GPON ONT LEOX LXT-011H-E

Platform Briefing

October 2025

Overview

To deliver triple-play services to the subscriber in Fiber-to-the-Home or Fiber-to-the-Premises application, the GPON ONT LXT-011H-E for SFU (Single Family Unit) incorporates interoperability, key customers' specific requirements and cost-efficiency.

Equipped with ITU-T G.984 compliant 2.5G Downstream and 1.25G Upstream GPON interface, the LXT-011H-E ONT supports the full Triple Play of services including voice, video, and high speed internet access.

Compliant with standard OMCI definition, ONT LXT-011H-E is manageable at remote side and supports the full range FCAPS functions including supervision, monitoring and maintenance.

Service

Data

The LXT-011H-E ONT is delivered with one 10/100/1000/2500 Base-T interface, supporting:

- Auto-negotiation and MDI/MDIX auto-sensing
- Built-in layer-2 switch
- Advanced data features such as VLAN tag manipulation, classification, and filtering

Voice

To enable VoIP access, the LXT-011H-E ONT also supports interfacing external IAD box or Home Router with voice capability through the Ethernet Interface.

Video

The LXT-011H-E ONT supports video contents delivered in the form of data (by multicast or unicast).

In case where multicast technology is used for delivering video contents through data channel, the ONT supports the dedicated multicast GEM port on the Downstream. So the video contents are received and processed by all the ONTs through the unified channel and this greatly improves the bandwidth efficiency.

In addition, the ONT supports IGMP snooping function to be applied for further optimization. When IGMP snooping is enabled, the ONT monitors the member joining and leaving activities at the Ethernet service port, and then selectively delivers the multicast streams.

Interface

1 x 10/100/1000/2500 Base-T interface

1 x RF/CATV interface to provide support for DVB-C services.

Specification

Dimensions

- 95mm x 80mm x 21mm (Wx D x H)

Power Supply

- +12V (feed via external AC/DC adapter)
- 2-PIN power adaptor input
- Dying Gasp support
- Power Consumption: ~ 7W

Working Environment

- Temperature: 0℃ ~ 45℃
- Humidity: 5% ~ 95% relative humidity

Safety & EMI

- CE compliant
- FCC/UL compliant

Environmental Index

- RoHS6

Installation

- Desktop mounting & wall mounting

GPON Interface

- Compliant with ITU-T G.984 G.988 GPON standards
- SFF type laser, SC/APC connector
- BoSA on board optical solution
- 1.244 Gbps Burst Mode Upstream Transmitter
- 2.488 Gbps Downstream Receiver
- Compliant with ITU-T G.984.2 Amd1, Class B+
- Wavelengths:
  - US 1310nm, DS 1490nm
- Laser compliant with FCC 47 CFR Part 15,
  Class B, and FDA 21 CFR 1040.10 and 1040.11, Class I, ONT support Class C or Class C+ optics as an option
- Support G.984.5 Blocking Filter as an option
- Multiple T-CONTs per device
- Multiple GEM Ports per device
- Flexible mapping between GEM Ports and T-CONT
- Activation with automatic discovered SN and password in conformance with ITU-T G.984.3
- AES-128 Decryption with key generation and switching
- FEC (Forward Error Correction) in both directions
- DBA reporting by piggyback reports in the DBRu (mode 0 and mode 1)
- 802.1p mapper service profile on U/S
- Mapping of GEM Ports into a T-CONT with priority queues based scheduling
- Support Multicast GEM port and incidental broadcast GEM port.

LED

- Power
- LOS
- PON
- LAN
- NORMAL
- WARN

- 0dBm +4dBm launch power, -27dBm sensitivity, and -8dBm overload

Ethernet Interface

- 10/100/1000/2500 Base-T interface with RJ-45 connectors
- Ethernet port auto-negotiation or manual configuration
- MDI/MDIX automatically sense
- Hardware priority queues on the downstream direction in support of CoS
- 802.1D bridging
- Virtual switch based on 802.1q VLAN
- VLAN tagging/detagging per Ethernet port
- VLAN stacking (Q-in-Q) and VLAN Translation
- IP ToS/DSCP to 802.1p mapping
- Marking/remarking of 802.1p
- IGMP v2/v3snooping
- Broadcast/Multicast rate limiting

OAM

- Standard compliant OMCI (the embedded operations channel) interface as defined by ITU-T G.984
- Alarming and performance monitoring
- Remotely software image download over OMCI, as well as activation and rebooting
- Hold two software sets with software image integrity checking and automatic rollback

CATV/RF Interface

- Support ON/OFF function via OMCI
- RF, optical power : +2~-18dBm
- Optical reflection loss: ≥45dB
- Optical receiving wavelength: 1550±10nm
- RF frequency range: 47~1000MHz, RF output impedance: 75Ω
- RF output level: ≥ 82dBuV（-7dBm optical input）
- AGC range: +2~-7dBm/-4~-13dBm/-5~-14dBm
- MER: ≥32dB(-14dBm optical input), ＞35(-10dBm)

Interoperability with OLTs

- Alcatel – Lucent / Nokia ISAM7360
- Huawei
- ZTE
- Others

Enclosure

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