

ADTRAN

424

## FTTH Single Family Unit ONT



## 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 troubleshoot network configuration issues, as well as monitor performance.

### SDN Enabled

ADTRAN is defining next generation service provider networks that revolve around programmability 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/Untagging 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

# Single Family Unit ONT

---

## 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

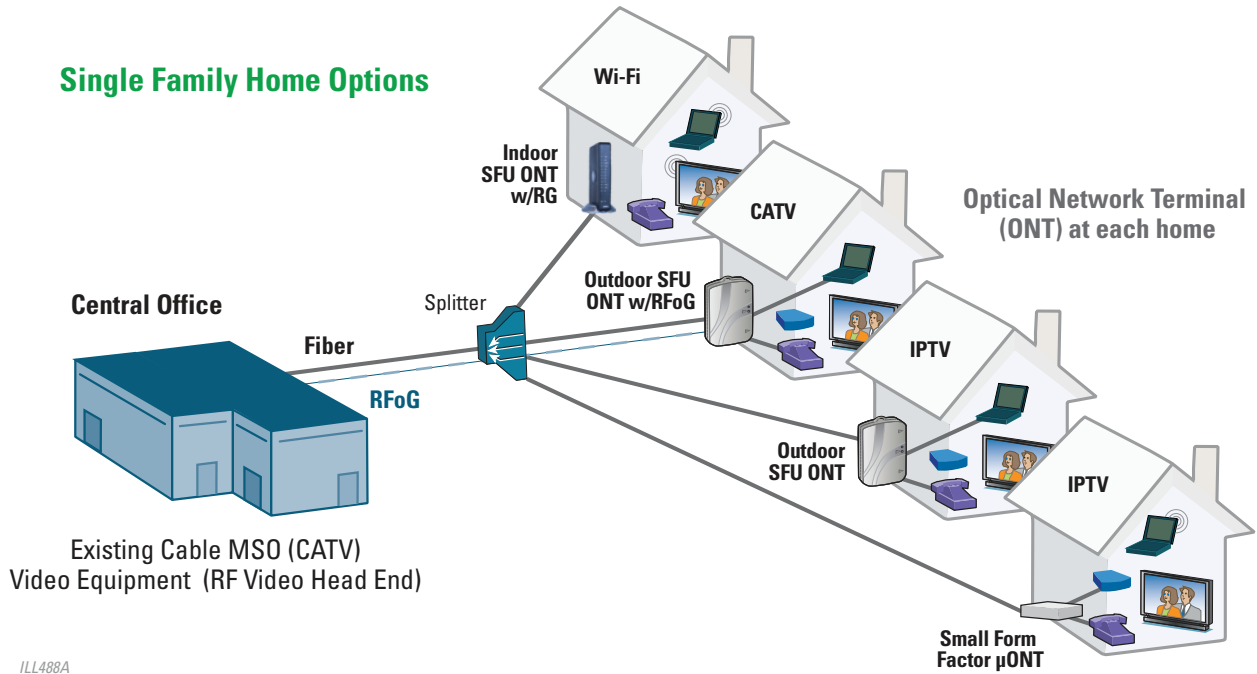
## LEDs

- Power
- GPON
- Optical
- LAN
- VoIP

## OAM

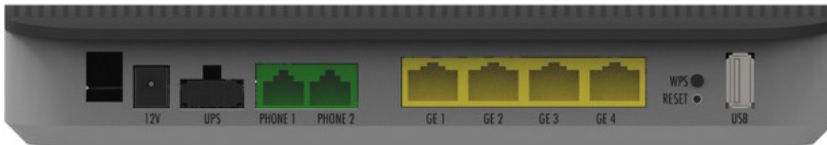
- Standard Compliant OMCI (the Embedded Operations Channel) Interface as Defined by ITU-T G.988
- Provisioning all kinds of Services including Ethernet, VoIP etc.
- Alarming and Performance Monitoring
- Remote Software Image Download over OMCI, as well as Activation and Rebooting
- Hold Two Software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

## Single Family Home Options



## Ordering Information

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



**ADTRAN**

ADTRAN, Inc.  
901 Explorer Boulevard  
Huntsville, AL 35806  
256 963-8000

General Information  
800 9ADTRAN  
www.adtran.com/contactus

Canada Headquarters—Toronto,  
Ontario  
+1 877 923 8726  
+1 905 625 2515  
sales.canada@adtran.com

Canada—Montreal, Quebec  
+1 877 923 8726  
+1 514 940 2888  
sales.canada@adtran.com

Mexico and Central America  
+1 256 963 3321  
+1 52 55 5280 0265 Mexico  
sales.cala@adtran.com

South America  
+1 256 963 3185  
sales.brazil@adtran.com  
sales.latam@adtran.com

### 61287835F1-8A

January Copyright © 2016 ADTRAN, Inc. All rights reserved. ADTRAN believes the information in this publication to be accurate as of publication date, and is not responsible for error. Specifications subject to change without notice. ADTRAN is a registered trademark of ADTRAN, Inc. and its affiliates in various countries. All other trademarks mentioned in this document are the property of their respective owners.

ADTRAN warranty duration and entitlements vary by product and geography. For specific warranty information, visit [www.adtran.com/warranty](http://www.adtran.com/warranty). ADTRAN products may be subject to U.S. export controls and other trade restrictions. Any export, re-export, or transfer of the products contrary to law is prohibited. For more information regarding ADTRAN's export license, please visit [www.adtran.com/exportlicense](http://www.adtran.com/exportlicense).

ADTRAN  
Certified  
Supplier



TL9000  
TL10 1270

ISO 9001  
ISO 14001  
TL 9000