正面：
尺寸:65x90mm
5折页
70g书写纸
黑白印刷

Quick Installation Guide
GPON ONT

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 quick installation guide carefully before using the device,
- Note all Cautions in the quick 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 cleansing 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-4GMV2.**

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
POWER	Green	On	The power works normally.
		Off	Powered off or the power supply is abnormal.
PON	Green	Refer to Table 2: "PON LED Status Instruction"	
LOS	Red	Refer to Table 2: "PON LED Status Instruction"	
NET	Green	On	Got WAN IP Address Successfully
		Blink	Data is being transmitted
		Off	Device in bridged mode or no IP
LAN1-4	Green	On	The connection of Ethernet interface is normal.
		Blink	Data is being transmitted through the Ethernet interface.
		Off	The connection of the Ethernet interface fails to establish.
2.4G	Green	On	The connection of Ethernet interface is normal.
		Blink	Data is being transmitted through the Ethernet interface.
		Off	The connection of the Ethernet interface fails to establish.
5G	Green	On	The connection of Ethernet interface is normal.
		Blink	Data is being transmitted through the Ethernet interface.
		Off	The connection of the Ethernet interface fails to establish.
TEL1-2	Green	On	Voip account is registered
		Blink	Phone call
		Off	Port deactivated or Voip account is unregistered

Table 1. ONU LED Indication Table

PON LED Status Instruction		
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 2.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.
TEL1-2	RJ-11 Telephone Port

Table 3.Rear Panel port description

2.2.3 Side Panel

Fig 3 Side Panel

ONT Bottom Panel Description:

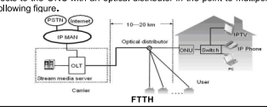
Button	Function
WLAN	Press and hold for 5 seconds to disable/enable Wi-Fi
WPS	Press and hold for 5 seconds to activate WPS pairing
RST	Press and hold for 5 seconds to Reset configuration to the factory default settings.

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.



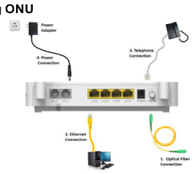
Note:

The ONU applies to installation at home or in 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-4GMV2.**

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.

3.2.3 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 indicator of the network adapter is on, • Check whether the network adapter works in the normal state.

5 Technical Specification

Main Technical Specifications		
Standard	GPON Standard	ITU-T G.984, TR156/TR255
Rate	Uplink	1.25Gbps
	Downlink	2.5Gbps
Interface	Optical interface	SC/APC, Single Mode
	4 LAN ports	RJ-45 10/100/1000Mbps MDI/MDIX Self adaption
	2 POTS ports	RJ-11 FXS

Physical Characteristics and Environment Requirements	
Power adapter input	100V～240V AC, 50Hz～60Hz
Whole-device power supply	12V DC, 1.5A
Standard power consumption	<18W
Operating temperature	0℃～45℃
Operating humidity	10%~95% (non-condensing)
Dimension	L x W x H: 151mm x 185mm x 38mm
Weight	<500g

Appendix A Acronyms and Abbreviations

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

Warning:
Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE:
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.

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.

The equipment complies with FCC Radiation exposure limit set forth for uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

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).