Total Access 5000 Series

10G Combo PON OLT

8-Port GPON, XGS-PON, or Combo PON OLT Access Module

FTTH

10 Gigabit

SDN Enabled

Temperature Hardened

Benefits

- Supports Symmetric Residential and Enterprise Services
- Extends Gigabit Service Coverage Area by 25% Increasing Revenue Potential
- Simplifies Move from GPON to XGS-PON with Limited Operational Impact and No Additional Equipment Space
- 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

Overview

Combo PON makes upgrading to symmetrical 10G PON services simple by seamlessly supporting the installed base of GPON subscribers while blanketing the entire Fiber-to-the-Home (FTTH) network with the higher speed and capacity of symmetric 10 Gbps XGS-PON. The Adtran Total Access® 5000 10G Combo PON OLT Access Module supports cost-effective services delivery at multi-gigabit speeds.

The biggest challenge facing 10G FTTH service providers is deploying a single solution that meets the demands of premium business and backhaul services while, at the same time, delivering an attractive price point needed for mass-market residential applications. The 10G Combo PON OLT module supports a flexible optics approach that allows for each of the eight faceplate ports to independently utilize multiple types of transceivers. This allows service providers the flexibility to determine the right technology (GPON or XGS-PON) for residential FTTH while also providing capacity for high-bandwidth business and mobile backhaul services. Any mix of technologies - GPON, XGS-PON or both - are supported on a per-port basis simplifying migration to 10G FTTH, delivering maximum flexibility without compromising future capabilities.

The TA5000 10G Combo PON OLT supports delivery of both cost-effective GPON and competitive multi-gigabit XGS-PON services over the same Optical Distribution Network (ODN), with the added benefit of GPON inheritance. Service providers can swap installed GPON OLT modules with Combo PON OLT modules, and all the GPON configurations are preserved while seamlessly enabling XGS-PON in the network. This flexibility of Combo PON allows for multiple revenue generating services including residential and business gigabit and multi-gigabit mobile backhaul, delivering higher revenue and better ROI at 50% lower CAPEX. In addition, by integrating the coexistence element within the optics, Combo PON delivers 25% greater gigabit service coverage increasing your revenue potential.

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 and XGS-PON ONTs.

10G COMBO PON OLT

Product Specifications

Interfaces

- 8 (16)* 10G Combo PON Ports Capable of Supporting:
  - GPON: B+, C+, C++, and D Class SFP Optics
  - XGS-PON: N1 and N2 Class SFP+ Optics
  - Combo PON: D1 and D2 Class SFP+ Optics
  - *Supports Separate or Simultaneous GPON and XGS-PON Delivery Per Interface
- ITU-T Compliant GPON and XGS-PON ODN Range Configuration Support (Optical Budget Dependent)
  - Standard: 20 km
  - Extended: 37.5 km
  - Maximum: 60 km

Capacities

- Capable of Up to 128 ONTs Per Combo PON Interface
- Total Access 5000 23-inch Chassis
  - 21 Access Modules; Up to 21,000 Subscribers Per Chassis (Utilizing 1:128 split)
- Total Access 5006+ Chassis
  - Six Access Modules; Up to 6,000 Subscribers Per Chassis (Utilizing 1:128 split)
- Total Access 5004 Global Chassis
  - Four Access Modules; Up to 4,000 Subscribers Per Chassis (Utilizing 1:128 split)
- Total Access 5004 Micro Cabinet
  - 2 Access Modules; Up to 2,000 Subscribers Per Chassis (Utilizing 1:128 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: 9.5 in. x 0.75 in. x 9.0 in. (241 mm x 19 mm x 228 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 8-Port GPON OLT Bundle with C+ Optics	4187518F22
Total Access 5000 8-Port XGS-PON OLT Bundle with N2 Optics	4187518F42
Total Access 5000 8-Port 10G Combo PON OLT Bundle with D2 Optics	4187518F32

Adtran

ADTRAN Certified Supplier

ISO 9001
ISO 14001
TL 9000

TL9000
TL 19.1270