



Total Access

374 MDU/ MTU ONT

FTTP Multi-Dwelling and Multi-Tenant ONT



Benefits

- Cost-effective delivery of triple-play services in high density housing environments
- G.984 compliant
- Environmentally hardened for indoor or outdoor deployments
- Class B+ Optics and optionally Class C Optics
- Corning OptiTap support
- 10/100/1000 Base-T Ethernet Port(s)
- Fiber cable management
- Native Ethernet transport over the GPON (GEM Based)
- VoIP using SIP or MGCP
- Traditional voice using GR-303
- IPTV video support
- Traffic management through priority queuing, scheduling, policing and traffic shaping

Overview

Carriers today are dealing with increasing competition, operational costs, and demand for bandwidth. To address these concerns, ADTRAN® offers a complete suite of fiber access solutions that are enabling carriers to compete more cost-effectively while expanding broadband services to un-served and underserved areas, like those targeted by the American Recovery and Reinvestment Act and Connect American Fund.

With fiber access solutions like Gigabit Passive Optical Networking (GPON) carriers have a new means to compete in an environment where Gigabit services delivery is demanded. GPON provides the flexibility, reliability, and bandwidth to give carriers a competitive advantage in today's market.

As part of the ADTRAN FTTP strategy, ADTRAN offers a range of differentiated Gigabit Passive Optical Networking Series Optical Network Terminal (ONT) solutions to address residential, business, and cell site applications. ADTRAN's portfolio of ONTs provide carriers with a consistent and common approach for triple play service delivery to residential and business customers alike. This technology allows carriers to deliver traditional telephone services—Plain Old Telephone Services (POTS), high-speed data, and video services over the public communications networks with a deployment method that used standard Ethernet frames, alleviating the need for a transition protocol.

The ADTRAN Total Access® Series of ONTs may be used in conjunction with the Total Access 5000 Multi-Service Access and Aggregation Platform to support a pure Fiber To The Premises (FTTP) applications

with solutions from central office, remote terminal and remote node locations. The optical network consists of an Optical Line Terminal (OLT) located at the CO and ONTs located at the customer premises, all supported by a common management solution. To allow for the transmission of downstream and upstream traffic on one single fiber, different wavelengths are used for each direction. Downstream traffic uses 1490 nm, while upstream traffic is carried on 1310 nm. The ONT employs diplexers to separate wavelengths. The ONTs support broadband data delivery, triple play (voice, video and data), legacy voice services (GR-303), Next Gen Voice over IP (VoIP)—SIP and MGCP, and a number of options for fiber connectivity.

The Total Access 374 ONT can support a variety of physical optical connections and speeds. For gigabit Ethernet speeds, the Total Access 374 ONT can support either the GigE 2-fiber SFP modules or GigE 1-fiber (Bi-directional) SFP modules. The distances offered by the ADTRAN solution for GigE allows single, bi-directional fiber with 1490 nm transmit wavelengths to distances of 10, 20, 40, and 80 km.

The Total Access 374 ONT leverages the industry-leading converged voice and data functionality widely deployed in ADTRAN VoIP platforms, with millions of ports currently deployed. Based on the ADTRAN Operating System (AOS), each ONT provides unmatched SIP and MGCP interoperability with a host of major softswitch vendors, as well as integrated statistics and tools that allow carriers to quickly and easily troubleshoot network configuration issues, as well as monitor performance.

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Features of the Total Access 374 ONT includes box-in-box, weatherproof and access controlled construction with entry ports for fiber, power, ground, Ethernet and telephone. Data services are delivered over 10/100/1000Base-T Ethernet interfaces. Telephone service is supported by POTS interfaces.

The POTS ports use in-band signaling tones and currents to determine call status. SIP, MGCP, and GR-303 are all available to support a wide variety of network models. Voice traffic is carried as VoIP packets to either the Total Access 5000 integrated Voice Gateway Module for access to legacy TDM interfaces, or as SIP or MGCP to an external softswitch to support voice services. A full suite of Quality of Service (QoS) features are available with support for 802.1Q VLANs and 802.1p for prioritization.

Total Access 374 ONTs are powered by an external UPS. The AC-powered UPS provides a nominal 12 VDC to the ONT. Management of the Total Access Series ONTs is performed over OMCI. Outdoor ONTs are environmentally hardened for installation inside or outside a residence as a particular installation demands. The ONTs provide a wealth of benefits for carriers of all types, deploying broadband solutions including voice, data, video, and HDTV. An industry-leading warranty and best-in-class technical support make ADTRAN Total Access FTTP solutions the best value on the market today.

