SDX 631x

10GbE XGS-PON optical network terminal (ONT) with SFP+ downlink interface

Multi-gigabit   Zero-touch   Analytics   SFP+ interface   SDN Enabled

Benefits

- Capable XGS-PON ONT featuring a 1/10GbE SFP+ downlink interface
- Versatile SFP+ downlink interface compatible with single-mode fiber or multi-mode fiber technologies
- Low-power device that discretely blends into any environment with a compact, modern design
- Features recyclable enclosures, cloud-hosted documentation and optimized packaging
- Zero-touch service provisioning eliminates truck rolls for service upgrades
- Key part of wireless residential gateway deployment strategy

Overview

The Adtran SDX 631x XGS-PON optical network terminal (ONT) is designed to address the demands of residential and business customers in the multigigabit era. The flexible, open technology provides a cost-effective path to high-bandwidth services while enabling service providers to support existing FTTP subscribers. This solution is ideal for a range of applications, including service providers delivering multigigabit speeds with the flexibility of an SFP+ downlink interface, and wholesaler/service provider partnerships that benefit from the seamless separation of access and home networks. This setup helps clearly define roles and responsibilities for network maintenance, SLAs, and troubleshooting for both parties.

Cutting-edge SFP+ connectivity

The SDX 631x features an SFP+ downlink interface that supports up to 10Gbit/s symmetric speeds, which is essential in ensuring the needed performance for high-bandwidth, low-latency applications such as 4K video streaming, videoconferencing and online gaming. This versatile interface is compatible with various technologies — including single-mode fiber and multi-mode fiber — giving service providers the flexibility to support a wide range of subscriber applications, regardless of reach or speed requirements.

SDN-ready solution

The SDX 631x ONT addresses today's key challenges around delivering cost-efficient, converged residential and business services. Part of the Adtran ecosystem of open-API access products, they enable easy integration into existing network infrastructure and SDN-based management systems. Simple zero-touch provisioning allows for end user installations without the need for costly truck rolls, reducing complexity and opex. What's more, the SDX 631x features advanced operational features, such as Y.1731 continuity check and IEEE1588v2 clock synchronization.

Coupled with Adtran service delivery gateways (SDGs), the SDX 631x ONT meets the demand of current and future Wi-Fi standards and enables seamless integration with Adtran's intelligent Mosaic One management system for enhanced control and monitoring. Our ONTs are specifically designed to remain at the premises for the long term, meeting the requirements of ever-advancing Wi-Fi residential gateways for years to come. Maintenance-free and with a compact, modern design, they discretely blend into a range of environments.

Committed to building environmentally responsible solutions

Meeting today's soaring bandwidth demands takes more than just great technology. It takes a company that's committed to building environmentally responsible solutions. Our SDX 631x is a distillation of everything we've learned over the past decade. It features recyclable enclosures, cloud-hosted documentation and optimized packaging, all designed to put sustainability first. We've worked closely with service providers to address some of their key concerns when it comes to building networks which are cost-effective and sustainable. We're confident that it's going to help service providers in a big way.

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Product specifications

Network interfaces

- XGS-PON uplink interface
- Single-fiber SC/APC connector
- 9.9532Gbit/s symmetric throughput
- 1577nm downstream and 1270nm upstream
- Compliant with ITU-T G.9807.1 XGS-PON PMD
- Forward Error Correction (FEC) support
- Advanced Encryption Standard (AES) support

SFP+ downlink interface

- 10G Ethernet interface (1G/10G)
- SFP+ port auto-negotiation or manual configuration
- Compatible with SFP+ single-mode fiber or multi-mode fiber technologies

Operations, administration and management

- ITU-T G.988 OMCI embedded operations channel interface support
- IEEE1588v2 Precision Time Protocol (PTP)
- Hardware-based Y.1731 PM
  - Continuity Check (CC)
  - Link Trace (LTM/LTR)
  - Loopback (LBM/LBR)
- 15 min rolling counters

Physical

- Dimensions: 112.0 mm x 140.0 mm x 35.0 mm
- (D x W x H)
- Weight: 220g
- Mounting options: wall mount (screws provided), fiber tray (optional)

Environmental

- Operating temperature: 0º F to +104º F (0º C to +40º C)
- Relative humidity: 10 to 95%, non-condensing

LEDs

- Power
- PON
- LOS
- 10GE

Video service support

- IGMP v2/v3 snooping

Regulatory Standards

- Supported regions: UK, EU
- Electromagnetic compatibility
  - FCC Part 15 Subpart B
  - CE EMC directive
- Safety
  - UL 62368-1:2014 Ed. 2
  - CSA C22.2#62368-1:2014 Ed. 2
  - CE safety
  - IEC 62368-1:2014 Ed. 2

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Ordering information

Equipment		Part No.
SDX 631x	10GbE XGS-PON ONT with SFP+ downlink interface	1287931Fx*
*Regional support for UK (F2) and EU (F3)		
Accessories (sold separately)		
SFP+ 10GbE multi-mode fiber, 850nm, 300m, dual LC		1442401G1
SFP+ 10GbE single-mode fiber, 1310nm, 10km, dual LC		1442410G1