ADTRAN®

Data Sheet

ADTRAN

424

FTTH Single Family Unit ONT

FTTH | Open Architecture | **SDN** Enabled

Benefits

- **Most cost-effective delivery of symmetric gigabit services**
- **Remote service troubleshooting and home management via TR-069**
- **Provides CoS levels for prioritizing multi-user, multi-services**
- **Supports both GPON and Active Ethernet deployment models**
- **USB 2.0 interface device and storage support**
- **Supports both VoIP and TDM Voice**
- **Supports both IPTV and OTT video**

Overview

For years, service providers have struggled with migrating to indoor ONTs because of the challenges of running fiber inside the home. The ultra-compact size of the new 400 Series enables easy and inconspicuous wall mounting right where the fiber enters the home significantly limiting the amount of indoor fiber routing. Since the ONT and residential gateways are separate devices, this still allows for the residential gateway to be located in a central location to provide consistent wireless coverage throughout the home without requiring fiber all the way to this location.

The ONT leverages the industry-leading converged voice and data functionality widely deployed in ADTRAN® integrated access, IP gateway, and Voice over IP (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 trouble-shoot network configuration issues, as well as monitor performance.

SDN Enabled

ADTRAN is defining next generation service provider networks that revolve around program-mability and virtualized network functions. Taking datacenter principles like SDN and NFV and applying them to the service providers network are going to be a necessity to compete against the competitive threat of cloud solution providers. ADTRAN is enabling this capability in current and next generation FTTH platforms so service providers are prepared when they need to take the next step in their network.

Product Specifications

Ethernet Interfaces

- 10/100/1000Base-T Interface with RJ-45 Connectors
- Ethernet Port Auto Negotiation or Manual Configuration
- MDI/MDIX Automatically Sense
- Hardware Priority Queues on the Downstream Direction in Support of CoS

Ethernet Services

- Symmetric 1 Gbps Throughput
- 802.1D Bridging
- 802.1x Authentication
- Virtual Switch Based on 802.1q VLAN
- VLAN Tagging/Detagging Per Ethernet Port
- VLAN Stacking (Q-in-Q) and VLAN Translation
- Quality of Service (QoS)
  - ❑ VLAN-ID
  - ❑ 802.1p bit
  - ❑ DSCP to p Bit Translation
- Marking/Remarking of 802.1p
- IGMP v2/v3 Snooping
- Broadcast/Multicast Rate Limiting
- DNSv6

USB Interface

- 1 USB Host Interface
- Compliant to USB 2.0
- Network Storage

POTS Interface

- RJ-11 Interface
- 3-REN, 50V RMS
- **VoIP Voice:** SIP
- **TDM Voice:** Both GR.303, GR-57 and TR-08
- Full CLASS Feature Set
- Both ANSI and ETSI POTS
- T.38 Facsimile
- Configurable Dial Plan
- Configurable Country Specific Ring-back Tones (Frequency and Cadence)
- DHCP Client or Static IP Configuration
- Optionally Metallic Loop Testing

GPON Interface

- Compliant with ITU-T G.984 GPON Standards
- Compliant with ITU-T G.984.2 Amd1, Class C+
- Support G.984.5 Blocking Filter
- Multiple T-CONTs per Device
- Multiple GEM Ports per Device
- DBA Reporting by Piggyback Reports in the DBRu (Mode 0 and Mode 1)
- 802.1p Mapper Service Profile on U/S
- Mapping of GEM Ports into a T-CONT with Priority Queues Based Scheduling
- Support Multicast GEM Port and Incidental Broadcast GEM Port

Dimensions

- 35 mm x 100 mm x 140 mm (1.4 in. x 3.9 in. x 5.5 in.) (H x W x D)

Power Supply

- +12V (Feed via External AC/DC Adapter)
- Dying Gasp Support
- Power Switch
- **Power Consumption:** Less than 15W

Working Environment

- **Temperature:** 0° C – 40° C (32° F – 104° F)
- **Humidity:** 5% – 95% Relative Humidity

