



# SANblade™

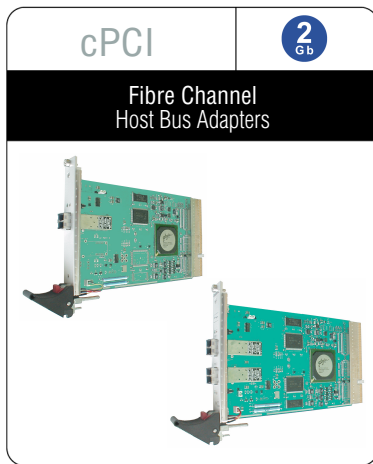
2-Gbps Fibre Channel to  
cPCI Host Bus Adapters

QCP2340/  
QCP2342



## 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 as the optimum choice for Sun Microsystems®, Sun Fire™ servers, the SANblade QCP2340 and QCP2342 offer customers nondisruptive expansion of their storage area network (SAN) with full support of cPCI hot swap functionality.

Delivering industrial strength performance, these 2-Gbps Fibre Channel to 64-bit, 66-MHz CompactPCI (cPCI) HBAs incorporate a robust mechanical design with high compute density. These multimode optic HBAs are specifically designed for physically demanding environments that require serviceability and availability.

**COST EFFECTIVE.** The QCP2340 is the right solution for mid-range and enterprise-level server manufacturers implementing cPCI in mission critical environments requiring single port, 2-Gbps cPCI. If you want to maximize connectivity and optimize port density, the QCP2342, a dual channel version of the QCP2340, is the perfect fit.

**LEADING SINGLE CHIP INTEGRATION.** The QCP2340/2342 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 QCP2340/2342L HBA is validated by every major OEM including Dell, EMC, HDS, HP, IBM, and Sun. The QCP2340'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 Solaris® operating systems. SANblade Control FX provides simple, local host initialization, configuration, and diagnostic functions. The QCP2340/2342 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 QCP2340/2342 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 QCP2340/2342 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 cPCI
Voltage	3.3 V and 5.0 V buses supported
Compliance	PICMG 2.0 CompactPCI Specification rev. 3.0, PICMG 2.1 Compact PCI (cPCI) Hot Swap 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
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 (QCP2340) Two (QCP2342)
Media	Multimode optic
Optics	Short wave laser
Form factor	CompactPCI: 16.0cm x 10.0cm (6.3" x 3.9")
Bracket size	Standard size
Connectors	LC-style connector that supports non-OFc, multimode fibre optic cabling using a 2 x 5 fibre optic transceiver module.
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: 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
Cable	50/125µm multimode fiber, 62.5/125 µm multimode 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/A11: 1996 EN60825-1: 1994 + A11
Agency Approvals—EMI and EMC	
US	FCC Part 15, Class A
Canada	Industry Canada ICES-003, Class A
Europe	89/336/EEC EMC Directive <b>CE Mark:</b> EN55022: 1995 Class A EN55024: 1998 EN61000-3-2:1995 EN61000-3-3:1994
Japan	VCCI, Class A
Taiwan	CNS 13438 Class A
New Zealand/Australia	AS/NZS 3548 Class A C-tick
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 application 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	Solaris SPARC
Flash utility	Configuration utility resident with FCode
Boot support	Solaris SPARC: FCode
Ordering Information	
QCP2340	Ships to OEMs in an individually packed box.
QCP2340-BK	Ships to OEMs in a bulk pack box in quantities of 20, 50, or 100.
QCP2340-CK	Ships to authorized distributors and resellers in an individually packed box with the SANsurfer Management Suite CD.
QCP2342	Ships to OEMs in an individually packed box.
QCP2342-BK	Ships to OEMs in a bulk pack box in quantities of 20, 50, or 100.
QCP2342-CK	Ships to authorized distributors and resellers in an individually packed box with the SANsurfer Management Suite CD.



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