

ENABLING 8 GB FIBRE CHANNEL STORAGE AREA NETWORKS

KEY FEATURES

- 8 Gb/4 Gb/2 Gb auto negotiation optimizes throughput speeds
- 8 Gb/sec FC increases aggregate throughput rate to
- 3.2 GB/sec (dual port) in full- duplex mode
- Native PCI Express x4 host bus interface for high- throughput applications
- · Single and dual 8 Gb/sec FC ports
- 200,000 I/O operations per second (IOPS) per port delivers high I/O transfer rates for storage applications
- QLogic SANsurfer Pro allows for centralized management and remote control
- Three LEDs display real-time status and link activity information
- Overlapping protection domains for continuous protection of internal data paths
- Universal boot support manages multiple hardware platforms and boot options
- Storage Networking Industry Association HBA API and Storage Management Interface Specification compliant
- RoHS 6 compliant

SUN STORAGETEK 8 GB FIBRE CHANNEL PCI EXPRESS HOST BUS ADAPTER



Oracle's StorageTek 8 Gb Fibre Channel (FC) PCI Express (PCIe) host bus adapter (HBA) family will optimize performance, virtualization, and power for Oracle's SPARC and x64 PCIe servers.

Performance Optimized

Your next-generation data center requires the high-performance capabilities of the Sun StorageTek 8 Gb FC PCIe HBA. Increase transfer rates for mission-critical data center applications and reduce the window of time needed for backups. Oracle products deliver throughputs of 1,600 MB per port (full duplex) and can sustain up to 200,000 IOPS per port for truly superior performance.

Virtualization Optimized

Sun StorageTek 8 Gb FC PCIe HBAs deliver enhanced security, Quality of Service (QoS), and dynamic provisioning. Virtualization is optimized through HBA virtualization technology, which enables a single physical FC HBA port to function as multiple logical (virtual) ports. Each logical connection has its own resources and can be managed independently, so you'll see improved use, reduced complexity, and fewer manual management tasks.

Power Optimized

Using QLogic StarPower Technology, Sun StorageTek 8 Gb FC PCIe HBAs help you reduce power and cooling costs in the data center. StarPower technology offers dynamic power management that provides optimized intelligent PCIe link training, low power switching power supplies, and a thermally efficient layout requiring lower airflows. Use energy more efficiently with Oracle's HBAs and start lowering your data center costs.

The Oracle Host Bus Adapter Advantage

Sun StorageTek 8 Gb FC PCIe HBAs have been designed specifically for use in Oracle's Sun servers. They exceed the business requirements of the enterprise data center with higher performance, virtualization capabilities, and increased power and cooling efficiency. Oracle solves enterprise wide business challenges with a comprehensive offering of hardware, software, and services. And Oracle's Open SAN architecture simplifies SAN management to improve resource use and reduce your TCO.



Sun StorageTek 8 Gb Fibre Channel PCI Express Host Bus Adapter Specifications

Host Bus Interface

Speed

- PCI Express Gen1 x8
- PCI Express Gen2 x4

Compliance

PCI Express Base Specification rev. 2.0, PCI Express Card Electromechanical Specification rev.

Fibre Channel

Speed

8 Gb/sec, 4 Gb/sec, 2 Gb/sec autonegotiation

Compliance

SCSI-FCP, FC-PH, FC-PH-2, FC-PH-3, FC-AL-2, FC-FLA, FC-PLDA, FC-TAPE, FCP-2, FC-GS-3, FC-FS

Topology

Point-to-point (N_Port), arbitrated loop (NL_Port), and switched fabric (N_Port)

Class of Service

Class 2 and 3

Logins and Exchanges

Support for F_Port and FL_Port login. 2,048 concurrent logins and 2,048 active exchanges

Physical

Ports

Single and dual 8 Gb/sec FC

I FDs

Three LEDs display real-time status and link activity information

Media

Small form factor fixed (SFF) multimode optic with LC-style connector

Form Factor

Low-profile PCI Express card: 16.765 cm x 6.45 cm (6.6 in. x 2.54 in.)

Supported Operating Systems

- Oracle's Solaris 10 SPARC
- Solaris 10 x86
- Red Hat Enterprise Linux (RHEL) 4
- RHEL AS/ES 4.6 or later
- RHEL 5.1
- RHEL AS 5.0

- SUSE Linux Enterprise Server 9
- SUSE Linux Enterprise Server 10
- VMware ESX 3.01 and ESX 3.05
- Windows 2003 Standard and Enterprise Server
- Windows 2008 Standard and Enterprise Server

Supported Server Platforms

- Sun Fire X4140
- Sun Fire X4150
- Sun Fire X4240
- Sun Fire X4250
- Sun Fire X4440

- Sun Fire V445
- Sun Fire V245
- Sun Netra T2000
- Oracle's SPARC Enterprise T5120
- SPARC Enterprise T5220



SPARC Enterprise T5140
SPARC Enterprise T5240
SPARC Enterprise T5440
SPARC Enterprise M4000
SPARC Enterprise M5000
SPARC Enterprise M8000
SPARC Enterprise M9000
SPARC T5-2
• SPARC T5-4
• SPARC T5-8
• SPARC M5-32
SPARC M6-32

Environment and Equipment

Temperature

- Operating: 0°C/32°F to 55°C/131°F
- Storage: 40°C/- 4°F to 70°C/158°F

Humidity

- Relative (noncondensing): 10% to 90%
- Storage: 5% to 93%

Distance

- 2 Gb/sec: 500 m (50/125 µm fibre), 300 m (62.5/125 µm fibre)
- 4 Gb/sec: 380 m (50/125 µm fibre), 150 m (62.5/125 µm fibre)
- 8 Gb/sec: 150 m (50/125 µm fibre), 70 m (62.5/125 µm fibre)

Power Dissipation

5.5 W (single port), 6.2 W (dual port) (typical)

Agency Approvals – Product Safety (Preliminary)

U.S., Canada	Europe
UL, cUL	73/23/ECC Low Voltage Directive
• UL60950	• TUV:
• CSA C22.2 No.60950	• EN60950-1:2001
Class 1 Laser Product per	• EN60825-1:1994+A1+A2
DHHS 21CFRJ	• EN60825-2:1994 +A1

Agency Approvals – EMI and EMC (Preliminary)

U.S.	Canada
FCC Part 15, Class A	Industry Canada ICES-003, Class A

Europe

89/336/EEC EMC Directive CE Mark

- EN55022:1998/CISPR22:1997 Class A
- EN55024:1998
- EN61000-3-2:1995
- EN61000-3-3:1994

Japan	Taiwan
VCCI V-3/2004.4, Class A	BSMI (CNS 13438)
New Zealand/Australia	Korea



AS/NZS 3548 Class A

MIC

Order Information - Part Number

- SG-XPCIE1FC-QF8-N (single channel only for select servers)
- SG-XPCIE2FC-QF8-N (dual channel)
- 7106958 (dual channel only for T5-4, T5-8, M5-32 and M6-32 servers)

Warranty

Visit oracle.com/sun/warranty for Oracle's global warranty support information on Sun StorageTek products.

Services

Visit oracle.com/sun/services for information on Oracle's service program offerings for Sun StorageTek products.

Contact Us

For more information about Oracle's StorageTek 8 Gb Fibre Channel PCI Express Host Bus Adapter, please visit oracle.com/storage or call +1.800.786.0404 to speak to an Oracle representative.



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Hardware and Software, Engineered to Work Together

