

V1-16XC

New generation OLT for optical broadband service

Reimagine Your Edge



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A new generation XCellerate™ OLT with the flexibility to choose GPON, XGSPON or GPON+XGS-PON (Combo) for cost-effective 10Gig services.

Features & Benefits The XGS-PON technology adds new features and functionality targeted at improving performance and interoperability, and

- + Compact 1U low profile, high density adds support for new applications, services, and deployment scenarios. Among these changes are improvements in data rate
- + 900Gbps switching capacity
- + 16-port XGS-PON/GPON and reach performance, diagnostics, and stand-by mode, to combo SFP+ interfaces name a few.
- + Fixed 4-port 25GE SFP 28 and 2-port 100G QSFP28 optical The V1-16XC utilizes a point-to-multipoint Optical Distribution Network (ODN) and the XGS-PON technology with 10G interfaces
- + XGS-PON ODN class N1/N2 compliant Symmetric bandwidth to enable cost-effective, higher bandwidth, with ITU-T G.9807.1 higher value FTTx services. Service providers can add new 10Gig

Extraordinary Capacity and Flexibility

PON based services alongside GPON to offer choice and keep pace with growing bandwidth demands. Cost effective 10Gig offers an opportunity for revenue growth in business and mobile xHaul applications beyond traditional residential applications with a common fiber network.

The V1-16XC is comprised of combo 16-port XGS-PON+GPON interface for service interface and fixed 4-port 25GE interface and 2-port 100GE for uplink on the front panel. It offers usable interface to make up diversity network services. Therefore, depending on customer requirements, it can be configured with several Ethernet configurations.



Made for High Performance and Reliability Requirements

The V1-16XC offers timing services, allowing for system clocking synchronization from the core of the network. It also provides 2 mounting slots for the dual power modules and 2 mounting slots for the fan on the rear panel. PSU modules support 1:1 redundancy and load sharing, so it is possible to operate as nonstopable. Security features include storm control for broadcast, multicast and unknown unicast packets, out-band management and Secure Shell (SSH) support.

Next generation of ultra-fast XGS-PON

The V1-16XC offers next generation of ultra-fast XGS-PON technology that can be used for a variety of new revenue generating applications. Due to the coexistence of GPON equipment installed on the same network, the network can be improved efficiently. It is expected to help build business continuity systems such as telework and video conference that require triple play services of video, data and voice.

Key Service Attributes

- + Compact 1U Chassis with Hardened Temperature for indoor or outdoor cabinets
- + Sixteen XGS-PON/GPON combo interfaces
- + Four 25GE/10GE SFP28/SFP+ interfaces and Two 100G QSFP28 for Uplink
- + ONU bundle rate-limit in OLT
- + Traffic management provides QoS, traffic shaping
- + Transparent LAN services
- + IPTV multicast, IGMPv2 and IGMPv3 services
- + PPPoE Intermediate Agent



Features, Protocols, Interfaces

Capacity

- + Max. 900Gbps switching capacity based on I/O full duplex
- + Main switching block in Base board with fixed I/O Interface

Interfaces

- + 16-port XGS-PON combo interface
- + 4-port 25G optical interface
- + 2-port 100G optical interface
- + 1-port of RS-232 Interface for Console Debug mode
- + 1-port of 10/100/1000Base-T electrical Interface for Management
- + 1-port of Alarm Interface
- + Clock Interface

Resiliency

- + Redundant dual power supply unit (PSU)
- + Hot Swappable for all plug-in units (PSU and FAN)
- + LED indicator

Layer 2 Capabilities

- + Standard Ethernet Bridging
- + 32K MAC entries
- + 4K active VLANs for 802.1q tagged frame

- + Port VLAN
- + VLAN stacking/translation
- + Link aggregation (static, LACP)
- + Jumbo frame 9K

GPON Capabilities + Support ITU-T

G.984.4 ONT Management & Control

Interface (OMCI) + Remote ONT/ONU management

- + Automatic ONT ranging

- + GPON OLT Class B+ compliant with ITU-T

G.984.2 + GPON OLT Class C+ compliant

with ITU-T G.984.2

- + Full-duplex operation

- + 2.488Gbps downstream and 1.244Gbps upstream applications

- + 2.488Gbps continuous-mode transmitter(1.49um-DFB) with automatic output power control

- + BER: under 10⁻¹⁰ + Receiving

Wavelength: 1260 ~ 1360nm (Typ: 1310nm)

- + Input sensitivity: Max -28dBm (Measured with a PRBS 223-1 pattern)

- + Input Saturation Power(Overload): -

8dBm (min) + Transmitter wavelength: 1480 ~

1500nm (Typ: 1490nm) +

Mean launched power: +1.5 ~ +4.5dBm (End of life)

- + Spectral width (-20dB): 1nm (max)

- + Receiving Wavelength: 1260 ~ 1360nm (Typ: 1310nm)

XGS-PON Capabilities

- + Support ITU-T G.9807.1 Compliant

- + Full-duplex operation

- + XGS-PON ODN Class N1 compliant with ITU-T G.9807.1

- + 9.953Gbps downstream and 9.953/2.488Gbps upstream applications

- + Support DDM (Digital Diagnostics Monitoring)

- + Transmission distance: 20km with

single-mode fiber + Laser type:

laser diode class 1

(defined in IEC 60825-1)

Traffic Management

- + Conditional rate limiting

- + Diff Serv + Traffic Scheduling

(SP, DRR) + 8 queues

per port + Clock

Synchronization

- + IEEE1588v2 (TC/BC) +

Synchronous Ethernet

Management

- + Serial/SSH/Telnet(CLI)

- + SNMPv1/v2/v3 + DHCP server, client, relay agent

- + RMON

- + Software Download/Upgrade



Physical & Environmental Specifications

Dimensions (H x W x D)	440 mm x 44 mm x 280 mm
Operating temperature	-40~149°F (-40~65°C)
Storage temperature	-40~158°F (-40~70°C)
Operating humidity	5 to 95 % (non-condensing)
Clock i/f for ToD	RS-485

Alarm i/f	RJ45
AC power	100-240VAC, 5A
DC power	48VDC, 6.3A
Max power consumption	AC: 245W, DC: 230W
Heat Transfer Direction	Front to Rear

Ordering Information

Bases

V1-16XC	<ul style="list-style-type: none"> - 16-port XGS-PON combo (SFP +) - 4-port 25Gbase-R (SFP 28) - 2-port 100Gbase-R (QSFP 28) - 2-slot for Power Supply Unit - Clock Interface: ToD, 10MHz, 1PPS - Alarm Interface - 1-port RS232 for Console - 1-port GTX for MGMT Rear - 2-slot for FAN Unit
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PSU/FAN	V1-16XC PSU DC V1-16XC_PSU_AC V1-16XC FAN V1-16XC_PSU_Blank Panel V1-16XC_FAN_Blank Panel
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SFP+ Options	SFP+ 10GE-SR SFP+ 1GE10GE-SR SFP+ 10GE-LR SFP+ 10GE-ER SFP+ 10GE-ZR
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SFP28 Options	SFP28-25G-SR SFP28-25G-LR SFP28-25G-ER
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QSFP28 Options	QSFP28-100GE-SR4 QSFP28-100GE-LR4
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