



Quick Installation Guide

GPON ONU Router with 1 PON and 1 Giga Port

DG-GR4010

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Overview

1:1 Product Description

DG-GR4010 ONU meets telecom operators FTTO (office), FTTH (Desk), FTTH (Home) broadband speed, SOHO broadband access, video surveillance and other requirements and design a GPON Gigabit Ethernet products. The box is based on the mature Gigabit GPON technology, highly reliable and easy to maintain, with guaranteed QOS for different service. And it is fully compliant with technical regulations such as ITU-T G.984.x

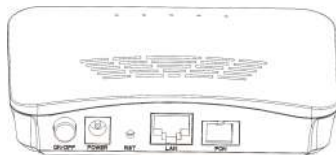


Figure 1 DG-GR4010

1:2 Application Chart

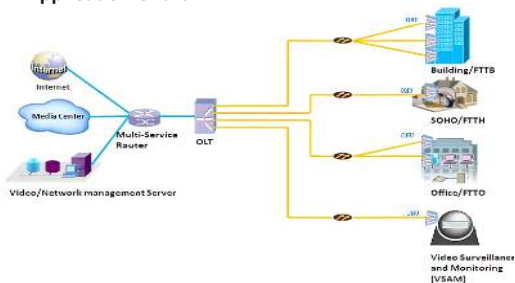


Figure 2

1:3 Technical Parameters

Technical item	DG-GR4010
PON interface	1GPON connector, SC single-mode/single-fiber, uplink 1.25Gbps, downlink 2.5Gbps
Wavelength	Tx1310nm,Rx 1490nm
Optical interface	SC connector
LAN interface	1x 10/100/1000Mbps auto adaptive Ethernet interfaces RJ-45 connector
LED	5, For Status of SYS, POWER, LOS, PON, LAN
Operating condition	Temperature: -10°C ~ +55°C Humidity: 10% ~ 90% (non-condensing)
Storing condition	Temperature: -30°C ~ 60°C Humidity: 10% ~ 90% (non-condensing)
Power supply	DC 12V/0.5A
Power consumption	≤3W
Dimension	120mm×78mm×30mm (L×W×H)
Net weight	0.13Kg

1:4 Equipment List

Contents	Quantity
ONU	1 PCS
Power Adapter	1 PCS
User Manual	1 PCS

Installation

2:1 Installation Requirements

To avoid equipment damage caused by improper use and personal injury, please observe the following precautions:

- Do not place the device near water or in damp places, in order to prevent water or moisture from entering the device.
- Do not place the device in an unstable place, avoid falling damage to equipment.
- Make sure that the supply voltage of the device matches the required voltage value.
- Do not open the equipment chassis without permission.
- Unplug before cleaning the power plug; prohibit the use of liquid cleaning.

Installation Environment Requirements

ONU equipment must be installed in the interior, and to ensure the following conditions:

- Confirmation at the ONU installation at sufficient space to facilitate cooling machine.
- ONU suitable operating temperature of $-10^{\circ}\text{C}\sim 55^{\circ}\text{C}$, humidity 10% to 90%.

Electromagnetic Environment

ONU equipment in use can be affected by external electromagnetic interferences, such as radiation and conduction through the impact on the device, this should note the following:

- Device workplace should avoid radio transmitters, radar stations, and high-frequency interference from power equipment.
- Users cable typically require alignment indoors if outdoor lightning traces measures should.

Equipment Installation

ONU product is a fixed configuration cassette equipment, site equipment installation is relatively simple. Simply install the device on a specified place, connecting the upstream fiber subscriber line connections, connect the power cable. Actual operation is as follows:

1. Installed on the desktop

Place the machine on a clean bench, this installation is relatively simple, you can observe the following operation:

- Ensure the smooth workbench.
- Around the device enough space for heat dissipation.
- Do not place objects on the device.

2. Mounted on the wall

- The ONU equipment chassis has two cruciform recess, install two screws in the wall in accordance to the position of the groove.
- The original selected two mounting screws gently snap into recesses aligned.
- Slowly let go, so that the device under the support of the screw hanging on the wall.

2:2 Panel Lights

LED	Mark	Status	Description
Power	Power	On	The device is powered up
		Off	The device is powered down
Optical signal loss	LOS	Blink	Device does not receive optical signals
		Off	Device has received optical signal
Registration	REG	On	The device is registered to the PON system
		Off	Device is not registered to the PON system
		Blink	Device registration is incorrect
		Fast Blink	Port is sending or/and receiving data
Interface	LINK/ACT	On	Port is connected properly (LINK)
		Off	Port connection exception or not connected
		Blink	Port is sending or/and receiving data (ACT)
System	SYS	On / Off	System is not running or fatal error
		Blink	Normal running

Web Management

GPON ONU provides simple Web management functions, including Device Information, modify Lan Management IP address, SN (Serial Number) Load, Password, Configuration File backup/upload/restore, firmware upgrade etc...

NOTE:

About More ONU Detail Configurations should be configured via OMCI protocols from OLT.

