

HSGQ/ODI XPON Stick

G/EPON Fiber Optic Access Terminal

User's Guide

Notes: ODI /HSGQ are sample items ,Same setting ,Only Lable and Logo different



The ODI/HSGQ XPON STICK is with HGU version ,It supports both XPON STICK and Router dial-up (99% is this type)

If you must need SFU version ,You can change the firmware to SFU

You can contact with us for the SFU firmware~

Contents

G/EPON Fiber Optic Access Terminal	I
Equipment XPON Stick	错误！未定义书签。
1 Introduction	1
1.1 Interfaces	1
1.2 Technical Features	1
2 Log in to the web management page	1
3 Management page description	2
3.1 Status	2
3.2 WAN	5
3.3 LAN	8
3.4 Firewall	9
3.5 Advance	10
3.6 IPv6	11
3.7Diagnostics	12
3.8Admin	12
3.9Statistics	17

1 Introduction

The 1GE terminal devices ONT are designed for fulfilling FTTH and triple play service demand of fixed network operators or cable operators. These boxes are based on the mature GPON/EPON technology, which have high ratio of performance to price. They are highly reliable and easy to maintain, with guaranteed QoS for different service. And they are fully compliant with technical regulations such as ITU-T G.984 and technical requirement of GPON/EPON Equipment from China Telecom.

1.1 Interfaces

- ▶ GPON interface GPON standard, SC/UPC, SC/APC
- ▶ EPON interface EPON standard, SC/UPC, SC/APC
- ▶ Ethernet interface: 1GE interfaces, RJ-45, comply with IEEE802.3 and IEEE802.3u standards.

1.2 Technical Features

1GE has the following features.

- ▶ Broadband service access: connected to Internet through the GPON access method.
- ▶ Ethernet service access: Provides GE Ethernet interfaces, connected to the there to devices, such as the user PC. Provides the Internet access.
- ▶ Security: Provides multi-level authentication based on the device, user and service, and provides the data channel encryption for safety.
- ▶ QoS: Provides QoS services meeting the requirements of various services for the local devices and network
- ▶ Network management: Provides multi-mode network management.

