

Base Product



CommScope OLT shelf, 1RU 19" rack mounted multi-protocol enabling virtual control management 10G XPON deployment strategies for use in Central Office or temperature controlled Point of Presence (POP) locations

PRELIMINARY SPECIFICATION

The CommScope XP6168S Shelf OLT is a standard 1RU 19" rack mounted multi-protocol OLT enabling virtual control-management based PON deployment strategies. The shelf OLT is suitable for installation in Central Office or temperature controlled Point of Presence (POP) locations, enabling subscriber access via 1G or 10G speed PON connectivity. The Shelf OLT allows operators a cost effective way to add subscribers on an as needed basis with a small footprint and multiple Network side connection options

This Shelf OLT is specifically designed for service operators with special consideration for evolving network needs as operators are turning to SDN access architecture models, where deployment flexibility is key.

The Shelf OLT is equipped with sixteen (16) 10G PON ports, each supporting standard GPON at 2.5/1.25 Gbps or XGS-PON at 10/10 Gbps.

On the network uplink side, the module provides six (6) standard 25GE interfaces for gradual bandwidth increments based on user growth. Two 100GE are also available to support daisy chaining and as an alternative network side connection for when the full bandwidth of the subscriber side interfaces is fully allocated.

Key features of the XP6168 OLT :

- Standard 100 Gigabit Ethernet (GE) and 25 Gigabit Ethernet optical interfaces support upstream connection to the Converged Interconnect Network (CIN) network along with the option to stack or ring multiple shelf OLT chassis for architectural flexibility
- The 16 subscriber access ports support multiple PON technologies: ITU-T G.984 GPON (2.5G/1.25G), ITU-T G.9807.1 XGS- PON (10G/10G, 10G/2.5G)
- The Shelf OLT supports multiple management system options and utilizes standardized interfaces for control plane and provisioning operations including the CommScopeDomain Manager application in addition to direct interface to third party SDN controllers and telemetry collectors
- The 1RU Shelf OLT form factor features Field replaceable power supplies and fan modules

Virtual OLT (vOLT) :

- The CommScope vOLT is an application supporting software-defined networking (SDN) that separates the management plane from the control and data planes found in the physical network function (PNF) of the Shelf OLT. By centralizing the control plane, the vOLT facilitates network management and programmability to improve scalability of operating multiple disaggregated network devices like Shelf OLT, thus simplifying and reducing the number of interface points to operator back-office systems.

Key features of the Domain Manager :

- Seamless integration of the management and assurance of multiple Shelf OLTs resulting in a fully managed service deployment using existing operational production processes and procedures

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- Full lifecycle management of multiple R-OLT shelves from initial deployment through the application of services and subscriber provisioning, and integration into monitoring and network operational support systems.
- For GPON and XGS-PON based PON services, integration into the north bound provisioning and management systems
- Full standard based interfaces to northbound SDN and telemetry gathering applications

Product Classification

Product Type OLT shelf

General Specifications

Ports, Network Side CommScope qualified SFP+ transceivers are purchased separately | Supports SFP28 and QSFP28 (100 Gbps) cages for standard uplink applications

Ports, Subscriber Side CommScope qualified SFP+ PON transceivers are purchased separately | Sixteen (16 SC/UPC) simplex bidirectional subscriber-side optical SFP+ ports (PON 0 - PON 15)

Provisioning and Monitoring Domain Manager application: Operator-based virtualized Shelf OLT lifecycle manager and provisioning system interface for Optical Network Units (ONUs)

System Compatibility CommScope provides available qualified optical modules for PON and NSI interfaces | OLT shelf platform thermal specifications versus total rack thermal loading must be considered | The XP6168 Shelf OLT can be installed into any new or existing networking facilities, as well as environmentally controlled headend and hub locations

Dimensions

Height 43.701 mm | 1.72 in

Width 440.995 mm | 17.362 in

Depth 487.401 mm | 19.189 in

Electrical Specifications

Electrical Safety Standard CSA C22.2#62368-1:2019 Ed.3+U1 | EN 62368-1 | UL 62368-1:2019 Ed.3+R:22Oct2021

Electromagnetic Compatibility (EMC) CFR 47 Part 15, Subpart B, Class A | EN 300 386 / EN 55035

Power Requirements 1+1 Swappable 100/220 VAC

Environmental Specifications

Operating Temperature 0 °C to +50 °C (+32 °F to +122 °F)

Relative Humidity 5%–95%, non-condensing

Standards Compliance IEC 60529, IP43 | IEC 60529, IP54

Packaging and Weights

Weight, net

7.711 kg | 17 lb

Regulatory Compliance/Certifications

Agency

Classification

ISO 9001:2015

Designed, manufactured and/or distributed under this quality management system

ROHS

Compliant

UK-ROHS

Compliant