Data Sheet

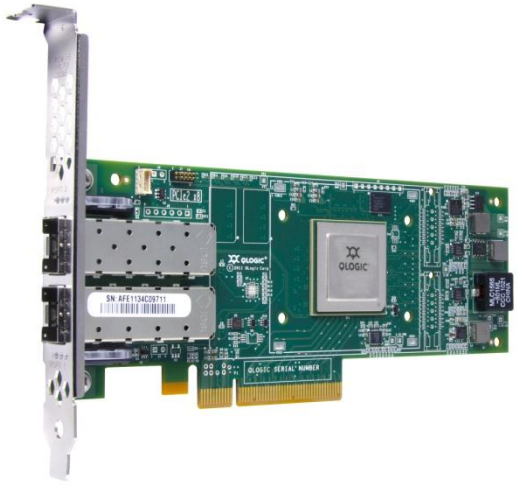
2600 Series

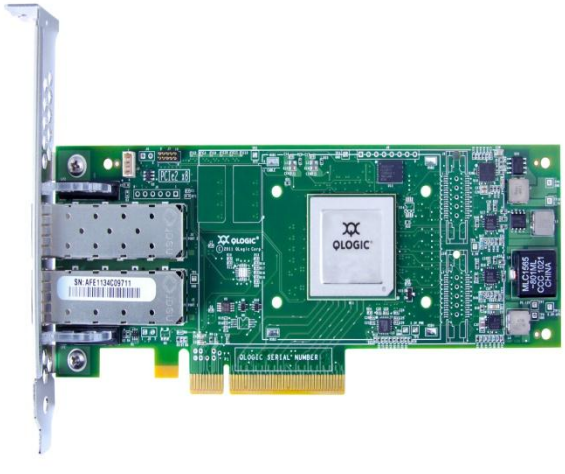
16Gbps Fibre Channel-to-PCIe Adapters

Overview

The 2600 Series adapters are QLogic's sixth generation of Fibre Channel Adapters. They boast industry – leading native Fibre Channel performance – achieving dual port, line-rate, 16-gigabit Fibre Channel throughput – at extremely low CPU utilization with full hardware offloads. This extreme performance eliminates potential I/O bottlenecks in today's powerful multiprocessor, multicore servers.

In addition, support for powerful virtualization features make this adapter ideal for virtualized environments that need excellent I/O performance to service growing numbers of virtual machines (VMs).





Highlights

- 16Gbps per port maximum throughput for high bandwidth storage (SAN) traffic
- Up to 1 million IOPS reduce latency in high transaction intensive applications and virtualized environments
- SR-IOV support for faster performance in virtualized environments
- Reduced hardware, cabling, and management costs by enabling more applications (virtual machines) to run on a single server and Fibre Channel port
- Decreased power and cooling costs by using the fewest PCI Express® lanes in PCIe Gen3 environments
- Overlapping protection domains (OPD) to ensure a high level of reliability as data moves to and from the PCI Bus and Fibre Channel network
- Complete investment protection for legacy 8Gb and 4Gb Fibre Channel infrastructure

Unmatched Expertise.

QLogic is the undisputed leader in Fibre Channel adapters, with over 15 years of experience and six generations of Fibre Channel products that have been qualified by all major server OEMs in multiple form factors. QLogic owns the most established, proven Fibre Channel stack in the industry – more than 11 million Fibre Channel ports shipped.

Virtualization Optimized.

The 2600 Series adapters, powered by QLogic VMflex technology™, support standards-based virtualization such as N-port ID virtualization (NPIV) and virtual storage area networks (virtual fabrics). In addition, single root I/O virtualization (SR-IOV) may be enabled to allow enhanced I/O performance in virtualized environments and improved VM scalability for increasing storage workloads.

Superior Applications Performance.

The QLogic 2600 Series of 16Gb Fibre Channel adapters consume the lowest CPU to drive storage traffic at line rate across all ports. With support for over 1 million I/O transactions per second, QLogic adapters deliver the best storage application performance in virtualized and non-virtualized environments.