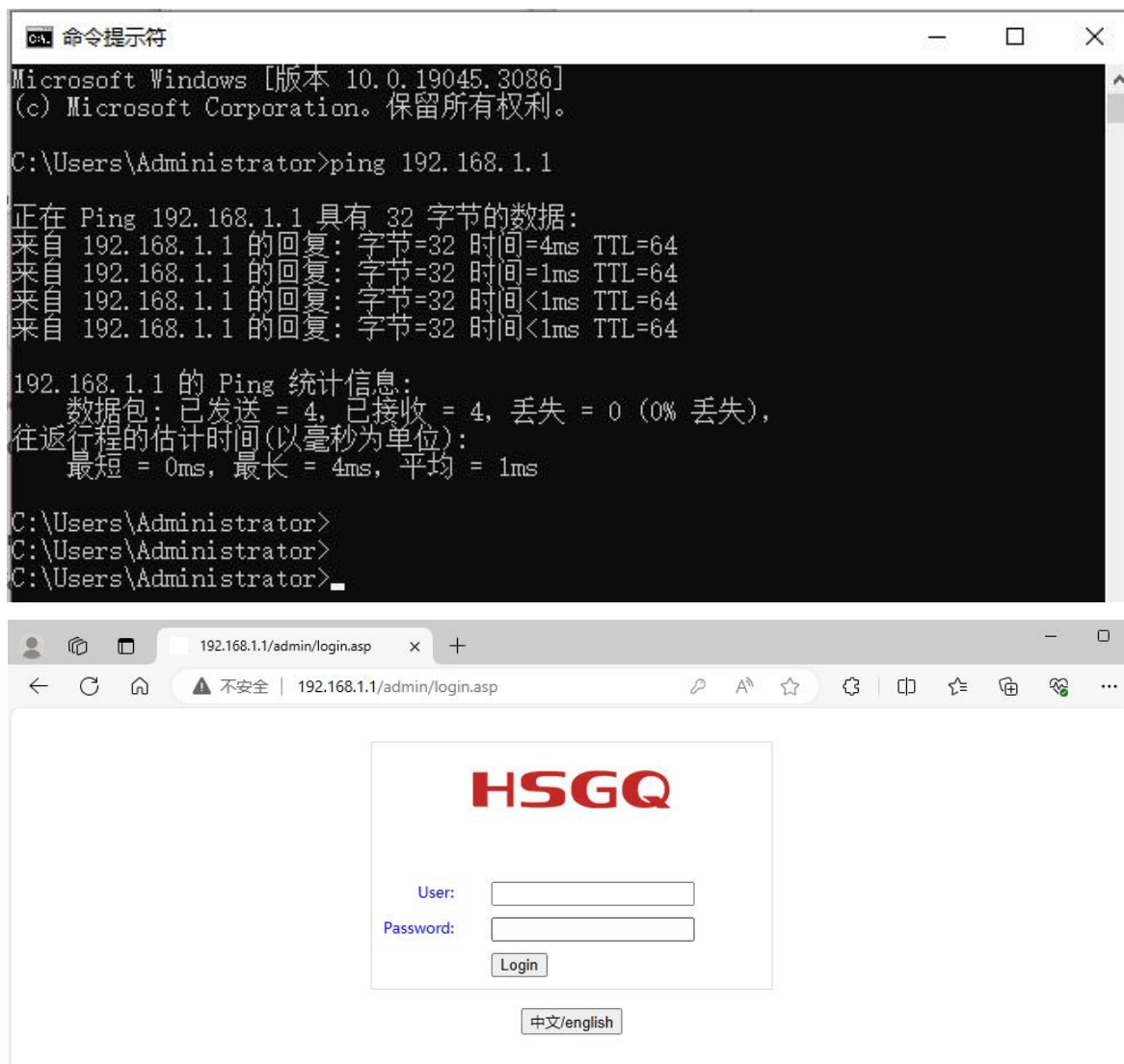
2 Log in to the web management page

- ① Manually set the local network port IP address of the computer to 192.168.1.100
- ② Use a network cable to connect the computer to any Ethernet port on

the ONU

③ Open a browser to access <http://192.168.1.1> (User: admin, Password: admin)

After successful login, the page is as follows:



3 Management page description

The management page includes: Status, WAN, LAN, Firewall, advance, IPv6, Diagnostics, Admin, and Statistics

3.1 Status

The status bar includes: Device, IPv6, PON, ARP Table

3.1.1 Device

The device page can view model name, uptime, software version, compilation time, LAN, WAN configuration

The screenshot shows the HSGQ web interface with the 'Device Status' page selected. The left sidebar contains links for Device, IPv6, PON, and ARP Table. The main content area shows the following information:

System

Device Name	
Uptime	1 min
Firmware Version	V1.0.3-231205
CPU Usage	0%
Memory Usage	35%
DNS Servers	
IPv4 Default Gateway	
IPv6 Default Gateway	

LANConfiguration

IP Address	192.168.1.1
Subnet Mask	255.255.255.0
DHCP Server	Disabled
MAC Address	98c7a429afff

WANConfiguration

Interface	VLAN ID	MAC	Connection Type	Protocol	IP Address	Gateway	Status
Refresh							

3.1.2 IPv6

The IPv6 page can view the IPv6 configuration details of the LAN and WAN

The screenshot shows the HSGQ web interface with the 'IPv6 Status' page selected. The left sidebar contains links for Device, IPv6, PON, and ARP Table. The main content area shows the following information:

IPv6 Status

This page shows the current system status of IPv6.

LANConfiguration

IPv6 Address	
IPv6 Link-Local Address	fe80::1/64

Prefix Delegation

Prefix	
--------	--

WANConfiguration

Interface	VLAN ID	Connection Type	Protocol	IP Address	Status
Refresh					

3.1.3PON

The this page can view PON status, registration status, GPON status (or EPON status)

① GPON registration success status: ONU status is stable at 05, as shown below

The screenshot shows the HSGQ web interface for the PON Status page. The left sidebar contains links for Device, IPv6, PON, and ARP Table. The main content area is titled 'PON Status' and includes a description: 'This page shows the current system status of PON.' Below this, there are two tables. The first table, 'PON Status', displays system metrics: Temperature (46.035156 C), Voltage (3.348400 V), Tx Power (2.467455 dBm), Rx Power (-15.638374 dBm), and Bias Current (12.718000 mA). The second table, 'GPON Status', shows the ONU State as 05 (highlighted with a red box), ONU ID as 0, and LOID Status as Successful Authentication. A Refresh button is located at the bottom of the GPON Status table.

PON Status	
Temperature	46.035156 C
Voltage	3.348400 V
Tx Power	2.467455 dBm
Rx Power	-15.638374 dBm
Bias Current	12.718000 mA

GPON Status	
ONU State	05
ONU ID	0
LOID Status	Successful Authentication

Refresh

② EPON registration success status: ONU status is stable at 01, as shown below

The screenshot shows the HSGQ web interface for the PON Status page. The left sidebar contains links for Device, IPv6, PON, and ARP Table. The main content area is titled 'PON Status' and includes a description: 'This page shows the current system status of PON.' Below this, there are two tables. The first table, 'PON Status', displays system metrics: Temperature (45.417969 C), Voltage (3.345900 V), Tx Power (2.763702 dBm), Rx Power (-16.615435 dBm), and Bias Current (4.100000 mA). The second table, 'EPON LLID Status', shows the status of multiple LLIDs. The first row (index 0) has a Status of 1 (highlighted with a red box), while all other LLIDs (index 1 to 7) have a Status of 0. A Refresh button is located at the bottom of the EPON LLID Status table.

