Data Sheet

ADTRAN

621V

10 Gbps Single-Family Unit ONT

SDX Series

10 Gbps | SDN Enabled | IPTV | VoIP | Open Architecture

Features

- **Symmetric 10 Gbps service delivery**
- **Integrated VoIP support**
- **Integrated 4-channel NG-PON2 optics**
- **10G Base-T user interface**
- **Small 1RU half rack form factor**
- **IPTV video support including IGMP snooping feature set**
- **Traffic management through priority queuing, scheduling, and traffic shaping**

Overview

Upgrading FTTP networks to 10G NG-PON2 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 NG-PON2 is developing a single system that meets the scale and flexibility needs of premium business and backhaul services while also meeting the price points needed for mass-market residential applications. The ADTRAN SDX 6310 uses a flexible optics approach that allows for a single NG-PON2 OLT to utilise multiple types of optical transceivers, enabling the service provider to better align cost with the target application. Flexible optics range from low-cost, fixed wavelength optics for residential, business and small cell broadband applications, to Time and Wavelength Division Multiplexing (TWDM) optics for high-density, premium enterprise, data centre, fronthaul and backhaul services using ONTs with tunable optics. Any mix of these optics options can be used on a single NG-PON2 OLT, allowing for maximum flexibility without compromising future capabilities.

Benefits

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 ADTRAN solution supports provisioning through modern, open APIs, facilitating its 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 using NG-PON2 technology.

ADTRAN's comprehensive portfolio of FTTP devices is open, programmable and scalable. They support GPON, Active Ethernet, and NG-PON2 access interfaces. These devices are part of ADTRAN's SDN-optimised aggregation architecture that aligns with the forward-looking industry trend to build massively scalable and open systems.

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Product Specifications

Ethernet Interfaces

- **One User Interface:**
  - RJ-45 for 100m/1/2.5/5/10G Base-T
- 10 Gbps Symmetric Throughput
- Ethernet Port Auto Negotiation or Manual Configuration
- MDI/MDIX Automatically Sense
- Hardware Priority Queues on the Downstream Direction in Support of CoS

Dimensions

- 6.4 in. x 9.75 in. x 1.5 in. (LxWxH)

Power Supply

- +10 – 23V DC (Feed via External AC/DC Adapter)
- 3-PIN Molex Power Adaptor Input
- Dying Gasp Support
- Multi-pin Connector for Power and Alarm Input from UPS
- **Power Consumption:**
  - Less than 30W

Network Interface

- XFP WAN compliant with ITU-T G.989 NG-PON2 Standards
- Class B+ Optics Support
- DBA (Dynamic Bandwidth Allocation)
- Mapping of xGEM Ports into a T-CONT with Priority Queues Based Scheduling

POTS Interface

- 2 RJ-11 Interfaces
- 3-REN, 50V RMS
- **VoIP Voice**
  - Both SIP and MGCP
- **TDM Voice**
  - Both GR.303, GR-57, and TR-08
- Full CLASS Feature Set
- Both ANSI and ETSI POTS
- T.38 Facsimile
- Configurable Dial Plan
- Configurable Country Specific Ring-back Tones (Frequency and Cadence)
- DHCP Client or Static IP Configuration
- Optionally Metallic Loop Testing

OAM

- Manageable through Mosaic Cloud
- Support for Open OMCI

FCC/EMC

- FCC Part 15 Class A
- EN 300 386, with compliance to the EMC directive 89/336/EEC
- EN 55022/CISPR22 Class A

Safety

- UL/CUL 60950
- EN 60950-1
- IEC 60950
- AS/NZS 60950

Regulatory

- ETS 300 019-2-3 for Class 3.1E– Environmental conditions and test for telecommunications equipment
- EN 300 019-1-2 for ETS Class 2.3 –Transportation
- EN 300 019-1-1 for ETS Class 1.2 – Storage
- ETSI 300 132-2 – Power Supply interface at the input to telecommunications equipment

LEDs

- Status
- Network
- Management
- Wavelength
- Voice
- Data

Ordering Information

Equipment	Part No.
ADTRAN 621V, 10 Gbps Single Family Unit ONT	1287821F1

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