Product Specifications

Voice Support

VoIP Protocol

- SIP (RFC 3261)
- MGCP (RFC 3435)
- H.248 (RFC 3525)
- Metallic loop testing (GR-909)
- 5 REN per line
- Loop start
- Megaco v2 (H.248)
- G.711 (μ -law and A-law)
- G.726-32, G.722, G.729
- G.168 Echo Cancellation
- T.38 and IN-BAND Fax

Traditional Voice

- GR-303

Data Support

- G.984.3
- Serial number discovery and Registration ID provisioning
- Forward Error Correction (FEC)

- Supports up to 8 T-CONTS
- IPTV traffic filtering (Multicast GEM port)
- Meets IEEE 802.1 specifications
- Hardware priority queues on the downstream direction in support of CoS
- 802.1D bridging
- VLAN tagging/detagging per Ethernet port
- VLAN stacking (Q-in-Q) and VLAN Translation
- IP ToS/DSCP to 802.1p mapping
- Class of Service based on UNI, VLAN-ID, 802.1p bit, and combination
- Marking/remarking of 802.1p
- Dynamic Host Configuration Protocol (DHCP)

OAM Support

- TR-69 provisioning
- ITU-T G.984.4/G.988 based management of all services
- Remote firmware upgrades through Total Access 5000 OLT
- SIP configuration from Total Access 5000

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GPON Support

- Compliant with ITU-T G.984 GPON standards
- 1.244 Gbps Burst Mode Upstream Transmitter
- 2.488 Gbps Downstream Receiver
- Compliant with ITU-T G.984.2 Amd1, Class B+
- 0.5dBm ~+5dBm launch power, -27dBm sensitivity, and -8dBm overload
- Wavelengths:
 - US 1310nm, DS 1490nm

Physical Specifications

LEDs

- POWER
- Battery
- Optical Status
- Ethernet
- POTS

Interfaces

- Four 10/100/1000 BaseT Ethernet interface via RJ-45
- Auto-negotiation and MDI/MDIX auto-sensing
- Four POTS lines via RJ-11

Power Supply, Power Consumption

- 12 to 14 VDC
- Power Consumption: 13.0 to 20 Watts
- Dying Gasp Support

Physical Dimensions

- 13 in x 11.25 in x 4.3 in (330 mm x 286 mm x 110 mm) (W x D x H)
- 5.5 lbs. (2.5 kg)

Regulatory Agency Approvals

- FCC PART 15 Class B
- UL/CSA 60950
- CE Mark
- RoHS6 Compliant
- WEEE Compliant
- 1040.10 and 1040.11 Class 1

Management

- TR-069 compliant
- Remote management through SNMP and TL1 to Total Access 5000 GPON OLT
- Ethernet interface on Total Access 5000 for IP management access

- Craft interface on Total Access 5000 for VT100 management access
- OMCI between ONT and OLT
- AOS statistics and debug capabilities

Voice Services Support

Tone Services

- DTMF dialing
- Country specific coefficients and tones
- Local Tone Generation
 - Dialtone
 - Busy
 - Call Waiting
 - Alternate Call Waiting
 - Receiver Off Hook
- Ringing
 - Distinctive Ring

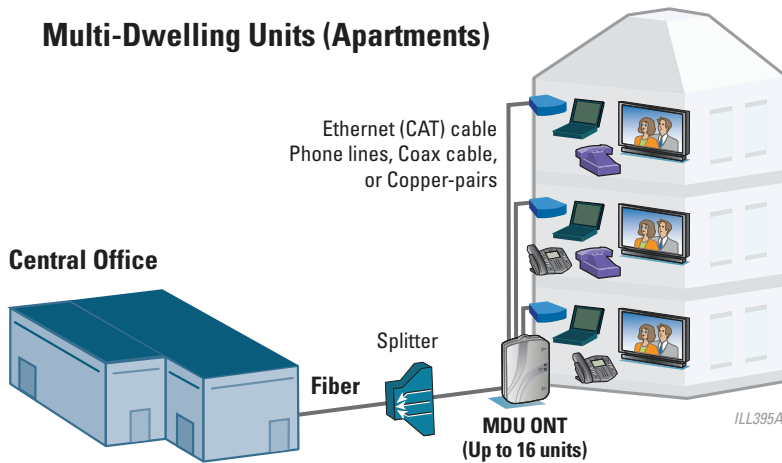
Calling Feature Support

- Caller ID
 - Name and Number (MDMF, SDMF)
 - Call Waiting IAD
- Voice Mail
 - Stutter dialtone
 - Visual Message Waiting Indicator (VMWI)
- Call Hold
- Call Forward
 - Busy Line
 - No Answer
- Call Transfer
 - Blind, Attended
- Call Waiting
- Distinctive Ring
- Do Not Disturb
- Three-way Calling
- Call Return
- Speed Dial
- 3-way Conferencing (3WC)

Environmental

- **Operating Temperature:** -40° F to -40° F to 114° F (-40° C to +46° C)
- **Storage Temperature:** -40° F to 185° F (-40° C to +85° C)
- **Relative Humidity:** 5% to 90%
- Hardened outdoor enclosure

Multi-Dwelling Units (Apartments)



Ordering Information

Equipment	Part No.
Total Access 374 MDU/MTU ONT	1287703G1

ADTRAN

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