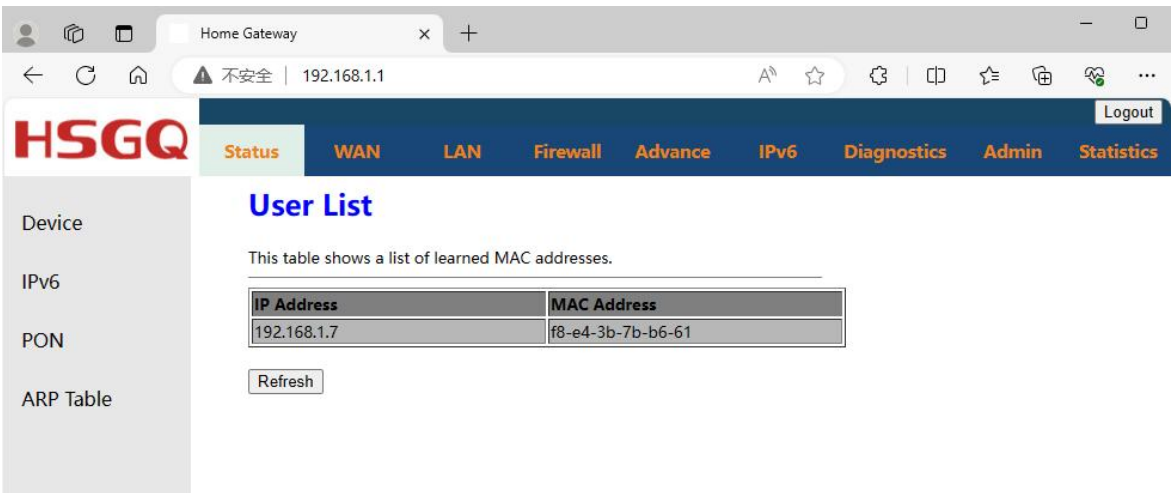
PON Status	
Temperature	45.417969 C
Voltage	3.345900 V
Tx Power	2.763702 dBm
Rx Power	-16.615435 dBm
Bias Current	4.100000 mA

EPON LLID Status	
index	Status
0	1
1	0
2	0
3	0
4	0
5	0
6	0
7	0

Refresh

3.1.4 ARP Table

The this page shows a list of learned MAC addresses.

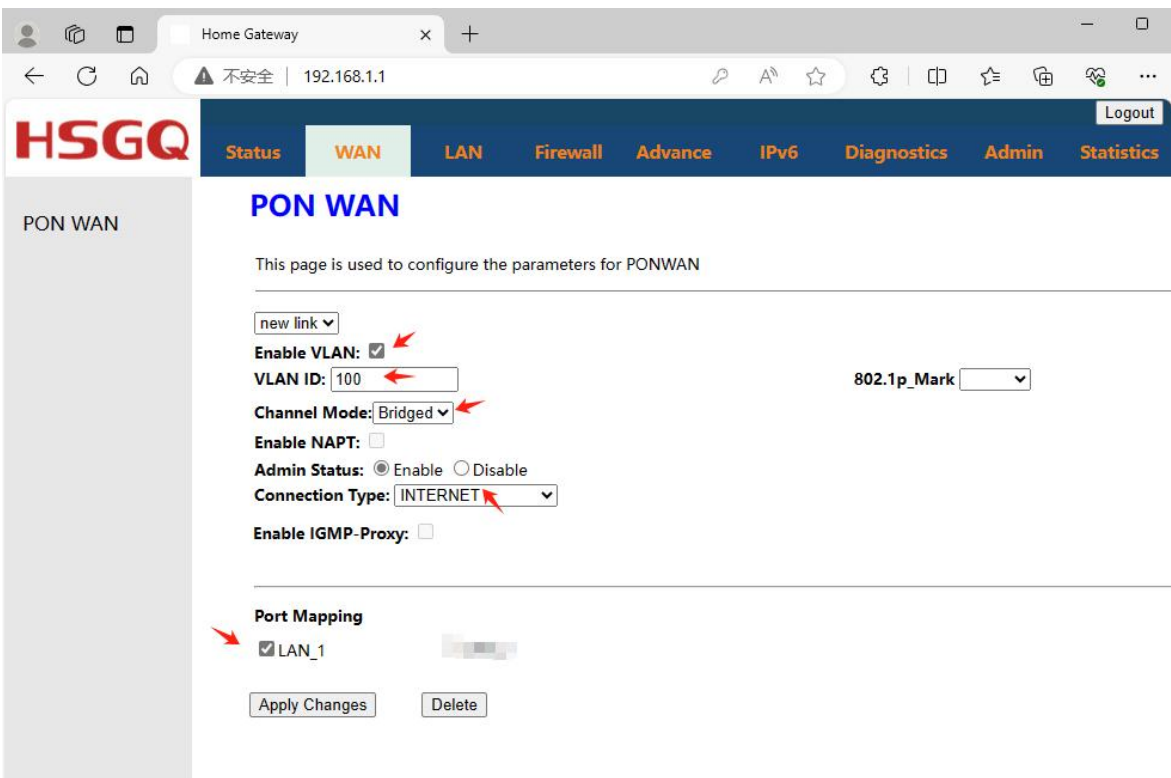


3.2 WAN

WAN page: Configure wan settings, such as Internet mode (Bridged/IPoE/PPPoE), port binding settings

3.2.1 Bridge WAN

For example, create a bridge of vlan 100 to access the Internet wan, and bind the LAN1



- ①Enable vlan
- ②VLAN ID: 100
- ③Mode: Bridged
- ④Service type: Internet
- ⑤LAN1 tick

3.2.2 IPOE DHCP WAN

For example, create a DHCP Internet access wan of vlan 100 and bind the LAN1

The screenshot shows the HSGQ PON WAN configuration interface. The page title is "PON WAN" and it includes a description: "This page is used to configure the parameters for PONWAN". The configuration options are as follows:

- new link** (dropdown)
- Enable VLAN:** ☒ (indicated by a red arrow)
- VLAN ID:** 100 (indicated by a red arrow)
- Channel Mode:** IPoE (indicated by a red arrow)
- 802.1p_Mark:** (dropdown)
- Enable NAPT:** ☒
- Admin Status:** ☒ Enable ☐ Disable
- Connection Type:** INTERNET (indicated by a red arrow)
- MTU:** 1500
- Enable IGMP-Proxy:** ☐
- IP Protocol:** IPv4
- WAN IP Settings: Type:** ☐ Fixed IP ☒ DHCP (indicated by a red arrow)
- Local IP Address:** 0.0.0.0
- Subnet Mask:** 255.255.255.0
- Remote IP Address:** 0.0.0.0
- Request DNS:** ☒ Enable ☐ Disable
- Primary DNS Server:** (text input)
- Secondary DNS Server:** (text input)
- IP Unnumbered:** ☐
- Port Mapping:**
 - ☒ LAN_1 (indicated by a red arrow)

Buttons at the bottom: **Apply Changes** and **Delete**.

