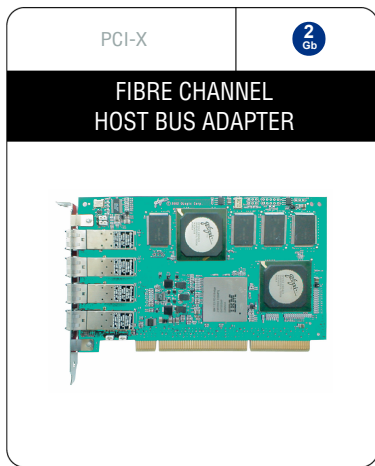




SANblade®

2-Gbps Fibre Channel (FC) to
PCI-X Host Bus Adapter (HBA)

QLA® 2344



Ease of Use

- Autonegotiation of Fibre Channel speed bit rate (1 Gbps or 2 Gbps)
- Automatic topology detection
- Quick start guide
- Persistent binding

Superior Scalability

- Concurrent support for SCSI and IP protocols
- Load balancing for optimized performance
- Simultaneous initiator and target mode support
- Local and remote management

Enhanced Reliability

- Unique, single-integrated Fibre Channel controller for added reliability and optimum performance

• HBA and LUN level failover

• LUN masking

• Loopback and read/write buffer tests

WHY QLOGIC? Designed and deployed by major server and storage OEMs, the QLogic SANblade QLA2344 host bus adapters (HBAs) offer four independent channels of 2-Gbps Fibre Channel combined with 64-bit, 133-MHz PCI-X.

Cost Effective. With the union of the fastest I/O and host technologies, the QLA2344 eliminates traditional host bottlenecks that impede the high performance of 2-Gbps Fibre Channel.

For the most scalable solution that maximizes connectivity and PCI/PCI-X slot usage while maintaining a cost effective price per port, the QLA2344 is the ultimate choice.

Investment Protection. Designed for high-connectivity applications, the SANblade QLA2344 is ideal in the slot-limited environment of PCI-X. With four fibre channel ports on one board in one slot, along with performance that scales as channels are added, the QLA2344 offers more channel and device connectivity while lowering overall system port cost.

Broad OEM Acceptance. QLogic FC technology and software is validated by every major OEM including Dell, EMC, HDS, HP, IBM, and Sun. The QLA2344's extensive certification from major server and storage manufacturers makes it the perfect choice for multiplatform requirements.

Simplified Setup. Point-and-click installation and configuration wizards simplify the HBA setup process. Storage administrators can quickly deploy HBAs across a SAN using standard HBA management tools and device utilities. The QLA2344 is also fully compatible with industry standard application programming interfaces (APIs), including SNIA HBA API and SMI-S, thereby allowing administrators to manage QLogic HBAs using third-party software applications.

Proven Architecture. The QLA2344 architecture is the result of more than 15 years of progressive development and testing. Proven architecture from QLogic delivers higher overall reliability and enables advanced functionality with its single-chip integration, placing QLogic years ahead of its competitors. The QLA2344 also has proven interoperability with all major software applications, hardware platforms, and operating systems.

The Bottom Line. Driving the standard for interoperability with extensive FC testing in SAN environments, you can feel confident in choosing the QLogic solution.



Host Bus Interface Specifications

Speed	64-bit, 133-MHz PCI-X
Voltage	3.3 V
Compliance	PCI Local Bus Specification rev. 2.2, PCI-X Addendum rev. 1.0a, PCI Hot Plug Specification rev. 1.0, PCI Bus Power Management Interface Specification rev 1.1

Fibre Channel Specifications

Speed	200 MBps maximum at half-duplex, 400 MBps maximum at full-duplex
Topology	FC-AL, FC-AL-2, point to point, switched fabric (FL_Port and F_Port)
Buffer credits	For 512-byte frame size, 9 credits issued. For 2K-byte frame size, 3 credits issued.
Class of service	Class 3 Fibre Channel service
Protocols	SCSI-FCP, IP, FC-TAPE
Compliance	Second Generation FC Generic Services Definition (FC-GS-2), Third Generation FC Generic Services Definition (FC-GS-3), Fibre Channel-Physical and Signaling Interface (FC-PH), SCSI-3 Fibre Channel Protocol (SCSI-FCP), Fibre Channel-Arbitrated Loop-2 (FC-AL-2), Fibre Channel-Private Loop Direct Attach Technical Report (FC-PLDA), RFC 2625 IP and APR Over Fibre Channel, Fibre Channel Framing and Signaling (FC-FS)

Physical Specifications

Ports	Four
Media	Multimode optic
Optics	Short wave laser
Connectors	Four LC-style connectors that support non-OFC, multimode fibre optic cabling using small form factor optical transceiver modules
Form factor	Half size: 17.78 cm x 10.67 cm (7.0" x 4.2")
Bracket size	Standard size

Environment and Equipment Specifications

Temperature	Operating: 0°C/32°F to 40°C/104°F (no air flow); 0°C/32°F to 55°C/131°F (100 lf/m airflow). Storage: -20°C/-4°F to 70°C/158°F
Airflow	0 lf/m or 100 lf/m, depending on Temperature (see below)
Humidity	Relative (noncondensing): 10% to 90%, Storage: 5% to 95%
Power dissipation	~ 16.0 watts
Cable	50/125µm multimode fiber, 62.5/125 µm multimode fiber
Cable distances	1 Gbps: 500 meters 50/125 µm fiber, 300 meters 62.5/125 µm fiber 2 Gbps: 300 meters 50/125 µm fiber, 150 meters 62.5/125 µm fiber

Agency Approvals—Product 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: 2000 EN60825-1: 1996+A11 EN60825-2: 1994 +A11

Agency Approvals—EMI and EMC

US	FCC Part 15, Class B
Canada	Industry Canada ICES-003, Class B
Europe	89/336/EEC EMC Directive CE Mark: EN55022: 1998 /CISPR22:1997 Class B EN55024: 1998 EN61000-3-2:1995 EN61000-3-3:1994 VCCI, Class B
Japan	CNS 13438 Class B
Taiwan	AS/NZS 3548 Class B
New Zealand/Australia	

Tools and Utilities

Management tools	FC HBA Manager
Device utilities	Command line interface; configuration utilities resident with BIOS and FCode
Boot support	Intel x86: BIOS (32-bit), EFI (64-bit); Solaris SPARC: FCode
APIs	SNIA HBA API V2, SMI-S, and FDMI
Operating systems	Windows Server 2003 (32-bit and 64-bit), Windows NT, Windows 2000, Windows XP, Solaris SPARC, Linux (32-bit and 64-bit), Novell NetWare, Mac OS X

Ordering Information

QLA2344	Ships to OEMs in an individually packed box
QLA2344-CK	Ships in an individually packed box with a standard size bracket, FC HBA Manager, and Quick Start Guide
QLA2344-BK	Ships in a bulk box in quantities of 20 or 50 with standard size brackets



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