SDX 630 Series

Multigigabit XGS-PON Optical Network Terminals (ONTs)

10 Gigabit   **Zero-Touch**   **Analytics**   **VoIP**   **SDN** Enabled

Benefits

- Deliver Cost-Effective Converged Residential and Business Services
- Zero-touch Service Provisioning Eliminates Truck Rolls for Service Upgrades
- Manage an End-to-End PON Deployment with Productivity Tools for Monitoring, Troubleshooting, Provisioning, and Upgrading Networks
- Traffic Management Through Priority Queueing, Scheduling, Policing, and Traffic Shaping
- Uniquely Supports SFU, SBU, and MDU Deployments Streamlining Installation Procedures
- Key Part of Wireless Residential Gateway Deployment Strategy

Overview

The Adtran SDX 630 Series of XGS-PON Optical Network Terminals (ONTs) are designed to address the market with industry-leading voice, data, and video capabilities. Service providers will benefit from the high data rates of fiber optic transmission and the flexibility offered by Adtran's portfolio of Ethernet-based technology. In addition, these solutions support demanding residential and business gigabit services, cloud services, and remote work.

Expanding network capability requires next-generation 10G architectures. These architectures offer both the capacity and scale to economically support gigabit services and multi-gigabit demands well into the future. The SDX 630 Series provides a path to high-bandwidth applications. This enables service providers to support existing FTTH subscribers while delivering the price needed for mass-market residential and business applications.

Adtran offers a comprehensive portfolio of XGS-PON ONTs for single-family unit (SFU), small- to medium-sized business (SMB), and enterprise deployments. In addition, service providers are offered an array of options to address all subscriber utilization needs, from the growing smart home to the small business startup.

SDN-Ready Solution

Additionally, the operational cost and complexity to connect a FTTP subscriber can be further reduced to accelerate the expansion of gigabit broadband services. Adtran 630 Series ONTs support provisioning through modern, open APIs, facilitating deployment in next-generation, SDN-based management systems. This, in concert with accelerated mass-market electronics and optics pricing, ensures that cost-sensitive residential broadband will be viable via 10G PON technologies. 630 Series ONTs also support OMCI provisioning, bridging the gap between current and next-gen software-defined access (SD-Access) networks.

The SDX 630 Series of ONTs work in concert with Mosaic One, Adtran's intelligent Software as a Service (SaaS) management suite. Mosaic One helps to accelerate the expansion of gigabit broadband services through zero-touch service activation and unmatched network analytics and visibility. Experience the benefits of end-to-end network management with Mosaic One and deliver an exceptional subscriber experience.

SDX 630 SERIES

Product Specifications

Network Interfaces
- XGS-PON Uplink Interface
- Single-fiber SC/APC Connector
- 9.9532Gbps Symmetric Throughput
- 1577nm Downstream and 1270nm Upstream
- Compliant with ITU-T G.9807.1 XGS-PON PMD Standards
- Forward Error Correction (FEC) Support
- Advanced Encryption Standard (AES) Support
- Supports up to 1:128 Split Dependent on ODN Architecture

Ethernet Interfaces
- Ethernet Port Auto-Negotiation or Manual Configuration
- MDI/MDIX Automatically Sense
- Hardware Priority Queues on the Downstream Direction

Ethernet Service Support
- 802.1q (2018) Bridges and Bridge Networks
- 802.1x Port-based Network Access Control/Port Authentication
- 802.1ad VLAN Stacking (Q-in-Q) and VLAN Translation
- 802.1p Bit Marking/Remarking
- Class of Service Based on VLAN-ID
- Eight Queues, Strict Priority and/or Weighted Fair Queue Schedulers
- Configurable to EtherType and TPID for Service Flexibility
- VLAN IDs 0 — 4095; EVC Configurable in the Range of 2 — 4,094
- Supports 9k Jumbo Frame
- Supports BBF.247 Issue 1 [in force]
- DHCP Client or Static IP Configuration

OAM
- ITU-T G.988 OMCI Embedded Operations Channel Interface Support
- Open OMCI Standards Support
- 15 min rolling counters
- Dying gasp alarm

LEDS
- Power
- LAN
- Optical
- Alarm
- Voice/POTS

Video Service Support
- Mediaroom Bridged Video Models
- Minerva Bridged Video Models
- IGMP v2/v3 Snooping