- ①Enable vlan
- ②VLAN ID: 100
- ③Mode: IPoE
- ④Service type: Internet
- ⑤Type: DHCP
- ⑥LAN1 tick

3.2.3 IPOE Static IP WAN

For example, create a static route of vlan 100 to access wan, and bind the LAN1

The screenshot shows the HSGQ PON WAN configuration interface. The left sidebar has a 'PON WAN' section. The main content area is titled 'PON WAN' and includes a description: 'This page is used to configure the parameters for PONWAN'. The configuration options are as follows:

- new link** (dropdown)
- Enable VLAN:** ☒ (indicated by a red arrow)
- VLAN ID:** 100 (indicated by a red arrow)
- Channel Mode:** IPoE (indicated by a red arrow)
- Enable NAPT:** ☒
- Admin Status:** ☒ Enable ☐ Disable
- Connection Type:** INTERNET (indicated by a red arrow)
- MTU:** 1500
- Enable IGMP-Proxy:** ☐
- IP Protocol:** IPv4 (dropdown)
- WAN IP Settings: Type:** ☒ Fixed IP ☐ DHCP (indicated by a red arrow)
- Local IP Address:** 192.168.6.152
- Subnet Mask:** 255.255.255.0
- Remote IP Address:** 192.168.6.1
- IP Unnumbered:** ☐
- Request DNS:** ☐ Enable ☒ Disable
- Primary DNS Server:** (empty field)
- Secondary DNS Server:** (empty field)
- Port Mapping:**
 - ☒ LAN_1 (indicated by a red arrow)
- Buttons:** Apply Changes, Delete

- ① Enable vlan
- ② VLAN ID: 100
- ③ Mode: IPoE
- ④ Service type: Internet
- ⑤ Type: Fixed IP
- ⑥ LAN1 tick

3.2.4 PPPOE WAN

For example, create a PPPoE dial-up Internet wan (ONU dial-up) of vlan 100 and bind the LAN1

Home Gateway 192.168.1.1

Logout

Status WAN LAN Firewall Advance IPv6 Diagnostics Admin Statistics

PON WAN

This page is used to configure the parameters for PONWAN

new link ▼

Enable VLAN: ☒

VLAN ID: 100

802.1p_Mark ▼

Channel Mode: PPPoE ▼

Enable NAPT: ☒

Admin Status: ☒ Enable ☐ Disable

Connection Type: INTERNET ▼

MTU: 1492

Enable IGMP-Proxy: ☐

IP Protocol: IPv4 ▼

PPP Settings: Username: 24553245342523 Password: *****

Type: Continuous ▼ Idle Time (sec):

Authentication Method: AUTO ▼

AC-Name: Service-Name:

Port Mapping

☒ LAN_1

Apply Changes Delete

- ①Enable vlan
- ②VLAN ID: 100
- ③Mode: PPPoE
- ④Service type: Internet
- ⑤PPP settings: PPPOE dial-up username and password
- ⑥LAN1 tick

3.3 LAN

DHCP interface Settings supports modifying LAN IP address, enabling LAN port, and enabling IGMP Snooping

Home Gateway x +

不安全 | 192.168.1.1

HSGQ

Status WAN LAN Firewall Advance IPv6 Diagnostics Admin Statistics Logout

LAN Interface Settings

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

InterfaceName: **br0**

IP Address:

Subnet Mask:

IGMP Snooping: ☐ Disabled ☒ Enabled

Mac Based Tag Decision: ☐ Disabled ☒ Enabled

DHCP Mode: ☒ NONE ☐ DHCP Relay ☐ DHCP Server

3.4 Firewall

The management page includes: IP/Port filtering, MAC Filtering, ACL

3.4.1 IP/Port Filtering

Home Gateway x +

不安全 | 192.168.1.1

HSGQ

Status WAN LAN Firewall Advance IPv6 Diagnostics Admin Statistics Logout

IP/Port Filtering

Entries in this table are used to restrict certain types of data packets through the Gateway. Use of such filters can be helpful in securing or restricting your local network.

