V1-08XC

V1-08XC New generation OLT for optical broadband service

The DZS V1-08XC introduces a point-to-multipoint concept with the XGS-PON technology, which enables a cost-effective FTTx service.

Features & Benefits

+ 394Gbps switching capacity

+ 8-port XGS-PON/GPON combo interfaces

+ Fixed 4-port 25GE and 2-port 1GE interfaces

+ XGS-PON ODN class N1 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 introduces a point-to-multipoint concept with the XGS-PON technology, which enables a cost-effective FTTx service. The reason why XGS-PON is considered as a cost effective solution is its usage of a passive splitter rather than an active switching system.

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DZS

Extraordinary Capacity and Flexibility

The V1-08XC is comprised of combo 8-port XGS-PON 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 Rigid 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.

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 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)
AC power	100-240VAC, 50/60Hz
DC power	48VDC
Maximum power consumption	103W

Service interface	8 x XGS-PON/GPON combo (SFP+)
Uplink interface	4 x 25GBase-R (SFP28) 2 x 10/100/1000GBase-T (RJ45)
Console interface	RS232 (RJ45-to-DB9)
Management interface	10/100/1000Base-T (RJ45)
Heat Transfer Direction	Air inlet: on the front and rear of the switch Air outlet: on the right side of the switch
Weight	4.28 kg (Base + FAN + 2PSU AC) 4.63 kg (Base + FAN + 2PSU DC)
Certification	CE, FCC/IC, NRTL(TUV), UKCA