ADTRAN®

ADTRAN

602X

10 Gbps Small Business ONT

| 10 Gbps | SDN Enabled | Cloud |

Features

- **Most cost-effective delivery of symmetric multigigabit services**
- **Supports CE 2.0/MEF 2.0 services**
- **Pluggable WAN interface for fixed wavelength**
- **10GE/1GE SFP+ or RJ-45 user interface**
- **Desktop form factor**
- **Traffic management through priority queuing, scheduling, policing and traffic shaping**

Overview

Upgrading FTTP networks to Next-Gen 10G 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 networks is coming up with a single system that meets the scale and flexibility needs of premium business and backhaul services, while also delivering on the price points needed for mass-market residential applications.

The ADTRAN 602X 10G small business optical network terminal (ONT), part of the ADTRAN family of next-generation 10G ONTs, uses a flexible optics approach that allows service providers to support existing fiber-to-the-home (FTTH) subscribers while providing a path to higher-bandwidth business and backhaul services. The 602X 10G ONT is ideal for technology startups, schools, small businesses or mobile backhaul. The 602X 10G ONT leverages XGS-PON technology and network integrated device (NID) functionality for the delivery of SLA-based symmetric services up to 10G over copper or fiber networks and is MEF 2.0 compliant. With the 602X 10G Small Business ONT, service providers can overlay existing GPON networks and provide the capability to offload business customers while offering higher speeds. The 602X ONT has a desktop form factor that allows for shelf or wall mounting.

The 602X 10G ONT offers SFP+ interfaces on the PON side that support 10G over XGS-PON. On the subscriber side, the 602X offers an SFP+ interface and a 1 GigE interface to deliver symmetric services.

ADTRAN 602X

Benefits

The ADTRAN® Next-Gen 10G PON system elegance offers the ability to benefit from mass-market pricepoints 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 this year's residential PON deployments, maximizing future service flexibility and minimizing the risk of subscriber churn.

SDN-Ready Solution

The operational cost and complexity to connect a fiber-to-the-premises (FTTP) subscriber can be further reduced to accelerate the expansion of Gigabit broadband services. The ADTRAN 600 Series 10G ONTs support provisioning via the ADTRAN Mosaic Cloud Platform, 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. The 600 Series also supports ONT Management and Control Interface (OMCI) provisioning, bridging the gap between current and next-gen software-defined access (SD-Access) networks.

Product Specifications

Interfaces

- **Two User Interfaces:**
  - SFP+ for 10G Base-T over Copper or Fiber
  - RJ-45 for 100/1000 BASE-T
- Ethernet Port Auto Negotiation or Manual Configuration
- MDI/MDIX Automatically Sense
- Hardware Priority Queues on the Downstream Direction in Support of CoS

OLT Compatibility

- Total Access 5000
- SDX 6310-16

Ethernet Services Support

- Service Scale and Flexibility
- MEF 9, 14, 20, 23.1, 30, 33 Compliant E-Line, E-LAN, E-Tree, E-Access
- 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
- 8k Active MAC Address; Ability to Disable MAC Learning
- Ingress Policers (tr3CM), CIR and EIR Settings to 64 Kbps Granularity, Configurable Burst through EBS and CBS Settings
- Egress Shaping Per Port
- Y.1731 PM and CFM, NTP (Up MEPs on UNIs, CCM, LBM/LBR, LTM/LTR, 1DM, DMM/DMR, SLM/SLR)
- MAC Swap Loopback
- MEF E-Line and E-LAN Services
- Ingress Policing Per Flow

Physical Specifications

- **Dimensions:** 1.5 in. X 8.46 in. X 6.9 in. (39mm X 215.8mm X 175mm) (H X W X D)
- **Weight:** 1lb (<0.5kg)

Power Supply

- +12V (Feed via External AC/DC Adapter)
- 3-PIN Power Adapter Input with Locking Mechanism
- Dying Gasp Support
- Multi-pin Connector for Power and Alarm Input from UPS
- **Power Consumption:** Less than 25W

Working Environment

- **Operational Temperature:**
  23° F to 113° F (-5° C to +45° C)
- **Storage Temperature:**
  -20° F to 185° F (-4° C to +85° C)
- **Humidity:**
  5% to 95% Relative Humidity

Safety and EMI

- UL/CUL 62368-1
- IEC 62368-1
- EN 62368-1, AS/NZS 60950.1
- FCC Part 15 Class B
- IEEE 802.3
- CE Certification

Environmental Directive

- RoHS 6 of 6

Installation

- Wall and Desktop Mounting Options

Network Interface

- SFP+ WAN port
- Compliant with ITU-T G.9807 XGS-PON Standards

LEDs

- Power
- LAN
- WAN
- Management

OAM

- Manageable through ADTRAN Mosaic Cloud
- Standard Compliant OMCI (the Embedded Operations Channel) Interface as Defined by ITU-T G.988
- Alarming and Performance Monitoring
- Remote Software Image Download over OMCI or NETCONF, as well as Activation and Rebooting
- Hold Two Software Sets with Software Image Integrity Checking and Automatic Rollback

Ordering Information

Equipment	Part No.
ADTRAN 602X Small Business Unit ONT	1287820F2
SFP+ CPE 10G 1270/1577NM	1200488F1C

ADTRAN®

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