

# SDX 630 Series

## Multigigabit XGS-PON optical network terminals (ONTs)



Multi-gigabit



Zero-touch



Analytics



VoIP



PoE-powered



SDN Enabled

## Benefits

- Large portfolio consisting of 10GbE and 2.5GbE LAN interfaces, integrated voice ports, outdoor ONT variants, SFP+ ONT, PoE configurable
- 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
- Advanced Ethernet OAM provides better insights and diagnostics through remote testing, end-to-end visibility and fiber monitoring capabilities
- Uniquely supports SFU, SBU, and MDU deployments streamlining installation
- Key part of wireless residential gateway deployment strategy

## Overview

The Adtran SDX 630 Series of 10G symmetric XGS-PON optical network terminals (ONTs) are 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. With speeds up to 10Gbit/s, the SDX 630 Series meets all connectivity needs, from streaming high-quality videos on multiple devices to running data-intensive cloud applications. The low-power devices are easy to deploy and feature zero-touch service provisioning capabilities.

### SDN-ready solution

The SDX 630 Series of ONTs 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 truck rolls, reducing complexity and opex. What's more, they feature advanced operational monitoring features, such as Y.1731 continuity check and multigigabit speed test support. With 10GbE and 2.5GbE LAN interfaces, integrated voice ports, PoE-powered, as well as outdoor ONT variants, service providers can offer any flavor of multigigabit service. Also available is an XGS-PON SFP+ ONT that offers a complete ONT in a small form factor pluggable package.

Coupled with Adtran service delivery gateways (SDGs), the SDX 630 Series of ONTs meet the demand of current and future Wi-Fi standards and enable 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 630 Series 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 in a cost-effective and sustainable way. Just take a look at the low-power capabilities of our SDX 630 Series. It's compliant with Energy Efficient Ethernet (EEE) and European Union Code of Conduct v8. We're confident that it's going to help service providers in a big way.

# SDX 630 SERIES

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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
- Supports up to 1:128 split
- Rogue ONU mitigation

### Ethernet interfaces

- Ethernet port auto-negotiation or manual configuration
- MDI/MDIX automatically sense
- Hardware priority queues on downstream
- Enhanced buffer management
- Ethernet loopback (RFC2544 testing)

### 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
- VLAN IDs 0 – 4095; EVC configurable in the range of 2 – 4,094
- 9k jumbo frame support
- BBF.247 Issue 1 [in force] support
- Synchronous Ethernet (SyncE) support

### Operations, administration and management

- ITU-T G.988 OMCI embedded operations channel interface support
- Hardware-based Y.1731 PM
  - Continuity Check (CC)
  - Link Trace (LTM/LTR)
  - Loopback (LBM/LBR)
- TR-471 NPT speedtest support
- 15 min rolling counters
- Dying gasp alarm

### LEDs

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

### Video service support

- Mediaroom/Minerva 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, tones, and cadences)
- GR-909 metallic loop testing
- T.38 fax
- Echo cancellation
- REN 3 support up to 500ft/152m

### 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
  - GR-3108, Class 3 – OSP network equipment
- 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
- Energy efficiency ErP directive
- European Union Code of Conduct

## Product specifications

Feature	630	631	631q	631qv	632v	635	635w	631fh	632vh	
Access technology	XGS-PON	XGS-PON	XGS-PON	XGS-PON	XGS-PON	XGS-PON	XGS-PON	XGS-PON	XGS-PON	
Application	MDU/SMB	SFU	SFU	SFU	SFU	SFU	SFU	Outdoor SFU (PoE-powered)	Outdoor SFU	
Environment	-25°C to +40°C	0°C to +40°C						-40°C to +65°C	-20°C to +65°C	
Relative humidity	up to 95% non-condensing									
FXS interfaces				1	1		2		1	
2.5G Ethernet interfaces (10M/100M/1G/2.5G)			1	1	1	4	4		1	
10G Ethernet interfaces (100M/1G/2.5G/5G/10G)	SFP+ (1G/2.5G/10G)	1			1	1	1	1	1	
Dimensions (DxWxH)	80.0 x 18.1 x 15.2 mm	114.5 x 133.3 x 35.5 mm		134.5 x 155.6 x 35.5 mm		134.5 x 155.6 x 42.0 mm		176.0 x 130.0 x 35.0 mm	35.0 x 220.0 x 230.0 mm	
Weight	55 g	0.75 lbs / 0.3 kg							3.5 lbs / 1.6 kg	
Additional features	SFP+ ONT	UPS/BBU with telemetry capabilities								
Mounting options	SFP+ cage	Desk/wall, fiber tray, wall mount, or DIN rail						NID housing		



### Wall mount box

- Securely mount to any wall
- Installs over wall electrical outlet
- Multiple cable entry and exit options
- Fiber tray included with slack storage
- 12VDC wall wart of UPS/BBU powering



### Fiber tray

- Low profile design adds protection of fiber
- Securely mount to any wall
- Hides cabling and fiber
- Fiber tray included with slack storage
- Compatible with DIN rail mounts

# SDX 630 SERIES

## Ordering information

Equipment		Part No.
SDX 630	XGS-PON SFP+ ONT	1287940F1
SDX 631	10GbE XGS-PON ONT	1287930Fx*
SDX 631fh	10GbE XGS-PON PoE-powered ONT	1287970F1
SDX 631q	2.5GbE XGS-PON ONT	1287944Fx*
SDX 631qv	2.5GbE XGS-PON ONT with VoIP	1287937Fx*
SDX 632v	10GbE/2.5GbE XGS-PON ONT with VoIP	1287943Fx*
SDX 635	Multiport 10GbE/2.5GbE XGS-PON ONT	1287946Fx*
SDX 635w	Multiport 10GbE/2.5GbE XGS-PON ONT with VoIP	1287945Fx*
SDX 632vh	Hardened 10GbE/2.5GbE XGS-PON ONT with VoIP	1287955Fx*

\*Regional support for NA, UK, EU, AUS, and NZ

Accessories		
SDX 631 fiber tray		1287440F1
SDX 631q fiber tray		1287444F1
SDX 631qv/632v fiber tray		1287443F1
SDX 635/635w fiber tray		1287445F1
SDX 631fh 10GbE PoE injector		1287427F1
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 mounting bracket (SDX 631fh and SDX 632vh only)		1287455F1
NID outdoor housing - Splice		1187770G1
NID outdoor housing - OptiTap		1187771G1

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