

Nokia 7368 ISAM ONT G-240G-A

The Nokia Intelligent Services Manager (ISAM) Optical Network Terminal (ONT) G-240G-A with four Gigabit Ethernet (GigE) and two POTS is part of the industry-leading Nokia 7368 ISAM ONT product family and is compatible with the Nokia 7342/7360 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 where multiple Ethernet and voice ports are required. The Nokia ONT terminates the Gigabit Passive Optical Network (GPON) fiber interface compliant with a Full Service Access Network (FSAN).

The Nokia 7368 ISAM ONT G-240G-A is designed for small businesses and residential customers. This ONT offers data, voice and video services to the subscriber through FTTH or fiber to the premises (FTTP) applications. The G-240G-A is a temperature-hardened ONT for outdoor and indoor deployments. For outdoor deployment, the G-240G-A should be mounted in a Nokia universal single-family unit (SFU) ONT enclosure.

The ONT G-240G is compliant with ITU-T G.984, supporting a line rate of 2.5 Gb/s downstream and 1.25 Gb/s upstream. With GPON as the uplink interface, the ONT G-240G-A supports standard triple play services: voice, video and high-speed internet access to support home networking. Compliant with the standard ONT management and control interface (OMCI) definition, the ONT G-240G-A 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.



G-240G-A outdoor



G-240G-A indoor

Features

- Compliant with ITU-T G.984 and supports a line rate of 2.5 Gb/s downstream and 1.25 Gb/s upstream
- With GPON as the uplink interface, supports standard triple play services – voice, video and high-speed internet access for home networking
- Managed from a remote site using AMS
- Supports the full range of FCAPS functions

Benefits

- Delivers connectivity to Ethernet devices within the home
- Supports full triple play services including voice, video and high-speed internet access
- Supports IP video distribution
- Delivers voice services using voice over IP (VoIP)
- Supports T.38 fax services
- Delivers video services efficiently with multicasting or unicasting
- Network management using the Nokia 5520 Access Management System (AMS)
- Internet Group Management Protocol (IGMP) snooping

Technical specifications

Dimensions

- Height: 33 mm (1.3 in)
- Width: 208 mm (8.18 in)
- Depth: 142 mm (5.59 in)
- Weight: 0.26 kg (0.57 lb) (power adapter not included)

Installation

- Desktop mounting
- Wall mounting
- Outdoor mounting in a Nokia universal SFU ONT enclosure

Power supply

- +12 V (feed using external AC/DC adapter)
- Dying gasp support
- Power consumption: < 8 W

Operating environment

- Temperature: -40°C to 60°C (-40°F to 140°F)
- Relative humidity: 5% to 90%

GPON transmission convergence (TC) layer

- G.984.3-compliant GPON Encapsulation Method (GEM) framing
- Multiple transmission containers (T-CONTs) per device
- Multiple GEM ports per device
- Flexible mapping between GEM ports and T-CONT
- G.984.3-compliance:
 - Activation with automatic discovered serial number and password
 - Advanced Encryption Standard (AES-128)
 - Forward error correction (FEC)
 - Database administrator (DBA) reports IEEE 802.1p to GEM mapper service profile in upstream direction
- G.984.5 compliance: GPON/XGPON coexistence

GPON network interface

- Compliant with G.984.x GPON standards
- Small form-factor (SFF) type laser, SC/APC connector
- 1.244 G burst mode upstream transmitter
- 2.488 G downstream receiver

- Avalanche photodiode (APD) receiver and distributed feedback (DFB) transmitter
- 0.5 dBm ~ 5.0 dBm launch power, -28 dBm ~ -8 dBm for receiving
- Wavelengths:
 - Upstream: 1310 nm
 - Downstream: 1490 nm
- Laser compliant with FCC 21 CFR Ethernet
- 10/100/1000 Base-T interface with RJ-45 connectors
- Ethernet port auto-negotiation or manual configuration with medium dependent interface/medium dependent interface crossover (MDI/MDIX)
- Supports port-based downstream priority queues and strict priority scheduling for traffic class of service (CoS) differentiation
- Virtual switch based on IEEE 802.1Q virtual LAN (VLAN)
- VLAN tagging/detagging per Ethernet port and marking/remarking of IEEE 802.1P
- VLAN stacking (Q-in-Q) and VLAN translation
- CoS based on VLAN ID, 802.1p bit
- IPv4 type of service/differentiated services code point (ToS/DSCP) to 802.1p mapping for untagged frames
- IGMP v2/v3 snooping
- Supports RFC 2236 (v2), RFC 3376 (v3), any-source multicast (ASM) and source-specific multicast (SSM)

POTS interface

- RJ-14 connector
- 5 ringer equivalence numbers (RENs) per line
- Balanced ring, 55 V root mean square (RMS)
- Dual-tone multi-frequency (DTMF) dialing

- Echo cancellation
- Voice activity detection (VAD) and comfort noise insertion (CNI)
- Session Initiation Protocol (SIP) (RFC 3261)
- Real-time Transport Protocol (RTP) (RFC 3550/3551)
- Supports various CLASS services – caller ID, call waiting, direct call, call forwarding, call transfer, three-way calling and calling line identification presentation (CLIP)
- ITU-T G.711, G.722, G.729
- ITU-T T.38 fax
- Country-specific ring tone generation

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 web GUI for the optical network unit (ONU) authentication password configuration from the LAN side
- MIB manipulation over OMCI with create, delete, set, get and get next commands
- Provisions diverse services including Ethernet and VoIP
- Alarm reporting and performance monitoring
- Remote software image download over OMCI, as well as activation and rebooting
- Supports SLID (using POTS port or web GUI)

Buttons

- Power
- Reset

LEDs

- POWER
- BTRY
- FAIL
- DATA1-4
- NTWK
- MGMT
- POTS

Regulatory

Safety and electromagnetic interference (EMI)

- UL 60950-1
- CSA C22.2 No. 60950-1
- FCC Part 15b, Class B, IC-003
- ITU-T K.21

Nokia is a registered trademark of Nokia Corporation. Other product and company names mentioned herein may be trademarks or trade names of their respective owners.

Nokia Oyj
Karaportti 3
FI-02610 Espoo
Finland
Tel. +358 (0) 10 44 88 000

Product code: PR1605020217EN (June)



Product Source International Datacomm
330 Franklin Turnpike
Mahwah, NJ 07430
201.488.6000 Tel
www.psitec.com / sales@psitec.com