

RH802GW-AX3H

GPON ONU Specifications

Version	Date	Author	Reviewers	Remark
V1.0	2023/6/28			Shall not disclose to any third party

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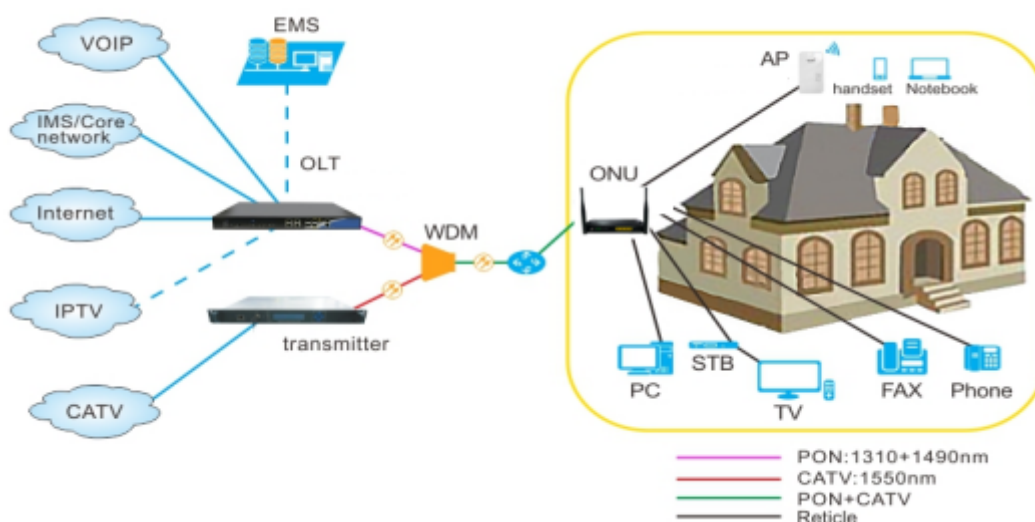
1.OVERVIEW

1.1 Product Positioning

RH802GW-AX3H terminal devices are designed for fulfilling FTTH and triple play service demand of fixed network operators or cable operators. The box is based on the mature Gigabit GPON technology, which have high ratio of performance to price. The device supports multi WAN connection of bridge or route, IPv4 and IPv6 protocol stack, multicast protocol, QoS and firewall function, easy Mesh function and TR069 management protocol. The device adopts the latest 802.11ax WiFi 6 technology standard and is compatible with 802.11ac/b/g/n , support 3000Mbps connecting rate. They are Large transmission capacity and fast speed, highly reliable and easy to maintain, with guaranteed QoS for different service. And It is fully compliant with technical regulations such as ITU-T G.984.x .

1.2 Network Mode

RH802GW-AX3H is the FTTH mode terminal equipment which designed for indoor applications. Specific application refers to Picture 1-1



Picture 1-1 RH802GW-AX3H Products Network diagram

2.HARDWARE FEATURES

2.1 Interface of device



Port Type	Function
FIBER	Connect PON port with internet by SC type, single mode optical fiber cable
LAN 2/1	RJ45 Port connects to local internet, 1* GE port and 1*2.5G port
RESET button	Press down reset button and keep 5 seconds to make the device restart and recover from the factory default Settings.
POWER	Connect with power adapter, DC 12V
ON/OFF button	Power turn on/off

2.2 Indicators of device

Table 2-2 RH802GW-AX3H LED statement

Indicators	status	Description
POWER	Light on	ONU power supply normally
	Light off	ONU no power supply

LOS	Blink	Received optical power is lower than the sensitivity of the optical receiver.
	Light off	Received optical power is normal
NET	Light on	Internet is effective
	Light off	Internet WAN port is not configured or is not valid
LAN 1-2	Light on	network port linked, but no data transmitting
	Blink	network port data pass
	Light off	ONU no power supply or internet cable unlink
WIFI	Light on	WiFi turn on
	Light off	Device is power off or WiFi turn off
	Blink	WiFi turn on and with ongoing data transmission

3. TECHNICAL SPECIFICATIONS

3.1 Physical structure, Environment and Electrical parameter

Table 3-1 RH802GW-AX3H specification and working environment

Parameter	Nominal
ETH Interface	1*GE+1*2.5GE
Dimension	215mm*200mm*36mm (W*D*H)
Net weight	0.6kg
Typical power consumption	<24W
Noise	None
Cooling style	Naturally cooling
Power supply	12V DC (By external AC/DC adapter)
Installation style	Installed in ceiling
Environment	-5~45℃

3.2 GPON Interface Specifications

Table 3-2 RH802GW-AX3H GPON Interface

Parameter	Nominal
Connector style	SC/UPC (Optional SC/APC)
PON quantity	1
Fiber style	Single mode
Wavelength	TX: 1310 +/-20nm RX: 1490 +/-10nm
PON interface standard	ITU-T G.984.2/ITU-T G.984.3/ITU-TG.988 Class B+

PON interface receiving rate	2.488Gpbs
PON interface transmitting rate	1.244Gpbs
Output optical power	Min: 0.5dBm Max: +5dBm
Opticalreceiver sensitivity	Precede -28dBm
The length of the optical link	Max 20km

3.3 WIFI Specifications

Table 3-3 RH802GW-AX3H WIFI Specifications

Standard	IEEE 802.11 ax/ac/b/g/n
Max Transmission speed	2976Mbps
2.4Ghz Transmission speed	574Mbps
5Ghz Transmission speed	2402Mbps(Support 160MHz bandwidth)
Channel	2.4GHz: 1,2,3,4,5,6,7,8,9,10,11 5GHz: 36,40,44,48, 52, 56, 60, 64, 149,153,157,161
Modulation	11b: DSSS: DBPSK(1Mbps), DQPSK(2Mbps), CCK(5.5/11Mbps) 11a/g: OFDM: BPSK(6/9Mbps), QPSK(12/18Mbps), 16QAM(24/36Mbps), 64QAM(48/ 54Mbps) 11n: MIMO-OFDM: BPSK, QPSK, 16QAM, 64QAM, : MCS0-MCS15 11ac: MIMO-OFDM: BPSK, QPSK, 16QAM, 64QAM, 256QAM Rate Set: MCS0-MCS9 11ax: MIMO-OFDMA: BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM Rate Set: MCS0-MCS11
FEM support	Both 2.4G and 5G come with high-power external FEM
Antenna	built-in 5pcs 3.5dBi 2.4G 2x2 MU-MIMO,5G 3x3 MU-MIMO

3.4 Special function

- Support TR069,NAT,DMZ,DNS features
- Support Multiple ssid
- Support Multiple VLAN
- Support 802.11ax(WIFI6)
- Support MU-MIMO
- Support Easy Mesh
- Support IPV6 ,PPPoE, DHCP and Static IP configuration for WAN Interface
- Support IP, MAC filtering, Firewall Functionality in routed mode
- Support for XPON, adaptive EPON or GPON OLT on the network