

A solid teal circle.

XGS-SFP-ONT-MAC-I Configuration Guide

1. Preparation Work

The following equipment needs to be prepared in advance to ensure the smooth progress of subsequent configurations:

- (1) Computer (for logging into the management interface), network cable (for connection between devices);
- (2) Switches or routers supporting 10G optical ports (for networking).

2. Connect XGSPON ONU Stick

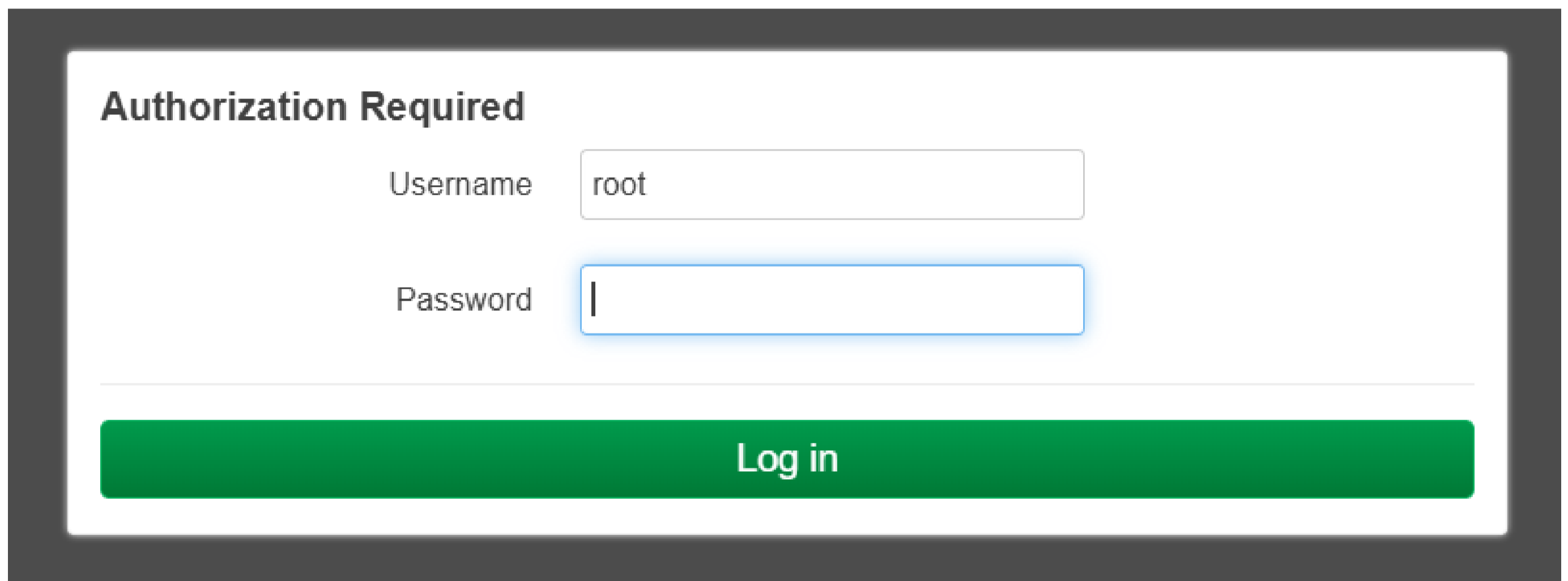
2.1 Networking and IP Settings

Connect the computer's network cable and the XGSPON ONU Stick SFP + to the switch respectively, then set the computer's IP address to the same subnet as the XGSPON ONU Stick SFP+, for example: 192.168.101.2.

2.2 Logging into the Web Management Interface

Open a web browser, enter the management IP address of the XGSPON ONU Stick SFP+ in the address bar: 192.168.101.1.

The password is root. Simply click "Log in" to enter the interface.



Authorization Required

Username

Password

Log in

3. Set the password for XGSPON ONU Stick SFP +

After logging into the management interface, navigate through the menu path: System → Administration. Set a custom password on this page, and please keep it safely after setting to avoid forgetting.

4. Instructions for Web interface configuration

4.1 Configure PON

Navigate through the menu path: Configuration → PON Configuration. Enter the PON serial number, then click "Save&Apply" to take effect.

The PON serial number (ONT ID) is the unique serial number of the device, in the format of "4 alphanumeric characters + 8 hexadecimal characters", and is one of the core authentication parameters.

prx126-sfp-pon Status System Configuration Log out


No password set!
There is no password set on this router. Please configure a root password to protect the web interface.

PON Network Configuration

Configure PON settings such as SN and Password.

