



V-FC-AEHG4-AEXG4 Velocity sdNOS Fabric Card

A new generation Fabric card with 3.2 Tbps Switching capacity ideal for Aggregation of High Bandwidth, High Value Services delivered with XCelebrate™ line cards.

Features & Benefits

- + Cost-effective aggregation with robust QoS
- + High speed uplinks — 4x 200G/100G and 4x 25G/10G
- + Intra-card and cross-card link aggregation for maximum capacity and reliability
- + Support for carrier-class active /standby redundancy
- + Point-to-point, and ring configuration

The V-FC-AEHG4-AEXG4 is a core switching module for the high-capacity, scalable, Velocity Vx Series family of chassisbased OLT systems. The Fabric Card provides efficient, reliable, and high-capacity aggregation and uplinks for all fiber access services. With four 200G/100G QSFP-DD and four 25G/10G SFP28 interfaces, the V-FC-AEHG4-AEXG4 is the latest addition to our suite of Fabric cards. It provides QoS for service flows to and from the upstream network for all traffic types.

Two Fabric Cards in any of the Vx Series Chassis provide full card and network redundancy by supporting an activeactive* configuration maximum uplink capacity using cross-card link aggregation. These cards can be used to interconnect multiple sites in a ring configuration for network resiliency using Ethernet Ring Protection Switching* (G.8032). Any of the uplink interfaces in this card can also be used for subtending other devices (e.g. secondary site OLTs).

Carrier Grade Switch Capacity

Demands on access networks continue to accelerate, and technology advances change and evolve at light speed to cope with this growth. To build a platform with more than 10-years reach requires a networking innovator with extraordinary vision, proven bench strength and experience, and of course, exceptional technology to keep pace.

The V-FC-AEHG4-AEXG4 aggregation fabric delivers four QSFP-DD (200G/100G) and four SFP28 (25G/10G) uplink interfaces from each card with a combined 900Gbps of uplink capacity for maximum throughput for services delivered with our XCelebrate™ line cards.

Distributed Switching Architecture for Maximum Scalability

The Velocity OLT can be deployed as a traditional chassis OLT or as Disaggregated OLTs. The unique Xcelerate™ architecture allows the Velocity line cards to operate as a “System-on-a-Card” for disaggregation and SDN Control. The Fabric Card can also operate as a stand-alone switch or “Systemon-a-Card” for disaggregation and SDN Control. For SDN Control the Velocity line and fabric cards can be managed via a standards compliant Netconf/Yang interface.

Key Service Attributes

- + Fabric cards support redundant pair; Active-Active*
- + Each card with four SFP28 (25G/10G) ports
- + Each card with four QSFP-DD (200G/100G) ports for upstream
- + Cross-card and intra-card Link Aggregation
- + Transparent L2/L3 VPN for business services
- + Traffic Class Mapping (802.1p)
- + QoS with traffic rate limiting, policing, and scheduling

*requires sdNOS v5.05 or later software

V-FC-AEHG4-AEXG4 Velocity sdNOS Fabric Card Product Specifications

Interfaces

- Four SFP28/SFP+ (25G/10G) ports
- Four QSFP-DD/QSFP (200G/100G) ports

Protocol Support

- Port VLAN (802.1D)
- Tagged VLAN (802.1q)
- Rapid Spanning Tree (802.1w)
- MSTP (802.1s)
- LACP (802.3ad)
- IGMP v2/v3
- IGMP Snooping with Proxy reporting
- Broadcast Storm Protection
- Bridge Loop Protection
- Transparent L2/L3 VPN for business services
- L2 ACL (Allow/Deny)
- Radius
- 2 Rate 3 Color Policing; both Color Blind and Color Aware
- Traffic Rate Limiting
- Traffic Queuing (8 Priority levels)
- DSCP to COS Marking
- Strict Priority Scheduling
- Traffic Policing
- Traffic Class Mapping (802.1p)
- 802.1 ag

Regulatory Compliance

- Safety
 - EN 62368-1
 - UL 62368-1
 - CAN/CSA 22.2 No.62368-1
- EMC Emissions / Immunity
 - FCC Part 15 Class A
 - EN 55022 Class A
 - CES-003 Class A
 - EN 300 386

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Product Specifications

PHYSICAL

Specification	Description
Dimensions (H x W x D)	378mm x 36mm x 212mm
Operating temperature	-40~149°F (-40~ +65°C)
Operating humidity	5 to 85 % (non-condensing)

ENVIRONMENTAL

Specification	Description
Altitude	-200ft to 16,500ft (-60m to 5,000m)
Power Requirements	120W normal (All SFPs on, at 25C)
Maximum Power	175W (All ports at full traffic, at 25C)

Ordering Information

Model	Description
V-FC-AEHG4-AEXG4	ROHS, VX SERIES OLT FABRIC CARD W/ 4X200G OR 100G (QSFP-DD/QSFP-28) AND 4X25G OR 10G ETHERNET (SFP28/SFP+)
XCVR-AEHG-QSFP28-100MCA	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
XCVR-10GE-SFP+-SR	SFP+ SHORT REACH (300M), MMF, 850NM, DUPLEX LC/UPC, 10GE, I-TEMP
1029-3605	QSFP28,103G, LR4,10K, -40 To 85C
XCVR-10GE-SFP+-20KM-1310	SFP+ LONG REACH (20KM), SINGLE MODE, 1310NM, DUPLEX LC/UPC, SUPPORTING 10GBPS ETHERNET; I-TEMP



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