XP6168S | 1514512

CommScope FLX™ 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 FLX™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

The Shelf OLT is specifically designed for cable operators with special consideration for evolving network needs as operators are turning to distributed access architecture models, where deployment flexibility is key. The remote OLT (R-OLT) incorporates full IPv4/IPv6 traffic management and PON MAC/PHY capabilities in a compact form factor, enabling network operators to substantially increase the ROI of their existing installed fiber base by adding high bandwidth 10G PON based services to existing deployments or providing cost effective incremental additive subscriber coverage.

The Shelf OLT is equipped with sixteen 10G PON ports, each supporting standard GPON at 2.5/1.25 Gbps and XGS-PON at 10/10 Gbps. Future software releases will support all EPON modes including symmetric 10/10 Gbps and symmetric 1/1 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 changing 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 :

- The CommScope FLX™Shelf OLT provides deep reach of FTTX commercial and residential services well beyond the typical 20 km PON deployment range, utilizing long distance uplink optics for installation in remote facilities, hubs, cabinets and customer premises in distributed architectures
- 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.984GPON (2.5G/1.25G), ITU-T G.9807.1 XGS- PON (10G/10G, 10G/2.5G), IEEE 802.3ah EPON (1G/1G, 2G/1G), and IEEE 802.3av 10G EPON (10G/10G)
- The Shelf OLT supports multiple management system options and utilizes standardized interfaces for control plane and provisioning operations including the CommScope server-based OLT Manager (vOLT) application and an SDN style PON Domain Manager in addition to direct interface to third party SDN controllers and telemetry collectors
- The 1RU Shelf OLT form factor features hot swappable power entry modules and fan modules

FLX Virtual OLT (vOLT) Manager :

The CommScope FLX™OLT Manager is a vOLT 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 FLX Virtual OLT (vOLT) Manager :

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- Seamless integration of the management and assurance of multiple Shelf OLTs resulting in a fully managed service deployment usingexisting operational production processes and procedures
- 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 northbound provisioning and management systems
  - Full standard based interfaces to northbound SDN and telemetry gathering applications

Product Classification

Product Type   OLT shelf

Product Brand   CommScope FLX™

General Specifications

Ports, Network Side   CommScope qualified SFP+ transceivers are purchased separately | Eight (8) LC-Duplex network side optical ports (NSI Port 0 – NSI Port 8) | Supports SFP28 and QSFP28 (100 Gbps) cages for standard uplink applications

Ports, Subscriber Side   CommScope qualified XFP transceivers are purchased separately | Sixteen (16 SC /UPC) simplex bidirectional subscriber-side optical SFP+ ports (PON 0 - PON 15) | Supports IEEE 802.3av 10G EPON 10/10 Gbps symmetrical, and 1/1 Gbps, ITU-T G.984 GPON 2.5/1.25 Gbps and ITU-T G.9807 XGS-PON 10/10 Gbps symmetrical

Provisioning and Monitoring   OLT 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   CAN/CSA-C22.2 No. 60950-1-07+Amd 1+Amd 2 | EN 60950-1: 2006+A11+A1+A12+A2 | EN 60950-22: 2006+A11 | IEC 60950-1: 2005+A1+A2 | IEC/EN 60825-1:2014 | IEC/EN 60825-2:2004+A1+A2 | UL 60950-1-07+A1+A2 | UL 60950-22:2007 R12.11

Electromagnetic Compatibility (EMC)   CFR 47 Part 15, Subpart B, Class A | CISPR 24 IEC/EN 55024 | CISPR 32 IEC/EN 55032 | VCCI A | VCCI B | VCCI V-32-1

Power Requirements   1+1 Swappable 100/220 VAC

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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

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