or power socket facilities on the power supply line to or near the device, replace them in time to eliminate safety risks. The power supply voltage of the device must meet the input voltage requirement.

⚠ CAUTION

This document provides the ONT appearance and describes its interface, cable connection, and indicators. For details about the ONT, such as configurations and maintenance, see **User Guide** in http://support.huawei.com.

Product Overview

Product	Function
HG8120 series	• 2 Ethernet ports • 1 POTS port
HG8045 series	• 4 Ethernet ports • Wi-Fi access
HG8240 series	• 4 Ethernet ports • 2 POTS ports
HG8245 series	• 4 Ethernet ports • 2 POTS ports • 1 USB port • Wi-Fi access 📖 NOTE The HG8245Q provides two USB ports.
HG8247 series	• 4 Ethernet ports • 2 POTS ports • 1 USB port • 1 CATV port • Wi-Fi access
HN8055 series	• 5 Ethernet ports • 2 USB ports • Wi-Fi access
HN8245 series	• 4 Ethernet ports • 2 POTS ports • 2 USB ports • Wi-Fi access
HN8255 series	• 5 Ethernet ports • 2 POTS ports • 2 USB ports • Wi-Fi access

☐ NOTE

- The devices that support Wi-Fi access are classified into devices equipped with external antennas and devices equipped with internal antennas.
- If some device types are not in the preceding list, refer to http://www.huawei.com.

Technical Specifications

- Power adapter input: 100–240 V AC, 50–60 Hz
- System power supply: See the nameplate on the device.
- Ambient temperature: 0ºC to +40ºC
- Ambient humidity: 5%–95% (non-condensing)

For other technical specifications, see the following table.

GPON Terminal	Weight (Including the Power Adapter)	Maximum System Power Consumption
HG8120 series	About 315 g	≤ 5.5 W
HG8045 series	About 345 g	≤ 8 W
HG8240 series	About 400 g	≤ 10 W
HG8245 series	About 1000 g	≤ 15.5 W
HG8247 series	About 500 g	≤ 18 W
HN8055 series	About 2000 g	≤ 36 W
HN8245 series	About 2000 g	≤ 30 W
HN8255 series	About 2500 g	≤ 36 W

☐ NOTE

If the appearance of the product in this document differs from the actual product, the actual product prevails.

Installing the GPON&XG-PON Terminal

⚠ CAUTION

1. Do not install PON terminals outdoors or on the outdoor cabinets.
2. PON terminals can be mounted onto a wall or be placed on a workbench. Do not install PON terminals in other modes, such as the ceiling.
3. The terminal cannot be connected to other devices such as GPON terminals, switch and router.
4. After the PON terminal is installed with a foot-stand, do not remove the foot-stand unless it is necessary. When you remove the foot-stand, apply force evenly on the two sides of the foot-stand to avoid damages to the PON terminal.

Mounting a GPON terminal on the desk

The figure blow uses an HG8247H as an example to show the ONT that is horizontally placed on a desk.
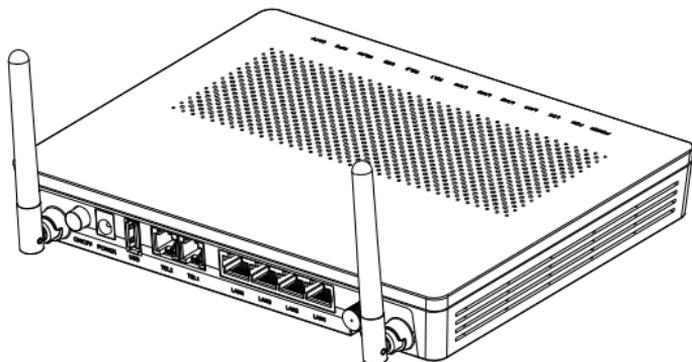
Mounting terminal vertically on the desk

(Only supported by some product models)

Install the foot-stand to the ONT according to the following figure, and place the ONT vertically on the desk. The HN8245Q is used as an example here.
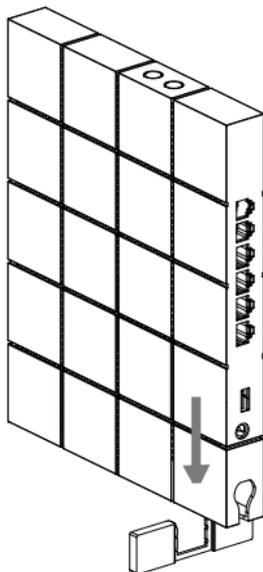
 NOTE

XG-PON terminals such as HN8245Q can not be horizontally placed on a desk or mounted onto the wall.