Default Action ☐ Deny ☒ Allow

Protocol: Rule Action ☒ Deny ☐ Allow

Source IP Address: Subnet Mask: Port:

Destination IP Address: Subnet Mask: Port:

Current Filter Table:

Select	Protocol	Source IP Address	Source Port	Destination IP Address	Destination Port	Rule Action
☐						

3.4.2 MAC Filtering

The screenshot shows the HSGQ web interface for MAC Filtering. The left sidebar has a menu with 'IP/Port Filtering', 'MAC Filtering' (selected), and 'ACL'. The main content area has a top navigation bar with 'Status', 'WAN', 'LAN', 'Firewall' (selected), 'Advance', 'IPv6', 'Diagnostics', 'Admin', and 'Statistics'. Below the navigation bar, the 'MAC Filtering' section is titled. It contains a description: 'Entries in this table are used to restrict certain types of data packets from your local network to Internet through the Gateway. Use of such filters can be helpful in securing or restricting your local network.' Below the description, there is a 'Mode' section with radio buttons for 'Whitelist' and 'BlackList' (selected), and an 'Apply Changes' button. Below that is a 'MAC Address' input field with an 'Add' button. At the bottom, there is a 'Current Filter Table' section with a table header 'Select' and 'MAC Address', and buttons for 'Delete Selected' and 'Delete All'.

3.4.3 ACL

This page is used to configure the IP Address for Access Control List.

The screenshot shows the HSGQ web interface for ACL Configuration. The left sidebar has a menu with 'IP/Port Filtering', 'MAC Filtering', and 'ACL' (selected). The main content area has a top navigation bar with 'Status', 'WAN', 'LAN', 'Firewall', 'Advance' (selected), 'IPv6', 'Diagnostics', 'Admin', and 'Statistics'. Below the navigation bar, the 'ACL Configuration' section is titled. It contains a description: 'This page is used to configure the IP Address for Access Control List. If ACL is enabled, only the IP address in the ACL Table can access CPE. Here you can add/delete the IP Address.' Below the description, there is an 'ACL Capability' section with radio buttons for 'Disable' (selected) and 'Enable', and an 'Apply Changes' button. Below that is an 'Enable' section with a checked checkbox. Below that is an 'Interface' section with a dropdown menu showing 'LAN'. Below that is an 'IP Address' input field. Below that is a 'Subnet Mask' input field. Below that is a 'ServiceName' section with a table of services: 'Any' (unchecked), 'HTTP' (unchecked), and 'PING' (checked). Below the table is an 'Add' button. At the bottom, there is an 'ACL Table' section with a table header 'Select', 'State', 'Interface', 'IP Address', 'Services', and 'Port', and a 'Delete Selected' button.

3.5 Advance

The advanced page includes Port Forwarding, DMZ, Routing, RIP settings, and Time zone

Port Forwarding

Entries in this table allow you to automatically redirect common network services to a specific machine behind the NAT firewall. These settings are only necessary if you wish to host some sort of server like a web server or mail server on the private local network behind your Gateway's NAT firewall.

Port Forwarding: ☒ Disable ☐ Enable

Enable ☒ **Application:** Active Worlds

Comment	Local IP	Local Port from	Local Port to	Protocol	Remote Port from	Remote Port to	Interface
				Both			Any
				Both			Any
				Both			Any
				Both			Any
				Both			Any
				Both			Any
				Both			Any
				Both			Any
				Both			Any
				Both			Any
				Both			Any
				Both			Any
				Both			Any
				Both			Any
				Both			Any

Current Port Forwarding Table:

Select	Local Comment	IP Address	Protocol	Local Port	Enable	Remote Host	Public Port	Interface

3.6 IPv6

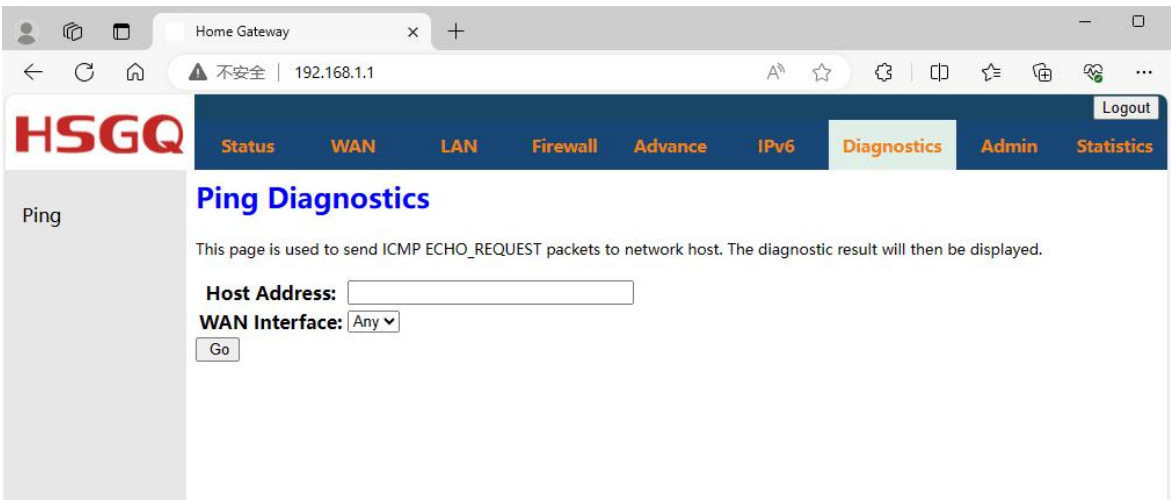
The IPv6 page includes IPv6, RADVD , DHCPv6 settings, IPv6 routing and IP/Port filtering.

