



Total Access

5000

Next-Gen 10G PON OLT



Benefits

- Supports symmetric 10G residential, cloud and enterprise services
- Supports Triple-Play (voice, video and data) services
- Supports business E-LAN and E-LINE services
- Utilises pluggable optics— low-cost, fixed wavelength optics for XGS-PON / NG-PON2
- Allows for cost-effective deployment of 1/10G business or residential services
- Extends PON deployment life by 5-10 years (longer with additional wavelengths)
- Reduces operational costs through SDN-ready management systems
- Part of the ADTRAN family of Next-Gen 10G PON software-defined access (SD-Access) solutions

Overview

Upgrading FTTP networks to 10G Next-Gen Passive Optical Network (PON) provides network operators the performance to extend the life of their Optical Distribution Network (ODN) while providing an architecture that supports cost-effective business and backhaul services delivery at greater than Gigabit speeds.

Delivering Cost-Effective Converged Residential and Business Services

The biggest challenge facing Next-Gen 10G PON is developing a single system that meets the scale and flexibility needs of premium business and backhaul services while also delivering the price point needed for mass-market residential applications. The ADTRAN Total Access 5000 10G PON solution uses a flexible optics approach that allows for a single Next-Gen 10G PON Optical Line Terminal (OLT) module to utilise multiple types of optical transceivers, enabling service providers to support existing fiber-to-the-home (FTTH) subscribers while also providing a path to higher-bandwidth business and mobile x-haul services. Flexible optics range from fixed XGS-PON that supports symmetric 1/10G services for residential, small business or 4G backhaul to tunable Next-Gen PON optics for high-density, premium enterprise, datacenter and 5G x-haul services using ONTs with tunable optics. Any mix of these options can be used on a single Next-Gen 10G PON OLT, allowing for maximum flexibility without compromising future capabilities.

Better ROI From Fibre Investments

The ADTRAN Next-Gen 10G PON system offers the ability to benefit from mass-market price points without having to wait for large volumes to be reached in the 10G PON market. This approach gives service providers confidence that they can move forward with a 10G PON strategy today, without the risk of depending on a future worldwide volume ramp of 10G and tunable optics to make it cost-effective. Leveraging the additional capacity available through the disruptive ADTRAN Next-Gen 10G PON solution set, service providers can extract an additional five to 10 years of revenue from residential PON deployments, maximising future service flexibility and minimising risk of subscriber churn.

SDN-Ready Solution

The operational cost and complexity to connect a FTTP subscriber can be further reduced to accelerate the expansion of Gigabit broadband services. The Total Access 5000 Next-Gen 10G PON OLT supports provisioning via the ADTRAN Mosaic Cloud Platform, as well as OMCI provisioning, bridging the gap between current PON and next-generation SD-Access networks. This, in concert with accelerated mass-market electronics and optics pricing, ensures that cost-sensitive residential broadband will be viable using Next-Gen 10G PON technology.

The Total Access 5000 Next-Gen 10G PON OLT works in concert with the ADTRAN 600 Series 10G PON optical network terminals (ONTs), and is part of a comprehensive portfolio of GPON, Active Ethernet and Next-Gen 10G PON solutions.

TOTAL ACCESS 5000

Product Specifications

Front Panel Interfaces

- 4 - G.984 and G.9807.1 compliant PON XFP interfaces

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:** Storage: 0% to 95%, non-condensing

Physical

- **Dimensions:** 241mm x 19mm x 228mm (9.5in X 0.75in x 9.0in) (H x W x D)
- **Power Supply:** Dual -48 VDC Power Feed
- **Redundancy:**
 - ◆ Hot Swappable Power Supplies
 - ◆ Hot Swappable Fans

Capacities

- Capable of up to 128 ONTs per 10G PON Interface
- 21 10G PON OLT Access Modules per 23-inch Total Access 5000 Chassis
- 10K Subscribers per 23-inch Total Access 5000 Chassis utilising 1:128 Split

Management

- Mosaic Cloud Platform
- AOE

- Remote Management through SNMP, TL1, SSH, and Web-Services APIs
- Ethernet Interface on SCM for Web and Telnet/SSH Access
- Craft Interface on SCM
- OMCI to ONTs

10G PON Optics

- Fixed and TWDM Wavelength Options
 - ◆ Class B+ optics support
 - ◆ Class N1 (NG-PON2) optics support
 - ◆ Class G (XGS-PON) optics support

Regulatory Standards

- FCC Part 15 Class A
- NEBS Level 3
- UL/CUL 60950-1
- RoHS

Ordering Information

Equipment	Part No.
Total Access 5000 4-port 10G PON OLT Access Module	1187514F1
XGS-PON OLT XFP (Fixed Wavelength)	1442548F1
NG-PON2 OLT XFP (TWDM Channel 1)	1442549F1
NG-PON2 OLT XFP (TWDM Channel 2)	1442549F2
NG-PON2 OLT XFP (TWDM Channel 3)	1442549F3
NG-PON2 OLT XFP (TWDM Channel 4)	1442549F4
ADTRAN 602 10G Business Class ONT	1287800F1
ADTRAN 602X 10G Small Business ONT	1287820F2
ADTRAN 621 10G SFU ONT	1287823F1



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