SUN NETWORKING

SUN STORAGE 6 Gb SAS PCIe RAID HOST BUS ADAPTER, INTERNAL

Oracle's Sun Storage 6 Gb Serial-Attached SCSI (SAS) RAID Host Bus Adapter (HBA), Internal brings cost-effective enterprise-class RAID functionality to Oracle customers who need secure, performance-optimized data storage and retrieval solutions.

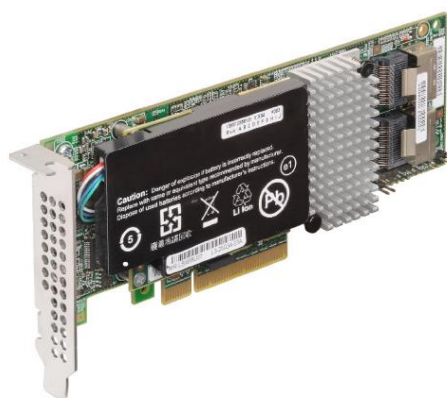**NEXT GENERATION SAS 6 Gb/SEC HOST BUS ADAPTER**

KEY FEATURES

- Eight 6 Gb/sec SAS/SATA ports
- Two external miniSAS x4 connectors (SFF8087)
- 6 Gb/sec throughput per port
- LSI SAS2108 6 Gb/sec RAID on Chip with 800 MHz PowerPC
- x8 PCI Express 2.0 host interface
- 512MB 800MHz DDRII cache memory
- Battery backup module included with up to 48 hours of cache protection

KEY BENEFITS

- Comprehensive management tools
- Extensive online configuration options such as advanced monitoring and event notification
- Global and dedicate Hot Spare with Revertible Hot Spare support with automatic rebuild and enclosure affinity
- Enclosure management: SES (inband) and SGPIO (sideband)

The Sun Storage 6 Gb SAS PCIe RAID HBA, Internal provides cost-effective enterprise-class RAID functionality.

Best-in-Class SAS/SATA RAID

The Sun Storage 6 Gb/sec SAS peripheral component interconnect express (PCIe) RAID HBA, Internal provides a new level of reliability, availability, and performance to businesses that are facing storage challenges driven by unprecedented data growth. With data transfer rates of up to 6 Gb/sec per port, the RAID adapter brings users new features and improved performance, while continuing to support all the benefits of the previous 3Gb/sec SAS/SATA generation. It employs the latest in RAID on Chip technology, complies with the PCI Express 2.0 specification, and provides additional data security using LSI Safestore encryption services.

6 Gb/sec SAS Performance Advantage

6 Gb/sec SAS is designed for backward compatibility with 3Gb/sec SAS as well as with 3Gb/sec serial ATA (SATA) hard drives. Regardless of the drive speed, the Sun Storage 6 Gb/sec PCIe RAID Host Bus Adapter, Internal will deliver significant performance improvements in both read and write applications as compared to their 3Gb/sec predecessors. Other new features include greater signal integrity using Decision Feedback Equalization, support for more sophisticated SAS topologies using Expander Self-discovery/Self-configuration, and additional safeguards to enhance data protection.

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Intuitive RAID Management Utility

The LSI MegaRAID Management Suite provides the essential software tools to efficiently manage the Sun Storage 6 Gb/sec PCIe RAID adapters, whether deployed in an enterprise or small business. LSI offers a collection of applications and tools including a pre-boot setup utility and a full spectrum of online RAID management utilities. This suite of applications allows administrators to adjust SAS topology views from the system host, controller, and disk enclosure down to the logical and physical drive level. Extending to enterprise deployments, these tools scale to easily configure, monitor, and manage RAID volumes locally or over the LAN network.

Sun Storage 6 Gb/sec SAS PCIe RAID HBA, Internal Specifications

Supported Operating Systems
• Oracle Solaris 10 x86
• Oracle Solaris 10 SPARC
• Oracle Linux
• Oracle VM
• Red Hat Enterprise Linux 4.0, 5.0 (32-/64-bit)
• SUSE Linux Enterprise Server 9.0, 10.0
• VMware ESX Server 3.x
• Microsoft Windows Standard/Enterprise Server 2003 (32-/64-bit)
Supported Server Platforms
Please refer to the Sun blade server Web site on Oracle.com for a full list of supported blades
Storage Management Tools
MegaRAID Management Suite
• MegaRAID Storage Manager   (Online GUI management)
• MegaCLI (Online command-line interface)
• WebBIOS (Pre-boot browser-based tool)
Part Numbers
• SGX-SAS6-R-INT-Z
• SG-SAS6-R-INT-Z (factory configure)
RAID Features
RAID Levels
• RAID levels 0, 1, 5, and 6
• RAID spans 10, 50 and 60
Drive/Volume Support
• Connect up to 32 SAS and/or SATA Drives
• Solid-state drive (SSD) Support with SSD Guard
• 512 KB to 1 MB stripe size
• 64 logical drive support
• Up to 64TB logical unit number (LUN) support
• Data decryption field (DDF) compliant Configuration on Disk (COD)
• Self-Monitoring, Analysis, and Reporting Technology (S.M.A.R.T) support
RAID Functions
• Online Capacity Expansion (OCE)

ORACLE®

- Online RAID Level Migration (RLM)
- Auto resume after loss of system power during arrays array rebuild or reconstruction (RLM)
- Single controller Multipathing (failover)
- Load Balancing
- Configurable stripe size up to 1MB
- Fast initialization for quick array setup
- Check Consistency for background data integrity
- Patrol read for media scanning and repairing
- Global and dedicated Hot Spare with Revertible Hot Spare support: automatic rebuild, enclosure affinity, and emergency SATA hot spare for SAS arrays
- Enclosure management: SES (inband) and SGPIO (sideband)
- Battery backup for write cache protection with up to 48 hours of cache protection
- 512MB 800MHz DDR II SDRAM

Technical Specifications

Standards Compliance

- PCI Express Specification, Revision 2.0
- Serial Attached SCSI-2 standard
- Serial ATA Specification, Revision 2.6 (15-February-2007)
- BIOS Boot Specification Version 1.01
- UEFI 2.0
- RoHS-6
- China RoHS

Physical Specifications

I/O Processor/SAS Controller	• LSISAS2108 RAID on Chip (ROC)
Host Interface	• x8 lane PCI Express 2.0 Compliant
Ports	• Eight internal SAS/SATA ports
Connectors	• Two external miniSAS x4 connectors (SFF8088)
Data Transfer Rates	• Up to 6 Gb/sec per port
Form Factor	• PCIe Low Profile
Dimensions	• 6.6 inches x 2.536 inches

Environmental Specifications

Operating Temperature	• Maximum ambient: 60°C (45°C with iBBU)
Operating Voltage	• +3.3V
Regulatory Agency Compliance (EMI)	• EN55022, EN55024, EN60950, EN61000-3-2, EN61000-3-3; FCC Class A, Class B; UL1950; UL; CSA C22.2; VCCI; RRL for MIC; BSMI; C-tick

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.

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Contact Us

For more information about Oracle's Sun Storage 6Gb SAS PCIe RAID HBA, Internal, 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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