

HDV 海荻威光电科技有限公司 FIBER HDV Photoelectron Technology Co.,LTD		图号 AI20230517-1	料号
客户 HDV (中性)	版本 A0	图例	1:1
尺寸 单页100*142mm,展开500*142mm	材质 80g双胶纸		
工艺 双面五折页	应用产品 9607C双频ONU		
备注 文本清晰, 无断笔, 无污迹			

142.0 mm

500.0 mm

XPON AC ONU User Manual

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XPON AC ONU User Manual
Please read before using the ONU

Chapter 1: Overview

1.1 Product Description
The XPON AC ONU is designed as ONU (Home Gateway Unit) in different FTTH solutions. The carrier-class FTTH application provides data service access USB storage, VoIP and CATV service. The ONU is based on mature and stable, cost-effective EPON technology. It can switch automatically with EPON and GPON when it access to the EPON OLT or GPON OLT. The ONU adopts high reliability, easy management, configuration flexibility and good quality of service (QoS) guarantees to meet the technical performance of the module of China Telecom EPON CT13.3 and GPON Standard ITU-TG.84.4. And the ONU is designed by Realtek chipset 9607C.

1.2 Product Feature and model list

XPON ONU Model	Feature	XPON ONU Model	Feature
HUR4011XR	• 4GE • POTS • USB • 2.485GWIFI	HUR4106XR	• 2GE • CATV • POTS • 2.485GWIFI
HUR4022XR	• 4GE • 2.485GWIFI	HUR4107X	• 4GE
HUR4101XR	• 4GE • CATV • POTS • USB • 2.485GWIFI	HUR4108X	• 4GE • CATV
HUR4102XR	• 4GE • CATV • POTS • USB • 2.485GWIFI	HUR4109XR	• 2GE • POTS • 2.485GWIFI
HUR4103XR	• 4GE • CATV • USB • 2.485GWIFI	HUR4110XR	• 2GE • 2.485GWIFI
HUR4104XR	• 4GE • CATV • USB • 2.485GWIFI	HUR4111XR	• 2GE • CATV • 2.485GWIFI
HUR4105XR	• 2GE • CATV • 2.485GWIFI	HUR4112XR	• 2GE • CATV • 2.485GWIFI

Table 1: Model List

◆ Notes: All schematic drawings in the document may be different from the real products. These differences will not affect the product functions.

1.3 Characteristics
HUR4011XR-HUR412XR:
• Support EPON/GPON mode and switch mode automatically
• Support Route mode for PPPoE/PPPoE/Static IP and Bridge Mode
• Support IEEE 802.11b/g/n/a/WiFi (4G and 5G)
• Support CATV interface for Video Service

- Support SIP protocol for VoIP Service(Optional)
- Support TR069 remote configuration and maintenance
- Specialized design for system breakdown prevention to maintain stable system

- Fiber: Connect to the Internet through GPON/EPON OLT
- LAN: Provide Ethernet port. Ethernet devices can be connected directly to the LAN port, so as to achieve Internet service.
- FXS: Provide VoIP interface (Phone interface). The telephone can be connected through this interface.
- WiFi: User can connect WiFi to surf the internet both 2.4G and 5G.
- USB: Provide connection for external usb storage device

1.4 Technical Parameters

Technical Item	Details
PON Interface	• GPON BnB(Class B+Class C+) Receiving sensitivity: -27dBm/-29dBm Transmitting optical power: 0.5~+5dBm/+2~+7dBm Transmission distance: 20km
Wavelength	TX: 1310nm, RX: 1490nm
Optical Interface	• SFP/SFP+ Connector • FXS, RJ11 connectors
POTS Interface	Support 0.711G, 723G, 726G, 729 code Support 7.207, 38.7, 71.1 kPa mode, DTMF Relay
LAN Interface	2x4* 1G/100/100Mbps auto adaptive Ethernet interfaces. Full/Malf. RJ45 connector
USB Interface	Standard USB 2.0 Compliant with IEEE802.11a/g/n/ac 2.4GHz Operating Frequency: 2.400-2.483GHz 5GHz Operating Frequency: 5.150-5.825GHz Support MMIO, Rate up to 300Mbps, Support MMIO, rate up to 867Mbps 2T2R, 2 external antenna 5dBi
Wireless	Support multiple SSID Channel Auto Modulation type: DSSS, CCK and OFDM TX power: 11m~22dBm/11m~24dBm
CATV Interface	WDM, RF frequency range: 47~1000MHz, Receiving wavelength: 1550s 15m AGC range: -13~+18dBm, RF output level: 78dBuV, MER: 32dB @ -15dBm
Push Button	2 For Function of Reset, WLAN
Operating Condition	Temperature: 0°C~40°C Humidity: 10%~90% (non-condensing)
Storage Condition	Temperature: -20°C~60°C Humidity: 10%~90% (non-condensing)
Power Supply	DC 12V/1A