Mounting a GPON terminal onto the wall

(Only supported by some product models)

Step 1 Mark the positions of two holes used for mounting a GPON terminal, ensure that the two holes have the same spacing as the two mounting holes.

Step 2 Select a proper drill according to the outer diameter of the screws. Use a hammer drill to drill the marked positions on the wall. Then clean the wall and install two expansion bolts.

Step 3 Use a screwdriver to fasten the screws into the expansion bolts, leaving the heads of the screws 3 mm over the wall. Then install the GPON terminal to the screws.

1. Mark the installation positions.

2. Drill two holes and install expansion bolts.

3. Install screws and the GPON terminal.

3 mm
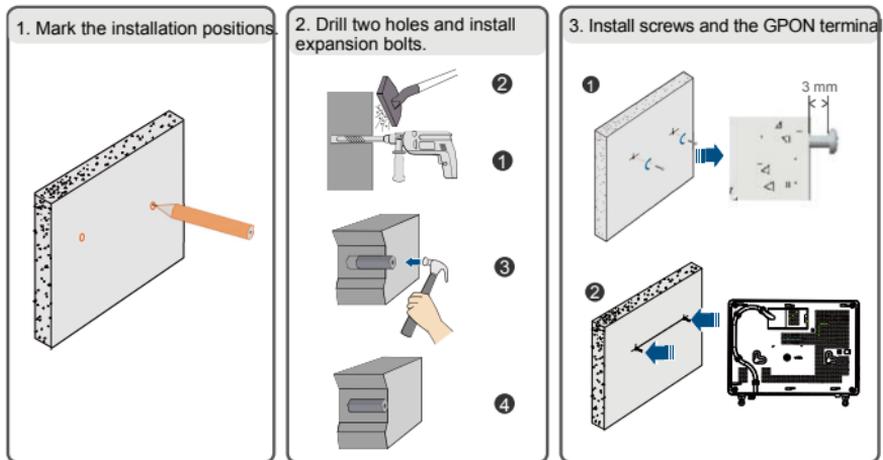
📖 NOTE

This terminal is mainly placed horizontally on a desk. When it is mounted onto a wall, the silkscreen of its indicator is reversed. If you have a special requirement on the silkscreen, purchase another terminal.

Connecting Cables

Ports on GPON terminals of all types may be different. Therefore, connect cables based on the ports that are actually supported by the device. If the external device is different from the device in the figure, see the description for connections of the external device. This document lists connections of typical devices.

📖 NOTE

1. The optical fiber connector connected to the optical port on the wall varies depending on actual conditions.
2. To ensure normal use of fibers, make sure that the fiber bend radius is larger than 30 mm.

