Optical Network Unit
Quick Start

ONT Quick Start

Safety Information

Before using the device,read these precautions carefully.Follow these precautions and instructions to ensure optimal product performance and to avoid danger and legal or regulatory violations.

Fire-proof Precautions

·Keep the device away from fire or heat sources,including electric heaters,ovens, stoves,and candles.Otherwise,the shell of the device may become hot or melt, causing fire in extreme cases.

·Replace deteriorated cables or power socket components on the power supply line or near the device in a timely manner to eliminate safety risks.

Potentially Explosive Area

·Do not place or operate the device in an environment with that contains flammable or explosive gas or smoke.

·Do not place flammable or explosive materials below or above the meter cabinet.

General Safety Precautions

·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.These measures will help to prevent damage to the device and injury to people,which are especially possible during thunderstorms.

·If the power adapter is damaged from human factors,and the inside circuit is exposed, do not touch the exposed parts.Otherwise,security risks are present.

·Keep the device out of the reach of children.Components and accessories are small and could pose a choking risk.

·Looking directly at the optical port may injure your eyes.

·Do not use any power adapters that are not in the standard configuration.Otherwise, the device may be abnormal or unsafe.

·If a backup power unit (BBU)is available in the packing box,do not disassemble it,refit it,or put it in a fire.Otherwise,it may create a safety risk.

Instructions for Use

·Use the device in a clean and well-ventilated indoor environment,out of direct sunlight.

·Store devices and accessories in temperature-10℃ to +35℃ 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.

·Install the device in strict compliance with the requirements of the supplier.Ensure there is at least 10 cm space surrounding the device for heat dissipation.During installation, keep the device away from flammable objects and electric appliances that generate strong magnetic or electric fields,including 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 device is 200-240VAC for European Union;the input voltage of the device is 100-130 VAC for the United States of America.

·The power supply voltage of the device must meet the requirements on the input voltage of the device.

·Before use the power adapter,please check no damage on the adapter.

·Use dry hands to connect or disconnect cables.Stop using the device and switch offthe power before connecting or disconnecting cables.

·When there is lightning,switch off the power and disconnect all cables,including the power cable,optical fiber,and network cable.

·Prevent objects from entering the device through the heat dissipation hole.Prevent water or other liquids from entering the device.

·Do not place any objects on the device,so that the device will not be overheated or deformed.

· If an abnormality occurs,for example,liquid enters the device,or the device emits smoke,unusualsounds,or odors,stop using the device immediately.Switch off its power,and disconnect all cables to the device,including the power cable,optical cable, and network cable.

·Before cleaning or maintaining the device,stop using it,close all Apps,and disconnect all cables.

·Do not use any strong chemicals,detergents,or other chemical agents.Use a clean, dry,soft cloth to wipe the shell and accessories of the device.

· Keep the device dry when it is stored,transported,or used.Prevent the device from colliding with other objects.Otherwise,the device and its accessories may be damaged, and the device may become faulty.

·No unauthorized unit or individual may disassemble or modify the device or accessories.

● The device should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

·Dispose of the packing materials,expired batteries,and old or abandoned devices in accordance with local laws and regulations.Recycling them is strongly recommended.

Product Overview

Product	Function
EG8040 series	● 4 Ethernet ports
EG8141 series	● 4 Ethernet ports ●1 POTS port ● Wi-Fi access
EG8145 series	● 4 Ethernet ports ● 1 POTS port ● 1 USB port ● Wi-Fi access
EG8240 series	● 4 Ethernet ports ● 2 POTS ports
EG8242 series	●4 Ethernet ports ● 2 POTS ports ● 1 CATV port
EG8045 series	● 4 Ethernet ports ●1 USB port ● Wi-Fi access
EG8245 series	● 4 Ethernet ports ● 2 POTS ports ●1 USB port ● Wi-Fi access
EG8247 series	● 4 Ethernet ports ● 2 POTS ports ● 1 USB port ● 1 CATV port ● Wi-Fi access
EG8120 series	● 2 Ethernet ports ● 1POTS port ● 1GE port

