Nokia ONT XS-010S-Q

XGS-PON SFP ONT

The Nokia Optical Network Terminal (ONT) XS-010S-Q is the 10-Gigabit Symmetrical Passive Optical Network (XGS-PON) small form-factor pluggable (SFP). The device is G.9807.1 compliant with SFP packaging and integrates a bidirectional optical transceiver function with an XGS-PON media access control (MAC) layer function.

The Nokia ONT XS-010S-Q provides a symmetric 9.95328 Gb/s upstream and 9.95328 Gb/s downstream XGS-PON uplink and a 10-Gigabit Ethernet (10 GigE) service to any device capable of hosting this SFP, such as Ethernet switches, mobile station, Ethernet access devices (EADs), routers, remote digital subscriber line access modules (DSLAMs), and other customer premises equipment (CPE). The Nokia ONT XS-010S-Q is designed to take advantage of Nokia award-winning management platforms.

Features

- XGS-PON uplink, G.9807 series standard compliant
- Comply with standard SFP+ MSA, but longer than standard SFP+
- 10GE available towards host device
- Dynamic Bandwidth Allocation (DBA)
- IPTV, IGMPv2 and IGMPv3
- AMS-managed
- Optical RSSI, advanced PMs and statistics support
- Per-subscriber, per-service bandwidth control
- Power consumption target: less than 3W

Benefits

- Small form factor
- XGS-PON anywhere, backhaul Ethernet device with XGS-PON
- Easy to install

Technical specifications

Physical

(Height, width and length dimensions)

- Height: 1.33 cm (0.52 in)
- Width: 1.56 cm (0.61 in)
- Depth: 8.75 cm (3.44 in)
- Weight: 0.038 kg (0.084 lb)

Power consumption

- 2.6 W

Operating environment

- Temperature (case): -40°C to 85°C (-40°F to 185°F)
- Relative humidity: 5% to 95%, non-condensing

XGS-PON uplinks

- Wavelength: 1260 nm–1280 nm upstream 1575 nm–1580 nm downstream
- G.9807.1 XGS-PON standards compliant: 4 dBm ~ 9 dBm launch power; -28 dBm ~ -9 dBm for receiving
- SC/APC connector
- 10G burst mode upstream transmitter
- 10G downstream receiver
- G.9807.1-compliant 10 GPON Encapsulation Method (XGEM) framing
- Flexible mapping between XGEM ports and T-CONT
- Advanced Encryption Standard (AES) 128
- Forward error correction (FEC)
- Activation with automatic discovered serial number and password

Ethernet interfaces

- One LAN with 1G SGMI, 2.5G or 10G XFI/SFI, and auto negotiation support on 2.5/10G
- Virtual switch based on IEEE 802.1Q virtual LAN(VLAN)
- VLAN stacking (Q-in-Q) and VLAN translation
- CoS based on VLAN ID, 802.1p bit
- IGMP v2/v3 snooping

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
- Supports local WebGUI for the ONU authentication password configuration from the LAN side
- Management information base (MIB) manipulation over OMCI with create, delete, set, get and get next commands
- Alarm reporting and performance monitoring
- Remote software image download over OMCI, as well as activation and rebooting
- Supports subscriber line identifier (SLID) using WebGUI

Safety and electromagnetic interference (EMI)

- FCC compliant
- UL 60950-1
- CE Mark

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