

Total Access 5000 Series

GPON OLT

4-Port and 8-Port GPON OLT Access Module



FTTH

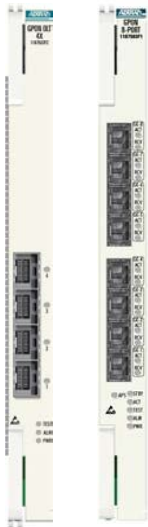


Gigabit



SDN

Enabled

Temperature
Hardened

Benefits

- Extends FTTH Reach Up to 60 km Simplifying Broadband Expansion to Rural and Remote Locations
- Supports an Extensive and Growing Family of ONTs
- Supports Both IPTV and RF Overlay Video Services
- Supports Dynamic Bandwidth Allocation Enabling Committed Rate Business Services
- Supports Service-Aware Provisioning and Troubleshooting
- Allows Both CO and RT Deployments
- Scalable to 64 ONTs Per GPON Port
- Supports Native Ethernet Transport Over GPON

Overview

GPON network architecture has the flexibility to support many applications such as Fiber-to-the-Home (FTTH), Fiber-to-the-Building/Curb (FTTB/C), and Fiber-to-the-Cabinet (FTTCab). The Adtran Total Access® 5000 GPON OLT Access Module offers a cost-effective solution to provide broadband services to both residential and business customers.

Adtran provides an ultra-flexible, high capacity deep-fiber solution that allows up to 10,000 subscribers to be served from a single FTTH platform. The Total Access 5000 is a carrier-class fiber access, aggregation, and transport platform that bridges the gap between existing and next-generation networks—like XGS-PON. With a pure Ethernet core, the Total Access 5000 system supports services over copper and fiber, easily scaling to support even the most bandwidth-intensive applications. As a GPON OLT, the Total Access 5000 provides the bandwidth and Ethernet switching capabilities needed to deliver a highly profitable service offering that meets a variety of legacy and emerging service requirements.

The SFP-based GPON OLT allows operators to increase their service area by utilizing optical capabilities to reach up to 60 km on a single PON.

The Adtran GPON solution utilizes GPON Encapsulation Mode to carry Ethernet traffic exclusively. With the Adtran solution, data traffic is carried natively as Ethernet, which is a very efficient means of transporting high-bandwidth data connections. Voice traffic is carried as Voice over IP (VoIP) packets to the GR303 gateway in the Total Access 5000

to provide a gateway to the legacy TDM or as a SIP/MGCP to an external softswitch to support next-generation voice services. Finally, TDM transport through GPON is provided with Pseudowire Emulation (PWE3), which terminates on the PWE3 gateway in the Total Access 5000 and on an ONT.

Video options with the Total Access 5000 GPON OLT include both IPTV and RF video. IPTV functions in the Total Access 5000 and the GPON OLT Access Module provide IGMP signaling and multicast replication functions. RF video overlay at 54–870 MHz is supported on GPON as a third wavelength at 1550 nm using outboard amplifiers and wavelength combiners.

SDN-Ready Solution

The Total Access 5000 GPON OLT can be managed via the Adtran Mosaic Cloud Platform, our SDN control and orchestration solution, or the Advanced Operational Environment (AOE), a traditional element management system.

The Total Access 5000 GPON OLT works in concert with the Adtran suite of residential CPE, which includes our latest Wi-Fi 5/6 Service Delivery Gateways, Fiber-to-the-Home Gateways, Mesh Wi-Fi, and a comprehensive portfolio of indoor and outdoor GPON ONTs.

GPON OLT

Product Specifications

Interfaces

- 4-Port and 8-Port Variants Capable of Supporting:
 - B+, C+, C++, and D Class SFP Optics
- ITU-T Compliant GPON ODN Range Configuration Support (Optical Budget Dependent)
 - Standard: 20 km
 - Extended: 37.5 km
 - Maximum: 60 km

Capacities

- Capable of Up to 64 ONTs Per GPON Interface
- Total Access 5000 23-inch Chassis
 - 21 Access Modules; Up to 10,000 Subscribers Per Chassis (Utilizing 1:64 split)
- Total Access 5006+ Chassis
 - Six Access Modules; Up to 3,000 Subscribers Per Chassis (Utilizing 1:64 split)
- Total Access 5004 Global Chassis
 - Four Access Modules; Up to 2,000 Subscribers Per Chassis (Utilizing 1:64 split)
- Total Access 5004 Micro Cabinet
 - 2 Access Modules; Up to 1,000 Subscribers Per Chassis (Utilizing 1:64 split)

Management

- Mosaic Software Suite
- Advanced Operational Environment (AOE)
- Remote Management Through SNMP, CLI, and Web-Service APIs (HTTPS)
- Ethernet Interface on SCM for Web and Telnet/SSH Access (In-Band or Out-of-Band)
- Craft and Ethernet Interfaces on SCM
- OMCI to ONTs

Physical

- Dimensions: 9.25 in. x 0.8 in. x 9.25 in. (235 mm x 20 mm x 235 mm) (H x W x D)

Environmental

- Operating Temperature: -40° F to 158° F (-40° C to +65° C) (With High-Flow Fan)
- Storage Temperature: -40° F to 185° F (-40° C to +85° C)
- Relative Humidity: Up to 95%, at 122° F (50° C), Non-Condensing

Regulatory Standards

- Applicable UL/CUL Standards
- Applicable EN/IEC/AS/NZS Standards
- FCC Part 15 Class A
- CE Mark (Meets Applicable Safety, EMC, Energy Efficiency Directives)
- NEBS Level 3

Ordering Information

Equipment	Part No.
Total Access 5000 4-Port GPON OLT Bundle with C+ Optics	4187502F2
Total Access 5000 8-Port GPON OLT Bundle with C+ Optics	4187503F2

Adtran

Adtran Corporate Headquarters
901 Explorer Boulevard
Huntsville, AL 35806
USA
adtran.com
sales@adtran.com

Adtran Europe Limited
Building 2200 Basing View
Basingstoke RG-21 4EQ, UK
contact@adtran.com

Adtran GmbH
Jean-Monnet-Straße 4,
10557 Berlin, Germany
kontakt@adtran.com

Adtran Networks Pty. Limited
L5 330 Collins Street
Melbourne, Victoria, 3000
Australia
australia@adtran.com

6418750xFx-8B

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