Power Consumption	≤10W
Dimension	250mm*165mm*30mm&180mm*128mm*29mm (L*W*H)
Net Weight	≤0.300kg

Table 2: Technical parameters

1.5 Panel LED Description

LED	Status	Description
POWER	On	The device is powered up.
	Off	The device is powered down.
PON	On	The device has registered to the PON system.
	Blink	The device is registering the PON system.
LOS	Blink	The device does not receive optical signals.
	Off	The device has received optical signal.
WiFi 2.4G	On	The WiFi interface is up.
	Blink	The WiFi interface is sending or/and receiving data (ACT).
WiFi 5G	On	The WiFi interface is down.
	Off	The WiFi interface is up.
FXS	Blink	The WiFi interface is sending or/and receiving data (ACT).
	Off	Phone registration is incorrect.
LAN1~LAN4	On	Phone has registered and data transmission (ACT).
	Blink	Phone registration is incorrect.
WDM	On	Ethernet connected properly (LINK).
	Blink	Ethernet is sending or/and receiving data (ACT).
Normal (CATV)	Off	Ethernet connection exception or not connected.
	On	Input optical power is higher than 30dbm or lower than -15dbm
WDM	Off	Input optical power is between -15dbm and 30dbm
	On	Input optical power is between -15dbm and 30dbm
Normal (CATV)	Off	Input optical power is higher than 30dbm or lower than -15dbm
	On	Input optical power is higher than 30dbm or lower than -15dbm

Table 3: LED Description

1.6 Packing List

After opening the product packaging, please carefully check the items in the following table. If there are inconsistent with the reality, please contact the supplier.

Contents	Quantity
ONU	1pcs
Power adapter	1pcs
User manual	1pcs

Table 4: Packing List

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Chapter 2: Installation

2.1 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:
2.1.1. 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.
• Avoid the device enough space for heat dissipation.
• Do not place objects on the device.
2.1.2. Mounted on the wall
• Observation ONU equipment chassis two cruciform recess, in accordance with the position of the groove, instead two screws in the wall.
• 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 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 put 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.
2.3 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 0°C~50°C, humidity 10% to 90%.
• Electromagnetic Environment
• ONU equipment in use can be affected by external electromagnetic interference, 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 interface from power equipment.
• User cable typically require alignment indoors if outdoor lightning traces measures should.
2.4 Cable Connection

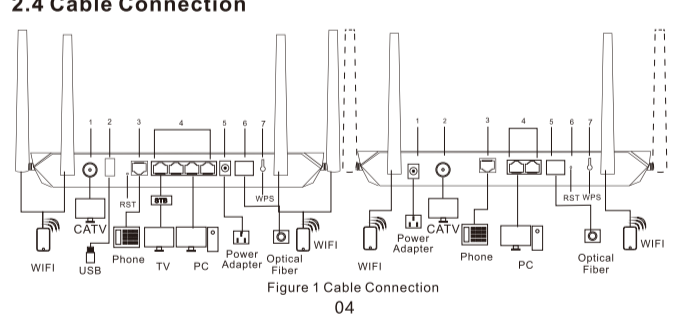


Figure 1 Cable Connection

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Chapter 3: Web Management

AC ONU provides simple Web management functions, including Device Information, LAN/WLAN/WAN Settings, Commit/Reboot, Backup/Restore/Firmware upgrade, CATV, etc.