HG8247H

Power socket

Fax machine

Phone

IP STB

TV set

PC

TV set

USB storage device

Wi-Fi terminal

ON/OFF POWER USB TEL2 TEL1 LAN4 LAN3 LAN2 LAN1 CATV

Reset WLAN WPS

LABEL
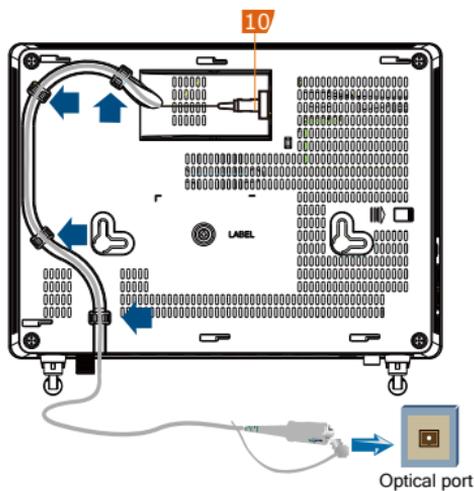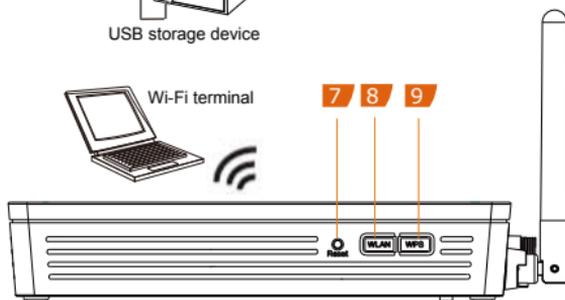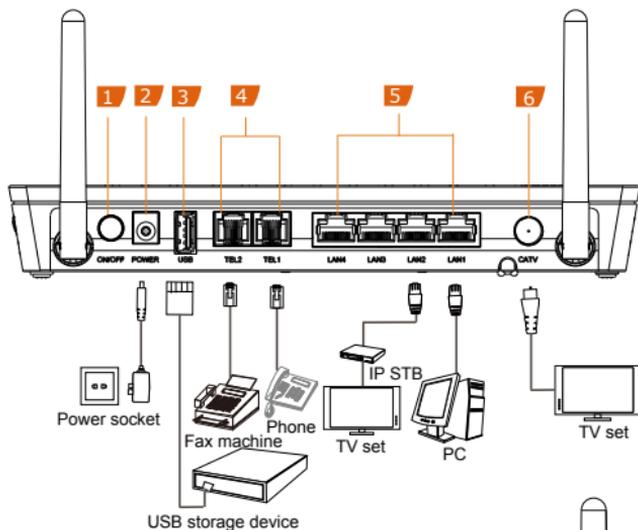
Optical port

1. Power switch	2. Power port	3. USB port
4. POTS port	5. Ethernet port	6. CATV port
7. Reset	8. WLAN switch	9. WPS switch
10. Optical port		

HN8255Ws

IP STB

Optical port

Phone

TV set   PC

USB storage device

Fax machine

Power socket
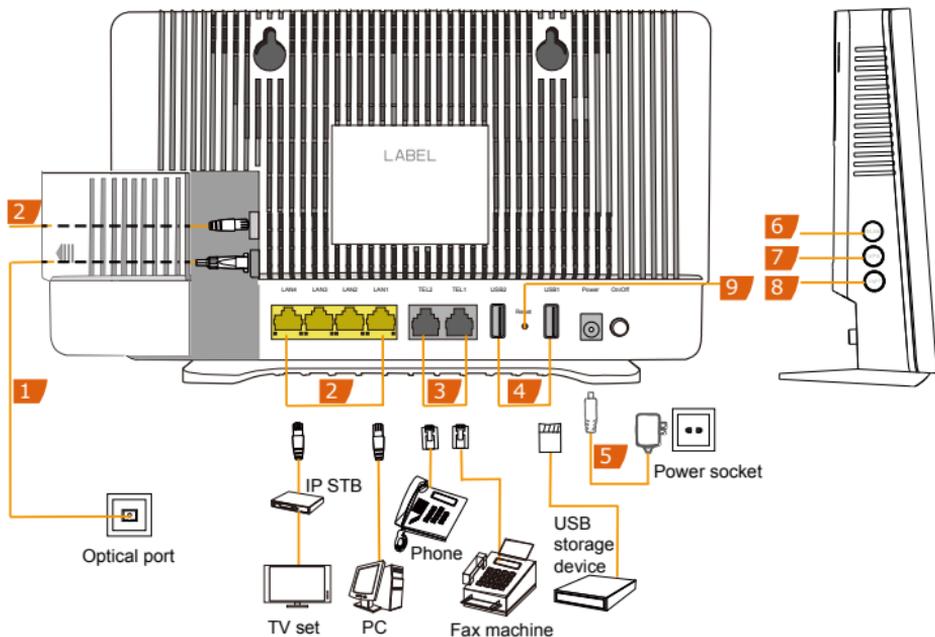
1. Optical port	2. Ethernet port	3. POTS port
4. USB port	5. Power port	6. WLAN switch
7. WPS switch	8. Light switch	9. Reset

