

# DIGISOL<sup>®</sup>



## Quick Installation Guide

# XPON ONU Router with 1 PON and 1 Gigabit LAN Port

**DG-GR6010**

INDIA  
ER NO. : TEC14762301  
MODEL NO. : DG-GR6010  
CERTIFICATE NO. : 147600890  
ISSUED DATE : 26-JUNE-2023  
VALIDITY UPTO : 25-JUNE-2025  
COUNTRY OF ORIGIN : INDIA  
COUNTRY OF MANUFACTURING : INDIA



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# Overview

## 1:1 Product Description

DG-GR6010 ONU meets telecom operators FTTO (Office), FTTD (Desk), FTTH (Home) broadband access, SOHO broadband access, video surveillance and other requirements and helps to design an EPON Gigabit Ethernet and GPON network. It is based on mature and stable, cost-effective EPON and GPON technology, high reliability, easy management, configuration flexibility and good quality of service (QoS).

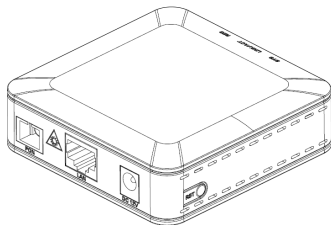


Figure 1 1GE

## 1:2 Application Chart

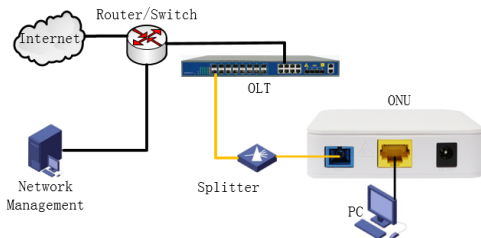


Figure 2

### 1:3 Technical Parameters

Technical Item	DG-GR6010
PON interface	1 GPON / EPON connector, SC single-mode / single-fiber,
Wavelength	Tx:1310nm, Rx:1490nm
Optical interface	SC/PC connector
LAN interface	1*10/100/1000Mbps auto adaptive Ethernet interfaces RJ-45 connector
LED	3 For Status of PON, LAN, SYS
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	≤4W
Dimension	82mm×82mm×25mm (L×W×H)
Net weight	0.08Kg

### 1:4 Package Content

Contents	Quantity
ONU	1 PCS
Power Adapter	1 PCS
QIG	1 PCS

# ***Installation***

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## **2:1 Installation Requirements**

- Connecting the optical fiber cable to the unit.
- Remove the protective cap of the optical fiber.
- Clean the end of the optical fiber with an optical fiber end cleaner.
- Remove the protective cap of the ONU optical interface (PON interface). Connect the fiber to the PON port on the unit.

Note: When measuring the optical power before connecting to the ONU, it is recommended to use a PON Inline Power Meter.

While connecting, please note:

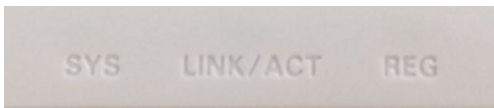
- Keep the optical connector and the optical fiber clean.
- Make sure there are no tight bends in the fiber and that the bending diameter is greater than 6cm. Otherwise, the optical signal loss may be increased, to the extent that signal may be unavailable.
- Cover all optic ports and connectors with protective cap to guard against dust and moisture when the fiber is not used.
- Apply power to the unit. Push the power button.
- After the ONU is power ON, Indicators should light up as for normal operation. Check whether the PON interface status LED (PON) is on continuously. If it is, the connection is normal; otherwise there is either problem of the physical connection or the optical level at either end. This may be caused by either too much or too little attenuation over the optical fiber. Please refer to the Layout Description section of this installation manual for normal LED activity.
- Check all signal levels and services on all the ONU communication ports.

### **Installing the ONU on a horizontal surface (Bench top)**

- Place the ONU on a clean, flat, sturdy bench top. You must keep the clearance for all sides of the unit to more than 10cm for heat dissipation.
- Installing the ONU on a vertical surface (Hanging on a wall)
- You can install the ONU on a vertical surface by using the mounting holes on the bottom of the ONU chassis and two flat-head wood screws.

- Insert the screws into the wall. The screw positions must be in the same horizontal line and the distance between them must be 145mm. Reserved at least 6mm between the screw caps and the wall.
- Hang the ONU on the screws through the mounting holes.

