



GPON ONT

NGN-02G

Product Specifications

Product Profiles

NGN-02G is a type of FTTH broadband access equipment as GPON Optical Network Terminal(ONT). It has one Gigabit-Ethernet port and one GPON optical interface. It complies with GPON Standard ITU-T G.984.x, IEEE international standards and industry standards. It has higher reliability, better QoS guarantee, and more flexible network advantages. It provides long-distance transmission of data and digital video services based on PON network architecture.



Specifications

- Support transceiver information reporting by OMCI(such as vender, serial number)
- Support LOID registration and authentication
- Support ONU silence mechanism
- Support Rogue ONU detecting
- Support Dying Gasp
- ONT supports up to 2.488Gbps downstream and up to 1.244Gbps upstream with a minimum 28dB budget, compliant with ITU-T G.984.3
- Physical layer is compliant with ITU-T G. G.984.2.
- GPON OMCI is compliant with ITU-T GEM mode OMCI as specified in ITU-T G. 984.4 and ITU-T G.988
- DBA support via mode-0 DBRu (piggy-back) reporting
- ONT supports 128-bit downstream AES with key switching
- Forward Error Correction (FEC)
- Upstream Traffic Management using Priority-based or Rate-controlled scheduling
- Support for up to 8 T-CONTs with multiple priority queues per T-CONT
- 64 GEM ports with flexible mapping between TCONTs and Priority queues
- 1 GEM port for multicast, 1 GEM port for OMCI, others for Ethernet

Optical Transceiver

- ITU-T G.984.2 compliant GPON ONT Class B+
- 1310nm Transmitter, 1490nm Receiver, SC/APC connector
- 2.448 Gbps downstream, 1.244 Gbps upstream
- Support Transceiver Monitoring function, including
 - Transceiver Internal Temperature
 - Power Supply Internal Voltage
 - TX Bias Current
 - RX Optical Power
- Launch power: 0.5 to +5 dBm
- Receiver Sensitivity: -28 dBm
- Input power overload: -8 dBm
- transceiver auto shutdown function
- The new transceiver can detect TX power and tolerance. When the TX power is too high or transmits all the time, the transceiver will be shutdown automatically.

- ITU-T G.984.4/G.988 based management of all services
- Remote firmware upgrade including automatic rollback by OMCI or Web

Ethernet

- 10/100/1000 Base-T interface with RJ-45 connectors
- Meets IEEE 802.1 specifications
- MDI/MDIX auto-sensing and auto-negotiation
- Ethernet bridging and switching per 802.1D
- 802.1P marking/remarking, DSCP mapping
- 802.1Q including VLAN translation, filtering, tagging, stacking (QinQ)
- Automatic MAC address learning, aging and filtering
- Up to 64 MAC address entries
- MAC address limiting
- Up to 48 IPv4 and 24 IPv6 multicast groups
- IGMP v2/v3 Snooping and MLD v2/v3
- IGMP snooping with immediate leave

Management

- Support local and remote Web management
- Support configuration file upload and download
- User login management
- Performance statistics of LAN and PON interface
- Status looking up of LAN and PON interface

LED Indication

| LED | Color | State | Indication |
|-------|-------|-------|---|
| POWER | GREEN | OFF | ONT Power off |
| | | ON | ONT Operating from AC power |
| PON | GREEN | OFF | ONT does not start ranging |
| | | ON | ONT PON is fully operational |
| | | BLINK | ONT is in activation process |
| LOS | RED | BLINK | ONT lower receive optical sensitivity |
| | | ON | ONT PON transceiver power down or PON MAC loopback mode |
| | | OFF | ONT normal receive optical sensitivity |

| LED | Color | State | Indication |
|-------|-------|-------|--------------------------------------|
| LAN | GREEN | OFF | LAN link down |
| | | ON | LAN link up |
| | | BLINK | Data is being transmitted |
| ALARM | RED | OFF | Normal operating state |
| | | ON | Device running fault |
| | | BLINK | ONT firmware is in upgrading process |

Interfaces and Buttons

| Name | Description |
|--------------|-------------------------------|
| LAN | 1 10/100/1000Base-TX GE RJ45 |
| OPTICAL | GPON interface |
| POWER | POWER AC/DC interface |
| Power button | Power Button ON/OFF |
| Reset | Restore factory configuration |

Hardware features

| Item | Range |
|-----------------------|---------------------|
| Dimensions | 110mm x 96mm x 52mm |
| Power Input | 0.5A |
| Power Consumption | DC 12V |
| Operating Temperature | +0°C to +40°C |
| Operating Humidity | 5% to 95% |
| Storage Temperature | -40°C to +60°C |
| Storage Humidity | 0% to 95% |