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 VAC,50/60 Hz
- System power supply:See the nameplate on the device.
● Ambient temperature:0℃ to +40℃
- 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
EG8040 series	About 400 g	7.5W
EG8141 series	About 250 g	7.15 W
EG8145 series	About 250 g	18 W
EG8240 series	About 400 g	7.8 W
EG8242 series	About 400 g	14 W
EG8045 series	About 345 g	10.5W
EG8245 series	About 320 g	20.5W
EG8247 series	About 400 g	32 W
EG8120 series	About 155 g	4.9W

NOTE

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

Installing the GPON Terminal

△CAUTION

1. Do not install PONterminals 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 shows the ONT that is horizontally placed on a desk.

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 or 8 mm over the wall.Then install the GPON terminal to the screws.
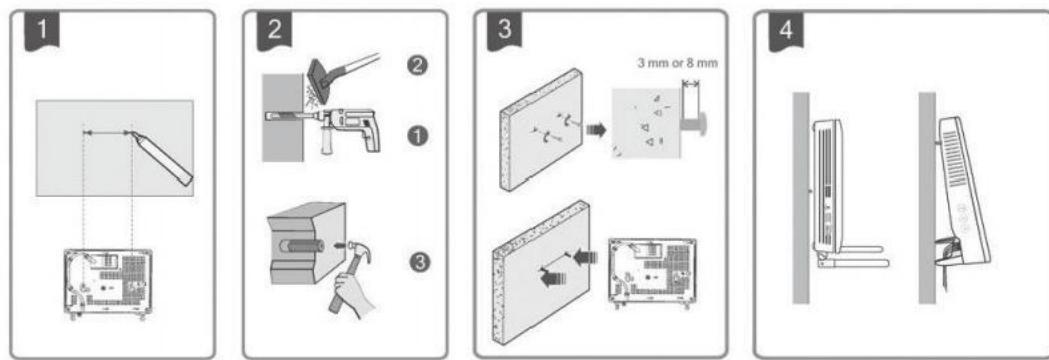
1.When installing ONTs placed horizontally against the wall,you are advised to leave the heads of the screws 3 mm over the wall.When installing ONTs placed vertically against the wall,you are advised to leave the heads of the screws 8 mm over the wall.

2.This terminal is mainly placed horizontally on a desk.When it is mounted onto a wall,the silkscreen of its indicator is reversed.Ifyou 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.

1.The optical fiber connector connected to the optical port on the wall varies depending on actual conditions.

2.To ensurenormal use of fibers,make sure that the fiber bend radius is larger than 30 mm.

