

ADTRAN

# 6020-48

48-Port GPON OLT

SDX Series



## Benefits

- Pay-As-You-Grow, Disaggregated 48-port GPON OLT
- Supports High-capacity, Open, Programmable Networks
- Supports Residential, Cloud and Enterprise Services
- Supports Both IPTV and RF Overlay Video Service
- Offers Front Access Ports
- Part of ADTRAN's Extensive and Growing Family of SD-Access Devices
- Supports Extended Range Optics (up to 62.5km) Enhancing Gigabit Service Reach
- Supports Gigabit and Committed Information Rate (CIR) Services
- Supports an Extensive and Growing Family of ONTs
- Utilise Side to Side Airflow

## Overview

**ADTRAN Next-Generation PON OLTs are open, programmable, and scalable access devices that support GPON access interfaces.** These OLT access devices are part of ADTRAN's next-generation, data centre optimised aggregation architecture that aligns with the forward-looking industry trend to build massively scalable and open systems.

### Open, Programmable, Scalable

Built around an open architecture, these OLTs can be aggregated by any high-density aggregation system, including ADTRAN's Nx100G next-generation aggregation switches. From a programmability perspective, these OLTs have open APIs that utilise standard NETCONF/YANG interfaces for all management functions, easing the integration into an SDN-controlled environment. For scalability, they are built around a "pay-as-you-grow" architecture where you simply add GPON/NGPON OLTs as needed without the upfront investment or system constraints of a big iron-chassis system. In addition to being open, programmable, and scalable, all

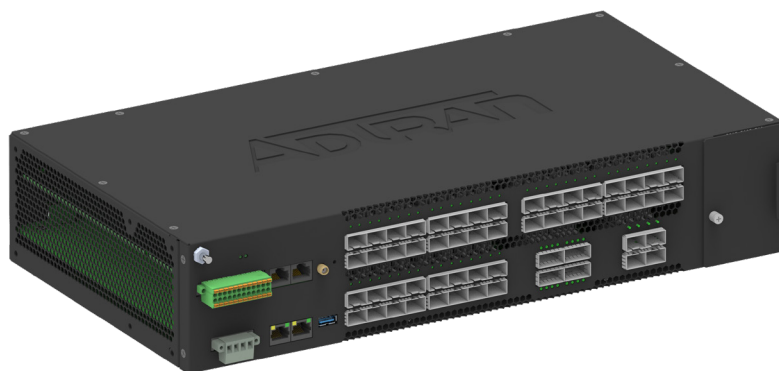
embedded software functions in the OLT, ranging from ONT management, PON provisioning and IGMP processing, are virtualised and can be hosted on an external server to enable massive scalability and avoid the system constraints of embedded processing systems.

### High-Performance with Flexibility

These OLTs offer non-blocking 400 Gbps uplink interfaces with embedded redundancy options to ensure that they can scale to support next-generation residential, business and backhaul services.

ADTRAN's GPON access device supports 48 SFP+ interfaces for 2.5/1.25G PON. This solution provides an ultra-flexible, high-capacity architecture with support for up to 128 ONTs per PON.

These OLTs offer all of the carrier-class features (i.e., ONT management, clocking, VLAN tag manipulation, resiliency, etc.) of a traditional chassis-based OLT system, but with much more flexibility, scalability, and an open architecture that cannot be matched by a closed, vendor-specific chassis system.



# ADTRAN 6020-48

## Product Specifications

### Front Panel Interfaces

- 48 SFP Interfaces for GPON
- 4x100G QSFP28
- 4x10G SFP+
- 1xRJ45 Console
- 1xRJ45 Ethernet for Management

### Performance

- Non-Blocking Uplink Capacity - up to 400Gbps using Link Aggregation (LAG)
- G.8032 ERPS ring support
- G.8031 ELPS

### Environment

- **Operational Temperature Range:** - 40° to + 65° C
- **Storage Temperature Range:** -40° C to +85° C (-40° F to 185° F)
- **Relative Humidity:** up to 95%, noncondensing

### Physical

- **Chassis:** 2RU Rack Mountable Metal Enclosure
- **Dimensions:** 436 mm x 89 mm x 230 mm (17.2" x 3.5" x 9.13"), (W x H x D)
- **Power Supply:** -48VDC with redundant feed
- **Redundancy:**
  - ◆ Redundant DC Inputs
  - ◆ Hot swappable Fan Module for Side to Side Airflow

### Capacities

- Capable of up to 128 ONTs per GPON Interface

### PON Standards Compliance

- GPON per ITU-T G.984
- Dynamic bandwidth allocation (DBA)
- Type B redundancy (Future)
- Rogue ONT detection

### Subscriber Service Delivery

- Triple-play - voice, video, and data
- IGMP snooping and proxy with fast channel change
- PPPoE intermediate agent
- DHCP relay
- Proxy ARP

### Layer 2 and Traffic Management

- 802.1q and 802.1ad VLAN manipulation, 802.1p CoS
- Hierarchical QoS and flexible scheduling
- Rate shaping per service
- TR-156 compliant user security

### Network Timing

- Synchronous Ethernet
- IEEE 1588 PTP

### Management

- Local Ethernet and USB Interfaces for Management
- Remote Management through SSH
- Mosaic Cloud Platform
- NETCONF/YANG
- OMCI to ONTs
- In-service Upgrade (Future)
- CLI

### GPON Optics

- Class B+ and Class C+ Compliant as specified in G984.2 Amendment 1 and 2
- 20 km Reach with 64x Split
- 30 km Reach with 32x Split
- 37 km Reach with 16x Split
- 62.5 km Extended Reach

### Regulatory Standards

- FCC Part 15 Class A
- CE marking
- NEBS
- EN609-50-1
- GR-1089 Core
- RoHS 6 of 6
- GR-63 Core

## Ordering Information

Equipment	Part No.
ADTRAN SDX 6020-48 port GPON OLT S2S	11971301F1
ADTRAN SFP GPON 2.5G 1.25G 30km	1442530G1
ADTRAN SFP GPON 2.5G / 1.25G C+	1442540F1



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I611971301F1-8F

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