

Quick Installation Guide GPON ONT HALNY HL-4GMVR





Safety guidance

1.1 Safety check

Before installing the device, you must check the following items.

1.1.1 Electric safety

- Ensure that there are no inflammable, conductive or moist objects around.
 Check whether the cables are aged and whether other electrical appliances are placed stably,
- check whether the alternating or direct input current is within the allowed range
 of the device, whether the polarity of the direct current is correct, and whether
 the earth line is properly connected.

1.1.2 Device position

- Because the running electric device easily generates heat, please ensure to place the device in a well-ventilated environment,
- avoid direct sunshine and do not place the device on a PC case.
- keep the device away from heat and water,
- check whether power supply is available. The input voltage fluctuation range must be smaller than 10%. The power plug should not share one socket with a hair drier, an iron or a refrigerator.

1.2 Safety caution

- Read the guick installation guide carefully before using the device,
- note all cautions in the guick installation guide,
- do not use any accessory that does not belong to the device without prior consent of the manufacture, as it may cause fire or product damage.
- use the power adapter accompanied in the package,
- do not place any object on the device,
- keep the device dry, ventilated, rainproof and clean,
- during lightning weather, unplug the power plug and all connection cables, to protect the device against lightning,
- clean the device using a soft and dry cloth rather than liquid or atomizers.
 Power off the device before cleaning it,
- power off the idle device,



- keep the ventilation hole clean and prevent any object from dropping into the
 device through it. Otherwise, it may cause short circuit and further cause
 device damage or fire. Do not spray liquid on the surface of the device,
- do not open the case of the device, especially during device power-on,
- before plugging or unplugging the power, ensure that the power is off, thus avoiding surge,
- be careful when unplugging the power, as the transformer may be very hot,
- cover the optical interface with fiber interface cap when it is not in use. Avoid direct eye exposure to the laser emitted from the optical interface. Wear safety glasses if possible, to protect your eyes.



Caution:

Please read the above safety guidance carefully before device use. Users should assume responsibilities for any accidents due to incompliance with the above instructions.

2 Overview

This chapter mainly describes functions and the structure of the **HALNy HL-4GMVR**.

2.1 Features and function

- Fast rate. Support up to 1.25Gbps uplink and 2.5Gbps downlink data transmission rates.
- strong maintainability. Provide various statuses of LED indicators, to help troubleshooting,
- long transmission distance, up to 20 km.

2.2 Front, rear and side panel

The description of the front, rear and side panel of the GPON ONU as follows.



2.2.1 Front panel



Fig. 1 - Front panel

LED	Color	Status Description	
DWD		On	The power works normally.
PWR	Green	Off	Powered off or the power supply is abnormal.
PON	Green	Refer to	Table 4: "PON LED status instruction".
LOS	Red	Refer to	Table 4: "PON LED status instruction".
		On	Got WAN IP address successfully.
WAN	Green	Blink	Data is being transmitted.
		Off	Device in bridged mode or no IP.
		On	The connection of Ethernet interface is normal.
LAN1-4	Green	Blink	Data is being transmitted through the Ethernet interface.
		Off	The connection of the Ethernet interface fails to establish.
	Green	On	The connection of Ethernet interface is normal.
2.4G		Blink	Data is being transmitted through Wi-Fi.
		Off	The connection of the Ethernet interface fails to establish.
5G G		On	The connection of Ethernet interface is normal.
	Green	Blink	Data is being transmitted through Wi-Fi.
		Off	The connection of the Ethernet interface fails to establish.
	Green	On	Voip account is registered.
TEL		Blink	Phone call.
		Off	Port deactivated or Voip account is unregistered.
	Green	On	Pairing ok.
WPS		Blink	In pairing.
		Off	Not activated/not triggered.
	Green	On	CATV RF output normally.
CATV		Flash	CATV input signal too low.
		Off	CATV off, or no CATV signal received.

Table 1. ONU LED indication table



LED	Kolor	Status	Opis
	WPS Green E	On	Got WAN IP address successfully.
WPS		Blink	Connecting with controller.
		Off	Device in bridged mode or no IP.

Table 2.ONU LED indication table for Easy Mesh agent mode

LED	Kolor	Status	Opis
	Green	On	The connection of Ethernet interface is normal.
2.4G		Blink	Initialization of adding a agent.
2.40		Off	The connection of the Ethernet interface fails to establish.
		On	The connection of Ethernet interface is normal.
5G		Blink	Initialization of adding a agent.
36		Off	The connection of the Ethernet interface fails to establish.
		On	Pairing ok.
WPS		Blink	Initialization of adding a agent.
		Off	Not activated/not triggered.

Table 3.ONU LED indication table for Easy Mesh controller mode

PON LED Status Instruction			
PON	PON LOS Description		
Off	Off	The ONT is disabled by the OLT.	
Flash	Off	The ONT is registering to the OLT.	
On	Off	The ONT has already registered to OLT.	
Off	Flash	The fiber is not connected properly.	

Table 4.PON LED status instruction

2.2.2 Rear panel



Fig 2. Rear panel



ONU rear panel description:

Interface / Button	Function
LAN1-4	Ethernet interface, for connecting to a computer or an Ethernet interface of a switch.
Power	Connect power cable .
ON/OFF	Turn on/off the power supply.
TEL1	RJ-11 telephone port.

