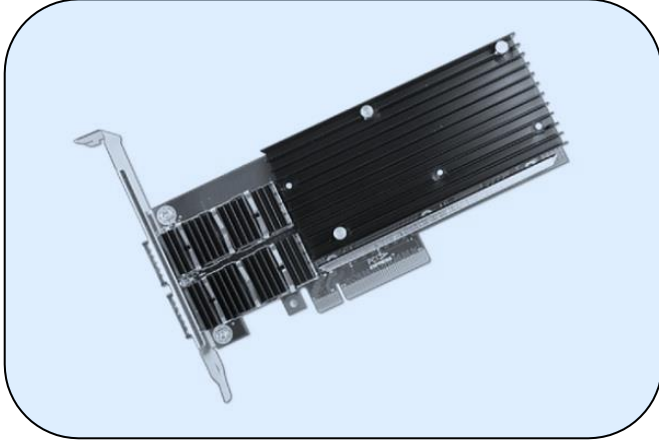


XE3-Q284

PCI Express Dual QSFP+ port Fiber 40 Gigabit Ethernet Server Adapter (Intel XL710-BM2 Based)



Features

- Support for jumbo frame up to 9.5 KB
- Flow control support
- Priority Flow Control (draft IEEE 802.1Qbb)
- Enhanced Transmission Selection (draft IEEE802.1az)
- Statistics management and RMON
- 802.1q VLAN support
- DCB/DCB-X support
- Message Signal interrupts (MSI-X)
- Storage - Enabling competitive performance with native OS intelligent offload solutions, including NAS, iSCSI and FCoE

Overview

XenOpt XE3-Q284, Dual QSFP+ Fiber 40 Gigabit Ethernet PCI Express server adapter is designed for Servers and high-end appliances. XE3-Q284 offers simple integration into any PCI Express X8 to 40 Gigabit Networks. The performance is optimized so that system I/O is not the bottleneck in high-performance networking applications.

XenOpt XE3-Q284 is based on Intel XL710BM2 Ethernet controller with two fully integrated Gigabit Ethernet Media Access Control (MAC) and XLPPi Interface. In addition to managing MAC and PHY Ethernet layer functions, the controller manages PCI Express packet traffic across its transaction, link, and physical/logical layers. Using hardware acceleration, the controller offloads tasks from the host, such as TCP/UDP/IP checksum calculations and TCP segmentation.

XenOpt XE3-Q284 is the ideal solution for implementing multiple network segments, mission-critical high-powered networking applications and environments within high performance servers.

Host Interface

- PCI Express X8 lanes
- Support PCI Express Base Specification 3.0 (8 GT/sec)

LAN and Virtualization Features

- Network Virtualization offloads for VXLAN and NVGRE
- Unified Networking Providing a single wire for LAN and storage: NAS (SMB, NFS) and SAN (iSCSI, FCoE)
- Virtual Bridging Support - VEPA/802.1Qbg, BPE/802.1Qbh
- Physical Functions – Up to 8 per port, up to 16 per device
- Support for 128 Virtual Device Queues (VMDq) per port
- Hardware Queue Pairs – Up to 1.5 K (non-RDMA); up to 256 K (RDMA)
- Virtualization - Alleviating hypervisor I/O bottlenecks by providing flow separation for Virtual Machines (VMs)

TCP/IP/L2 features

- VMDq for Emulated Path:
Adapter-based VM Queue sorting enabling efficient hypervisor-based switching
- SR-IOV for Direct Assignment:
Adapter-based isolation and switching for various virtual station instances enabling optimal CPU usage in virtualized environments. Additionally, XEA-P283 provide Virtual Bridging support that delivers both host-side and switch-side control and management of virtualized I/O as well as the following modes of virtualized operation:
VEPA: IEEE 802.1Qbg support for Virtual Ethernet Port Aggregator
VEB: Virtual Ethernet Bridge support via Intel® VT

Network Virtualization

- Receive Side Scaling (RSS)
- Large Send Offload (LSO)
- TCP/UDP/IP/SCTP Checksum Offload
- IPV4, IPV6

Technical Specifications

QSFP+ 40 Gigabit Ethernet Adapter Technical Specifications:

QSFP+ (Quad Small Formfactor Pluggable) supports:	XLPI interfaces supports 40GBase-R PCS and 40 Gigabit PMA in order to connect with QSFP+ to 40GBase-SR4/40GBase-LR4 /40G Direct Attach Cable
IEEE Standard /Network topology: with 40GBase-SR4 QSFP+	Fiber 40 Gigabit Ethernet, 40GBASE-SR4 (850 nm LAN PHY).
IEEE Standard /Network topology: with 40GBase-LR4 QSFP+	Fiber 40 Gigabit Ethernet, 40GBASE-LR4 (1310 nm LAN PHY)

Operating Systems Support

Operating system support	Windows Linux
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General Technical Specifications

Interface Standard	PCI-Express Base Specification Revision 3.0 (8 GT/sec)
Board Size	165 mm x 69 mm (6.496" x 2.717") PCB thickness is 0.062 inch
PCI Express Card Type	X8 Lane
PCI Express Voltage	+12 V +/- 8%
PCI Connect	X8 Lane
Controller	Intel XL710BM2
Holder	Metal Bracket
Weight	170 gr (5.997 oz)
Power Consumption	2.88 W
Operating Humidity	0%–90%, non-condensing
Operating Temperature	0°C – 45°C (32°F – 113°F)
Storage	-40°C–65°C (-40°F–149°F)
EMC Certifications	FCC PART 15B CE EN 55022:2010 CE EN 55024:2010 CE EN 61000-3-2:2014 CE EN 61000-3-3:2013 CE IEC 62321-2:2013 CE IEC 62321-1:2013 CE IEC 62321-1:2013

LEDs

LEDs	Link 10 G: Green Link 40 G: Yellow Act: Blue: Blink on Activity
Connectors	(2) QSFP+ cage: MOLEX, P/N 75586-0010, or compatible.

Ordering information¹

PN	Description
XE3-Q284	Dual QSFP+ Port Fiber 40 Gb Ethernet PCI Express Server Adapter (Intel X710-BM2 Based)

Notes:

¹ For accurate order specification please contact XenOpt reseller before placing an order. The content of this document is subject to change without notice.

Please specify any host device compatibility requirements at the time of ordering. Standard MSA compatible pluggable components may not work, or some function of these components may not be available in devices that require customized pluggable devices. Pluggable components that are compatible with one type of communications equipment may not work in other type of communications equipment.

Important Notice

Performance figures, data and any illustrative material provided in this data sheet contain typical values and must be specifically confirmed in writing by XenOpt before they become applicable to any particular order or contract. Specifications may change without notice.

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