IPv6Configuration

This page be used to configure IPv6 enable/disable

IPv6: ☐ Disable ☒ Enable

3.7Diagnostics

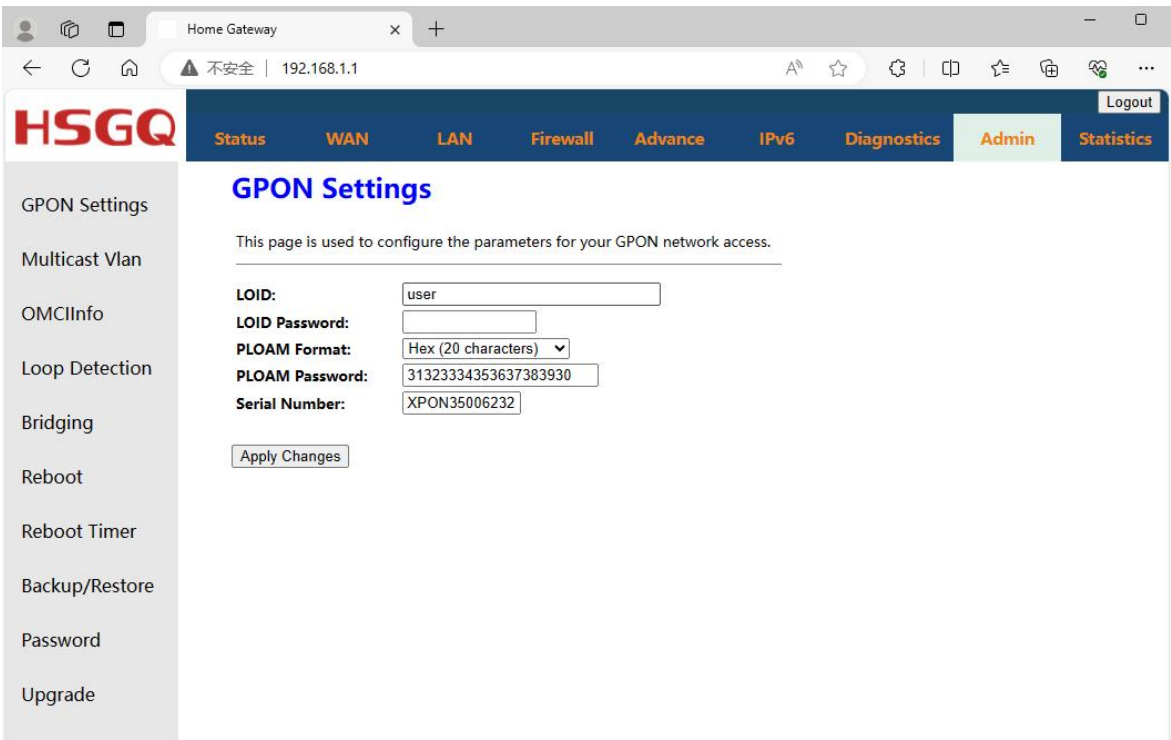


3.8Admin

The admin page includes GPON settings, Multicast Vlan, OMCI Information, Loop Detection, Bridging, Reboot, Reboot Timer, Backup/Restore, Password, Upgrade

3.8.1 GPON Settings

On the current page, you can view the GPON registration SN and modify the LOID, LOID password, and PLOAM password.



3.8.2 Multicast Vlan

The current page can set multicast VLAN for the corresponding WAN connection.

The screenshot shows the HSGQ Home Gateway web interface. The browser address bar displays 'Home Gateway' and the IP address '192.168.1.1'. The interface has a top navigation bar with tabs: Status, WAN, LAN, Firewall, Advance, IPv6, Diagnostics, Admin (selected), and Statistics. A 'Logout' button is in the top right. On the left is a sidebar menu with options: GPON Settings, Multicast Vlan (selected), OMCIInfo, Loop Detection, Bridging, Reboot, Reboot Timer, Backup/Restore, Password, and Upgrade. The main content area is titled 'Setup Multicast Vlan (empty means not to setup)' and contains a table with three columns: Interface, Multicast Vlan, and Modify.

Interface	Multicast Vlan	Modify
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3.8.3 OMCI Information

Can view the OMCI version number (primary partition and backup partition), OMCC version, GPON device ID, hardware version, and supports modifying the manufacturer ID.

The screenshot shows the HSGQ Home Gateway web interface with the 'OMCIInfo' page selected. The browser address bar shows 'Home Gateway' and '192.168.1.1'. The top navigation bar and sidebar menu are the same as in the previous screenshot. The main content area is titled 'OMCIInfo' and contains a form with the following fields and values:

OMCI Vendor ID	HSGQ
OMCI software version 1	V1.0.3-231205
OMCI software version 2	V5.2.6-240320
OMCC version	0x80
Traffic Managment option	2
CWMP Product Class	HSGQ
HW version	01A3B1

Below the form is an 'Apply Changes' button.

3.8.4 Loop Detection

Save current configuration and restart This page is used to configure loop detection parameters.

Diagnostics -- Loop Detection

This page is used to configure loop detection parameters. Here you can change the settings or view loop detection status.

Loop Detection Enable: ☒

Detection Interval: (1~60)seconds

Recovery Interval: (10 ~ 1800)seconds

EtherType:

VLAN ID:

separate by ",", 0 represents untagged, ex. 0,45,46

Loop DetectionStatus

Lan Port	Status
LAN1	No Loop
LAN2	No Loop

3.8.5 Bridging

This page is used to configure the bridge parameters.

