![QLogic logo]
QLOGIC®
The Ultimate in Performance

QMH2562

Dual Port 8Gb FC to PCIe Expansion Card for HP BladeSystem c-Class
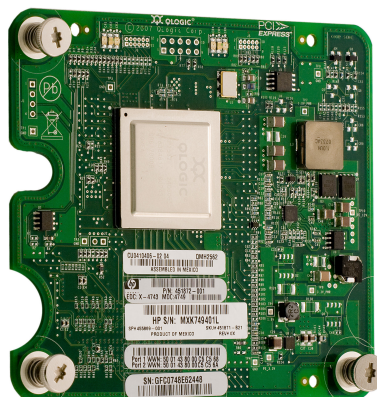
HP Part Number: 451871-B21

Benefits

- Lowest power consumption
- Highest data integrity on data and control paths
- Enhanced security protection
- Faster driver deployment and reduced interoperability issues with unified driver model

Features

- Fibre Channel (FC) 8Gb to PCI Express x8
- Up to 1600 MBps (full-duplex) per port
- 200,000 initiator IOPS per port
- StarPower™ with Dynamic Power Management and Cool HBA™ technologies

#1 BLADE IO PROVIDER

QMH2562 Host Bus Adapter. The QMH2562 is a PCI Express to 8Gb FC Host Bus Adapter (HBA) designed for the HP BladeSystem c-Class.

Virtualization Optimized. The QMH2562 supports N_Port ID Virtualization (NPIV) by allowing 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 QMH2562 takes advantage of QLogic StarPower technology, ensuring power efficiency. QLogic StarPower technology offers dynamic power management to provide the necessary PCI Express bandwidth at the lowest power consumption. Low-power switching power supplies and thermally efficient layout allows the QMH2562 to operate without any additional airflow, making it a *Cool HBA*.

RAS Optimized. The QMH2562 provides the highest data integrity by ensuring Overlapping Protection Domains (OPD) on both the control and data paths. The dual-port design protects against "single point of failure" via BladeSystem midplane routing to redundant switch modules.

Security Optimized. The QMH2562 enables SAN-level authentication by supporting Fibre Channel-Security Protocol (FC-SP).

Management Optimized. The QMH2562 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 QMH2562'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.

QMH2562 Dual Port 8Gb FC to PCIe Expansion Card for HP BladeSystem c-Class

Fibre Channel Specifications

Negotiation
- 8/4/2-Gbps auto-negotiation

IOPS
- 200,000 initiator IOPS per port

Class of service
- 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 Bus Power Management Interface Specification* rev. 1.2

Physical and electrical
- HP BladeSystem PCIe mezzanine slot connector
- StarPower link training
  – Maximum x4 lanes for Gen2 rate
  – Maximum x8 lanes for Gen1 rate

Connectivity

Ports
- Dual 8Gbps Fibre Channel

HBA Specifications

Airflow
- Provided by BladeSystem enclosure

Power consumption
- 5.1 Watts (typical)

Form factor
- HP c-Class Type 1 mezzanine form factor

Temperature
- 0°C/32°F to 55°C/131°F (operating)
- -40°C/-40°F to 70°C/158°F (non-operating)

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, UEFI, EFI

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

Platform/Operating System Support

Hardware platforms
- HP BladeSystem c-Class

Operating systems
- Windows Server® 2003 and 2008
- Solaris 10
- Linux Red Hat® AS 4.*x*, 5.*x*
- Linux SuSE® SLES 9, 10
- VMware® ESX 3.5 and ESXi 3.5 (targeted versions*)*
- NetWare 6.5
- HP-UX 11i v2 & 11i v3 (HP supplied driver)
- OpenVMS 8.31-h1 (HP supplied driver)

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

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

Ordering Information
- The QMH2562 is available from HP (HP part number: 451871-B21)