HN8245Q

Wi-Fi terminal

Fax machine

Phone

TV set

IP STB

PC

USB storage device

Power socket
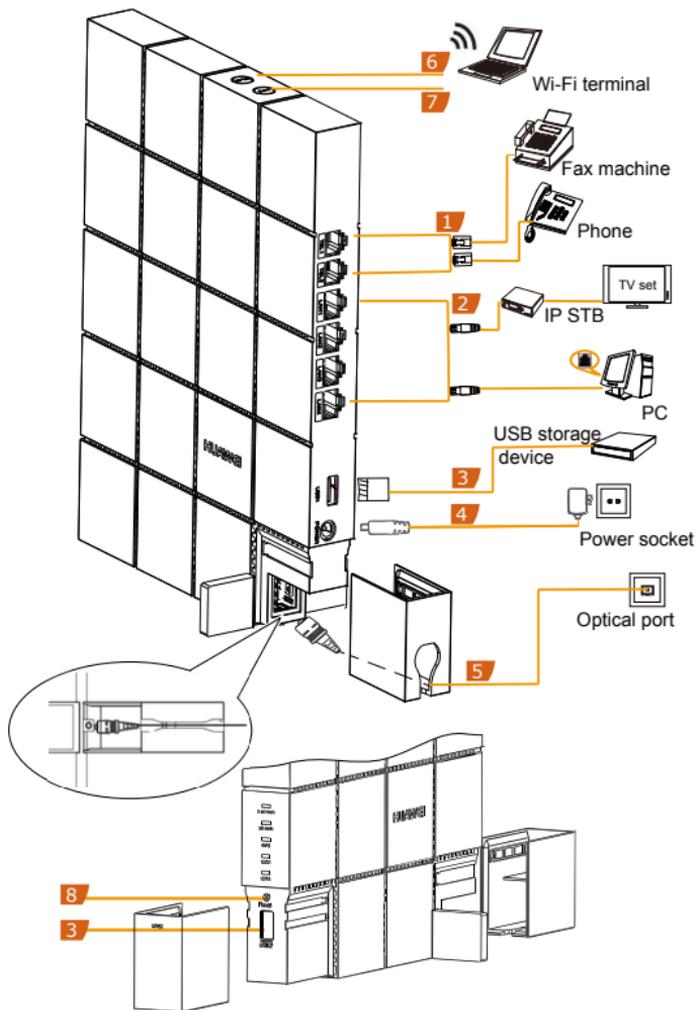
Optical port

⚠ CAUTION

After the optical fiber is connected to the optical port on the ONT, lead the fiber out of the ONT through the hole on the fiber port cover, and then install the fiber port cover to the ONT. If you do not lead the fiber out through the hole on the fiber port cover before you install the cover, the fiber and ONT may be damaged.

1. POTS port	2. Ethernet port	3. USB port
4. Power port	5. Optical port	6. WLAN switch
7. WPS switch	8. RESET	

Logging in to the Web Configuration Window

Step 1 Set the IP address of the PC in the same subnet as the management IP address of the PON terminal.

📖 NOTE

You can find the default management IP address on the nameplate of the device.

Step 2 Enter the management IP address of the PON terminal in the address bar of Internet Explorer and press **Enter.**

The login window is displayed.

Step 3 In the login window, select your preferred language, enter the user name and password (printed on the nameplate of the device.), and click **Login**. After the password is authenticated, the web configuration window is displayed.

📖 NOTE

- Shipped from different manufacture batches, the nameplates of some devices do not have the IP address, user name, and password printed. In such a case, log in to the device using 192.168.100.1 (or 192.168.1.1), root (user name), and admin (password).
- If you do not perform any operations after logging in to the system for five minutes, you will exit the system and the system automatically returns to the login interface.
- The system will be locked if you input incorrect user name and password three consecutive times. One minute later, it will be unlocked.
- Change the initial password after logging in to the web page.

Configuring Wi-Fi Parameters

Step 1 Choose the **WLAN** tab and choose **WLAN Basic Configuration**.