Power Optimized.

The 2600 Series adapters use QLogic's StarPower™ technology to provide maximum power efficiency. The adapters offer dynamic power management, which ensures that the PCIe® host bus link uses the minimal number of PCIe lanes, regardless of whether the server supports PCIe Gen2 or Gen3, to meet the required Fibre Channel bandwidth. Using fewer PCIe lanes means that these adapters use less power, while continuing to maintain the highest level of Fibre Channel performance.

Investment Protection.

The adapters are backward compatible with existing 4Gb and 8Gb Fibre Channel infrastructure.

The adapters are also compatible with the same Fibre Channel software driver stack that has been tested and validated across all major hardware platforms, all major Hypervisors and operating systems (OSs), and has been battle-hardened in millions of previous installations.

Simplified Management.

QLogic's new, unified management application, QConvergeConsole™ (QCC), provides single-pane-of-glass management for the company's broad product line of storage and networking adapters (Fibre Channel, converged networking, NIC, and iSCSI).

In addition, QLogic supports all major APIs, giving the end user the flexibility to manage their QLogic Fibre Channel adapter portfolio using third-party management tools.

Host Bus Interface Specifications

Bus Interface

- PCI Express® Gen3 x4, Gen2 x8 (electrical); x8 (physical connector)

Host Interrupts

- INTx and MSI-X

I/O Virtualization

- SR-IOV[1]

Compliance

- *PCI Express Base Specification*, rev. 3 (v1.0), *PCI Express Card Electromechanical Specification*, rev. 2.0, *PCI Bus Power Management Interface Specification*, rev.1.

Fibre Channel Specifications

Throughput

- 16Gbps full-duplex line rate per port (maximum)

Logins

- Support for 2,048 concurrent logins and 2,048 active exchanges

Port Virtualization

- N_Port ID virtualization (NPIV)

Compliance

- *SCSI-3 Fibre Channel Protocol* (SCSI-FCP), *Fibre Channel Tape (FC-TAPE) Profile*, *SCSI Fibre Channel Protocol-2* (FCP-2), *Second Generation FC Generic Services* (FC-GS-2), *Third Generation FC Generic Services* (FC-GS-3), *FCoE & FIP* (FC-BB-5)

Tools and Utilities

Management Tools and Device Utilities

- QConvergeConsole: a unified management tool (GUI and CLI) for Fibre Channel/FCoE, iSCSI, and networking

Boot Support

- BIOS, UEFI, FCode

APIs

- SNIA HBA API V2, SMI-S

Operating Systems

- Microsoft Windows Server®, Red Hat® Linux®, Novell® SLES, VMware ESX®/ESXi, Citrix® XenServer®, Oracle Solaris® Oracle VM, and Oracle Linux

Physical Specifications

Ports

- QLE2660: single 16Gbps Fibre Channel
- QLE2662: dual 16Gbps Fibre Channel

Form Factor

- Low-profile PCIe card: (6.6 in. × 2.54 in.)
- Custom form factors also available

Environment and Equipment Specifications

Temperature

- Operating: 0°C/32°F to 55°C/131°F
- Storage: –20°C/–4°F to 70°C/158°F

Humidity

- Relative (non-condensing): 10% to 90%
- Storage: 5% to 95%

Maximum Cable Distances

	Multi-Mode Optic			
	Cable and Distance (m)			
Rate	OM1	OM2	OM3	OM4
4Gbps	70	150	380	400
8Gbps	21	50	150	190
16Gbps	15	35	100	125

Agency Approvals

Safety

- US, Canada, Europe

EMI and EMC (Class A)

- US, Canada, Europe, Australia/New Zealand, Japan, Korea

Ordering Information

QLE2672-CSC-BK (dual port)

- Ships with SR optical transceivers installed

1. Available with future firmware updates

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