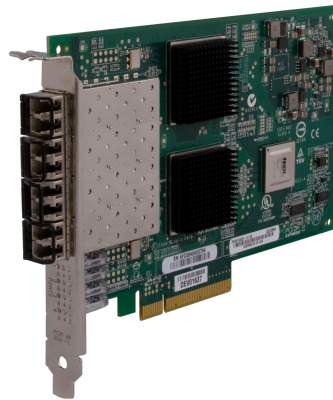# QLE2564

Quad Port 8Gb Fibre Channel to PCI Express 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) per port
- 200,000 initiator and target IOPS per port
- Increased connectivity in 1U servers

QLE2564 Host Bus Adapter. The QLE2564 is a PCI Express, quad port, Fibre Channel (FC) adapter. The QLE2564 is part of the QLE2500 8Gb adapter product family that offers next generation 8Gb FC technology, meeting the business requirements of the enterprise data center.

Virtualization Optimized. The QLE2564 delivers enhanced security, Quality of Service (QoS), and enables dynamic provisioning. The QLE2564 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.

Form-Factor Enhancement. The QLE2564 has been designed with a length of 6.6 inches (167.6 mm), allowing additional support for dense 1U Gen2 rack servers and increasing connectivity, which was not available with the standard 8.0-inch (203.2 mm) length of the 4Gb adapter product.

RAS Optimized. The QLE2564 provides the highest data integrity by ensuring Overlapping Protection Domains (OPD) on both the control and data paths.

Security Optimized. The QLE2564 enables SAN-level authentication (FC-SP), fabric-level isolation (NPIV), and is capable of end-to-end data integrity (T10).

Management Optimized. The QLE2564 is backward compatible with 4Gb and 2Gb speeds. A single common driver per operating system for three generations of FC adapters (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 QLE2564'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.

Fibre Channel Specifications

Negotiation
• 8/4/2Gbps auto-negotiation

IOPS
• 200,000 initiator and target IOPS per port

Class of service
• 2 and 3

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

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

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
• Maximum x8 lanes for Gen1 and Gen2 rates

Platforms

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

Tools and Utilities

Management tools and device utilities
• SANsurfer® FC HBA Manager
• SANsurfer FC HBA CLI
• Utilities for flashing bootcode
• Linux® scripting tools
• Windows PowerShell virtual port scripts

Boot support
• BIOS, FCode, UEFI, EFI

APIs
• SNIA HBA API V2, SMI-S, FDMI

Operating systems
• Windows® Server™ 2003, Windows XP Pro x64, Windows Vista™ (Business and Enterprise), Windows Server 2008
• Solaris™ 10 (x86 and SPARC, Open Solaris)
• Red Hat® AS 5.*x*, 4.*x*
• Novell® SLES 11, 10, 9
• VMware® ESX/ESXi 3.5
• NetWare® 6.5

Physical Specifications

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

Form factor
• 6.6 in x 4.376 in (167.6 mm x 111.2mm)

Environment and Equipment Specifications

Airflow
• No airflow required

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)

Power consumption
• 13W (typical)

RoHS compliance
• RoHS 6

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

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

QLE2564-CK
• Ships in an individually packed box with a standard size bracket, SANsurfer FC HBAs CD, and Quick Start Guide

QLE2564-BK
• Ships in a bulk box in quantities of 10 with standard size brackets

QLOGIC®
The Ultimate in Performance

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