XN41N XPON ONT Specifications

| Version	Date	Author	Reviewers	Remark
V1.0	2020/4/18			Shall not disclose to any third party

Contents

1.OVERVIEW

1.1 Product Introduction

XN41N 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 PON technology, which have high ratio of performance to price, and the technology of 802.11 n WiFi(2T2R) , Layer 2/3, and high quality VoIP as well. They are 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 and IEEE802.3ah, Technical requirement of GPON Equipment (V2.1 and above version) and Technical Requirements of EPON Equipment (V3.0)from China Telecom and other specifications. Provide users with a complete broadband service solution based on optical fiber access technology.

1.2 Network Mode

XN41N is the FTTH mode terminal equipment which designed for indoor applications. Specific application refers to Picture 1-1
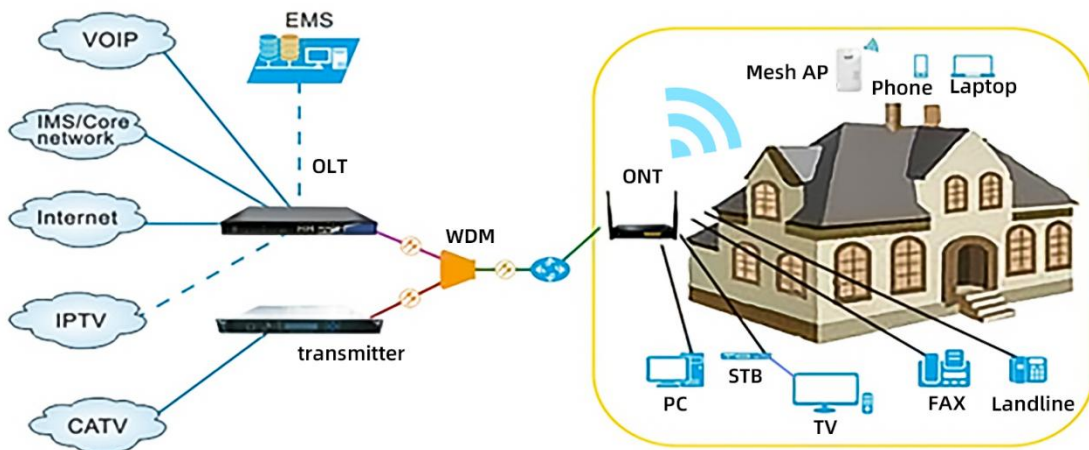
Picture 1-1 XN41N products Network diagram

2.HARDWARE FEATURES

2.1 Interface of device

XN41N product figure as Picture 2-1

Picture 2-1   XN41N   product figure

Table 2-1 Description XN41N equipment Interface

Port Type	Function
FXS port	Connect the telephone with FXS port by telephone wire
LAN 1~4 port	RJ45 Port connects to local internet,1 GE and 3FE ports
Reset button (RST)	Press down reset button and keep 5 seconds to make the device restart and recover from the factory default Settings.
WPS button (WPS)	WPS: Press for 3 seconds and press the WPS button of other Wi-Fi devices within 2 minutes to start standard WPS negotiation.

PWR port (DC12 V)	Connect with power adapter
Power turn on/off	Power turn on/off

2.2 Indicators of device

Indicators	status	Description
PWR	Light on	ONU power supply normally
	Light off	ONU no power supply
	Blink	Enable WPS function
PON	Light on	ONU link active
	Blink	ONU manage to link
	Light off	ONU receiving power rate lower than optical receiver sensitivity
LOS	Blink(Red)	Device does not receive optical signals.
	Light off	Device has received optical signal.
WPS	Blink	The WIFI interface is securely establishing a connection.
	Off	The WIFI interface does not establish a secure connection.
LAN1~4	Light on	network port linked, but no data transmitting
	Blink	network port data pass
	Light off	The ONU is not powered on or the network cable is disconnected
WIFI	Light on	Wi-Fi turn on
	Light off	Device is power off or Wi-Fi turn off
	Blink	Wi-Fi turn on and with ongoing data transmission
FXS	Light on	Phone has registered to the SIP Server.
	Blink	Phone has registered and data transmission (ACT).
	Light off	Phone registration is incorrect.

3. TECHNICAL SPECIFICATIONS

3.1 Physical structure, Environment and Electrical parameter

Table 3-1 XN41N specification and working environment

Parameter	Nominal
Dimension	180mm×107mm×28mm（L×W×H）
Net weight	0.2kg
Typical power consumption	≤6W

Noise	None
Cooling style	Naturally cooling
Power supply	DC 12V/1A
Installation style	Support PC, wall mount or put inside of information box.
Environment	0~50℃
Atmospheric pressure	70~106Kpa
MTBF	50,000hours@25℃
MTTR	30minutes

3.2 GPON Interface Specifications

Table 3-2 XN41N GPON Interface

Parameter	Nominal
Connector style	SC/APC
PON quantity	1
Fiber style	Single mode
Wavelength	TX：1310 +/-20nm RX：1490 +/-10nm
PON interface standard	ITU-T G.984.x/ITU-TG.988/IEEE802.3ah
PON interface receiving rate	EPON:1.25Gpbs GPON:2.488Gpbs
PON interface transmitting rate	EPON:1.25Gpbs GPON:1.244Gpbs
Output optical power	Min: 0.5dBm Max: +5dBm
Opticalreceiver sensitivity	Precede -28dBm
The length of the optical link	Max 20km

3.3 Wi-Fi Specifications

Table 3-3 XN41N Wi-Fi Specifications

Standard		IEEE 802.11 b/g/n
WiFi parameter	Frequency	2.4~2.4835GHz
	Transmission speed	2.4GHz Frequency: IEEE 802.11b ： 11/5.5/2/1M(Auto) IEEE 802.11g：54/48/36/24/18/12/9/6(Auto) IEEE 802.11n：270/243/216/162/108/81/54/27Mbps,up to 300Mbps
	Channel number	2.4GHz ： 13
	Spread-spectrum Technique	DSSS(Direct sequence spread spectrum)
	Data Modulation	DBPSK、DQPSK、CCK and OFDM(BPSK/QPSK/16-QAM/64-QAM)

Sensitivity@PER (Package error rate)	270M：-68dBm@10% PER；130M： -68dBm@10% PER； 108M：-68dBm@10% PER；54M：-68dBm@10% PER 11M：-85dBm@8% PER；6M：-88dBm@10% PER 1M：-90dBm@8% PER；	
Transmission distance	Indoor Maximum 120 meters； Outdoor Maximum 360 meters(The distance depends on the environment)	
RF power	20dBm EIRP	
Antenna	5dBi Antennas	

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 MU-MIMO

- ➢ Support Easy-Mesh(Optional)

- ➢ Support Multiple VLAN

- ➢ 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