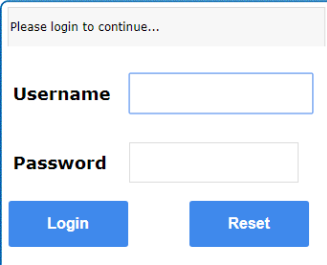
3:1 Default configuration

The following is the default device configuration information.

- Local (LAN access) Username: **admin** / Password: **admin**
- LAN port management IP address: **192.168.1.1/24**

3:2 Basic configuration

Figure 3 Web Login



The image shows a web login interface. At the top, there is a light gray box with the text "Please login to continue...". Below this, the form has two labels: "Username" and "Password", each followed by a text input field. At the bottom of the form, there are two blue buttons: "Login" and "Reset".

Web login default username: **admin**, password: **admin**

Figure 4 Device Information



Status Menu displays the current device base Information's. Including Hardware Version, Boot Loader Version, PON Serial Number and Password.

Note:

All the device information may be changed, the received device shall prevail.

Figure 5 Modify Loid and Password



The screenshot shows the DIGISOL web interface. The top navigation bar includes links for Status, Network, Security, Application, Administration, and Help. The left sidebar contains a menu with options: WAN, LAN, PON, LOID, SN (which is highlighted), and Routing(IPv4). The main content area features a yellow warning icon and the text "Configure password take effect after rebooting the device." Below this, there are input fields for "SN" (containing "GPCN00a30a60") and "Password" (containing "123456"). To the right of these fields are "Help" and "Logout" buttons.

LOID/SN Menu displays the current device SN, Loid and Password information's.

SN: Modify the device SN, fixed 12 bytes, 4 bytes for Vendor manufacturers

Password: fixed 10 bytes. Loid: 0-24 bytes.

Note:

1. Usually no need to modify the Version and Vendor Product Code information, otherwise it may lead to ONU registration problems.
2. All the changes to take effect in the equipment after the restart.

Figure 6 Reboot / Restore Default



Reboot: The operation to reboot the device.

Restore Default: The operation to restore the device to its factory configuration.

Note:

1. Press RST button over 10 seconds, onu can restore factory defaults and reboot.
2. Press RST button quickly, ONU reboot.

Figure 7 Upgrade



Firmware upgrade Menu displays the current equipment upgrades related information.

Figure 8 Backup/ Restore Configuration



Backup Configuration: The operation to backup configuration from the device.

Restore Configuration: The operation to restore configuration from a configuration file.

Troubleshooting

1. After power all the lights are lit?

Reasons:

- 1) Power connection errors
- 2) Power is not normal.

Solution:

- 1) Check that the power cable is connected
- 2) The rear panel of the power supply is turned on.

2. GE / FE led does not light?

Reasons:

- 1) Network cable is damaged or loose connection
- 2) Cable type error;
- 3) Long lines outside the allowable range.

Solution:

- 1) Replace the network cable, and pay attention to the standard Ethernet cable must be parallel or crossing lines.

3. After working for some time to stop working?

Reasons:

- 1) Power supply is not working properly
- 2) The equipment from overheating.

Solution:

- 1) Check if there is contact with abnormal voltage is too high or too low;
- 2) Check the ambient conditions, vents are normal ventilation.

4. LOS led flashes?

Reasons:

- 1) Fiber failure;
- 2) Central office equipment failure.

Solution:

- 1) Inspect fiber is connected properly, is connected to the correct connector, optical power is normal.
- 2) Contact your operator.

5. PON led flashes?

Reasons:

- 1) Fiber optic connector is loose;
- 2) Central office equipment failure;
- 3) Fiber optic connectors are dust.

Solution:

- 1) Inspect fiber is connected properly;
- 2) Cotton ball with alcohol swabbing fiber optic connectors;
- 3) Contact your operator.



DIGICARE™

Standard Warranty

This Product is covered under DIGICARE Standard Warranty program backed by DIGICARE Service Center. To avail this Standard Warranty offer, customer needs to contact DIGICARE's Technical Assistance Center for the same. You may be asked to provide proof of purchase of product for warranty claim of defective product. Please refer website www.digisol.com for the detailed support terms & conditions and support process.

Warranty Policy

1. **Hardware Warranty :** Hardware warranty period shall be limited up to One year. External Power Adapter shall carry Three months warranty only against manufacturing defects. Any repair or replacement will be rendered by DIGICARE at its Service Center only.
2. **Software Warranty :** DIGISOL issues this Limited Software Warranty that the software portion of the product ("Software") will substantially confirm to DIGISOL's then current functional specifications for the software, as set forth in the applicable documentation, from the date of original retail purchase of the Software for a period of one year ("Software Warranty period"), provided that the Software is properly installed on approved hardware and operated as contemplated in its documentation.
3. **Governing Law:** This warranty shall be governed by Indian Laws.
4. **Standard Warranty** shall subject to the terms & conditions specified in the DIGISOL PRODUCT WARRANTY policy displayed on www.digisol.com



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