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**INDIA'S OWN
IT NETWORKING
CHOICE**

Quick Installation Guide

XPON ONU Router with 1 PON, 1 Gigabit LAN Port and 1 FXS Port

DG-GR6011

INDIA
ER NO. : TEC14762301
MODEL NO. : DG-GR6011
CERTIFICATE NO. : 147600890
COUNTRY OF ORIGIN : INDIA
COUNTRY OF MANUFACTURING : INDIA



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Overview

1:1 Product Description

Thank you for choosing our DG-GR6011 ONU. It is designed for fulfilling FTTH and triple play service demand of fixed network operators / cable operators. DG-GR6011 is based on mature GPON and Gigabit EPON technology, which has high ratio of performance to price. They are highly reliable and easy to maintain, with guaranteed QoS for different services. And it is fully compliant with GPON and EPON technology. It can detect and exchange PON mode automatically.



Figure 1: DG-GR6011 Product Image

1:2 Application Chart

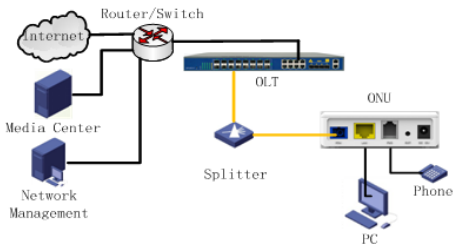


Figure 2: Application Chart

1:3 Technical Parameters

Technical Item	DG-GR6011
PON interface	1GPON/EPON connector, SC single-mode / single-fiber GPON: uplink 1.25Gbps, downlink 2.5Gbps; EPON: symmetric 1.25Gbps
Wavelength	Tx:1310nm, Rx:1490nm
Optical interface	SC/UPC connector
Interface	1*10/100/1000Mbps adaptive Ethernet interface RJ-45 connector and 1 POTS
LED	6 indicators, for status of POWER, PON, LOS, WAN, LAN, PHONE
Operating condition	Temperature: -5°C ~ 55°C Humidity: 10% ~ 90% (non-condensing)
Storing condition	Temperature: -30°C ~ 60°C Humidity: 10% ~ 90% (non-condensing)
Power supply	DC 12V/1A
Power consumption	≤10W
Dimension	100mm×92mm×29mm (L×W×H)
Net weight	0.11Kg

1:4 Package Content

Contents	Quantity
ONU	1 PCS
Power Adapter	1 PCS
Installation Guide	1 PCS

Installation

2:1 Installation Requirements

1. Connecting the optical fiber cable to the unit.
 - a) Remove the protective cap of the optical fiber.
 - b) Clean the end of the optical fiber with an optical fiber end cleaner.
 - c) Remove the protective cap of the DG-GR6011 optical interface (PON interface). Connect the fiber to the PON port on the unit.

Note: When measuring the optical power before connecting to the device, 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.
2. Apply power to the unit. Push the power button.
 3. After the ONU is powered 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.
 4. Check all signal levels and services on all the DG-GR6011 communication ports.

Unit Installation Adjustment

Installing the DG-GR6011 on a horizontal surface (Bench top)

Put the DG-GR6011 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 DG-GR6011 on a vertical surface (Hanging on a wall) You can install the DG-GR6011 on a vertical surface by using the mounting holes on the bottom of the ONU chassis and two flat-head wood screws.

Hang the DG-GR6011 on the screws through the mounting holes.

2:2 Panel Lights

POWER PON LOS WAN LAN PHONE

LED	Mark	Status	Description
Power	Power	On	Device is powered up
		Off	Device is powered down
Registration	PON	On	Device is registered to the PON system
		Off	Device is not registered to the PON system
		Blink	Device is registering
Optical Signal Loss	LOS	Off	Device is received optical signal
		Blink	Device is dose not receive optical signals
WAN	WAN	On	WAN connection is up
		Off	WAN connection is down
		Blink	Data passing WAN connection
Ethernet	LAN	On	Port is connected properly (Link)
		Off	Port connection exception or not connected
		Blink	Port is sending or/and receiving data (ACT)
POTS	PHONE	On	Device has registered to soft-switch, but without ongoing data transmission
		Off	Device is not registered to soft-switch
		Blink	The port is with ongoing data transmission

Web Configuration

Set up wired connection

Connect PC with DG-GR6011 Ethernet port by RJ-45 CAT5 cable.

