

MOTOROLA ONT1000V™ Single Family Unit

Intelligent Fiber-to-the-Premises (FTTP) Services Platform

DATA SHEET



Motorola ONT1000V™ SFU OPTICAL NETWORK TERMINAL

The Motorola ONT1000V is an ITU G.983-compliant intelligent optical network terminal (ONT). It is designed to deliver a full range of advanced voice, data and video entertainment services over an all-optical broadband access network.

Using the ONT1000V ITU compliant optical network terminal (ONT), operators can build upon the power of a fiber infrastructure to bring advanced services directly to the home. In conjunction with the Motorola Broadband Digital Terminal™ (BDT2) or AXS2200™, the ONT1000V becomes the service delivery point into the home, enabling operators to deliver multiple revenue generating services over a single fiber passive optical network (PON).

Based on open standards and leveraging a highly flexible design, the Motorola ONT1000V addresses the demand for bandwidth intensive services, such as high definition television (HDTV), video-on-demand (VOD) and games on-line. It can be configured to seamlessly deliver quality voice, voice-over-IP and ultra high-speed Internet access – via a single fiber optic connection to the home. The ONT1000V also supports interactive services by integrating upstream signals from Motorola's widely deployed family of digital RF and combination RF/IP set top terminals.

With the ONT1000V Service Providers can:

- Provide tiered broadband data services from kilobytes to multi-megabytes
- Offer standard transparent TDM and VoIP telephony services
- Deliver digital video services via a single coax origination point, enabling IPTV services such as HDTV, VOD and digital video recording (DVR) as well as games on-line
- Deliver video using RF-overlay from legacy RF video systems and set top terminals

HIGHLIGHTS INCLUDE:

- Enables the delivery of voice, data and video entertainment services over a single fiber PON
- Provides four lines of Class 5 or softswitch-served (VoIP) quality voice service
- Provides Internet access at speeds up to 100 Mbps
- Works with existing home wiring
- Provides integrated return path signaling in support of interactive applications
- Enables easy installation supported through pre-provisioned service profiles
- Leverages an environmentally hardened enclosure for true outdoor capabilities, even in extreme conditions
- Includes an uninterruptible power supply to assure continuous operation in emergency situations



FEATURES AND BENEFITS

Flexibility

Revenue growth and building a powerful defense against competitors are key reasons Service Providers need to consider the deployment of next generation fiber access technologies. Multi-service delivery over a single converged FTTP and FTTN platform provides the flexibility to offer "triple play" and additional advanced IPTV services. The converged platform provides revenue generating services and allows Service Providers to take advantage of improved deployment economics and greater operational simplicity.

Interoperability

The ONT1000V is in compliance with industry standard FSAN and ITU-T G.983 specifications to allow interworking with third party vendors. The ONT 1000V is also designed to interoperate with Motorola's line of RF and combination RF/IP set top terminals.

The ONT1000V also hosts an integrated signaling return path in support of interactive on-demand services such as video-on-demand and pay-per-view.

Management

Both the AXS2200 and BDT2 FTTP and FTTN access network architectures support the ONT1000V and are managed by the respective element management system. These comprehensive management systems ensure visibility into system performance, service continuity, flexible service provisioning and maintainability from a centralized operations center – including AXS2200, BDT2 and ONT upgrades.

SPECIFICATIONS

Physical Description*

- Height: 14.00" (35.56 cm)
- Width: 10.00" (25.40 cm)
- Depth: 4.05" (10.29 cm)
- Weight: 7 lbs.
- Mounting: Wall

* Not including fiber management

Power Supply

- Output Power: 24 Watts (maximum) with single Power Supply, 28 (maximum) Watts with SOPS/SBBPS- ONT
- Output Voltage: +12 VDC
- Input Voltage: 100 to 128 VAC, 60 Hz
- Battery Backup Time: 8 hours idle backup (typical)

Interface Configuration

Telephony Interface:

- 4 IDC terminals (Tip and Ring)
- 4 RJ-11 gel-filled test point connections
- 5 REN (maximum) per line
- 10 REN (maximum) across all lines

Data Interface:

- Ethernet 10/100Base-T port
- RJ-45 gel-filled connector

Power Interface:

- Screw terminals (IDC status line terminals)

Video Interface:

- 75-ohm F-type connector

Optical Interface:

- SC or OptiFit[®] connector

Environmental

- Operating Temperature: -40°C to +60°C ambient (+46°C with 750 W/m² solar loading)
- Storage Temperature: -40°C to +65°C
- Operating Humidity: 0 to 100% RH

Regulatory Compliance

Safety:

- UL60950
- EN60950
- IEC 60825

Emissions/Immunity:

- FCC CFR47, Part 15 Class B
- EN55022
- EN55024

Applicable Sections of:

- GR-63-CORE (NEBS)
- GR-1089-CORE
- GR-909-CORE

Network Interface

- Broadband Passive Optical Network (BPON) interface
- 622 Mb/s downstream
- 155 Mb/s upstream
- Operating Wavelengths:
 - 1490 nm voice/data receive
 - 1550 nm video receive
 - 1310 nm voice/data transmit

Protocols

- G.983.1, G.983.2, G.983.3, and G.983.4 B-PON
- G983.2 compliant OMCI (ONT Management and Control Interface) messaging to ONT's
- AAL2 and AAL5 ATM adaptation
- AF-VMOA-0145 Loop Emulation
- Service for voice and multimedia ATM
- 802.1d (bridging)
- 802.1q (VLAN)



Motorola, Inc.

Specifications are subject to change without notice.

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