

Quick Installation Guide

1 Safety Guidance

1.1 Safety Check

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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1.1 Safety Check

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

1.1.1 ElectricSafety

- 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 device.

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.
- 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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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 its interfaces.

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

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2.2 Rear panel

Fig2. Rear panel

Port	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	Front panel LEDactive
	Front panel LEDinactive

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3 Installation

3.2 Connecting ONU

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.

4 Troubleshooting

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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4 Troubleshooting

3.2.1 Wiring connection and power on

Symptom	Solution
The POWER indicator is not on	<input type="checkbox"/> Check whether the power connection is correct. <input type="checkbox"/> Check whether the power adapter matches the device.
The PON indicator is not on	<input type="checkbox"/> Check whether the SN of ONU matches OLT. <input type="checkbox"/> Check whether the optical attenuation is in the normal range.
The LOS indicator is not on	<input type="checkbox"/> Check whether the optical fiber cable is properly inserted. <input type="checkbox"/> Check whether the optical fiber connector is clean.
The LAN indicators are not on	<input type="checkbox"/> Check whether the PC NIC is enabled. <input type="checkbox"/> Check whether the network cables included in the device package are used. <input type="checkbox"/> Check whether the network cable connection is normal. <input type="checkbox"/> Check whether the indicator of the network adapter is on. <input type="checkbox"/> Check whether the network adapter works in the normal state.

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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	802.11nax (2T2R MIMO) 576Mbps
	WIFI 5GHz	802.11acax (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

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 to 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.

Information:
FIBRAIN Sp. z o.o.
36-062 Zaczernie 190F (POLAND)
info@fbrain.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 disposed of properly, and to minimize the negative effect 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).