3:1 Login

The device is configured by the web interface. The following steps will enable you to login:

1. The device default IP is **192.168.3.1**
2. Open web browser, type the device IP in address bar;
3. Login Page would appear.
4. Enter the default Login name and password in the respective fields.
5. Login Username : **admin** and the default login Password is **stdONU101**

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Username

Password

Enter captcha 

Login

For technical assistance contact toll free at 1800 209 3444

Figure 3: Login

3:2 Status

This part shows the main information of product.

3.2.1 Device Information

This page shows the device basic information, such as device model, device SN, hardware version, and firmware version and so on.

Device Basic Info	
Device model	DG-GR8011
Device ID	1CEF03-000000000002
Hardware Version	V1.1
Firmware Version	V1.0.00-221104
PON S/N	GPON0004857A

Figure 4: Device Information

3:2:2 WAN Connection Information

This page shows the device WAN information, such as IPv4/IPv6 WAN info, Remote manage info and VoIP info.

IPv4 Connection Info

This page shows IPv4 WAN connection information that you have configured

IPv4 WAN Info							
Service Interface	VLAN ID	Protocol	IGMP	Status	IP Address	Subnet Mask	MAC Address
1_TRO69_R_VID_46	46	PPoE	Disabled	down	192.168.1.1	255.255.255.255	1cef03:041
2_INTERNET_R_VID_211	211	PPoE	Disabled	up	117.208.43.134	255.255.255.255	1cef03:041
3_VOICE_R_VID_1849	1849	PPoE	Disabled	up	10.114.135.50	255.255.252.0	1cef03:041

IPv4 Network Info			
Service Interface	Default Gateway	Primary DNS	Standby DNS
1_TRO69_R_VID_46			
2_INTERNET_R_VID_211	117.208.43.1	218.248.114.1	218.248.114.65
3_VOICE_R_VID_1849	10.114.132.1	172.30.249.33	172.30.249.11

Figure 5: IPv4 WAN Information

3.2:3 VoIP Information

This page shows VoIP information which includes registration status and phone number.

Voip Info	
Port State	Registered
Phone Number	+918322994820

Figure 6: VoIP Information

3.2.4 PON Information

This page shows the GPON or EPON information, including connection information, FEC information, temperature, voltage, current, optical power, and statistics of the packet on send or receive direction.

Connect information	
PON MODE	GPON
Connect state	Operation State (OS)
FEC Upstream Status	Disable
FEC Downstream Status	Enable
Laser Device Info	
Tx Power	1.922362 dBm
Rx Power	-13.851028 dBm
Temperature	56.601563 °C
Voltage	3.306400 V
Bias Current	4.100000 mA
PON Alarm Info	

Figure 7: PON Information

3:3 Setup

3.3.1 WAN

3.3.1.1 WAN Configuration

This page allows you to add or modify WAN connections. You can't add any WAN connection if you have configured eight connections

WAN Config

Connectin Name Add New Wan ▾

Mode Bridge ▾

IP Version IPv4/IPv6 ▾

Enabled Vlan ☐

MTU 1500

ServiceMode INTERNET ▾

Disable LAN DHCP ☒

Bind Port:
LAN_1

Submit

Figure 8: WAN Configuration

3.3.2 LAN Settings

3.3.2.1 IPv4 LAN

This page allows you to do some LAN settings, such as LAN IP address, DHCP server.

IPv4 LAN Configuration

IP Address 192.168.3.1

Subnet Mask 255.255.255.0

Enable DHCP Server ☒

Start IP Address 192.168.3.2

End IP Address 192.168.3.254

Lease Time One Day ▾

LAN DNS Mode HGW Proxy ▾

Submit

Figure 9: LAN Configuration Setup

3:4 Management

3.4.1 User Manage

This page allows you to change login password of current user



The screenshot shows a web interface titled "User Manage". It contains the following elements:

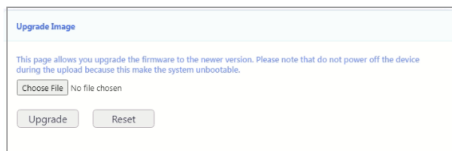
- Three lines of password requirements:
 - "The password must contain at least 6 characters."
 - "The password must Input Max 16 characters."
 - "The password must contain at least two of the following combinations: 0-9, a-z, A-Z, Special characters (, _ , / , @ , ! , ~ , # , \$, % , ^ , * , { , } , + , : , ?)."
- Four input fields with labels to their left:
 - "Username" with the text "admin" inside.
 - "Old Password" (empty).
 - "New Password" (empty).
 - "Confirm Password" (empty).
- A blue "Submit" button at the bottom right.

