SUN NETWORKING

SUN STORAGE 6 Gb SAS PCIe HOST BUS ADAPTER, EXTERNAL

NEXT GENERATION 6 Gb/Sec SAS HOST BUS ADAPTER

KEY FEATURES

- 6 Gb/sec per port SAS interface
- Two X4 external Mini-SAS connectors
- MD2 small form-factor design
- 5Gb/s, 8-lane PCI Express 2.0 interface
- Allows 1024 SAS or SATA end-point devices
- High performance IOP
- PowerPC 440 @ 533MHz
- Power management support
- Supports SSP, SMP, STP and SATA protocols

KEY BENEFITS

- Complete Solaris 10 support
- Increased performance utilizing 6Gb SAS data rate

Oracle's Sun Storage 6 Gb Serial Attached SCSI (SAS) PCI Express (PCIe) Host Bus Adapter (HBA) External provides high performance data transfer rates for mission-critical applications running from SAS drives. The second-generation SAS adapter, the Sun Storage 6 Gb SAS PCIe HBA External allows for 1024 SAS or SATA endpoint devices. The HBA integrates the latest enhancements in PCI Express and SAS technology. The HBA supports medium to large capacity server storage applications by connecting a 5GB/s, 8-lane PCI Express bus with two external x4 SFF8088 connectors. The Sun Storage 6 Gb SAS PCIe HBA External supports PCIe 2.0 and is backward compatible with existing SAS products

Sun Storage 6 Gb SAS PCIe HBA External provides high performance data transfer rates for mission-critical applications running from SAS drives.

New Enhancements

New enhancements include End-to-End CRC (ECRC) with Advanced Error Reporting (AER), power management, hot plug support, and MSI/MSI-X and legacy interrupt generation. This HBA provides SAS and SATA date transfer rates of 6, 3 and 1.5 Gb/s per lane and automatically negotiates between the speeds. Enhanced features include T-10 Protection Information Model for early detection of and recovery from data corruption, and Spread Spectrum Clocking (SSC) for EMI reduction.

SAS Performance

This SAS 6 Gb/sec HBA provides performance advantages over SAS 3Gb/s HBAs by providing increased data throughput and performance. The Sun Storage 6 Gb SAS PCIe HBA External can support a combination of 1024 devices and can achieve 300,000 IOs per second.

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Sun Storage 6 Gb SAS PCIe HBA External Specifications

Supported Operating Systems	
• Oracle Solaris 10 SPARC • Oracle Solaris 10 x86 • Oracle Linux • Linux RHEL 4 • Linux RHEL 5 • Linux RHEL 6 • Linux SLES 9 • Linux SLES 10 • Linux SLES 11 • VMWare 4.0 • Windows Standard / Enterprise Server 2003 x64/x86 • Windows Standard / Enterprise Server 2008	
Supported server platforms	
Please refer to the Sun server Web pages on Oracle.com for the updated list of supported servers	
Supported Storage Arrays	
• Oracle's Sun Storage F5100 Flash Array • Oracle's Sun Storage SAS Tape devices	
PCI Bus	
• 8-lane, 5 GT/s PCI Express 2.0	
PCI Modes	
• Bus Master DMA	
Bracket	
• Full height and low profile	
PCI Data Burst Transfer Rates	
Half duplex	• X8 PCIe 4000 MB/s
Full duplex	• X8 PCIe 8000 MB/s
SAS Bandwidth	
Half duplex	• Single lane–600MB/s • Wide port (2 lanes)–1200MB/s • Wide port (4 lanes)–2400MB/s
Full duplex	• Single lane–1200MB/s • Wide port (2 lanes)–2400MB/s • Wide port (4 lanes)–4800MB/s • Wide port (2x4)–4800MB/s
PCI Card Type	
• 3.3V add-in card	
PCI Voltage	
• +12V ±10%	
PCI Form Factor	
• 6.6" x 2.713" (MD2 low profile)	

PCI Power
• 13.5W
Certification Level
• PCI Express 2.0
I/O Bus
• 2 x 4 6 Gb/sec SAS/SATA ports
SAS Controller
• LSISAS2008
Connectors
• External • Two X4 mini-SAS SFF8088
Max Number of Physical Devices
• Non-RAID 1024
Environments
• Operating: 0°C to 60°C, 5 to 90% non-condensing • Storage: -45°C to 105°C, 5 to 90% non-condensing
Part Numbers
• SGX-SAS6-EXT-Z (xoption) • SG-SAS6-EXT-Z (factory configure)

Warranty

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

Services

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

Contact Us

For more information about Oracle's Sun Storage 6Gb SAS PCIe HBA External, visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.

Oracle is committed to developing practices and products that help protect the environment

Hardware and Software, Engineered to Work Together

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