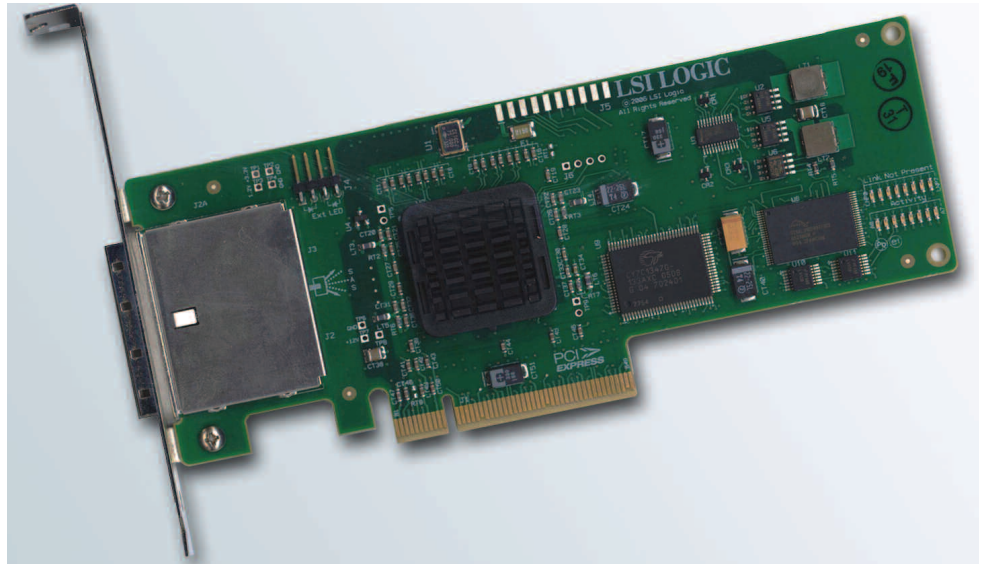


Sun StorageTek™ PCIe SAS Host Bus Adapter

Enterprise-class SAS HBA



To meet the requirements of large-scale Direct Attach Storage (DAS) Sun offers the Sun StorageTek™ PCIe SAS Host Bus Adapter (HBA) that provides maximum reliability and performance. The StorageTek PCIe SAS HBA addresses the need for SAS connectivity and is targeted at enterprise-level SAS storage for Sun servers that support the PCIe interface.

Highlights

- 3 Gb/sec per port
- Two x4 external miniSAS connectors (SFF-8088)
- Connects to both SAS and SATA HDDs
- Allows up to 244 end-point devices
- Enterprise-class HBAs ideal for large or mixed OS environments
- Features the award-winning Fusion-MPT HBA architecture from LSI
- Includes an installed low-profile bracket and full height bracket
- Simultaneous on-board support for x64/x86 BootBIOS (Windows and Linux) and Solaris™ SPARC OpenBoot

This HBA offers outstanding performance by matching 8-lanes of PCIe with 8-lanes 3Gb/sec SAS. The StorageTek PCIe SAS HBA, supporting up to 244 devices is ideal for today's datacenters and leverage existing SCSI infrastructure for investment protection and ease of migration. The serial interface allows for point-to-point connection enabling higher performance, increased aggregate bandwidth, higher availability with dual-ported drives, and enhanced reliability when compared to parallel SCSI.

The SAS interface provides universal interconnect with Serial ATA (SATA), while still offering logical SCSI compatibility along with the reliability, performance and manageability available in SAS drives. Common electrical and physical connection allows for the application to dictate the technology of choice for disk drives.

The Sun StorageTek™ PCIe SAS Host Bus Adapter supports multiple OS environments on Sun servers.

High-performance storage connectivity

The Sun StorageTek PCIe SAS HBA is ideal for Sun customers who require an enterprise-level SAS solution and are implementing the latest in host bus architectures with PCI Express. The HBA provides the flexible functionality and high performance required for storage implementations.

PCI Express

Designed for servers with the high performance next generation PCI Express serial host bus, the HBA eliminates many of the inefficiencies of parallel PCI and PCI-X architectures. With lower pin counts and lower power consumption requirements, the StorageTek PCIe SAS HBA also reduce system level power requirements. Most importantly, PCI Express is backward compatible with PCI and PCI-X addressing. This allows all existing applications and operating systems to function unchanged.

Superior design

Sun's StorageTek PCIe SAS HBA, utilizing the LSI Fusion-MPT architecture provides unparalleled performance and binary compatibility of host software with LSI's controller products.

Fusion-MPT is based on industry-standard ARM technology to control the system interface and the hardware assisted SAS ports. The architecture frees the host CPU for other processing tasks while maximizing overall I/O performance. The processing power of the Fusion-MPT architecture also allows for advanced embedded features, and can be quickly adapted to respond to emerging I/O interfaces.

Flexibility

A robust feature set, combined with comprehensive testing and support from Sun Microsystems, helps ensure that the StorageTek PCIe SAS HBA provides the flexibility and interoperability needed for tape attach. Flexible multiplatform support includes numerous OS, server and storage platforms.

High quality, multi-platform support

- Scale-up SPARC
- Scale-out/grid computing x64/x86
- Multi-Boot support, same HBA can be redeployed to different OS and architecture without firmware change or re-flash

SAS HBA available

- SG-XPCIE8SAS-E-Z
- SG-PCIE8SAS-E-Z

Sun StorageTek PCIe SAS HBA Specifications

Supported operating systems

- Solaris 10, SPARC and x64
- Linux RHEL 4 AMD-64 Update 4
- Linux SLES 9 AMD-64 SP3
- VMWare 3.01
- Windows Standard/Enterprise Server 2003 x64/x86

Supported server platforms

- Sun Fire™ X4100 M2
- Sun Fire X4200 M2
- Sun Fire X4600
- Sun Fire X4600 M2
- Sun Fire X2100
- Sun Fire X2100 M2
- Sun Fire X2200
- Sun Ultra20
- Sun Ultra20 M2
- Sun Ultra40
- Sun Ultra40 M2
- Sun Fire V445
- Sun Fire V215
- Sun Fire V245
- Sun Fire T1000
- Sun Fire T2000
- Sun SPARC® Enterprise M4000
- Sun SPARC Enterprise M5000
- Sun SPARC Enterprise M8000
- Sun SPARC Enterprise M9000
- Sun Ultra 45

Supported storage platforms

- ST2530 Raid Array
- Sun Storage J4000 Arrays

Technical specifications

- PCI Express x8 lanes (1.0a specification)
- 3 Gb/sec SAS 8-lanes
- 10W power dissipation
- Two external miniSAS x4 connectors (SFF8088)

Physical dimensions

- 167.64 mm x 64.42 mm (6.60 inches x 2.54 inches)
- Low-profile brackets and optional full height

Environment

Temperature

Operating	• 0° to +55°C
Storage	• -45° to +105°C

Relative Humidity

Operating	• 5% to 90%, non-condensing
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Learn More

For additional information on this product, go to sun.com/storagetek/networking