

Quick Installation Guide

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HALNy GPON ONT

HL-4GXV-F

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Installation

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

Product Networking Application - FTTH

to the Home (FTTH) means to install the ONU to residences or enterprise rooms. 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 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.

Caution:

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

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1 Safety Guidance

1.1 SafetyCheck

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

1.1.1 ElectricSafety

- 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 SafetyCaution

- 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 manufacturer, 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.

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3.2 connecting ONU

3.2.1 Wiring connection and power on

- Connect fiber optical cable (ended with AC/APC plug) to the optical port located on the bottom of the device.
- You can connect an Ethernet devices to LAN1 ... LAN4 sockets (ex. computer with wired NIC, printer, gaming console, set-top-box, TV, etc.)
- You can connect a phone to TEL socket.
- Plug in the PSU plug to the POWER socket. Before you install the PSU please make sure the ON/OFF button is in OFF position
- Connect the PSU to the power grid socket
- Turn on the device by pressing the ON/OFF button.

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2 Overview

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.

Caution:

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

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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.

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2.1 Front panel

Fig1 Front panel

On the front panel a row of LEDs is placed. Those LEDs allows you to easily check the status of the device and it's interfaces.

LED	Kolor	Status	Opis
POWER	Green	On	Power is ON
		Off	Power is OFF / Faulty PSU
PON	Green	Blinks	Device detected by OLT
		On	Device registered by OLT
LOS	Czerwony	Blinks	No connection with OLT
		Off	Active connection with OLT
NET	Green	On	Network access
		Off	No network access
LAN4-1	Green	On	Ethernet link up
		Blinks	Data transmission
TEL	Green	On	Ethernet link down
		Blinks	VoIP account registered
2.4G	Green	Blinks	Active call
		Off	VoIP account not registered
5G	Green	On	WiFi interfaces enabled
		Blinks	Data transmission
WPS	Green	On	WiFi interfaces disabled
		Off	WPS enabled
WPS	Green	Miga	Pairing in progress
		Nie świeci	WPS disabled

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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	Single Mode, SC/APC connector
	4 LAN ports	RJ-45 10/100/1000Mbps MDI/MDIX Self adaption
	1 POTS port	RJ-11 FXS
	WiFi 2.4Ghz	802.11n/ax (2T2R MIMO) 576Mbps
	WiFi 5Ghz	802.11ac/ax (2T2R MIMO) 1201Mbps
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	-5°C~45°C	
Operating humidity	5%~95% (non-condensing)	
Dimension	L x W x H: 225mm x 143mm x 47mm	
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

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2.2 Rear panel

Fig2 Rear panel

Function		
POWER	PSU socket	
LAN1-4	Ethernet socket (RJ45)	
TEL	Phone socket (RJ11)	
ON/OFF	Device power ON/OFF button	
WPS	Hold for 5s to activate WPS	
RESET	Hold for 30-40s to restore device to factory settings	
WIFI	Hold for 5s to activate/deactivate WiFi	
SLIDER 1-4	1-3	Front panel LED active
	4	Front panel LED inactive

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.

Importer:

FIBRAIN Sp. z o.o.

36-062 Zaczernie 190F (POLAND)

info@fibrain.pl

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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).