DN-HG8431A
XPON ONU Specifications

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1.OVERVIEW

1.1 Product Positioning

DN-HG8431A 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. Support high quality VoIP as well. 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

DN-HG8431A is the FTTH mode terminal equipment which designed for indoor applications. Specific application refers to Picture 1-1

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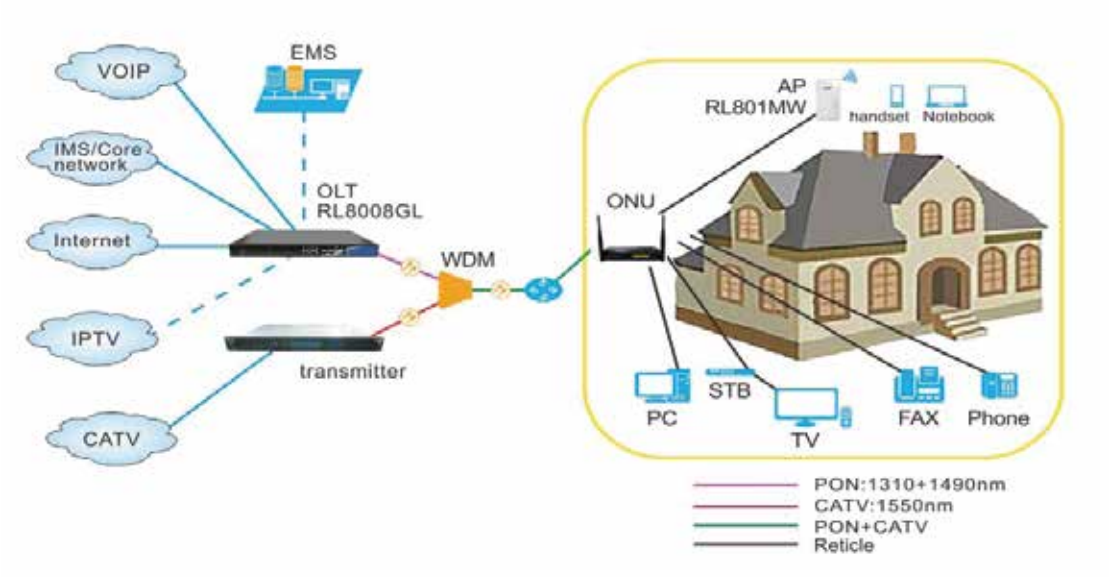

Picture 1-1 DN-HG8431A Products Network diagram

2.Hardware Features

2.1 Interface of device

DN-HG8431A product figure as Picture 2-1

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Table 2-1 Description DN-HG8431A equipment Interface

Port Type	Function
FIBRA	Connect PON port with internet by SC type, single mode optical fiber cable
USB	USB3.0 (USB2.0 optional)
LAN 4/ 3/2/1	RJ45 Port connects to local internet, 4* GE port
FXS	Connect the telephone with FXS port by telephone wire
RESET button	Press down reset button and keep 5 seconds to make the device restart and recover from the factory default Settings.
WPS button	Wireless transmission data encryption and open button
POWER	Connect with power adapter, DC 12V
ON/OFF button	Power turn on/off

2.2 Indicators of device

Table 2-2 DN-HG8431A LED statement

Indicators	status	Description
POWER	Light on	ONU power supply normally
	Light off	ONU no power supply
PON	Light on	ONU gateway registered
	Blink	ONU manage to link
	Light off	ONU not registered
LOS	Blink	Received optical power is lower than the sensitivity of the optical receiver.
	Light off	Received optical power is normal

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NET	Light on	Internet is effective
	Light off	Internet WAN port is not configured or is not valid
LAN 1-4	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
WPS	Light off	WPS function is not enabled
	Blink	When the ONT enables the WPS function, the WPS led flashes within 2 minutes
FXS	Light on	Registered to the SIP server and can be used
	Light off	It is not registered to the SIP server

3.TECHNICAL SPECIFICATIONS

3.1 Physical structure, Environment and Electrical parameter

Table 3-1 DN-HG8431A specification and working environment

Parameter	Nominal
ETH Interface	4*GE
Dimension	172mm×115mm×55mm（L×W×H)
Net weight	0.4kg
Typical power consumption	<24W

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Noise	None
Cooling style	Naturally cooling
Power supply	12V DC（By external AC/DC adapter）
Installation style	Support PC, wall mount or put inside of information box.
Environment	-5~45℃

3.2 GPON Interface Specifications

Table 3-2 DN-HG8431A 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

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3.3 WIFI Specifications

Table 3-3 DN-HG8431A 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：1，2，3，4，5，6，7，8，9，10，11，12，13 5GHz：36，40，44，48，52，56，60，64，149，153，157，161，165
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， ：MCSO-MCS15 11ac： MIMO-OFDM：BPSK，QPSK，16QAM，64QAM，256QAM Rate Set：MCSO-MCS9 11ax： MIMO-OFDM：BPSK，QPSK，16QAM，64QAM，256QAM，1024QAM
	Rate Set：MCS0-MCS11
Antenna	External 4pcs 5dBi,built-in1pcs 3dBi MIMO 2.4G 2x2 MU-MIMO,5G 3x3 MU-

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3.4 POTS Specifications

- support SIP voice protocol
- support H.248 voice protocol
- SIP protocol: ISP provide the port number of the main SIP proxy server and terminal VOIP
- Value range is 1-65535, system default value is 5060
- H.248 protocol: ISP provide port number of the spare MGC server and VOIP terminal
- Value range is 1~65535, system default value is 2944
- Port ringing current voltage: 50±10VAC ， 30±10H
- Port type POTS(VOIP)
- Support G.711 A-Law/u -Law,G729A/B,G.723.1-5.3/6.3,G.726.etc.voice coding/compressed technology

3.5 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

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