

MOTOROLA ONT1500GT

Small Office/Home Office Unit

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



The Motorola ONT1500GT Small Office Home Office – SOHO is an ITU G.984-compliant GPON intelligent optical network terminal (ONT). It is designed to deliver a full range of advanced voice, data and video services over an all-optical ultra-broadband access network.

Using the ONT1500GT ITU compliant GPON optical network terminal (ONT), operators can build upon the power of a fiber infrastructure to bring advanced IPTV and packet-based video services directly to the home. In conjunction with the high-density Motorola AXS2200™, the ONT1500GT becomes the next generation service delivery point into the home, enabling operators to deliver multiple revenue generating services over a single fiber passive optical network (PON). The ONT1500GT can be deployed for new service or as an upgrade from an existing BPON system.

Based on open standards and leveraging a highly flexible design, the Motorola ONT1500GT addresses the demand for ultra broadband services. It can be configured to seamlessly deliver quality voice, voice-over-IP and high speed Internet access – via a single fiber optic connection to the home. The ONT1500GT 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 ONT1500GT, service providers can:

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

Highlights include:

- Enables the delivery of IPTV - voice, video and data - services over a single fiber GPON.
- Provides eight lines of Class 5 or softswitch-served (VoIP) quality voice service.
- Provides Internet access at speeds up to 400Mbps over Ethernet .
- Supports interactive packet-based video and IPTV with Ethernet or MoCA.
- Works with existing in-home wiring.
- Enables easy installation supported through pre-provisioned service profiles.
- Provides integrated return path signaling in support of interactive services.
- Leverages an environmentally hardened enclosure for true outdoor capabilities, even in extreme conditions.
- Provides a cost-effective, scalable solution for initial rollout or full deployment.
- Includes an uninterruptible power supply to assure continuous operations in emergency situations.

MOTOROLA ONT1500GT

Small Office/Home Office Unit

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

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 ONT1500GT is in compliance with industry standard FSAN and ITU-T G.984 specifications to allow interworking with third party vendors. The ONT1500GT is also designed to interoperate with Motorola's line of RF and combination RF/IP set top terminals. The ONT1500GT also hosts an integrated signaling return path in support of interactive on-demand services such as video-on-demand and pay-per-view.

Management:

The AXS2200 FTTP and FTTN access networks and ONT1500GT are managed by a comprehensive element management system that enables visibility into system performance, service continuity, service provisioning, maintenance and upgrades from a single operations center.

Specifications

Physical Description*

Height: 16.7" (42.4 cm)

Width: 11.7" (29.7 cm)

Depth: 8.00" (20.3 cm) *

Weight: 15 lbs.

Mounting: Wall

* including fiber management

Power Supply

- ONT Power: 42 Watts (maximum)
- ONT Input Voltage: +12 VDC
- UPS Input Voltage: 100 to 240 VAC, 50/60 Hz.
- Battery Backup Time: 8 hours idle backup

Interface Configuration

Telephony Interface

- 8 POTS
- 2 lines 4 IDC terminals (Tip and Ring)
- 6 lines 1 IDC terminals (Tip and Ring)
- 8 RJ-11 gel-filled test point connections
- 5 REN (maximum) per line
- 20 REN (maximum) across all lines

Data Interface

- MoCA port with F-type connector
- 2x Ethernet 10/100/1000Base-T ports
- RJ-45 gel-filled connector
- Mounting position for 2x RJ-45 to IDC adapters
- Synchronous Ethernet

Power Interface

- 7 position 5mm remove-able IDC

Video Interface

- 75-ohm F-type connector
- +18dBmV

Optical Interface

- Field interchangeable 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:

- EN60825-2, IEC 60825, EN60950, UL60950-1
- #### Emission/Immunity:
- FCC Part 15 Subpart B, FCC Part 68
 - Class B, ETSI CTR-21, EN55022, EN55024
 - Applicable Sections of: GR-47-CORE, GR-57-CORE, GR-63-CORE, GR-418-CORE, GR-485-CORE, GR-487-CORE, GR-499-CORE, GR-909-CORE, GR-950-CORE, GR-1089-CORE, GR-1500-CORE, GR-2914-CORE

Network Interface

Gigabit Passive Optical Network (GPON) interface

- 2.5 Gb/s downstream
 - 1.2 Gb/s upstream
- #### Operating Wavelengths:
- 1490 nm voice/data receive
 - 1550 nm video receive
 - 1310 nm voice/data transmit

Protocols

- ITU-T G.984.1, G.984.2, G.984.3, G.984.4, as amended
- IGMP v2 (RFC 2236) and IGMP v3 (RFC 3376) multicast group management including snooping support
- IEEE 802.1D bridging
- IEEE 802.1Q Virtual LAN
- RFC 1886, RFC 2460, RFC 2463, RFC 2464, RFC 2474, RFC 3513, RFC 3587
- H.248 and SIP-enabled VoIP
- GR-303, GR-08
- SNMPv3
- IEEE 802.3i, IEEE802.3u, 802.3ab
- IEEE 802.1ad Provider Bridges
- IEEE 802.3ad link aggregation
- MoCA



Motorola, Inc.
1303 East Algonquin Road
Schaumburg, IL (USA) 60196
+1 847.576.5000 (TEL)
www.motorola.com
info@motorola.com (EMAIL)

Specifications are subject to change without notice.
MOTOROLA and the Stylized M Logo are registered in the U.S. Patent and Trademark Office. The AXS2200 is a trademark of Motorola, Inc. All other product or service names are the property of their respective owners. © Motorola, Inc. 2006