PON Settings

First PON Serial Number (ONT ID)

 GPON Serial Number sent to the OLT in various MEs (4 alphanumeric characters, followed by 8 hex digits).

Save & Apply Save Reset

Each editing page has three buttons: "Save&Apply", "Save", and "Reset", each with different functions.

□ Save&Apply: Save and apply, the modified configuration takes effect immediately.

□ Save: Save to the temporary configuration file.





□ Reset: After entering parameters, if the "Save&Apply" and "Save" operations have not been performed, the initial parameters can be restored.

When you modify or add a parameter and perform the "Save" operation, an indicator "UNSAVED CHANGES: x" will appear at the top right of the page. Clicking this indicator will display your modification records. Clicking the "Save&Apply" button will take effect immediately, and clicking the "Reset" button will restore the initial settings. Choose the appropriate operation according to your actual needs.

prx126-sfp-pon Status System Configuration Log out UNSAVED CHANGES: 1

Configuration / Changes

Legend:

-  Section added
-  Section removed
-  Option changed
-  Option removed

/etc/config/gpon

```
uci set gpon.ploam.nSerial='WSTX25082809'
```

Close Save & Apply Revert

Save & Apply Save Reset

4.2 Configure OMCI

Navigate via the menu path: Configuration → OMCI Configuration.

No password set!

There is no password set on this router. Please configure a root password to protect the web interface.

OMCI Configuration

Configure OMCI settings such as loid and password.

OMCI Settings

Logical ONU ID

[?](#) Logical ONU ID presented in the ONU-G ME [256] (up to 24 characters).

Logical ONU Password

[?](#) Logical password presented in the ONU-G ME [256] (up to 24 characters).

Save & Apply

Save

Reset

Enter parameters such as Logic ONU ID and Logic ONU Password, then click "Save&Apply" to take effect.

The authentication configuration is set according to the corresponding settings of the OLT device.

4.3 Configure Management MAC and IP

Navigate through the menu path: Configuration→ Management to enter the management configuration page.

No password set!

There is no password set on this router. Please configure a root password to protect the web interface.

Management Configuration

Configure the management network settings for the ONU device.

LCT Settings

IP Address

[?](#) Management IP address. Defaults to 192.168.101.1

Subnet Mask

[?](#) Management subnet mask. Defaults to 255.255.255.0

Gateway

[?](#) Management gateway. Defaults to the IP address (ie. no default gateway)

LCT MAC Address

[?](#) MAC address of the LCT management interface (XX:XX:XX:XX:XX:XX format).

Save & Apply

Save

Reset

Key parameter settings:

□ Management IP address: The default setting is 192.168.101.1;

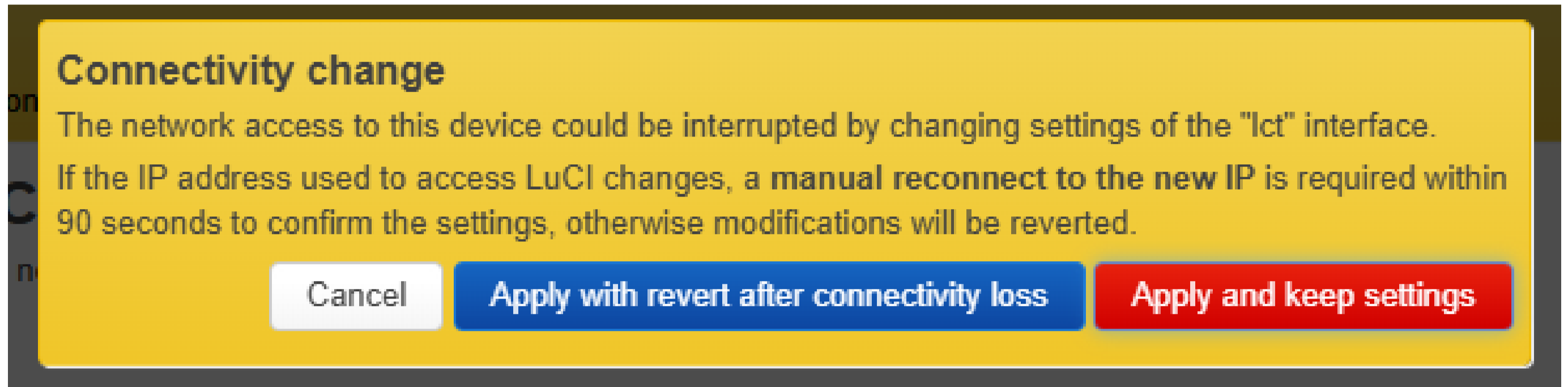
□ Management subnet mask: The default setting is 255.255.255.0;

