



### Features

- Unique, single-integrated Fibre Channel controller for added reliability and optimum performance
- Autonegotiation of Fibre Channel speed bit rate (1 Gbps or 2 Gbps)
- Automatic topology detection
- Concurrent support for SCSI and IP protocols
- Simultaneous initiator and target mode support
- Easy detection of activities through an LED panel:
  - Power
  - Online
  - Signal acquired
  - Loss of synchronization
  - Firmware error
- HBA and LUN level failover
- Persistent binding
- LUN masking
- Local and remote management
- Load balancing for optimized performance
- Diagnostics
  - Loop back test
  - Read/write buffer tests



**WHY QLOGIC?** Designed and deployed by major server and storage OEMs, the QLogic SANblade QLA2310 host bus adapter (HBA) offers the high performance of 2-Gbps Fibre Channel (FC) combined with 64-bit, 66-MHz PCI-X. This HBA is targeted for servers in direct attach storage (DAS) as well as storage area network (SAN) environments.

**COST EFFECTIVE.** Offering the added performance of 2 Gbps, the QLA2310, with its copper connection, offers the most cost-effective solution in the market. *Network Computing* recognized the QLA2310 as Editor's Choice and Product of the Year for its superior driver implementation, ease of use, and impressive performance. Increasing overall system efficiency and performance, the QLA2310 completes I/O requests independent of the host.

**LEADING SINGLE CHIP INTEGRATION.** The QLA2310 uniquely integrates a RISC processor, a Fibre protocol engine, and transceivers into a single, efficient FC controller chip that increases reliability and performance by lowering CPU utilization.

**BROAD OEM ACCEPTANCE.** The QLA2310 HBA is validated by every major OEM including Dell, EMC, HDS, HP, IBM, and Sun. The QLA2310's extensive certification from major server and storage manufacturers makes it the perfect choice for multiplatform requirements.

**EASY MANAGEMENT.** The QLogic SANsurfer Management Suite™ is available free of charge. This software set simplifies management by making setup, configuration, and maintenance easy, along with features such as remote management, load balancing, failover, and target persistent binding. In addition, the easy to use SANblade Control FX wizard-based application is available on Windows™, Linux®, and Solaris® operating systems. SANblade Control FX provides simple, local host initialization, configuration, and diagnostic functions. The QLA2310 is also fully compatible with management applications that support the SNIA API, allowing IT managers to reduce HBA management time and lower their total cost of ownership.

**PROVEN ARCHITECTURE.** The QLA2310 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 QLA2310 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, 66-MHz PCI-X
Voltage	3.3 V and 5.0 V buses supported
Compliance	PCI Local Bus Specification rev. 2.2, PCI-X Addendum rev. 1.0a, PCI Hot Plug Specification 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
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)
Topology	FC-AL, FC-AL-2, point to point, switched fabric (FL_Port and F_Port)
Class of service	Class 3 Fibre Channel service
Protocol	SCSI-FCP, IP, FC-TAPE
Buffer credits	For 512-byte frame size, 9 credits issued. For 2K-byte frame size, 3 credits issued.
Physical Specifications	
Ports	One
Media	Copper
Form factor	Half size: 17.78 cm x 10.67 cm (7.0" x 4.2")
Bracket size	Standard size
Connectors	HSSDC connector that supports copper cabling. Fibre optic support available using an external MIA
Power consumption	~ 5.0 watts
Environment and Equipment Specifications	
Airflow	0 lf/m
Temperature	Operating: 0°C/32°F to 55°C/131°F. Storage: -20°C/-4°F to 70°C/158°F
Humidity	Relative (noncondensing): 10% to 90%, Storage: 5% to 95%
Distance	1 Gbps: 33 meters 2 Gbps: 17 meters
Cable	Copper, 1-Gbps or 2-Gbps compliant, depending on application
Agency Approvals—Product Safety	
US/ Canada	UL, cUL UL1950 UL60950 (QLA2310F) cUL C22.2 No.950
Europe	73/23/ECC Low Voltage Directive: TUV: EN60950: 1992+A1,2,3,4,11
Agency Approvals—EMI and EMC	
US	FCC Part 15, Class B
Europe	89/336/EEC EMC Directive <b>CE Mark</b> : EN55022: 1995 Class B EN55024: 1998 EN61000-3-2:1995 EN61000-3-3:1994
Japan	VCCI, Class B
Software	
SANblade Manager	Easy to use, Java-based, configuration, diagnostics and analysis HBA management application for heterogeneous SAN management across multiple hosts. Includes failover, LUN masking, and persistent binding capabilities.
SANblade Control FX	Wizard-based utility provided for installation, configuration, persistent binding, and diagnostic functions on the local host.
SANblade CLI	Command line interface (CLI) based application provided for installation, configuration, persistent binding, and diagnostic functions on the local host.
Operating System drivers	Windows Server 2003 (32-bit and 64-bit), Windows NT, Windows 2000, Solaris SPARC, Linux (32-bit and 64-bit), Novell NetWare
Flash utilities	Configuration utilities resident with BIOS and FCode
Boot support	Intel x86: BIOS (32-bit), EFI (64-bit); Solaris SPARC: FCode
Ordering Information	
QLA2310	Ships to OEMs in an individually packed box
QLA2310-CK	Ships in an individually packed box with a standard size bracket, SANsurfer® CD, and Quick Start Guide
QLA2310-BK	Ships in a bulk box in quantities of 20 or 50 with standard size brackets



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