Data Sheet

ADTRAN

452

FTTH Single Family Unit Outdoor ONT

IPTV VoIP FTTH Gigabit

Benefits

- **Environmentally hardened for indoor and outdoor deployments**
- **Full Class B+ Optics, capable of 30 km reach**
- **Optional internal Opti-fit mounting**
- **Fibre cable management**
- **Supports both VoIP and TDM voice**
- **Supports both GPON and Active Ethernet deployment models**
- **Provides Class of Service (CoS) levels for prioritising multi-user services**

Overview

Wi-Fi device access has become an absolute requirement in today's homes and businesses. Smartphones, tablets, streaming devices, and Wi-Fi-enabled smart-home devices are placing a tremendous strain on the home network. In addition, the emergence of Gigabit broadband offerings have exposed Wi-Fi as a potential bottleneck for delivering advertised speeds down to the device. This is requiring service providers to rethink how they deliver residential connectivity over a wireless network as they look to minimise operational costs while ensuring higher customer satisfaction.

The ADTRAN 452 SFU Outdoor ONT is designed to address the residential market with industry-leading voice, data, and video capabilities. With the ADTRAN 452 SFU Outdoor ONT, carriers can benefit from the high data rates afforded by fibre-optic transmission and the flexibility offered by ADTRAN's portfolio of Ethernet-based systems that can be easily configured for new, customised service offerings.

The ADTRAN 452 SFU Outdoor 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 Session Initiation Protocol (SIP) and Media Gateway Control Protocol (MGCP) interoperability with a host of major softswitch vendors, and integrated statistics and tools that allow carriers to quickly and easily troubleshoot network configuration issues, and monitor performance.

Features of the ADTRAN 452 SFU Outdoor ONT include box-in-box, weatherproof and access controlled construction with entry ports for fibre, power, ground, Ethernet, and telephone. Data services are delivered over 10/100/1000Base-T Ethernet interfaces. Telephone service is supported by POTS interfaces.

SDN Enabled

ADTRAN is defining next-generation service provider networks that revolve around programmability and virtualized network functions. Taking datacenter principles like Software Defined Networking (SDN) and Network Function Virtualization (NFV) and applying them to the service providers' network are going to be a necessity to compete against the 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.

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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

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
  - 802.1 p Bit
  - DSCP to p Bit Translation
- Marking/Remarking of 802.1p
- IGMP v2/v3 Snooping
- Broadcast/Multicast Rate Limiting

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
- ANSI 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 Philtre
- 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

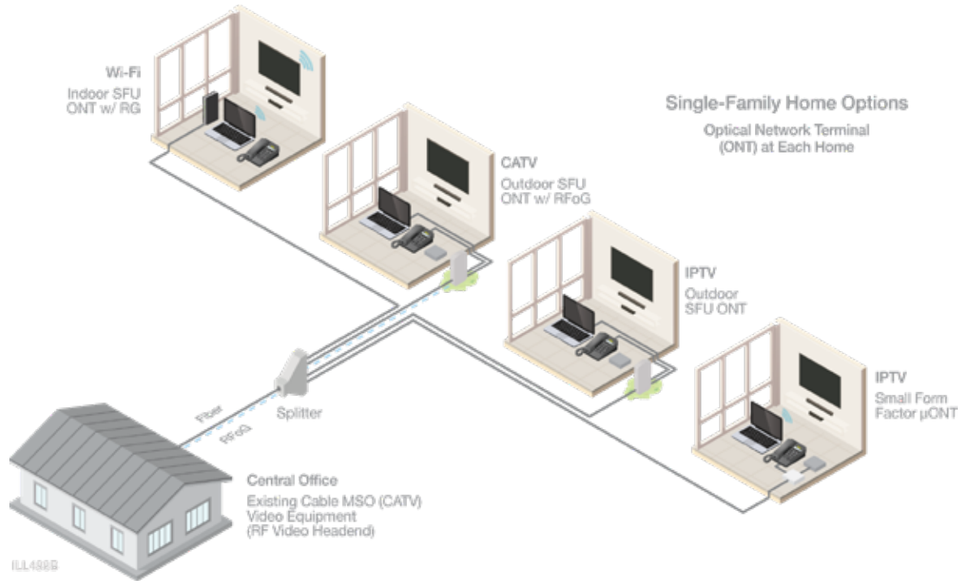
- 30.5 cm x 24.8 x 10.2 (12 in. x 9.75 in. x 4 in.) (W x H x D)
- Weight: 1.37 kg (3 lbs., 0.5 oz.)

Working Environment

- **Operating Temperature:** -40°C to +65°C (-40°F to 149°F)
- **Storage Temperature:** -40°C to +85°C (-40°F to 185°F)
- **Relative Humidity:** Up to 95%, non-condensing

LEDs

- Power
- GPON
- POTS
- ETH



Ordering Information

Equipment	Part No.
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