## 2:2 Panel Lights



LED	Mark	Status	Description
Registration	REG	On and Green in colour	The device is registered to the PON system
		Off / Red in colour	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

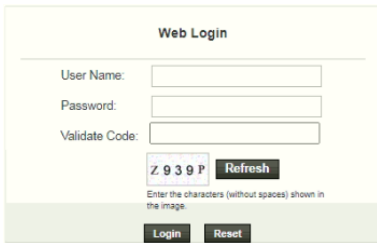
## Web Management

- After finishing the basic connection configuration, you can use its basic function. In order to satisfy individuation service requirements, this charter provides the user parameter modification and individuation configuration description.
- This model of ONU is designed as SFU (single family unit, bridge mode), there is no bridge mode WAN in ONU. When it works on bridge mode, VLAN of LAN port should be configured by OLT. When it works on router mode, you may configure through its web management.

### 3:1 Default configuration

The following is the default device configuration information.

- Local (LAN access) Username: **admin** / Password: **stdONU0i**
- LAN port management IP address: **192.168.1.1/24**

A screenshot of a web login interface. At the top, the title "Web Login" is centered. Below it, there are three input fields: "User Name:", "Password:", and "Validate Code:". The "Validate Code:" field contains a CAPTCHA image showing the characters "Z 9 3 9 P". To the right of the CAPTCHA is a "Refresh" button. Below the input fields, there is a text prompt: "Enter the characters (without spaces) shown in the image." At the bottom of the form, there are two buttons: "Login" and "Reset".

**Figure 3** Web Login

Web login default username: admin, password: stdONU0i

## 3:2 Status

This part shows the main information of product.

### 3.2.1 Device Information

#### 3.2.1.1 Device Info

This page shows the device basic information, such as Software Version, PON SN, LAN info, WAN info and so on.

The screenshot shows a web interface for a network device. At the top, there is a navigation bar with tabs: Status, Setup, Advanced, Service, Firewall, and Maintenance. The 'Status' tab is selected. On the left side, there is a sidebar with a 'Device Info' section containing links for 'Device Info', 'PON', 'Statistics', and 'Logout'. The main content area is titled 'Status' and contains a sub-header 'System' with the following information:

System	
Alias Name	Realtek Wireless Router
Uptime	0 0:40:25
Date/Time	Sun Jan 1 0:40:25 2012
Firmware Version	V1.0.0
Built Date	Sep 28 2020 15:51:18
Serial Number	C4700B325818

Below the System section is the 'CWMP Status' section:

CWMP Status	
Inform Status	Inform no response
Connection Request Status	No connection request

Next is the 'LAN Configuration' section:

LAN Configuration	
IP Address	192.168.1.1
Subnet Mask	255.255.255.0
IPv6 Address	fe80::c670:bff:fe32:5818
DHCP Server	Enable
MAC Address	C4 70 0B 32 58 18

Below the LAN Configuration section is the 'Ethernet WAN Interfaces' section:

Interface	Route	Protocol	IP Address	DNS	Gateway	Status
ppoe1	On	PPPoE	0.0.0.0	0.0.0.0		down 0.0.0.0 0.0.0.0 0277402

Below the Ethernet WAN Interfaces section is the 'Ethernet WAN IPv6 Configuration' section:

Interface	Protocol	IPv6 Address	DNS	Prefix	Gateway	Route	Status
-----------	----------	--------------	-----	--------	---------	-------	--------

At the bottom of the main content area, there is a 'Refresh' button.

Figure Device Info



### 3.2.1.3 Statistics

This page shows the packet statistics for transmission and reception regarding to network interface.

**Statistics**

This page shows the packet statistics for transmission and reception regarding to network interface.

Statistics:

Interface	Rx pkt	Rx err	Rx drop	Tx pkt	Tx err	Tx drop
lan1	569	0	93	435	0	0

Refresh

Figure Statistics

### 3.2.1.4 Logout

This page is used to logout from the Device.

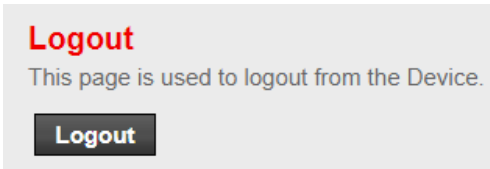


Figure Logout

## 3:3 Setup

### 3.3.1 WAN

#### 3.3.1.1 WAN Configuration

This page is used to configure the parameters for the WAN interface of your ONU Router.

Note : Only when connect type of PPPoE is "Manual", the "Connect" and "Disconnect" button will be enable.