3.1 Login Webpage
Open browser with 192.168.1.1 and input administrator

Figure 2 Web login

◆ Notes: About WEB login information, please see the label at the bottom.

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3.2 Basic Configuration
Device status Menu displays the current device basic information including Device Name, Firmware Version, Mac address, LAN/WAN Configuration.
Note: All the device information may be changed, the actual device shall prevail.



Figure 3 Device Information

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PON WAN Menu allows users to add/delete/modify WAN connections according to local network application.

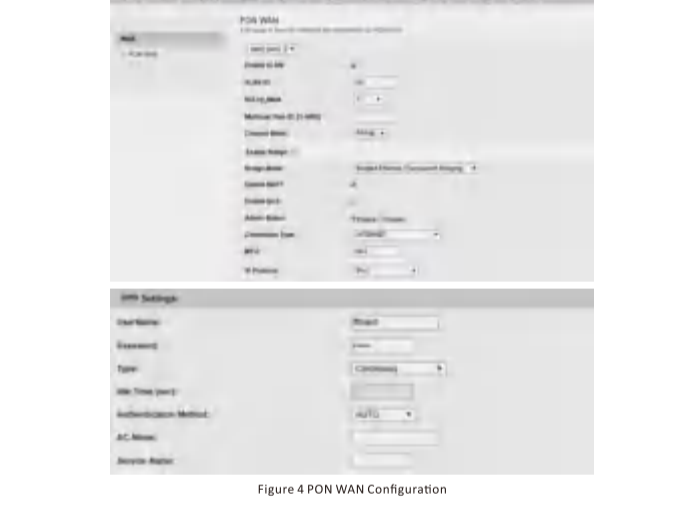


Figure 4 PON WAN Configuration

WLAN Configuration Menu displays the current device WiFi basic information, including SSID Name, SSID Enable, WiFi Encryption, etc... User could modify the SSID Name and Password.
Note: After modify WLAN configuration, users usually don't need to reboot, just take a while for WLAN configuration to take effect.



Figure 5 WLAN Configuration

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Commit and Reboot Menu allows users to save the configuration and reboot the device.

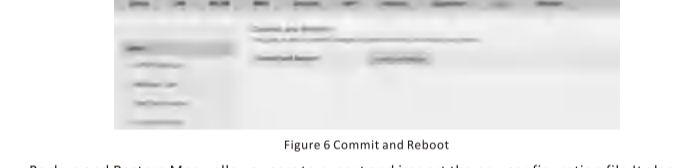


Figure 6 Commit and Reboot

Backup and Restore Menu allows users to export and import the onu configuration file. It also supports to make the device factory reset if user click "Reset" button.
Note: About RST button, please press RST button over 10 seconds and then release button, after that the device would reboot.



Figure 7 Backup and Restore

Firmware Upgrade Menu allows users to update the software of the device. Please click the "Choose File" button to select the firmware and then click the "Upgrade" button to update.
Note:
1. Please do not power off during the upgrade process.
2. The process of Upgrade will take 2-3 minutes.



Figure 8 Firmware Upgrade

CATV Menu allows displays the current CATV information, it allows user to set the Output level Attenuation and RF Switch status.

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Figure 9 CATV Information

Chapter 4: Troubleshooting

1. After power, why are all the lights bright?
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.
3. Why does Led of LAN not light?
Reasons:
1) Network cable is damaged or loose connection.
2) Cable type errors.
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.
2) Why does Led of LOS always bright?
Reasons:
1) Fiber failure.
2) Central office equipment failure.
Solution:
1) Inspect fiber is connected properly.
2) Contact your operator.
4. Why does led of Pon flashes instead of always on?
Reasons:
1) Fiber optic connector is loose.
2) Central office equipment failure.
3) Fiber optic connector is dust.
Solution:
1) Inspect fiber is connected properly.
2) Cotton ball with alcohol swabbing fiber optic connectors.
3) Contact your operator.
5. Why does ONU stop working after working for a long time?
Reasons:
1) Power supply is not working properly.
2) The equipment from overheating.
Solution:
1) Check if there is contact with abnormal voltage, is high or too low.
2) Check if the ambient conditions, vents are normal ventilation.
3) Contact your operator.

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