DZS

V-LC-APAP-16

Reimagine Your Edge

V-LC-APAP-16 Combination GPON/XGS-PON Line Card

A new generation XCelerate™ line card with the flexibility to choose GPON, XGS-PON or GPON+XGS-PON (Combo) on a per port basis.

Features & Benefits

+ 16-port GPON /XGS PON/Combo line card

+ Ports configurable as PON or 10GbE (Active Ethernet)

+ On-board 2 x 100G uplink ports

+ ITU-T Standards compliant

The V-LC-APAP-16 is the latest addition to our portfolio of line cards for use in the MXK-F or Vx series OLT chassis. This new generation XCelerate™ line card can support 16 interfaces for GPON, XGS-PON or GPON + XGS-PON (Combo) on a per port basis, in a single-slot card design. In addition, a group of four ports can be configured as 10GE for Active Ethernet access.

The V-LC-APAP-16 enables service providers to add new 10Gig services alongside GPON to offer choice and keep pace with growing bandwidth demands. Cost effective 10Gig services offers an opportunity for revenue growth in business and mobile xHaul applications beyond traditional residential applications with a common fiber network.

The V-LC-APAP-16 can be deployed in MXK-F219/V2, F1419/V14 and F1421/V16 chassis. It provides up to 256 OLT ports in one MXK-F1421/V16 chassis.

V-LC-APAP-16

XCelerate™ Line Card

System-On-a-Card design

The V-LC-APAP-16 utilizes our System-On-a-Card XCelerateTM design where service cards include all the required hardware functions to operate as a stand-alone OLT. It comes with on-board high capacity local switching and aggregation as well as two 100GE uplinks. This capability allows maximum flexibility in OLT system configuration and ultimate scalability. It allows expansion by simply adding OLT cards regardless of the backplane capacity and central switch fabric capacity.

Disaggregation and SDN Support*

The XCelerateTM service cards allow any Velocity OLT to be deployed as a traditional chassis OLT or as Disaggregated OLTs. The unique XCelerateTM architecture allows the V-LC-APAP-16 cards to operate as a "System-on-a-Card" for disaggregation and SDN Control. On-board switches in V-LC-APAP-16 cards provide traffic aggregation, QoS, and uplink interfaces for non-blocking performance. With a fully distributed database, both boot and upgrade times are exceedingly low for better customer experience. System upgrades are much simpler ensuring maximum reliability and availability.

The Ultimate in Density and Flexibility

With 128 splits per PON, one MXK-F1421/V16 chassis fully equipped with V-LC-APAP-16 line card can support up to 32K ONTs concurrently. The XCelerate™ line card allows maximum flexibility for operators as they transition through different generations of fiber access technologies. It allows them to leverage the existing ODN to offer higher bandwidth XGS-PON services to businesses and homes, or for mobile xHaul. With the co-existence of standard GPON and XGS-PON on the same PON, the service providers can significantly increase the bandwidth for select customers or sites in a cost-effective manner.

The two 100G ports on the card offers additional uplink capacity and flexibility on how traffic is aggregated. The option of configuring a port for 10G Ethernet Access further expands the service offering capability. Any of the 16 ports can be configured, in a group of 4 for 10GE operation on the line card and used for access or subtending other devices. Until now, the flexibility to add 10gig services to your network required some sort of trade-off in efficiency, density, cost, or all of the above. With the new DZS XCelerate™ line card, YOU define the rules.

*Requires future software support

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V-LC-APAP-16

XCelerate™ Line Card

Key Service Attributes

+ FSAN ITU-T G.984 GPON compliant, Class B+ and Class C+ SFP optics with RSSI

+ XGS-PON ITU-T G.9807.1-compliant interface, Class N1 and N2

+ Type-B redundancy support

+ Sixteen SFP+ combo interfaces, GPON, 1GigE, XGS-PON or 10GigE

+ wo 100G QSFP28 Ethernet interfaces for Uplink or Downlink

+ Link Aggregation across the QSP28 ports intra-card or adjacent card

+ Traffic management provides QoS, traffic shaping

+ Layer 2 and Layer 3 features, video replication and security

+ Support of Radius proxy, 802.1x, LLDP

+ IPTV multicast, IGMPv2 and IGMPv3 services

Features, Protocols, Interfaces

Interfaces

+ Subscriber Line Interfaces: GPON, XGS-PON, Combo, and 10GE SFP+

+ Two 100G (QSFP28) or 40G (QSFP+)

Protocol Support

+ ITU-T G.984, G.987, G.9807

+ Bridging 802.1D

+ VLAN 802.1Q with 802.1p

+ IGMP

+ IGMP Snooping with Proxy reporting

+ DHCP Relay & DHCP Option 82

+ PPP0E with Intermediate Agent

+ Broadcast Storm Protection

+ Bridge Loop Protection

+ Transparent L2/L3 VPN for business services

Regulatory Compliance

+ Safety
  + EN 62368-1
  + UL 62368-1
  + CAN/CSA C22.2 No. 62638-1

+ EMC Emissions / Immunity
  + FCC Part 15 Class A
  + EN 55022 Class A
  + CES-003 Class A
  + EN 300 386

Physical & Environmental Specifications

Dimensions (H x W x D)	378mm x 22mm x 212mm
Operating temperature	-40~149°F (-40~65°C)
Storage temperature	-40~158°F (-40~70°C)
Operating humidity	5 to 85% (non-condensing)

Altitude:	-200ft to 16,500ft (-60m to 5,000m)
Power Requirements	89W (Without SFP)
Maximum Power	158W

*Requires future software support

Ordering Information

Bases	
V-LC-APAP-16	ROHS, REQ MIN. XXX. (16) 10/10 XGS-PON+GPON COMBO (COEXISTENCE) PORT LC, SINGLE SLOT (REQ SFP+ XCVRS)
XGS-GP-COMBO-SFP+-B+-N1-OLT-C	XGSPON & GPON COMBO OLT CLASS N1&B+ SFP, 1577/1270NM, 1490/1310NM IRSSI, ROHS, C-TEMP,
XCVR-XGS-ONLY-N2-RSSI-I	XGSPON OLT 10G SFP+, NO SUPPORT FOR 2.5G UP,1577NM CW MODE DOWN, 1270NM APD/TIA UP, I TEMP, RSSI
XGS-GP-COMBO-SFP+-C+-N2-OLT-I	XGSPON/GPON OLT 10G CEX SFP+, 1577TX 10G, 1490TX 2.5G, 1270RX 10/2.4G, 1310 1.24G, N2 COMBO, I-TEMP
XGS-GP-COMBO-SFP+-E1-OLT-C	COMBO PON, E1/D, C-TEMP, XGS-GP-COMBO-SFP+-E1-OLT-C
XGS-GP-COMBO-SFP+-C+-N2-OLT-C	XGSPON/GPON OLT 10G CEX SFP+, 1577TX 10G, 1490TX 2.5G,1270RX 10/2.4G, 1310 1.24G, N2 COMBO QUADPLXR
XCVR-AEHG-QSFP28-100M-CA	QSFP28 100G MMF 850 100M OM4 (70M OM3) OPTICAL XCVR, 0~70 DEG C C-TEMP
XCVR-AEHG-QSFP28-10KM-CA	QSFP28 100G SMF 1310 10KM OPTICAL XCVR, 0~70 DEG C-TEMP

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info@DZSi.com
www.DZSi.com/contact-us

Contact DZS today
www.DZSi.com
support@DZSi.com