# Motorola ONT6000GVT

## GPON ONT FOR MULTI-DWELLING UNIT

**Overview:**

Motorola ONT6000GVT next generation optical network terminal (ONT) is designed to deliver end-to-end Ultra-Broadband. Compact, environmentally hardened and compatible with all existing in-building wiring types, ONT6000GVT provides service distribution points in buildings to deliver quality voice, video and data to every subscriber.

Motorola ONT6000GVT GPON Optical Network Terminal extends fiber to the edge of service provider networks to enable the delivery of end-to-end Ultra-Broadband services to subscribers in multi-dwelling units (MDUs). Optimized for the delivery of video, the ONT6000GVT features unparalleled density, scalability and flexibility to provide superior capacity for growth in premium services such as IPTV, high definition VOD and time-shifted TV. Proven to be reliable in Tier 1 service provider networks across the globe, Motorola deep fiber solutions helps service providers stay ahead of consumer demand for high quality personalized communications and entertainment experiences.

The ONT6000GVT comes in a hardened 2 RU housing that can be conveniently mounted inside or outside the dwelling units using cabinets, racks, or wall mounts. The ONT6000GVT can deliver RF video over coax and POTS service to 24 subscribers, and is distinguished by its data service delivery options. The ONT6000GVT has 12 VDSL2 interfaces that provide data over Cat 3.

**Highlights include:**

- Environmentally hardened and compact, designed to fit in cabinets, racks, and wall mounts
- Delivers a cost effective, scalable solution to de liver 1000 Mbps aggregated Ultra-Broadband.
- Provides 24 lines of Class 5 or soft-switch (VoIP) quality voice service
- Provides 12 lines of Ultra-Broadband data via VDSL2
- Delivers 12 lines of 100/100Mbps VDSL2 using 30A bandplan
- High power +33dBmV RF video distribution to multiple dwelling units
- Works with existing in-building wiring including Cat 3 and coaxial cable
- Provides the ability to remotely perform complex service provisioning and maintenance procedures
- Uninterruptible power supply to assure continuing operation in emergency situations
- Optional RF Return Path Demodulation for Set Top Boxes

**The ONT6000GVT offers:**

- Symmetrical Throughput – end-to-end Ultra-Broadband service delivery
- Video Optimized Design – sustained full bandwidth to subscribers with superior capacity for growth in high definition unicast services such as VOD and time-shifted television
- Quality Voice – quality and reliable delivery of legacy voice and next generation VoIP services
- Service Delivery Flexibility – rapid video deployment with evolution to IPTV
- Proven Solutions – deployed, operational and scaled in Tier 1 Service provider networks
- Scalability – enables service providers to reach every subscriber in MDUs
- Advanced Configuration Management Tools – reduces cost to connect and maintain

Alexander and Walter Soto, Ex. 2025
Nokia of America Corporation v. Alexander and Walter Soto, IPR2023-00960

## Specifications:

### Physical Description*

- Height: 17" (42.5 cm)
- Width: 3.5" (8.75 cm)
- Depth: 12.0" (30.48 cm)
- Weight: 25lbs
- Available mounting kits: indoor and outdoor cabinet, wall bracket, 19" and 23" vertical mid-mount and flush mount rack brackets. 19" rack brackets support 4 units. 23" rack brackets support 5 units.

### Power Supply

- ONT Input Voltage: +48 VDC
- UPS Output Voltage: +48 VDC
- UPS Input Voltage: 100 - 120 VAC, 60 Hz
- UPS Output Power: 150 W
- Battery Backup Time: 16 hours idle backup

### Interface Configuration

- Fiber: Optifit or SC/APC
- 24X POTS: RJ-21, 5 REN maximum across one line and 30 REN maximum across all lines
- 12X VDSL2: Internal POTS splitters on 1st 12 lines 100/100Mbps 30A bandplan
- RF Video: 75-ohm F-type connector +33dBmV
- Power interface: 7 position 5mm header with removable IDC connector
- 4X Auxilary DB-9

### Network Interfaces

- GPON: 2.488 Gbps downstream, 1.244 Gbps upstream
- Operating Wavelengths:
  1490 +/- 10nm voice/data receive
  1310 +/-50nm voice/data transmit
  1550-1560 nm video receive
- Field interchangeable SC or OptiFit® connector, Class B+ optics

### Environmental

- Operating Temperature: -40C to +65C ambient (+46C with 750 W/m2 Solar Loading)
- Storage Temperature: -40C to +65C
- Operating Humidity: 0 to 100% relative humidity

### 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

### Protocols

- ITU-T G.984.1, G.984.2, G.984.3, G.984.4, as amended
- ITU-T G.983.2 and G.983.8 statistics (Ethernet interface)
- ITU-T G.993.2 Annex A Profile 30a
- GPON Encapsulation Method (GEM)
- IGMP v2 (RFC 2236) and IGMP v3 (RFC 3376) multicast group manage ment including snooping support
- IEEE Std 802.1D bridging and learning, traffic class expediting & dynamic multicast filtering (Annex H)
- IEEE 802.1Q Virtual LAN with 8 levels of priority
- EEE 802.1ad Provider Bridges
- IEEE 802.3i, IEEE802.3u, 802.3ab
- RFC 1886, RFC 2460, RFC 2463, RFC 2464, RFC 2474, RFC 3513, RFC 3587, RFC 3261, RFC 3262, RFC 3263, RFC 3264, RFC 3265, RFC 3311, RFC 3325, RFC 3515, RFC 3840, RFC 3842, RFC 3891, RFC 3911, RFC 3959, RFC 3966, RFC 4028, RFC 4235, RFC 4412
- H.248 and SIP-enabled VoIP
- GR-303, TR-08

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