📖 NOTE

HN8245Q is different from GPON terminal, Choose the **Advanced Configuration** > **WLAN** tab and choose **2.4G Basic Network Settings**. (If you want to configure 5G Wi-Fi, choose **5G Basic Network Settings**.)

Step 2 In the pane, select the **Enable WLAN** option box. In the dialog box that is displayed, set the basic Wi-Fi parameters, including the SSID, authentication mode, and encryption mode. For example：

- SSID Name: WirelessNet (the name of a wireless network searched by the Wi-Fi terminal)
- Authentication Mode: WPA Pre-Shared Key
- Encryption Mode: TKIP
- WPA PreSharedKey: Password (the authentication password for the Wi-Fi terminal to access a wireless network).

Step 3 Click **Apply.**

📖 NOTE

ONT supporting Wi-Fi (such as HG8247H), a wireless network coverage is subject to the number, thickness, and positions of walls, materials, ceilings, or other objects that radio signals traverse. Besides, material type and background radio frequency (RF) noise also affect the coverage of a wireless network. You can maximize the coverage of a wireless network using the following methods:

1. **Decrease the number of walls and ceilings between HG8247H and other network devices.**

   Each wall or ceiling reduces the coverage of a wireless network by one to 30 meters. Install HG8247H at a proper place to avoid walls or ceilings whenever possible.

2. **Observe the straight line rule when installing network devices.**

   The distance for which signals have to traverse at a 45° corner of two 0.5 meter-thick walls reaches approximately one meter. To better receive signals, devices should be installed at places where signals can directly traverse walls or ceilings.

3. **Note the impact of building materials on the wireless network coverage.**

   A metal door or aluminum wall may limit the coverage of a wireless network. Install access points, wireless routers, and computers, so signals can traverse walls or open passageways. Materials and objects such as FRP products, metal products, insulative walls, filing cabinets, bricks, and concrete weaken radio signals.

4. **When connecting ONT (such as HG8247H) to a wireless network, keep it far from the following devices:**
   - Electronic devices or components that produce RF noises (keep a distance of more than 2 meters between such a device and HG8247H.)
   - 2.4 GHz wireless mobile phones or X-10 devices (such as microwave ovens, home security systems, blue-tooth devices, and refrigerators) that greatly weaken or even eliminate radio signals. Even if a 2.4 GHz wireless mobile phone is not connected to a wireless network, the phone base still sends signals that interfere the wireless network.

5. **In order to avoid the possibility of exceeding the Europe radio frequency exposure limits, human proximity to the equipment shall not be less than 20 cm.**

Indicator Description

Table 1-1 Indicator status description 1

Indicator	Status	Description
CATV	Always on	The CATV function is enabled and CATV signals are received.
	Off	The CATV function is disabled or CATV signals are not received.
WPS	Steady on	The WPS function is enabled.
	Blinking	A Wi-Fi terminal is accessing the system.
	Off	The WPS function is disabled.
WLAN	Steady on	The WLAN function is enabled.
	Blinking	Data is being transmitted on the WLAN port.
	Off	The WLAN function is disabled.
USB	Steady on	The USB port is connected and is working in the host mode, but no data is transmitted.
	Blinks twice a second	Data is being transmitted on the USB port.
	Off	The system is not powered on or the USB port is not connected.

Indicator	Status	Description
TEL1–TEL2	Steady on	The terminal is registered with the softswitch but no service flows are transmitted.
	Blinking	Service flows are transmitted.
	Off	The terminal is not powered on or fails to be registered to the softswitch.
LAN1–LAN4/ 10G LAN	Steady on	The Ethernet connection is in the normal state.
	Blinking	Data is being transmitted on the Ethernet port.
	Off	The Ethernet connection is not set up.
LOS/PON	See Table 1-2.	
POWER	Steady green	The terminal is powered on.
	Off	The power supply is cut off.

Table 1-2 Indicator status description 2

Status No.	Status		Description
	PON	**LOS**	
1	Off	Off	The PON terminal is prohibited by the upper-layer device or blinks abnormally, contact the service provider for help.
2	Blinks twice a second	Blinks twice a second	
3	Blinks twice a second	Off	The PON terminal attempts to set up a connection with its upper-layer device.
4	Steady on	Off	A connection is set up between the PON terminal and its upper-layer device.
5	Off	Blinks once two seconds	The PON terminal is not connected to optical fibers or does not receive optical signals.
6	Blinks once two seconds	Blinks once two seconds	The hardware is faulty.

