

# MOTOROLA ONT1000GT2

## Single Family Unit

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



The Motorola ONT1000GT2 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 ONT1000GT2 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 ONT1000GT2 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 ONT1000GT2 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 ONT1000GT2 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 ONT1000GT2 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 ONT1000GT2, 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 two lines of Class 5 or softswitch-served (VoIP) quality voice service.
- Provides Internet access at speeds up to 1 Gbps over Ethernet or MoCA.
- 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.
- Includes an uninterruptible power supply to assure continuous operations in emergency situations.

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### 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 ONT1000GT2 is in compliance with industry standard FSAN and ITU-T G.984 specifications to allow interworking with third party vendors. The ONT1000GT2 is also designed to interoperate with Motorola's line of RF and combination RF/IP set top terminals.

#### Management:

The AXS2200 FTTP and FTTN access networks and ONT1000GT2 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: 11.5" (29.21 cm)
  - Width: 10.4" (10.4 cm)
  - Depth: 3.0" (7.62 cm)
  - Weight: 5 lbs.(2.26 kg)
  - Mounting: Wall
- Not including fiber management*

#### Power Supply

- ONT Power: 20 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:

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

##### Data Interface:

- MoCA port with F-type connector
- Ethernet 10/100/1000Base-T port
- RJ-45 gel-filled connector

##### Power Interface:

- 7 position 5mm header with remove-able IDC connector

##### Video Interface:

- 75-ohm F-type connector +18dBmV

##### 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:

- 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



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