HDV FIBER 海荻威光电科技有限公司 HDV Photoelectron Technology Co.,LTD		图号	AI20220420-2	料号	
客户	HDV（中性）	版本	A1	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				

500.0 mm

142.0 mm

XPON AC ONU User Manual

Please read before using the ONU

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Chapter 1: Overview

1.1 ProductDescription

The xpon AC onu is designed as HGU (Home Gateway Unit) in deferent FTTH solutions , The carrier-class FTTH application provides data service access USB storage、 VoIP and CATV services.The onu is based on mature and stable, cost-effective XPON 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 CTC3.0 and GPON Standard of ITU-TG.984.X. And the onu is designed by Realtek chipset 9607C.

1.2 Product Feature and model list

ONU Model	HUR4101XR	HUR4102XR	HUR4103XR	HUR4104XR	HUR4001XR	HUR4002XR	HUR4105XR	HUR4106XR
Feature	4GE USB CATV POTS 2.4&5GWIFI	4GE CATV POTS 2.4&5GWIFI	4GE USB CATV 2.4&5GWIFI	4GE CATV 2.4&5GWIFI	4GE USB POTS AC WIFI	4GE AC WIFI	2GE CATV 2.4&5GWIFI	2GE CATV 2.4&5GWIFI POTS

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

HUR4101XR-HUR4106XR

- Support EPON/GPON mode and switch mode automatically
- Support Route mode for PPPoE/IPoE/Static IP and Bridge Mode
- Support 802.11b/g/n/ac WIFI(2.4G 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

HUR4001XR - HUR4002XR:

- 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	1GPON BoB(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	SC/UPC&APC Connector(optional)
POTS Interface	1 FXS: RJ11 connectors
	Support: G.711/G.723/G.726/G.729 codec
	Support: T.30/T.38/G.711 Fax mode, DTMF Relay
	Line testing according to GR-909

LAN Interface	2&4*10/100/1000Mbpsautoadaptive Ethernet interfaces.Full/Half,RJ45 connector connector
USB Interface	Standard USB2.0
Wireless	Compliant with IEEE802.11b/g/n/ac
	2.4GHz Operating frequency: 2.400-2.483GHz
	5GHz Operating frequency: 5.150-5.825GHz
	Support MIMO, Rate up to 300Mbps,Support MIMO, rate up to 867Mbps
	2T2R,2 external antenna 5dBi
	Support: multiple SSID
	Channel: Auto
	Modulation type: DSSS, CCK and OFDM
	TX power: 11n--22dBm/11ac--24dBm
CATV Interface	WDM, RF frequency range: 47~1000MHz，Receiving wavelength: 1550±10nm
	AGC range: -13~+1dBm，RF output level: 78dBuV，MER: ≥32dB@-15dBm
Push-Button	2,For Function of Reset，WLAN
Operating Condition	Temperature: 0℃~+50℃
	Humidity: 10%~90% （non-condensing）
Storing Condition	Temperature: -30℃~+60℃
	Humidity: 10%~90% （non-condensing）
Power Supply	DC 12V/1A.
Power Consumption	≤10W
Dimension	250+220+30mm / 290*220*40mm(L x W x 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.
	Off	The device registration is incorrect.
LOS	Blink	The device doses 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).
	Off	The WIFI interface is down.
WIFI 5G	On	The WIFI interface is up.
	Blink	The WIFI interface is sending or/and receiving data (ACT).
	Off	The WIFI interface is down.
FXS	On	Phone has registered to the SIP Server.
	Blink	Phone has registered and data transmission (ACT).
	Off	Phone registration is incorrect.

Table3 ：Panel lights on

LAN1~LAN4	On	Ethernet connected properly (LINK).
	Blink	Ethernet is sending or/and receiving data (ACT).
	Off	Ethernet connection exception or not connected.
Worn (CATV)	On	Input optical power is higher than 3dbm or lower than -15dbm
	Off	Input optical power is between -15dbm and 3dbm
Normal (CATV)	On	Input optical power is between -15dbm and 3dbm
	Off	Input optical power is higher than 3dbm or lower than -15dbm

1.6Packing List

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

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

Table 4:Packing List

Chapter2: Installation

2.1Equipment 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.
- Around 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 interf:ces, 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 lighting traces measures should.

2.4 Cable Connection

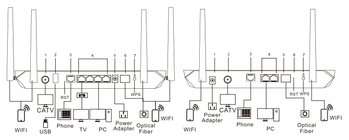

Figure 1 Cable Connection

Chapter3: 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 admin/admin

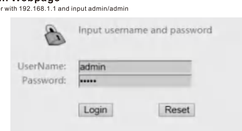

Figure 2 Web login

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

3.2 Basic Configuration

Device status Menu displays the current device base 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

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.

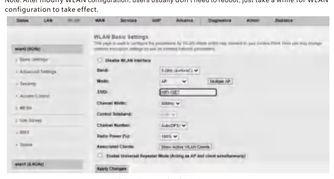

Figure 5 WLAN Configuration

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 and Upgrade

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

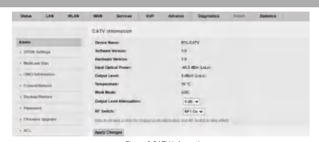

Figure 9 CATV Information

Chapter4: 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.

2. 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.

3.Why is LED of LOS always bright?

Reasons:

1) Fiber failure;

2) Center office equipment failure.

Solution:

1) Inspect fiber is connected property, is connected to the correct connector, optical power is normal;

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 property;

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 too high or too low;

2) Check the ambient conditions, vents are nominal ventilation.

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