QLE2560

Single Port 8Gb Fibre Channel to PCI Express Host Bus Adapter

Benefits

- Virtualization optimized
- Power optimized
- Reliability, Availability, Serviceability (RAS) optimized
- Security optimized
- Management optimized

Features

- Fibre Channel 8Gb to PCI Express x8
- 1600 MBps (full-duplex)
- 200,000 initiator and target IOPS
- StarPower™ technology

QLE2560 Host Bus Adapter. The QLE2560 is a PCI Express, single port, Fibre Channel (FC) Host Bus Adapter (HBA). The QLE2560 is part of the QLE2500 HBA product family that offers next generation 8Gb FC technology, meeting the business requirements of the enterprise data center.

Virtualization Optimized. The QLE2560 delivers enhanced security, Quality of Service (QoS), and enables dynamic provisioning. The QLE2560 allows multiple logical (virtual) connections to share the same physical port. Each logical connection has its own resources and the ability to be managed independently.

Power Optimized. The QLE2560 takes advantage of QLogic StarPower technology, ensuring power efficiency. QLogic StarPower technology offers dynamic and adaptive power management features such as power and bandwidth optimized intelligent PCI Express link training, low-power switching power supplies, and thermally efficient layout requiring lower airflows.

RAS Optimized. The QLE2560 provides the highest data integrity by ensuring Overlapping Protection Domains (OPD) on both the control and data paths. The QLE2560 also utilizes Enhanced Hardware Assist Firmware Tracing (EHAFT), allowing more comprehensive debugging with standard drivers.

Security Optimized. The QLE2560 enables SAN-level authentication (FC-SP), fabric-level isolation (NPIV), and is capable of end-to-end data integrity (T10).

Management Optimized. The QLE2560 is backward compatible with 4Gb and 2Gb speeds. A single common driver per operating system for three generations of FC HBAs (8Gb, 4Gb, and 2Gb) simplifies deployment. QLogic's unified driver model (firmware embedded in the driver) eliminates potential interoperability issues between firmware and driver versions. The QLE2560's API compatibility with 4Gb products accelerates deployment while ensuring application compatibility.

Investment Protection. For over 15 years, QLogic has been a technological leader with products that address the current needs of customers, yet provide strong investment protection to support emerging technologies and standards. QLogic stands alone in the industry with its product portfolio depth and experience in successfully delivering technological solutions that address the needs of today and tomorrow.

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Fibre Channel Specifications

Negotiation
- 8/4/2Gbps auto-negotiation

IOPS
- 200,000 initiator and target IOPS

Class of service
- 2 and 3

Topology
- FC-AL, FC-AL2, point-to-point, switched fabric

Protocols
- FCP-3-SCSI
- FC-Tape (FCP-2)

Cable distances

	Multi-Mode Optic		
	Cable Type and Distance (m)		
Rate	OM1	OM2	OM3
2Gbps	150	300	500
4Gbps	70	150	380
8Gbps	21	50	150

PCI Express Interface

Compliance
- *PCI Express Base Specification* rev. 2.0
- *PCI Express Card Electromechanical Specification* rev. 2.0
- *PCI Bus Power Management Interface Specification* rev. 1.2
- *PCI Hot Plug Specification* rev. 1.0

Physical and electrical
- PCIe x8 physical connector
- StarPower link training
  - Maximum x4 lanes for Gen2 rate
  - Maximum x8 lanes for Gen1 rate

Connectivity

Ports
- Single 8Gbps Fibre Channel
- SFP+ with LC-style connector

HBA Specifications

Airflow
- No airflow required

Power consumption
- 5.5 Watts (typical)

Form factor
- Low-profile PCI Express card (6.6 in. x 2.54 in.)

Temperature
- 0 to 55°C (operating)
- -40 to 70°C (non-operating)

Relative Humidity
- 10% to 90% (operating, non-condensing)
- 5% to 93% (non-operating, non-condensing)

RoHS compliance
- RoHS 6

Tools and Utilities

Management tools
- SANsurfer® FC HBA Manager
- SANsurfer FC HBA CLI

Device utilities
- Utilities for flashing bootcode
- Linux scripting tools

Boot support
- BIOS, FCode, UEFI, EFI

APIs
- SNIA HBA API V2, SMI-S, FDMI

Platform/Operating System Support

Hardware platforms
- IA32 (x86), IA64, Intel® 64
- AMD™ Opteron64
- Sun™ SPARC®

Operating systems
- Windows® Server™ 2003, Windows XP Pro x64, Windows Vista™ (Business and Enterprise), Windows Server 2008
- Solaris™ 10 (x86 and SPARC)
- Red Hat® AS 5.*x*, 4.*x*

- Novell® SLES 10, 9
- VMware® ESX Server 3.5 and 3i (targeted versions)
- NetWare® 6.5

Agency Approvals—EMI and EMC

US/Canada
- FCC Part 15, Subpart B, Class A; ICES-003, Class A

Europe
- EN55022, Class A

New Zealand/Australia
- AS/NZS 3548 Class A

Japan
- VCCI V-3/2004.4, Class A

Korea
- MIC

Taiwan
- BSMI (CNS 13438)

Agency Approvals—Safety

US/Canada
- UL, cUL: UL60950, CSA C22.2 No.60950, Class 1 Laser Product per DHHS 21CFR J

Europe
- 73/23/ECC Low Voltage Directive:
  - TUV: EN60950-1:2001, EN60825-1:1994+A1+A2, EN60825-2:1994+A1

Ordering Information

QLE2560-CK
- Ships in an individually packed box with a standard size bracket, a spare low-profile bracket, SANsurfer FC HBAs CD, and Quick Start Guide

QLE2560-BK
- Ships in a bulk box in quantities of 20 or 50 with standard size brackets

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