

# **XN41N XPON ONT**

## **Specifications**

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

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# 1.OVERVIEW

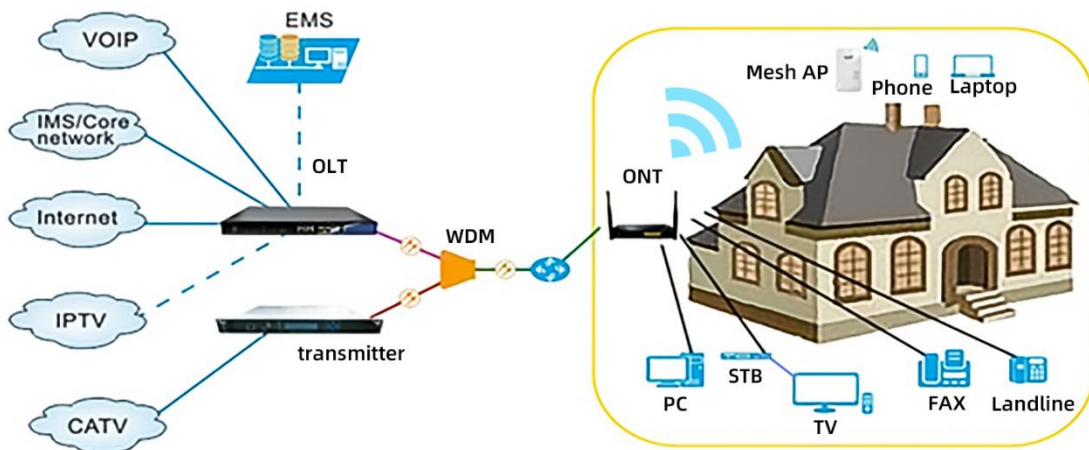
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## 1.1 Product Introduction

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

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## 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

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### 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°C   |
| Atmospheric pressure | 70~106Kpa  |
| MTBF                 | 50,000hours@25°C   |
| 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<br>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<br>parameter | Frequency                 | 2.4~2.4835GHz   |
|                   | Transmission speed        | 2.4GHz Frequency:<br>IEEE 802.11b : 11/5.5/2/1M(Auto)<br>IEEE 802.11g: 54/48/36/24/18/12/9/6(Auto)<br>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<br>(Package error rate) | 270M: -68dBm@10% PER; 130M: -68dBm@10% PER;<br>108M: -68dBm@10% PER; 54M: -68dBm@10% PER<br>11M: -85dBm@8% PER; 6M: -88dBm@10% PER<br>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