

Nokia ONT XS-010X-R

XGS-PON SFU ONT

The Nokia Optical Network Terminal (ONT) XS-010X-R 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-R 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-R 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-R is also compliant with the standard optical network unit (ONU) management and control interface (OMCI) definition. The XS-010X-R 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.

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
- Type-B protection



- 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

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)

- Protection of overvoltage/current

Regulatory compliance

- CE
- UKCA

About Nokia

At Nokia, we create technology that helps the world act together.

As a B2B technology innovation leader, we are pioneering networks that sense, think and act by leveraging our work across mobile, fixed and cloud networks. In addition, we create value with intellectual property and long-term research, led by the award-winning Nokia Bell Labs.

Service providers, enterprises and partners worldwide trust Nokia to deliver secure, reliable and sustainable networks today – and work with us to create the digital services and applications of the future.

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