

Nokia ONT XS-010X-Q

XGS-PON SFU ONT

The Nokia Optical Network Terminal (ONT) XS-010X-Q that has one 1/10 Gigabit Ethernet (GigE) is part of the industry-leading Nokia ONT product family and is compatible with the Nokia 7360 ISAM fiber to the x (FTTx) product line. It is designed to deliver triple play services in a fiber to the home (FTTH) environment to single family units (SFUs) where an Ethernet port is required.

The Nokia ONT terminates the 10 G symmetrical Passive Optical Network (XGS-PON) fiber interface that is compliant with a Full Service Access Network (FSAN).

The Nokia ONT XS-010X-Q is designed for residential customer requirements and offers data services to the subscriber through FTTH or fiber to the premises (FTTP) applications. The Nokia ONT XS-010X-Q is an ONT suitable for indoor deployments and is compliant with ITU-T G.9807.1 supporting a line rate of 10 Gb/s upstream and 10 Gb/s downstream. With XGS-PON as the uplink interface, the XS-010X-Q is also compliant with the standard optical network unit (ONU) management and control interface (OMCI) definition. The XS-010X-Q can be managed from a remote site using application management services (AMS) and supports the full range of fault, configuration, accounting, performance, and security (FCAPS) functions.



- Per subscriber, per service bandwidth control
- Remotely managed by the Nokia 5520 AMS
- IP video with multistage Internet Group Management Protocol (IGMP) v2/v3 for channel change
- Supports received signal strength indication (RSSI) for lean operations and remote troubleshooting

Features

- WAN: XGS-PON, SC/APC
- LAN: 1x100M/1G/2.5G/5G/10G BASE-T RJ-45, auto negotiating supported
- ITU-T G.9807.1, G.988 compliant
- Wire speed data transfer

Benefits

- Enables operators to capture new revenues with services that require 10 Gb/s symmetrical
- Eco-sustainability is in line with “green” tendencies: low power consumption

- IGMP snooping monitors the member joining and leaving activities at the Ethernet port, then selectively delivers the multicast streams
- Power supply with dying gasp functionality
- Advanced dynamic bandwidth management

Technical specifications

Physical

(Height, width and length dimensions)

- Height: 3.0 cm (1.18 in)
- Width: 13.5 cm (5.31 in)
- Length: 13.5 cm (5.31 in)
- Weight: 0.366kg (0.81 lb)

Installation

- Desktop or wall mounting

Power requirements

- 12 VDC /1A
- Power consumption: <8.6 W

Operating environment

- Temperature (ambient): -5°C to 45°C (23°F to 113°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
- 10 G burst mode upstream transmitter
- 10 G 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 100 M/1 G/2.5 G/5 G/10 G Base-T interface with RJ-45 connector
- Ethernet port auto-negotiation or manual configuration with medium dependent interface/medium dependent interface crossover (MDI/MDIX)
- 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

LEDs

- Power
- PON
- Alarm
- Data



Safety and electromagnetic interference (EMI)

- FCC compliant
- UL 60950-1
- CE Mark