Table 5.Rear panel port description

2.2.3 Side panel

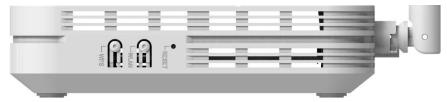


Fig 3 Side panel

ONT side panel description:

Button	Function
WLAN	Press and hold for 5 seconds to disable/enable Wi-Fi.
WPS	Press and hold for 5 seconds to activate WPS pairing. If MESH is enabled, press for 10 seconds to activate MESH pairing. In MESH mode, WPS paring is disabled.
RST	Press and hold the button for at least 30 seconds (and no longer than 40 seconds) to restore the device to factory settings.

Table 6. Side button description

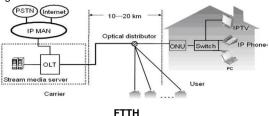


3 ONU installation

The chapter describes the required installation operations before you use the device for the first time.

3.1 Product networking application - FTTH

Fiber to the Home (FTTH) means to install the ONU to residences or enterprise buildings. The optical line terminal (OLT) is placed in the central equipment room. The ONU can be placed in the home of a user, or it can provide connection for the user through the Ethernet interface, according to the user requirement. The OLT connects to the ONU with an optical distributor in the point-to-multipoint way. See the following figure.



Note:

ONU can be placed in a room or the corridor. Because installation and cabling in the corridor are relatively complex, let the professional engineers deploy according to the actual situation. This manual describes the procedure for installing the device at home, and is for reference only.

3.2 Installation preparations

The Ethernet interface of your computer connects to the Ethernet interface of the ONU. Before installing it, ensure that an Ethernet adapter is already installed in your computer.



3.3 Connecting ONU



3.3.1 Connecting the network cable

- Step 1 Use the one end of the network cable to connect the Ethernet interface of the computer.
- Step 2 Use other end of a network cable to connect the Ethernet interface on the rear panel of the HALNy HL-4GMVR.

3.3.2 Connecting the fiber



Caution:

- When a fiber is not in use, ensure to cover the optical interface of the ONU and the dust cap of the optical fiber. Prevent grease, dust pollution or water immersion, which may lead to unavailable fiber and optical interface of the device.
- if fibers need to be fixed or bended during cabling, do not fasten the fibers too tight. Avoid fiber extrusion, which may lead to increase of fiber material or unavailable fiber.



3.3.3 Connecting the power adapter and power cord

- Connect the output end of the power adapter included in the device package to the input end of the power supply of the ONU,
- insert one end of the power cord attached with the device into the input end of the power adapter. Insert the other end of the power cord into the power socket,
- check whether the Power indicator is on. If it is on, the power supply is normal.
 Otherwise, check whether the power cord and the power adapter are correctly connected.

4 Troubleshooting

Symptom	Solution
The POWER indicator is not on	 Check whether the power connection is correct, check whether the power adapter matches the device.
The PON indicator is not on	 Check whether the SN of ONU matches OLT, check whether the optical attenuation is in the normal range.
The LOS indicator is not on	 Check whether the optical fiber cable is properly inserted, check whether the optical fiber connector is clean.
The LAN indicators are not on	 Check whether the PC NIC is enabled, check whether the network cables included in the device package are used, check whether the network cable connection is normal, check whether the LED for your corresponding LAN port is on, check whether the network adapter works in the normal state.



5 Technical specification

Weight

Main technical specifications			
Standard	GPON Standard	ITU-T G.984, TR156/TR255	
Data	Uplink	1.25Gbps	
Rate	Downlink	2.5Gbps	
	Optical interface	SC/APC, Single Mode	
	4 I AN porto	RJ-45 10/100/1000Mbps MDI/MDIX Self	
Interface	4 LAN ports	adaption	
interrace	1 POTS port	RJ-11 FXS	
	WiFi 2.4Ghz	802.11n (2T2R MIMO) 300Mbps	
	WiFi 5Ghz	802.11ac (2T2R MIMO) 867Mbps	
F	Physical characteris	tics and environment requirements	
Power ada	oter input	100V∼240V AC, 50Hz∼60Hz	
Whole-devi	ce power supply	12V DC,1.5A	
Standard p	ower consumption	<18W	
Operating t	emperature	0°C~45°C	
Operating h	numidity	10%~95% (non-condensing)	
Dimension		L x W x H: 177mm x 210mm x 38mm	

Appendix A Acronyms and Abbreviations

<500g

GPON	Gigabit Passive Optical Network
FTTB	Fiber to the Building
FTTH	Fiber to the Home
OLT	Optical Line Terminal
ONU	Optical Network Unit
PON	Passive Optical Network



Additional information

5.1 Declaration of conformity (CE/FCC)

This device has been tested and found to comply with the stated standards which are required by the Council Directive of 2014/30/EU and Part 15, subpart B of FCC Rules. The device complies with this CE and FCC Declaration when the installation is done in accordance with the instruction and documentation. The importer don't take responsibility for any issues caused by improper use of the device.

The full document is on below web page and it is available in importer:

CE / FCC / warranty terms and conditions:

www.halny.com

Importer:

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BDO: 000007477

FCC ID: 2AWIZHL4GMVR

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Recycling



This product bears the selective sorting symbol for Waste electrical and electronic equipment (WEEE). This means that this product must be handled according to European directive 2012/19/EU in order to be recycled or dismantled. This will minimize the negative effects on the environment and human health resulting from the possibility of the presence in the equipment substances, mixtures and hazardous components. A user can give the

product to a competent recycling organization, to WEEE collection points or to a distributor (in accordance with local regulations).