□ Management gateway: Automatically assigned when left blank or set to the default management IP address;

□ LCT MAC address: Device management MAC (as in the example);

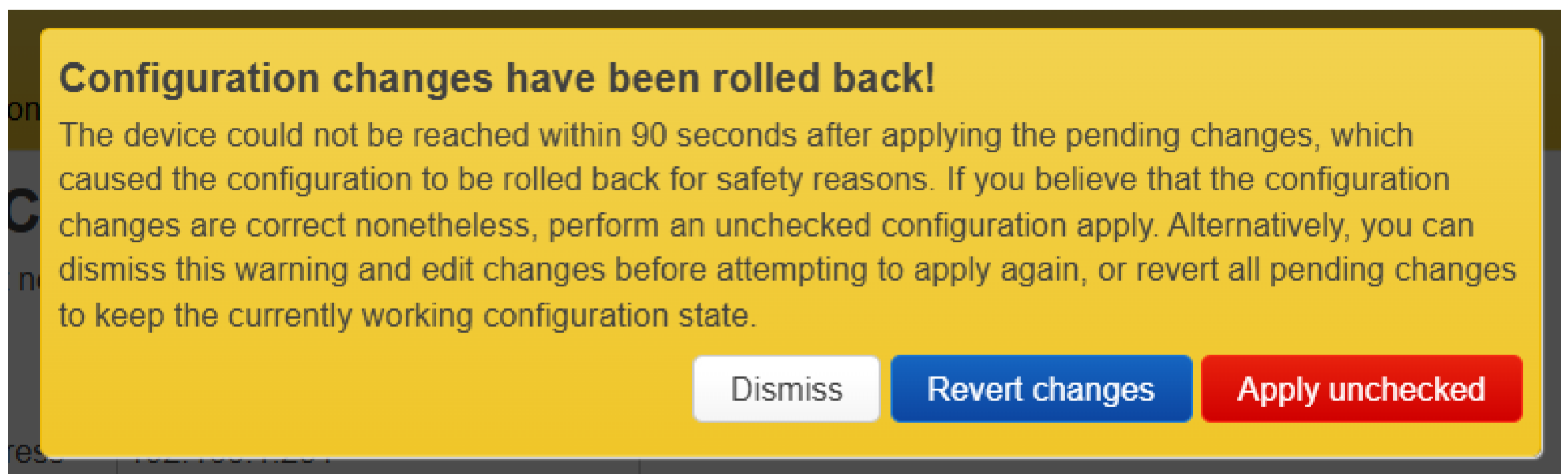
Modifying IP address settings:

Enter the IP address to be modified, then select the "Save & Apply" button. When the following dialog box appears, select the blue "Apply with revert after connectivity loss" button. Then, in the address bar of the browser, enter the new management IP address. If there is no response within 90 seconds, the system will revert to the previous management IP address. You can also select the red "Apply and keep settings" button to directly apply the modifications without retaining the rollback mechanism.



Note:

1. After modifying the IP, you need to record the new address to avoid being unable to log in later. If you forget the modified IP, you need to troubleshoot again using the default IP (192.168.101.1).
2. After modifying the IP, the network will be temporarily interrupted, and the address of the current page will become invalid. Please enter the latest IP address in the browser's address bar to access. If there is no operation within 90 seconds, the following prompt may appear on the page. Please select "Dismiss" to close the dialog box. The blue "Revert changes" button is to restore the configuration to the state before modification, and the red "Apply unchecked" button is to directly apply the modified configuration without checking.



3. After modifying the MAC address, it will take some time for the switch to learn the MAC address change, and the network will be interrupted for a while. Please try to access again later. Do not unplug this device from the switch at this time to avoid damaging the device.

4.4 Check PON Communication Status

Navigate through the menu path: Configuration → PON Status to enter the communication status of the PON network.

PON Status Information

PON Mode	xgspon
PON PLOAM Status	O1.1, Off-sync state
RX Power	No signal dBm
TX Power	8.16 dBm
TX Bias	61.50 mA
Optic Temperature	53 °C (127.4 °F)
Module Voltage	3.29 V
Transmitter Status	ENABLED

4.5 VLAN Settings

Navigate through the menu path: Configuration → VLAN Configuration to enter the VLAN settings page. After selecting "Enable VLAN", you can enable the VLAN function. In the "VLAN Settings" table, the "VLAN ID" column is the ID number of the VLAN. The "Tag Mode" column has three options: the "Tagged" option will add a VLAN tag to the data packet, the "Untagged" option will remove the VLAN tag from the data packet, and the "Off" option indicates that the rule in this row does not take effect. The "Priority Level" option is the priority of the rule in this row, with smaller values indicating higher priority.