BridgingConfiguration

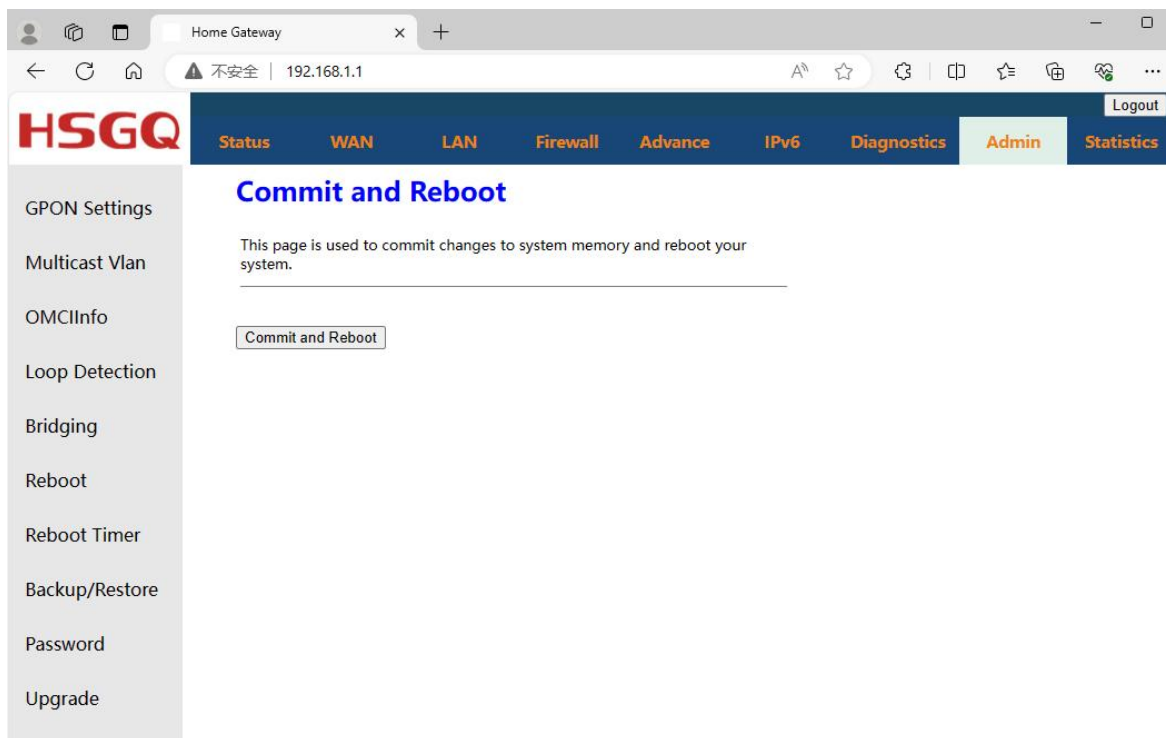
This page is used to configure the bridge parameters. Here you can change the settings or view some information on the bridge and its attached ports.

Ageing Time: (seconds)