Figure 10: User Management

3.4.2 Device Management

3.4.2.1 Upgrade Image

This page allows you to upgrade the device. You can select the upgrade firmware and click "Upgrade" to upgrade device. Please keep the power on, otherwise this device will be damaged. It will reboot automatically when finish upgrade



The screenshot shows a web interface titled "Upgrade Image". It contains the following elements:

- A paragraph of instructions: "This page allows you upgrade the firmware to the newer version. Please note that do not power off the device during the upload because this make the system unbootable."
- A file selection area with a "Choose File" button and the text "No file chosen".
- Two buttons at the bottom: "Upgrade" and "Reset".

Figure 11: Device Upgrade

3.4.2.2 Reboot

This page allows you to reboot the device. The process of reboot will take several minutes

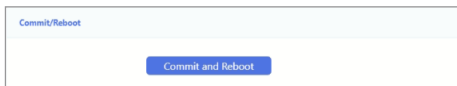


Figure 12: Device Reboot

3.4.2.3 Load Default

This page allows you to restore the device to default settings. You can click "Restore Default" or "Restore factory default" button to restore settings of the device. "Restore Default" button restore the LAN parameter, "Restore Factory Default" button restore all the ONU configurations. After restored, it will restart automatically.

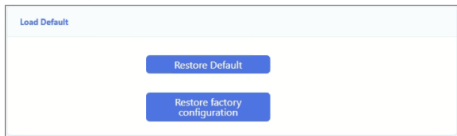


Figure 13: Load Default

3.4.2.4 Configuration File Management

This page allows you to backup the configurations of DG-GR6011.

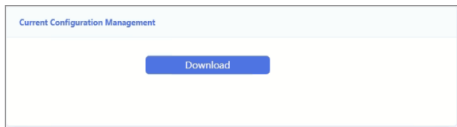


Figure 14: Download Configuration File

3.4.2.5 Upload Configuration Management

This page allows you to restore the configurations of DG-GR6011.

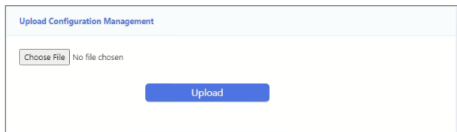


Figure 15: Upload Configuration File

Troubleshooting

1. Q: All indicators are not lit?

- A: (1) Power is off or power adapter is bad.
(2) Indicator LED switch is turned off.

2. Q: Why Los indicator flashes?

- A: (1) There is no optical signal. Maybe the fiber is broke down or connection loosened.
(2) Optical power is too low.
(3) The fiber is dusty.

3. Q: LAN indicators are not lit?

- A: (1) Indicator LED switch is turned off.
(2) The cable breaks down or connection loosened.
(3) The cable type incorrect or too long.

4. Q: FXS indicators are not lit?

- A: (1) Indicator LED switch is turned off.
(2) SIP accounts aren't registered.

5. Q: PC can't visit web UI?

- A: (1) PC and DG-GR6011 are not in the same network fragment.
By default, LAN IP is 192.168.3.1/24.
(2) The cable breaks down.
(3) IP conflict or have loopback.

6. Q: User can't surf the Internet normally.

- A: (1) PC has set a wrong IP and gateway or network is bad.
(2) There is loopback or attack in network.
(3) Route mode WAN connection doesn't get an IP or DNS is disabled.

7. Q: DG-GR6011 stops to work after working for some time.

- A: (1) Power supply is not working properly.
(2) The device overheats.

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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 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
5. To avail and activate warranty for your product.
Kindly register your product by calling us @1800 209 3444

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helpdesk@digisol.com



1800 209 3444





DIGISOL SYSTEMS LIMITED

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

www.digisol.com

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 **1800 209 3444**

 helpdesk@digisol.com