Disposal and recycling information

The crossed-out wheeled-bin symbol on your product, battery, literature or packaging reminds you that all electronic products and batteries must be taken to separate waste collection points at the end of their working lives; they must not be disposed of in the normal waste stream with household garbage. It is the responsibility of the user to dispose of the equipment using a designated collection point or service for separate recycling of waste electrical and electronic equipment (WEEE) and batteries according to local laws.

Proper collection and recycling of your equipment helps ensure electrical and electronic equipment (EEE) waste is recycled in a manner that conserves valuable materials and protects human health and the environment, improper handling, accidental breakage, damage, and/or improper recycling at the end of its life may be harmful for health and environment. For more information about where and how to drop off your EEE waste, please contact your local authorities, retailer or household waste disposal service or visit the website www.huawei.com/en/product-certification.

Reduction of hazardous substances

This device and any electrical accessories are compliant with local applicable rules on the restriction of the use of certain hazardous substances in electrical and electronic equipment, such as EU REACH, RoHS and Batteries (where included) regulations, etc. For declarations of conformity about REACH and RoHS, please visit our web site www.huawei.com/en/product-certification.

EU regulatory conformance[#]

Statement

Hereby, Huawei Technologies Co., Ltd. declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

The most recent and valid version of the DoC (Declaration of Conformity) can be viewed at www.huawei.com/en/product-certification.

This device may be operated in all member states of the EU.

Observe national and local regulations where the device is used.

This device may be restricted for use, depending on the local network.

Restrictions in the 5 GHz band:

According to Article 10 (10) of Directive 2014/53/EU, the packaging shows that this radio equipment will be subject to some restrictions when placed on the market in Belgium (BE), Bulgaria (BG), the Czech Republic (CZ), Denmark (DK), Germany (DE), Estonia (EE), Ireland (IE), Greece (EL), Spain (ES), France (FR), Croatia (HR), Italy (IT), Cyprus (CY), Latvia (LV), Lithuania (LT), Luxembourg (LU), Hungary (HU), Malta (MT), Netherlands (NL), Austria (AT), Poland (PL), Portugal (PT), Romania (RO), Slovenia (SI), Slovakia (SK), Finland (FI), Sweden (SE), the United Kingdom (UK), Turkey (TR), Norway (NO), Switzerland (CH), Iceland (IS), and Liechtenstein (LI).

The WLAN function for this device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range.

⚠️ CAUTION

1. Ignore this section if the product does not support Wi-Fi access.
2. Actual 2.4 GHz or 5 GHz products (supporting Wi-Fi) prevail.

ErP product information

Hereby, Huawei Technologies Co., Ltd. declares that the product meets the directive 2009/125/EC and its implementation regulation (EC) NO 1275/2008 amended by (EC) 278/2009, (EC) 642/2009, (EU) 617/2013, (EU) 801/2013, and its implementation regulation (EC) NO 278/2009.

If all wired network ports are connected and all wireless network ports are activated, the power consumption of the product in **networked standby** is less than 20 W.

For the product information displayed on the manufacturers' freely accessible websites required by (EU) No 801/2013, please visit www.huawei.com/en/product-certification.

To enable or disable the wireless network function:

● Press the **WLAN** button on the side panel of the product. (Ignore this method if the product has no such a button or this button is invalid.)
● Log in to the web page, choose **Advanced Configuration** > **WLAN** > **Basic Network Settings** > **Enable WLAN**. (Different products may have different configuration pages.)

Frequency bands and power

(a) Frequency bands in which the radio equipment operates: Some bands may not be available in all countries or all areas. Please contact the local carrier for more details.

(b) Maximum radio-frequency power transmitted in the frequency bands in which the radio equipment operates: The maximum power for all bands is less than the highest limit value specified in the related Harmonized Standard.