Wi-Fi terminal   USB storage device   Optical port
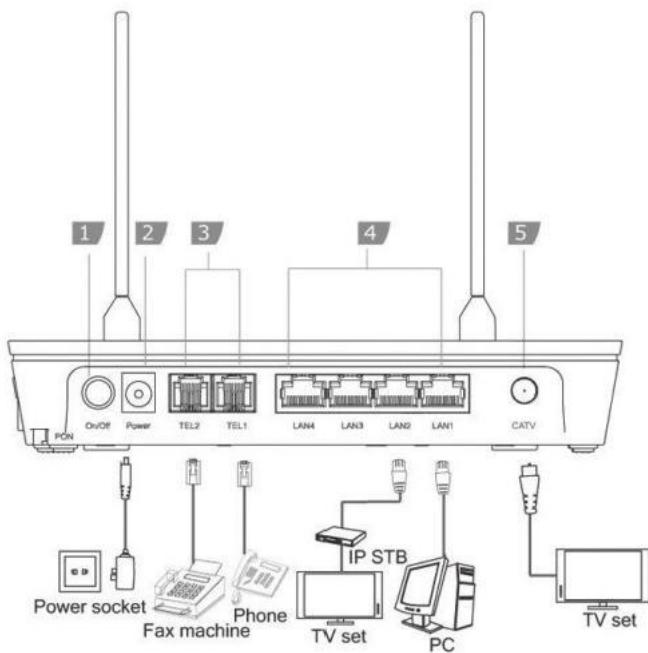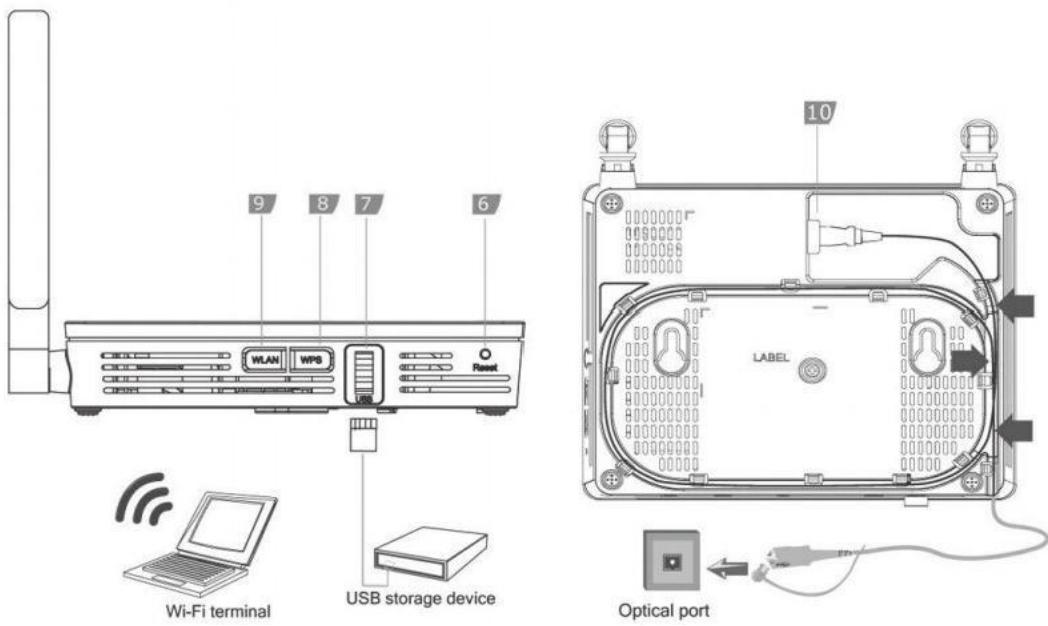
1.Power switch	2.Power port	3.POTS port
4.Ethernet port	5.CATV port	6.Reset
7.USB port	8.WPS switch	9.WLAN switch
10.Optical port		

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 ofthedevice.

Step 2 Enter the management IP address ofthe 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.

Configuring Wi-Fi Parameters

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

⌐⌐ NOTE

If theONT supports 2.4 GHz wireless and 5 GHz wireless ,Choosethe **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,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 ofa wireless network using the following methods:

1. **Decrease the number of walls and ceilings between ONT and other network devices.**
 Each wall or ceiling reduces the coverage of a wireless network by one to 30 meters. Install ONT 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 atplaces where signals can directly traverse walls orceilings.

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,filingcabinets,bricks,and concrete weaken radio signals.

4.When connecting ONT 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 ONT.)
- 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.

Disposal and recycling information

The crossed-out wheeled-bin symbol on your product,literature or packaging reminds you that all electronic products must betaken 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) 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.

Disposal of the device is subject to WEEE Directive Recast (Directive 2012/19/EU).The purpose of separating WEEE from other waste is to minimize the potential environmental impacts and human health risk of any hazardous substances that may be present.

Reduction of hazardous substances

This device is compliant with the REACH Regulation [Regulation (EC)No 1907/2006]and RoHS Directive Recast (Directive 2011/65/EU).

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,or the indicator is turned off.
WLAN	Steady on	The WLAN function is enabled.
	Blinking	Data is being transmitted on the WLAN port.
	Off	The WLAN function is disabled,or the system is not powered on.
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.
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,or the POTS port is not enabled
LAN1-LAN4	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 the optical power is abnormal.Contactthe 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.

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 VAC ringing current voltage.Check whether the ringing current voltage of the phone is higher than 60 VAC.If it is higher than 60 VAC,replace it with another phone.
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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.

FCC Statement
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/ TV technician for help.

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.
Caution
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
FCC Radiation Exposure Statement
 This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure