NOKIA

Nokia 7368 ISAM ONT G-140W-H

Residential gateway ONT

The Nokia 7368 Intelligent Services Access Manager (ISAM) optical network terminal (ONT) G-140W-H is the solution for home networking that is delivered by Gigabit Passive Optical Network (GPON). The device has built-in concurrent dual-band Wi-Fi® 802.11 b/g/n and 802.11ac networking with triple play capabilities that simplify the home equipment experience. The G-140W-H can operate seamlessly with the Nokia WiFi beacons, to create a whole home mesh network backhauled by wired Ethernet or Wi-Fi.

The Nokia 7368 ISAM ONT G-140W-H is designed to take advantage of Nokia award-winning management platforms. These platforms include a customized Motive™ Home Device Manager, which is integrated with the Nokia 5520 Access Management System (AMS) platform to deliver a uniform end-to-end operations, administration, and maintenance (OA&M) solution that carriers need to provide subscriber satisfaction.

This Nokia indoor ONT is designed to deliver triple play services (voice, video and data) to residential subscribers. Voice services are provided through a plain old telephone service (POTS) port with an integrated analog telephone adapter (ATA) that converts voice traffic into Session Initiation Protocol (SIP). Connectivity to an existing public switched telephone network (PSTN) Class 5 switch is supported through SIP with direct interoperability of a variety of soft switches. Ethernet connectivity is available on four Gigabit Ethernet (GigE) ports, all of which have the ability to burst up to a full gigabit dynamically. Service providers can deliver video using IP packets (IPTV).

The Nokia WiFi mobile app provides home users with an intuitive and simplified interface for trouble-free management of their home network and Wi-Fi. It also provides advanced functions such as guest Wi-Fi management and parental controls.

Features

- Four RJ-45 10/100/1000 Ethernet ports
- One POTS port for carrier-grade voice services
- Two USB 2.0 host ports

1   Data sheet
                                                        Nokia 7368 ISAM ONT G-140W-H

- Dual-band concurrent Wi-Fi: IEEE 802.11b/g/n 2x2 2.4 GHz and 802.11ac 2x2 5 GHz

- Powered by Nokia WiFi Mesh

- Embedded edge analytics

- Network Address Translation (NAT) and firewall

- Voice interworking function from the analog POTS lines to the voice over IP (VoIP) and Ethernet layers

- Optics support received signal strength indication (RSSI)

- Supports virtual private network (VPN) passthrough for Point-to-Point Tunneling Protocol (PPTP), Layer 2 Tunneling Protocol (L2TP) and IPSec

- Port forwarding and demilitarized zone (DMZ)/ dynamic domain name system (DDNS)

Benefits

- Integrates the ONT and wireless access point functions to allow for one less device in the home

- Supports full triple play services, including voice, video and data

- Allows service-per-port configurations

- Supports IP video distribution

- Supports easy-to-use USB 2.0 connections for external disk drives and home network attached storage (NAS)

- Delivers voice services using VoIP

- Delivers video services efficiently with multicasting or unicasting

- Facilitates network management using Nokia 5520 AMS

- Flexible video delivery options of Ethernet or wireless to set-top boxes (STBs)

Technical specifications

Physical

- Height: 177 mm (7.0 in)

- Width: 173 mm (6.8 in)

- Depth: 43 mm (1.7 in)

Installation

- Desk mountable

Operating environment

- Temperature: -5°C to 45°C (23°F to 113°F)

- Relative humidity: 10% to 90%

Power requirements

- Local powering with 12 V input (feed uses external AC/DC adapter)

- Dying gasp support

- Power consumption: <24 W

GPON uplinks

- Wavelength: 1490 nm downstream, 1310 nm upstream

- Line rate: 2.488 Gb/s downstream, 1.244 Gb/s upstream

- GPON Encapsulation Method (GEM) mode support for IP/Ethernet service traffic

- ITU-T G.984.3-compliant dynamic bandwidth reporting

- ITU-T G.984.3-compliant Advanced Encryption Standard (AES) in downstream

- ITU-T G.984.3-compliant forward error correction (FEC)

- ITU-T G.988 Appendix 1 and Appendix 2 ONT Management Control Interface (OMCI)

- Remote software image download

- Small form factor (SFF) type laser, SC/APC connector

Ethernet interfaces

- 10/100/1000Base-T interface with RJ-45 connectors

- 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 tagging/detagging per Ethernet port and marking/remarking of IEEE 802.1p

- IP type of service/differentiated services code point (ToS/DSCP) to IEEE 802.1p mapping for untagged frames
- Class of service (CoS) based on VLAN ID, IEEE 802.1p bit
- Internet Group Management Protocol (IGMP) v2/v3 snooping

POTS interfaces

- One FXS port for VoIP service with RJ-11 connectors
- Multiple codecs: ITU-T G.711, ITU-T G.729
- SIP (RFC 3261)
- ITU-T G.168 echo cancellation
- Services: caller ID, call waiting, call hold, 3-way call, call transfer, message waiting indication
- 3 ringer equivalence numbers (RENs) per line
- Dual-tone multi-frequency (DTMF) dialing
- Balanced sinusoidal ring signal, 55 V root mean square (RMS)

WLAN interfaces

- 2x2 802.11b/g/n
- 2x2 802.11ac
- 64-bit and 128-bit Wired Equivalent Privacy (WEP) support
- Wi-Fi Protected Access (WPA) support, including pre-shared key (WPA-PSK) and WPA2
- Media access control (MAC) filters

USB interface

- Two USB 2.0 interfaces

Residential gateways

- IPv4 and IPv6
- Point-to-Point Protocol over Ethernet (PPPoE) and IP over Ethernet (IPoE)
- NAT, DMZ and firewall
- Dynamic Host Configuration Protocol (DHCP) and domain name system (DNS) proxy
- IGMP proxy
- Supports TR-069

LEDs

- Power
- Link
- Auth
- LAN (1~4)
- TEL
- VoIP
- Wi-Fi Protected Setup (WPS)
- WLAN 2.4G/5G
- USB
- Internet

Safety and electromagnetic interference (EMI)

- Protection of over voltage/current

Regulatory compliances

- CE Mark
- FCC Mark