VLAN Configuration

Configure VLAN settings for eth0 interface

Global Settings

Enable VLAN

[?](#) Enable or disable VLAN functionality

VLAN Settings

VLAN ID	Tag Mode	Priority Level	
<input type="text" value="200"/>	<input type="text" value="Tagged"/> ▼	<input type="text" value="20"/>	<input type="button" value="Delete"/>
<input type="button" value="Add"/>			
<input type="button" value="Save & Apply"/> ▼ <input type="button" value="Save"/> <input type="button" value="Reset"/>			

4.6 System Settings

Navigate through the menu path: System → System to enter the system settings page, where you can configure settings such as the system name and current time. Local Time is the current time of the device, and Timezone is the corresponding time zone. After selecting your time zone, click the "Sync with browser" button to synchronize the computer's time to the device. Hostname is the host name of the current device, which can be modified according to your needs.

System

Here you can configure the basic aspects of your device like its hostname or the timezone.

System Properties

General Settings
Logging
Language and Style

Local Time

[Sync with browser](#)

Hostname

Description

🔗 An optional, short description for this device

Notes

🔗 Optional, free-form notes about this device

Timezone

Save & Apply
Save
Reset

4.7 Device Reboot

Navigate through the menu path: System → Reboot to enter the reboot page and perform a restart.

4.8 Firmware Upgrade

Navigate through the menu path: Configuration → Firmware to enter the firmware upgrade page, as shown in the following figure.

The "Firmware Information" table displays the firmware information stored in the current device. By default, there is only one row labeled "Active Firmware," which refers to the firmware version currently in operation.

When upgrading the firmware, select the corresponding firmware file using the "Browse" button, then click the "Upload" button to upload it. Once the file upload progress reaches 100%, the system will perform a firmware verification. If the verification is successful, the message "File uploaded successfully..." will be displayed on the page, and the "Firmware Information" table will show a row for "Inactive Firmware," which contains the information of the newly uploaded firmware. The corresponding Valid column should display "Yes." If it does not show "Yes," it indicates that the uploaded firmware file is invalid and cannot be used for the upgrade.

To confirm the firmware upgrade, select the "Switch and Reboot" button. The system will switch the firmware in the "Inactive Firmware" row to the one that will take effect, then automatically restart. Please wait for approximately 1 minute, refresh the page, and log in again. At this point, the information of the currently used firmware version will be displayed.

Firmware Management

Manage firmware upgrades and file uploads on this page

Firmware Information

Current firmware status and version information

Status	Bank	Version	Valid
Active Firmware	Bank A	1.23.11.17A	Yes
Inactive Firmware	Bank B	1.23.11.17	Yes

Firmware Upgrade

Select New Firmware File To Upload

No file selected

NOTE: During the process of uploading the firmware file and upgrading the firmware, do not power off or directly unplug the ONU Stick device to avoid damaging the device.

5. SSH Login Configuration Instructions

In addition to using the Web interface for configuration, you can also log in to the XGSPON ONU Stick SFP + device via SSH for configuration.

Use an SSH tool software to log in to 192.168.101.1, port 22, username root, no password.

5.1 Configure PON

Assuming you need to set the PON serial number to WSTX25082101, enter the following command:

```
uci set gpon.ploam.nSerial=WSTX25082101
```

```
uci commit
```

```
sync
```

5.2 Configure OMCI

Assuming you need to set the OMCI Logic ONU ID to loidWSTX25082101 and the Logic ONU Password to password, enter the following command

```
uci set omci.default.loid='loidWSTX25082101'
```

```
uci set omci.default.lpwd='password'
```

```
uci commit
```

```
sync
```

5.3 Configure Management IP

Assuming you need to set the device's management IP address to 192.168.101.2

```
uci set network.lct.ipaddr=192.168.101.2
```

```
uci commit
```

```
Sync
```

5.4 Configure the Device's MAC Address

Read the device's MAC address:

```
uci get network.lct.macaddr
```

Assuming you need to set the device's MAC address to 00:e0:92:00:01:40

```
uci set network.lct.macaddr="00:e0:92:00:01:40"
```

```
uci commit
```

```
Sync
```

5.5 Device Reboot

Enter the reboot command to restart the device.

5.6 Forced Light Emission Test

If you need the device to perform a light emission test, you can follow the operation commands below.

```
#Turn on light emission
```

```
pon debug_test_pattern_cfg_set 8 8 0 0 0
```

```
pon debug_test_pattern_enable 3 0
```

```
#Stop light emission
```

```
pon debug_test_pattern_disable
```



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