802.1d Spanning Tree: ☒ Disabled ☐ Enabled

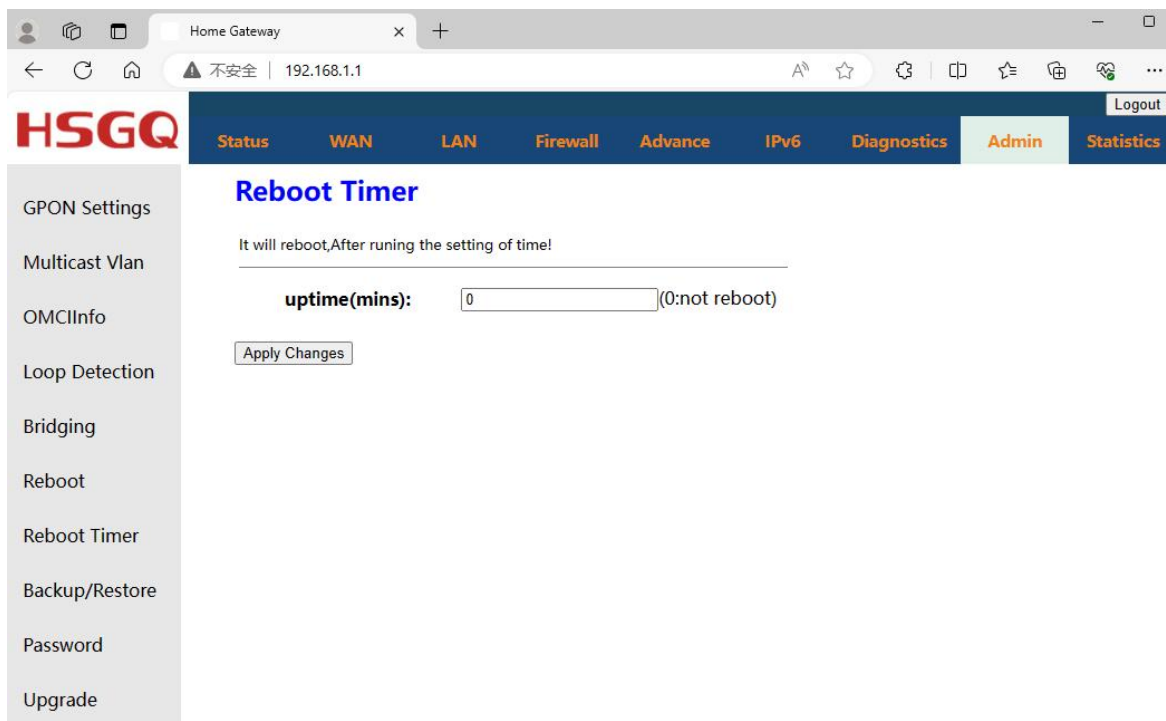
3.8.6 Reboot

On this page, you can save the current configuration and restart the device



3.8.7 Reboot Timer

Set device restart time



3.8.8 Backup/Restore

- ①Backup Settings to file: Back up and export the configuration document of the device.
- ②Restore Settings from file: Import profile restore configuration
- ③Reset Settings to default : Restore ONU to factory default configuration

The screenshot shows a web browser window with the URL 192.168.1.1. The page title is "Home Gateway". The main navigation bar includes "Status", "WAN", "LAN", "Firewall", "Advance", "IPv6", "Diagnostics", "Admin", and "Statistics". The "Admin" tab is selected. On the left sidebar, the "Backup/Restore" option is highlighted. The main content area is titled "Backup and Restore Settings". It contains a description: "This page allows you to backup current settings to a file or restore the settings from the file which was saved previously. Besides, you could reset the current settings to factory default." Below this, there are three sections: "Backup Settings to File:" with a "Backup..." button; "Restore Settings from File:" with a "选择文件" (Select File) button, a "未选择文件" (File not selected) status, and a "Restore" button; and "Reset Settings to Default:" with a "Reset" button.

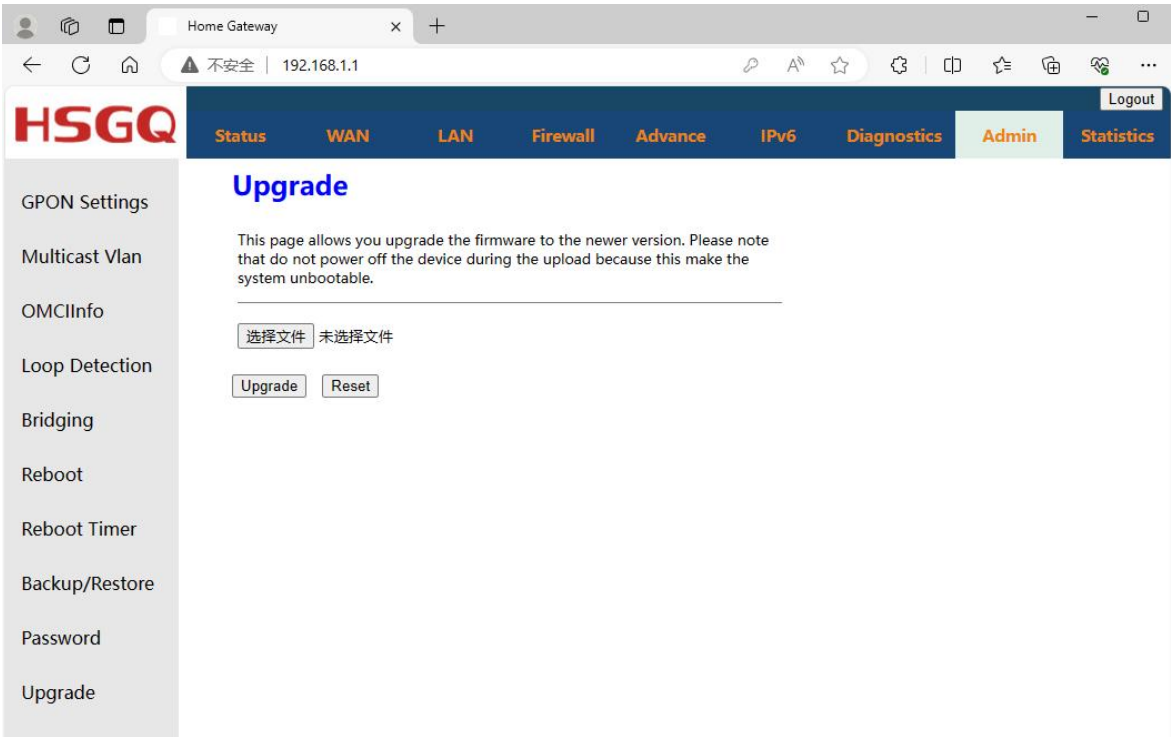
3.8.9 Password

you can modify the user and password of super administrators and regular users

The screenshot shows a web browser window with the URL 192.168.1.1. The page title is "Home Gateway". The main navigation bar includes "Status", "WAN", "LAN", "Firewall", "Advance", "IPv6", "Diagnostics", "Admin", and "Statistics". The "Admin" tab is selected. On the left sidebar, the "Password" option is highlighted. The main content area is titled "Password Configuration". It contains a description: "This page is used to set the account to access the web server of your Device. Empty user name and password will disable the protection." Below this, there are four input fields: "UserName:" with a dropdown menu showing "admin", "Old Password:", "New Password:", and "Confirmed Password:". At the bottom, there are two buttons: "Apply Changes" and "Reset".

3.8.10 Upgrade

Only supports firmware version upgrades provided by our company's R&D/business



3.9Statistics

The statistics page contains LAN, WLAN, and PON port statistics.