The frequency bands and transmitting power (radiated and/or conducted) nominal limits applicable to this radio equipment are as follows:

● Wi-Fi 2.4 GHz: < 20 dBm
● Wi-Fi 5 GHz: 5150-5350 MHz, < 23 dBm; 5470-5725 MHz, < 30 dBm

📖 NOTE

Frequencies of products are determined based on functions supported.

Accessories and software information

It is recommended that the following accessory should be used: adapter.

The software version is in the format of VXXXRXXXCXX (for example, V300R015C10). For the specific version, see the label on the giftbox.

Software updates will be released by the manufacturer to fix bugs or enhance functions after the product has been released. All software versions released by the manufacturer have been verified and are still compliant with the related rules.

For more information about the software, see web pages of products.

All RF parameters (for example, frequency range and output power) are not accessible to the user, and cannot be changed by the user.

📖 NOTE

Contents marked with # is applicable to EU countries.

FAQs

The LOS indicator blinks.
- If the LOS indicator blinks once two seconds, check whether the pigtail fiber is properly connected and the connector is clean.
- If the GPON terminal blinks twice a second, contact the service provider for help.

The PON indicator is off.
- Check whether the **OPTICAL** port and optical fiber is properly connected.
- The GPON terminal fails to register with the upper-layer device. Contact the service provider for help.

The phone does not ring upon an incoming call but communication is in normal state when the phone is in off-hook state.
- The GPON terminal provides a maximum of 60 V AC ringing current voltage. Check whether the ringing current voltage of the phone is higher than 60 V AC. If it is higher than 60 V AC, replace it with another phone.

How can I restore factory defaults?
- Press **Reset** by using a needle-type object for longer than 10s to restore factory defaults and reset the GPON terminal. If the indicator is off and then is lit, the system restarts successfully.

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┌─────────────────────────┐
│  Qualification Card     │
│                         │
│      ╭─────────╮        │
│      │  PASS   │        │
│      ╰─────────╯        │
│                         │
│         ⚡ HUAWEI       │
└─────────────────────────┘
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Warranty Card

Thank you for choosing Huawei Technologies Co., Ltd. To get better services, please read this warranty card carefully, fill in the required information, and preserve this card in good condition.

User Information

Personal or
Company's full name:

Address/Postal Code:

Telephone:

Email:

Product Type:

Product Serial Number:

Purchase Date:

Invoice Number:

Dealer's Name:

Dealer's Address:

Dealer's Telephone:

Preserve well. No reissue.

Dealer's Seal

Limited Warranty

Subject to the exclusions contained below, Huawei Technologies Co., Ltd. (Huawei for short) warrants its access terminals ("Products") to be free from defects in materials and workmanship under normal consumer usage for one year from the date of purchase of the product ("Warranty period"). During the warranty period, a Huawei authorized service partner shall remedy defects in materials and workmanship free of charge.

Special Notice:
1. The warranty card shall be applicable only after being stamped by the dealer.
2. The warranty card must be preserved in good condition and free of any scratch or alteration.
3. To claim such service for defects that are not included in the following exclusion terms, the warranty card and the invoice that records that product serial number shall be presented to a Huawei authorized service partner.

Exclusions:
In any of the following cases, the warranty card becomes unenforceable or inapplicable without prior notice:
1. The defects are caused by improper handling in transportation and assembly.
2. The defects are caused by the fact that the product is dismantled or altered by anyone that is not from a Huawei authorized service partner.
3. The defects are caused by the fact that the product is used in a harsh environment that is not suitable for the operation of the product.
4. The defects are caused by any force majeure including but not limited to fire, earthquake, lightning, and tsunami.
5. The defects are caused by the fact that the product is used or handled incorrectly, roughly or not as instructed in the applicable User Guide.
6. The normal wear and tear, including but not limited to the normal wear and tear of the shell and the power module, shall not be covered by the limited warranty.
7. The warranty card is altered or illegible, or the product serial number recorded on the warranty card is inconsistent with the actual one imprinted or labeled on the product.

In any case that is not covered by this limited warranty or should the warranty expire, Huawei shall charge for the service(s) claimed for the products if the product is still remediable. Huawei reserves all rights to interpret this limited warranty.