The screenshot shows the WAN Configuration page of a router's web interface. The top navigation bar includes tabs for Status, Setup, Advanced, Service, Firewall, and Maintenance. The left sidebar has a menu with WAN, LAN, and EPON Settings. The main content area is titled 'WAN Configuration' and contains a descriptive note. The configuration fields are organized into sections: Default Route Selection (Auto/Specified), Channel Mode (dropdown), Enable NAPT (checkbox), Enable IGMP (checkbox), VLAN (radio buttons for Disable/Enable), VLAN ID(1-4095) (text input), Multicast VLAN ID(1-4095) (text input), PPP Settings (User Name, Password, Type dropdown, Idle Time (min) input), WAN IP Settings (Type radio buttons for Fixed IP/DHCP, Local IP Address, NetMask, Gateway, DNS Server1, DNS Server2, Default Route radio buttons for Disable/Enable/Auto, and Unnumbered checkbox), and a bottom row of action buttons: Connect, Disconnect, Add, Modify, Delete, Undo, and Refresh.

**WAN Configuration**  
This page is used to configure the parameters for the WAN interface of your AGILE and/or Ethernet Modem/Router. Note : When connect type of PPPoE and PPPoA only is "Manual", the "Connect" and "Disconnect" button will be enable.

Default Route Selection: ☒ Auto ☐ Specified

Channel Mode:  Enable NAPT: ☐

Enable IGMP: ☐

VLAN: ☒ Disable ☐ Enable  
VLAN ID(1-4095):

Multicast VLAN ID(1-4095):

PPP Settings:  
User Name:  Password:   
Type:  Idle Time (min):

WAN IP Settings:  
Type: ☒ Fixed IP ☐ DHCP  
Local IP Address:  Gateway:   
NetMask:   
DNS Server1:  DNS Server2:   
Default Route: ☐ Disable ☐ Enable ☒ Auto  
Unnumbered: ☐

Figure WAN Configuration

### 3.3.2 LAN

#### 3.3.2.1 LAN Interface Setup

This page is used to configure the LAN interface of your Router. Here you may change the setting for IP address, subnet mask, etc..

**LAN Interface Setup**  
This page is used to configure the LAN interface of your Router. Here you may change the setting for IP address, subnet mask, etc..

Interface Name:	Ethernet1
IP Address:	<input type="text" value="192.168.1.1"/>
Subnet Mask:	<input type="text" value="255.255.255.0"/>
<input type="checkbox"/> Secondary IP	
Mac Based Tag Decision:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable

Apply Changes

**Figure** LAN Interface Setup

## 3:4 Maintenance

### 3.4.1 Upgrade Firmware

This page allows you upgrade the Router firmware to new version. Please note, do not power off the device during the upload because it may crash the system.

Note: System will reboot after file is uploaded.

**Upgrade Firmware**  
This page allows you upgrade the Router firmware to new version. Please note, do not power off the device during the upload because it may crash the system.  
**Note: System will reboot after file is uploaded.**

Select File:  No file chosen

### 3.4.2 Backup/Upload Settings

Once the router is configured you can save the configuration settings to a configuration file on your hard drive. You also have the option to load configuration settings.

**Backup/Restore Settings**  
Once the router is configured you can save the configuration settings to a configuration file on your hard drive. You also have the option to load configuration settings.

Save Settings to File:

Load Settings from File:  No file chosen

Figure Backup/Upload Settings

### 3.4.3 Reboot/Restore

This page is used to reboot your system or restore to default setting.

#### Reboot

This page is used to reboot your system or restore to default setting.

Reboot

Restore to Default Setting

**Figure** Reboot / Restore

# ***Troubleshooting***

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## **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.

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# WARRANTY

This Product is covered under DIGISOL Warranty program backed by DIGISOL Service Center. To avail this Warranty offer, customer needs to contact DIGISOL'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](http://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 Three years. External Power Adapter shall carry One year warranty only against manufacturing defects. Any repair or replacement will be rendered by DIGISOL 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. **Warranty shall subject to the terms & conditions specified in the DIGISOL Product Warranty policy displayed on [www.digisol.com](http://www.digisol.com)**
5. **To avail and activate warranty for your product.**  
Kindly register your product by calling us @1800 209 3444

**DIGICARE**



[helpdesk@digisol.com](mailto:helpdesk@digisol.com)



**1800 209 3444**






**DIGISOL SYSTEMS LIMITED**

L-7, Verna Industrial Estate,  
Salcete, GOA - 403722

[www.digisol.com](http://www.digisol.com)

**DIGICARE**

 **1800 209 3444**

 [helpdesk@digisol.com](mailto:helpdesk@digisol.com)

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