

# V1-08XC



## V1-08XC New generation OLT for optical broadband service

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

### Features & Benefits

- + Compact 1U low profile
- + 394Gbps switching capacity
- + 8-port XGS-PON/GPON combo SFP+ interfaces
- + Fixed 4-port 25GE SFP28 and 2-port 1GE interfaces
- + XGS-PON ODN class N1/N2 compliant with ITU-T G.9807.1

The XGS-PON technology adds new features and functionality targeted at improving performance and interoperability, and adds support for new applications, services, and deployment scenarios. Among these changes are improvements in data rate and reach performance, diagnostics, and stand-by mode, to name a few.

The V1-08XC utilizes a point-to-multipoint Optical Distribution Network (ODN) and the XGS-PON technology with 10G Symmetric bandwidth to enable cost-effective, higher bandwidth, higher value FTTx services. Service providers can add new 10Gig 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.

# V1-08XC

## Extraordinary Capacity and Flexibility

The V1-08XC is comprised of combo 8-port XGS-PON+GPON interface for service interface and fixed 4-port 25GE interface and 2-port 1GE 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 V1-08XC 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 1 mounting slots for the fan on the front panel. PSU modules support 1:1 redundancy and load sharing, so it is possible to operate as non-stoppable. 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 V1-08XC 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 Extended Temperature
- + Eight XGS-PON/GPON combo interfaces
- + Four 25GE/10GE SFP28/SFP+ interfaces 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

# V1-08XC

## Features, Protocols, Interfaces

### System

- + Switching capacity: 394 Gbps
- + Throughput: 293 Mpps
- + Main switching block in Base board with fixed Interface
  - 8-port XGS-PON/GPON combo interface (SFP+)
  - 4-port 25GBase-R interface (SFP28)
  - 2-port 10/100/1000Base-T interface (RJ45)
  - 1-port RS-232 for Console interface
  - 1-port GTX for out-of-band MGMT interface (RJ45)
- + Redundant dual power supply unit
- + one FAN unit slot on the front panel
- + LED indicator
- + Max. MAC address 32K
- + Max. 512 ONT (GPON 1:64 or XGS-PON 1:128)

### Layer 2 Capabilities

- + Standard Ethernet Bridging
- + 4K active VLANs for 802.1q tagged frame
- + VLAN assignment (tagged/untagged)
- + VLAN stacking/translation
- + STP/RSTP/MSTP/PVSTP
- + Link aggregation (static, LACP)
- + Jumbo frame 2KB in GPON interface 9KB in uplink interface and XGS-PON
- + ERPS/G.8032 ring protection

### Multicast

- + IGMP v1/v2/v3, IGMP Snooping/Proxy
- + MLD v1/v2, MLD Snooping/Proxy

### GPON/XGS-PON Capabilities

- + ITU-T G.988 OMCI (ONT Management & Control Interface)
- + GPON SFP B+, C+ compliant with ITU-T G.984.2
- + XGS-PON ODN Class N1/N2 compliant with ITU-T G.9807.1
- + Full-duplex operation
- + GPON
  - 2.488Gbps downstream and 1.244Gbps upstream applications
  - 2.488Gbps continuous-mode transmitter(1.49um-DFB) with automatic output power control
- + XGS-PON
  - 9.953Gbps downstream and 9.953/2.488Gbps upstream applications
- + Supports DDM (Digital Diagnostics Monitoring)
- + Transmission distance: 20km with single-mode fiber
- + Laser type: laser diode class 1 (defined in IEC 60825-1)
- + 4K GEM port-ID and 1K alloc-ID (T-CONT)
- + Supports FEC (Forward Error Correction)
- + ONU status reporting mode of DBA in both NSR/SR mode
- + Setting a bandwidth for T-CONT in fixed/assured/maximum/BE mode
- + Mapping GEM port mapping with Ethernet VLAN ID/Pbit

### QoS

- + Traffic classification (802.1p, CoS, IP Precedence, DSCP, TCP/UDP)
- + Diff Serv
- + Traffic Scheduling (SP, WRR, DRR)
- + 8 queues per port
- + Traffic policy
- + Bandwidth control (Rate limit)

### Security

- + SSH v2
- + RADIUS, TACACS+,
- + 802.1x authentication
- + Ether type/L4-based ACL
- + Storm Control (Broadcast/Multicast/DLF)
- + DHCP/MAC/VLAN Filtering
- + IP Source Guard
- + MAC Anti-spoofing
- + ARP Inspection/Dynamic ARP Inspection
- + PPPoE/IPoE Intermediate Agent (Tag Option Format)
- + DoS protection

### Management

- + Serial/SSH/Telnet(CLI)
- + SNMPv1/v2/v3
- + DHCP server/client
- + RMON
- + Syslog
- + Software Download/Upgrade
- + Configuration Backup/Download/Upload
- + Remote Device Monitoring (Power/Temperature/Memory/CPU)
- + Port mirroring

## Physical & Environmental Specifications

Dimensions (W x H x D)	440 mm x 44 mm x 250 mm (1RU)
Operating temperature	-4~140°F (-20~60°C)
Storage temperature	-4~158°F (-20~70°C)
Operating humidity	5 to 95 % (non-condensing)
Weight	4.28 kg (Base + FAN + 2PSU AC) 4.63 kg (Base + FAN + 2PSU DC)

AC power	100-240VAC, 50/60Hz
DC power	48VDC
Maximum power consumption	103W
Heat Transfer Direction	Air inlet: on the front and rear of the switch Air outlet: on the right side of the switch

# Ordering Information

## Bases

<b>V1-08XC</b>	<ul style="list-style-type: none"><li>- 8-port XGS-PON/GPON combo (SFP+)</li><li>- 4-port 25GBase-R (SFP28)</li><li>- 2-port 10/100/1000Base-T (RJ45)</li><li>- 2-slot for Power Supply Unit</li><li>- 1-port RS232 for Console</li><li>- 1-port GTX for MGMT</li><li>- 1-slot for FAN Unit</li></ul>
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<b>PSU/FAN</b>	<ul style="list-style-type: none"><li>V1-08XC_PSU_DC</li><li>V1-08XC_PSU_AC</li><li>V1-08XC_FAN</li><li>V1-08XC_PSU_Blank Panel</li></ul>
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<b>SFP+ Options</b>	<ul style="list-style-type: none"><li>SFP+ 10GE-SR</li><li>SFP+ 1GE10GE-SR</li><li>SFP+ 10GE-LR</li><li>SFP+ 10GE-ER</li><li>SFP+ 10GE-ZR</li></ul>
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<b>SFP28 Options</b>	<ul style="list-style-type: none"><li>SFP28-25G-SR</li><li>SFP28-25G-LR</li><li>SFP28-25G-ER</li></ul>
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