



Zaram XGS PON ONT Stick ZXOS11NPI

The Zaram ONT ZXOS11NPI is an XGS-PON SFP ONT, an Optical Network Termination solution for mobile backhaul and midhaul or enterprise applications where network synchronization and operational efficiency are key requirements. With its smallest possible footprint, low power consumption and complete feature set, it enables operators to leverage fiber PON (Passive Optical Networks) for more revenues and very efficient transport of backhaul and midhaul mobile traffic. For best synchronization performance this ONT supports IEEE1588v2 requirement.

With symmetric XGS-PON uplink The Zaram ONTZXOS11NPI provide 10-Gigabit Ethernet (10 GigE) service to any device capable of hosting this SFP, such as Ethernet switches, routers, access nodes, customer premises equipment (CPE) or mobile stations. It is designed for mission critical services where space and power are paramount, while still supporting a full feature set. This SFP ONT can be used to connect cell sites or enterprises to transport traffic over PON network in plug-and-play mode. This industrial temperature range SFP ONT is fully hardened for indoor and protected outdoor installations, allowing diverse deployment possibilities.

The Zaram ONT ZXOS11NPI is compliant with the ITU-T G.9807.1 XGS-PON specification. It supports 9.953 Gb/s downstream and upstream at a physical layer rate and time-of-day synchronization functions. It is compliant with the standard PON definitions for configuration, management, performance, security and monitoring functions.



Features

- SFP+ XGS-PON ONT, hardened for industrial temperature range
- “Plug-and-play” configuration via OLT, including remote SW upgrades
- Comply with standard SFP+ form factor SFF-8431, SFF-8472, GR-468
- XGS-PON uplink, G.9807 series and G.988 GPON OMCI compliant
- 10GE available towards the host device
- Advanced features including VLAN-translation, modification and transparency, IGMP snooping • Rich synchronization feature set: IEEE 1588v2 8275.1 T-BC with G.8273.2 Class B performance, ToD/1PPS
- Very low power consumption, typically less than 2W

Benefits

- Smallest possible footprint with SFP+ pluggable form factor saves place for cell sites
- Flexibility for mobile backhaul and midhaul synchronization with Telecom Boundary Clock function
- Hardened design for any deployment environment, with a very low power consumption
- One fiber for PON uplink saves physical capacity in the fiber network
- Easy and effective operations, management via the OLT, fastest turn up service in the industry
- Enables to leverage fiber access networks for cost-efficient mobile transport

Technical specifications

Physical

- SFP+ Form-factor (with Long Head)
- Weight: 0.022 Kg

Installation

- SFP+ pluggable ONT, suitable for any SFP+ host interface

Operating environment

- Temperature: -40°C to +85°C (-40°F to 185°F)
- Relative humidity: 5% to 85%

Power requirements

- 3.3V SFP+ XFI interface
- Power consumption: typical < 2W, worst case (85°C)
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PON uplink

- Simplex SC/UPC Connector, Integrated Diplexer Transceiver
- Compliant with ITU-T G.9807.1 XGS-PON (N1/N2)
- Support 10 Gb/s bi-directional traffic capability
- 1270 nm Burst-Mode Transmitter with DFB Laser
- 1577 nm Continuous-Mode Receiver with APD-TIA
- TU-T G.9807.1-compliant Advanced Encryption Standard (AES) in downstream
- ITU-T G.988 Appendix 1 and Appendix 2 ONT Management Control Interface (OMCI)
- ITU-T G.9807.1-compliant dynamic bandwidth reporting (SR and NSR)
- Optics support received signal strength indication (RSSI)

Ethernet interface

- SFP+ XFI interface
- IPv4/6 over Ethernet
- Support Jumbo frames up to 9K
- VLAN-translation, modification and transparency
- Support of 8K MAC entries
- Support of multicast IGMP snooping • IEEE 802.1ag (CFM) and ITU Y.1731
- Wire-speed with minimum frame-size

Operations, administration, and maintenance (OA&M)

- Standard compliant OMCI (the embedded operations channel) interface as defined by ITU-T G.984.4 and ITU-T G.988
- S/N and registration ID ONT authentication
- Remote software image download
- Ready for Rogue ONT detection and reporting
- 64bit PM counters on GEM port and Ethernet interfaces
- Connectivity Fault Management (CFM) according to IEEE 802.1ag / ITU Y.1731

Safety and electromagnetic interference (EMI)

- Compliant to FCC part 15 class B, EN 300 386 and EN 55032:2015

Regulatory compliances

- CE: Certification/mark, EN55032, EN55035, IEC62368-1
- NRTL(MET): certification/mark, – UL 62368-1, 3rd Ed, issued: 2019-12-13 – CAN/CSA C22.2 No. 62368-1:19
- Safety: MET, CB, IEC60825-1, IEC 62368-1, UL 62368-1
- EMC: – EMI: FCC part 15 class B, EN 300 386, EN 55032:2015 – EMS: EN 55035:2017 – ESD to the electronic pins: MIL-STD-883J Method 3015.9
- Laser Eye Safety: – Laser Eye Safety: comply with IEC 60825-1 Class 1 – FDA 21CFR1040.10 laser safety: CDRH report
- Reliability – Reliability/DVT: GR-468 – MTBF and FIT: Telcordia SR-332 method-4
- RoHS: 2011/65/EU(6) and 2015/863/EU(10)