Safety and EMI

- CE Certificate
- FCC/UL Compliant

Environmental Directive

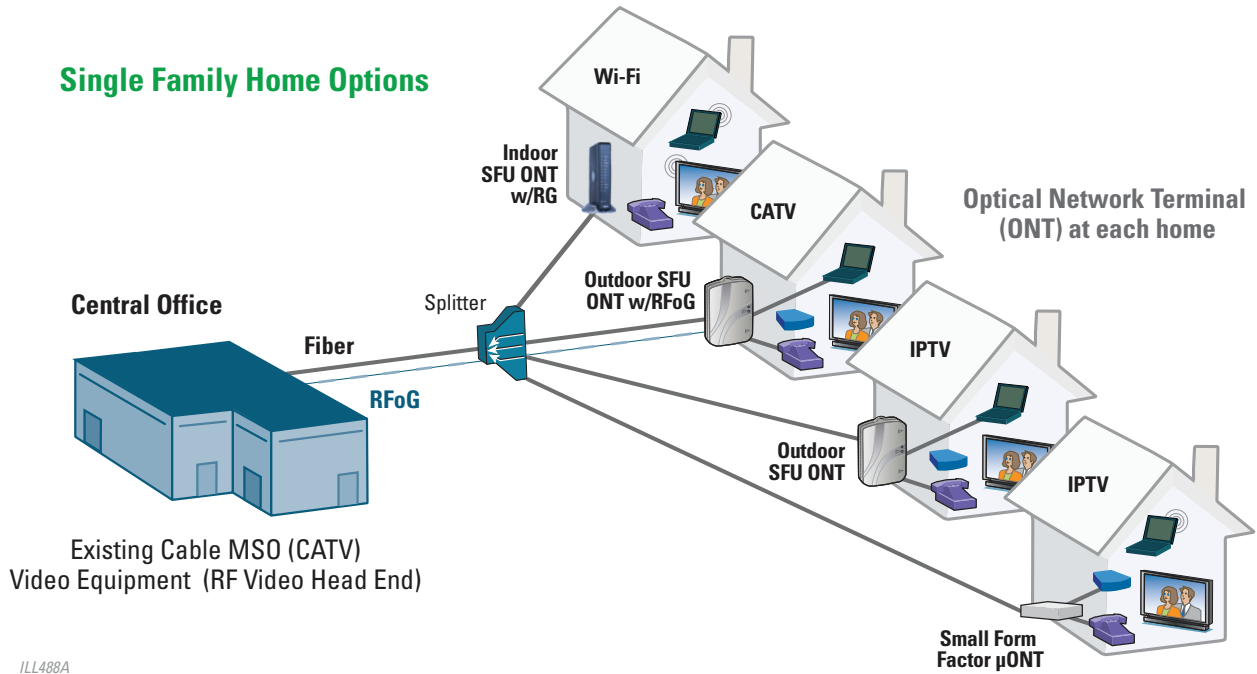- RoHS 6 of 6

Installation

- Wall Mounting and Desktop Mounting

LEDs

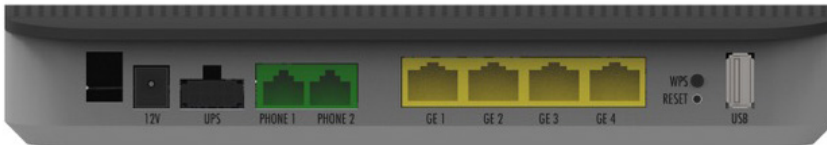- Power
- GPON
- Optical
- LAN
- VoIP

OAM

- Standard Compliant OMCI (the Embedded Operations Channel) Interface as Defined by ITU-T G.988
- Provisioning all kinds of Services including Ethernet, VoIP etc.
- Alarming and Performance Monitoring
- Remote Software Image Download over OMCI, as well as Activation and Rebooting
- Hold Two Software Sets with Software Image Integrity Checking and Automatic Rollback

Single Family Home Options

Central Office

Existing Cable MSO (CATV)
Video Equipment (RF Video Head End)

ILL488A

Fiber

RFoG

Splitter

Indoor SFU ONT w/RG

Wi-Fi

Outdoor SFU ONT w/RFoG

CATV

Outdoor SFU ONT

IPTV

Small Form Factor µONT

IPTV

Optical Network Terminal (ONT) at each home

Ordering Information

Equipment	Part No.
ADTRAN 424, Single Family Unit GPON/Active Ethernet ONT	1287835F1

ADTRAN®

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ADTRAN Certified Supplier

ISO 9001
ISO 1401
TL 9000

TL9000
TL19.1270