XP6164S | 1514349

Base Product

CommScope FLX™ OLT shelf, 1RU 19" rack-mounted hardened multi-protocol enabling virtual control management 10G xPON deployment strategies with GPON, XGS-PON and Combo capability in remote facilities, hubs, and cabinets in distributed architectures

The CommScope FLX™ XP6164S Shelf OLT is a standard 1RU 19" rack-mounted, hardened multi-protocol OLT enabling both centralized and distributed access PON deployment strategies. The Shelf OLT is suitable for installation into CommScope cabinets, hub sites or other plant or premise locations, enabling subscriber access via PON connectivity with a field-hardened dense platform. The Shelf OLT allows operators to serve customers at distances well beyond the typical centralized PON reach by utilizing standard long-haul uplink optics to connect to the S-Leaf switch/router in their Converged Interconnect Network (CIN) or core transport network.

The Shelf OLT is specifically designed for service providers with special consideration for evolving network needs as operators are turning to distributed access architecture models, where deployment flexibility in the plant is key. The Shelf OLT incorporates full IPv4/IPv6 traffic management and PON MAC/PHY capabilities in a compact hardened form factor, enabling network operators to substantially increase the ROI of their existing installed fiber base by adding high bandwidth 10G PON-based services where their subscribers are located.

The Shelf OLT is equipped with sixteen 10G PON ports, each supporting standard GPON at 2.5/1.25 Gbps, XGS-PON at 10/10 Gbps or combo mode optics with both XGS and GPON capability simultaneously.. Future software releases will support all EPON modes including symmetric 10/10 Gbps, symmetric 1/1 Gbps and turbo 2/1 Gbps.

On the network uplink side, the module provides standard 100GE transport backhaul via available long-reach transceivers supporting the deployment of PON services deeper in the existing plant infrastructure.

Key features of the XP6164S:

- The new 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 (100GE) optical interfaces support upstream connection to the CINnetwork 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 XGSPON (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 CommScope server-based OLT Manager (vOLT) application and SDN style PON Domain Controller in addition to direct interface to third party SDN controllers and telemetry collectors
- The hardened 1RU Shelf OLT form factor is designed for installation in Commscope cabinet systems and features hot-swappable power entry modules and fan trays, with all service and maintenance interfaces front panel accessible

FLX™ Virtual OLT (vOLT) :

The CommScope FLX™ 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 the 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™ Domain Manager (DM) :

- 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
- Full lifecycle management of multiple 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 services, integration into the North-bound provisioning and management systems
- Full standards-based interfaces to North-bound SDN and telemetry gathering applications

Product Classification

Regional Availability	Asia | Australia/New Zealand | EMEA | Latin America | North America
Product Type	OLT shelf
Product Brand	CommScope FLX™

General Specifications

Ports, Network Side	CommScope qualified QSFP28 or SFP+ (with available adapter) transceivers are purchased separately | Four (4) LC-Duplex network side optical ports (NSI Port 0 – NSI Port 3) | Supports QSFP28 (100 Gbps) cages for standard uplink applications
Ports, Subscriber Side	CommScope qualified SFP+ transceivers are purchased separately | ITU-T G.984 GPON 2.5/1.25 Gbps and ITU-T G.9807 XGS-PON 10/10 Gbps symmetrical and combo mode optics supported | 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 field-hardened optical modules for PON and NSI interfaces | The XP6164S Shelf OLT can be installed into any new or existing networking facilities, mini-hub, hub, or street

Dimensions

Height	38.1 mm | 1.5 in
Width	444.5 mm | 17.5 in
Depth	264.16 mm | 10.4 in

Electrical Specifications

Electrical Safety Standard	CAN/CSA-C22.2 No. 60950-1-07+Amd 1+Amd 2 | CAN/CSA-C22.2 No.60950-22-07+GI1 (R2012) | CSA C22.2#62368-1:2019 Ed.3+U1 | EN 60950-1: 2006+A11+A1+A12+A2 | EN 60950-22: 2006+A11 | EN60825-1,-2 | EN60825-1,

	-2 IEC/EN 60825-1:2014 | IEC 60950-1:2005+A1+A2 | IEC 60950-22:2005 | IEC 62368-1 2014 | IEC/EN 60825-1:2014 | IEC/EN 60825-2:2004+A1+A2 | TUV EN 6-950-1 | UL 60950-1-07+A1+A2 | UL 60950-22:2007 R12.11 | UL 62368-1:2019 Ed.3+R:22Oct2021
Electromagnetic Compatibility (EMC)	CFR 47 Part 15, Subpart B, Class A | CFR 47 Part 15, Subpart B, Class B | CISPR 24 IEC/EN 55024 | CISPR 32 IEC/EN 55032 | CISPR 32 IEC/EN55032 | EN 300 386 / EN 55035 | VCCI A | VCCI B | VCCI V-32-1
Power Consumption Note	Base configuration : At twenty-five (25) C (room temperature), 16 XGS-PON SFP+ optics installed, 2 10G NNI SFP+ installed, measured power is 163W | Max data loading: At sixty-five (65) C, all 16 combo PON ports SFP+ optics installed, 4 100G QSFPs installed, measured power is 276W
Power Requirements	-48VDC / 7.5A

Environmental Specifications

Operating Temperature	-40 °C to +65 °C (-40 °F to +149 °F)
Relative Humidity	5%–95%, non-condensing
Airflow Direction	Right-to-left
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