Voice Service Support
- ANSI/ETSI FXS Interfaces
- SIP and MGCP Softswitch Support
- Configurable Dial Plan
- Configurable Country Specific Ring-back Tones (Frequency and Cadence)
- Optional Metallic Loop Testing
- T.38 Fax
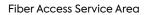- Echo Cancellation

Regulatory Standards
- Supported Regions: US, Canada, EU, UK, Australia, New Zealand
- Electromagnetic Compatibility
  - FCC Part 15 Class B
  - EN 300 386
  - EN 55022
  - AS/NZS CISPR 22 Class B
- Safety
  - UL/CUL 62368-1
  - IEC 62368-1
  - EN 62368-1
  - AS 62368.1
- Environmental
  - ETS 300 019-2-3 Class 3.1 — Environmental conditions and test for telecommunications equipment
  - EN 300 019-1-2 Class 2.3 —Transportation
  - EN 300 019-1-1 Class 1.2 — Storage
- Laser Approvals
  - IEC 60825-1:2014
  - Safety of laser products — Part 1: Equipment classification and requirements
- CE marked 93/68 EU
- European Union CE Mark Declaration of Conformity
- Restriction of Hazardous Substance
- Energy Efficiency ErP Directive
- European Union Code of Conduct
- Enhanced ITU-T K.21

Product Specifications

Feature	630	631	631q	631qv	632v	634v	631qvh	632vh
Access Technology	XGS-PON	XGS-PON	XGS-PON	XGS-PON	XGS-PON	XGS-PON	XGS-PON	XGS-PON
Application	MDU/Small Business	Residential	Residential	Residential	Residential	Residential	Residential	Residential
Environment	–25C to +40C	Indoor 0C to +50C					Outdoor 40C to +65C	
Relative Humidity	5 to 95% non-condensing							
FXS Interfaces				1	1	2	1	1
2.5G Ethernet Interfaces (100M/1G/2.5G)			1	1	1	3	1	1
10G Ethernet Interfaces (1G/2.5G/5G/10G)	SFP+ Pluggable	1			1	1		1
Dimensions (DxWxH)	80.0 x 18.1 x 15.2 mm	110.4 x 88.8 x 35.96 mm		155.5 x 135.5 x 35.96 mm		155.5 x 135.5 x 42 mm	35 x 220 x 230 mm	
Weight	55 g	0.75 lbs / 0.3 kg					3.5 lbs / 1.6 kg NID and ONT combined	
Additional Features	SFP+ ONT	UPS/BBU Capable						
Mounting Options	SFP+ Cage	Desk/Wall, Fiber Tray, or Wall Mount					NID Outdoor Housing	

Fiber Access Service Area

Customer Access Area with Fiber Shield

Installed Fiber Tray

SDX 630 SERIES

Ordering Information

Equipment		Part No.
SDX 630	XGS-PON SFP+ ONT	1287940F1
SDX 631	10GE XGS-PON ONT	1287930Fx*
SDX 631q	2.5GE XGS-PON ONT	1287944Fx*
SDX 631qv	2.5GE XGS-PON ONT with VoIP	1287937Fx*
SDX 631qvh	Hardened 2.5GE XGS-PON ONT with VoIP	1287947Fx*
SDX 632v	10GE/2.5GE XGS-PON ONT with VoIP	1287943Fx*
SDX 632vh	Hardened 10GE/2.5GE XGS-PON ONT with VoIP	1287955Fx*
SDX 634v	Multiport 10GE/2.5GE XGS-PON ONT with VoIP	1287946Fx*

*ONTs available in NA (F1), UK (F2), EU (F3), and AUS/NZ (F4) versions

Accessories	
SDX 631 Fiber Tray	1287440F1
SDX 631q Fiber Tray	1287444F1
SDX 632v Fiber Tray	1287443F1
SDX 630 Series UPS/BBU ONT Wall Mount (UPS/BBU Sold Separately)	1287475F1
12 VDC ONT UPS/BBU with 8-pin Telemetry Cable	1287480Fx*
7-pin Phoenix to Barrel Adapter Cable	1287406F4
NID Outdoor Housing	1187770G1

*Accessories available in NA (F1), UK (F2), EU (F3), and AUS/NZ (F4) versions