Broadcom 9260-4i Datasheet



Broadcom LSI 9260-4i LSI00197 PCIe 2.0 x8 SAS2108 4 Internal Ports MegaRAID 6Gb/s SATA and SAS RAID Controller 9260-4i

Next-Generation High Port SATA+SAS RAID

MegaRAID SATA+SAS controllers provide 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 6Gb/s per port, the MegaRAID SAS 9260-4i brings users new features and improved performance, while continuing to support all the features of the previous 3Gb/s SATA+SAS generation. This value line controller, ideal for cost-sensitive 1U and 2U server applications, employs the latest in RAID-on-Chip technology, complies with the PCI Express 2.0 specification, and provides additional data security using SafeStore encryption services.

6Gb/s SAS Performance Advantage

66Gb/s SAS is designed for backward compatibility with 3Gb/s SAS as well as with 6Gb/s and 3Gb/s SATA hard drives. Regardless of the drive speed, 6Gb/s MegaRAID controllers will deliver significant performance improvements in both read and write applications as compared to their 3Gb/s predecessors. Other new features of the 6Gb/s MegaRAID SATA+SAS controllers 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.
SafeStore Encryption Services
Broadcom is pleased to introduce SafeStore encryption services, which include instant secure erase for self-encrypting drives (SEDs). This technology represents a significant step forward in securing a drive's data from any unauthorized access or modification resulting from theft, loss, or repurposing of drives. Instant secure erase cryptographically erases an SED, whether it is 73GB or 1TB, in less than a second. This allows for secure drive returns or reuse.
Intuitive RAID Management Utility
The MegaRAID Management Suite™ provides the essential software tools to efficiently manage MegaRAID products, whether deployed in an enterprise or small business. Broadcom 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 allow 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.
Features

- Four internal 6Gb/s SATA+SAS ports
- One Mini-SAS internal connector (SFF-8087)
- LSI SAS 2108 6Gb/s RAID-on-Chip
- -800MHz PowerPC®
- 512MB 800MHz DDRII cache memory
- Optional battery backup module
- RAID Levels 0, 1, 5, and 6
- RAID Spans 10, 50, and 60

Key Advantages

- Superior Performance
- Maximum Reads: 2,875MB/s
- Maximum Writes: 1,800MB/s
- PCI Express® 2.0 provides faster signaling for highbandwidth applications
- Support for 3Gb/s and 6Gb/s SATA and SAS hard drives
- SafeStore ™ Encryption Services for more secure data protection

Typical Applications

- Video-On-Demand
- Video-Surveillance
- Video Creation + Editing
- Medical Imaging
- High-Performance Computing
- Digital Content Archive and VTL
- Storage Appliance
- File, Web, Database, and Email Servers

Specifications

- Product: MegaRAID SAS 9260-4i
- MPN: L5-25121-30
- OPN: LSI00197
- Solution Provided: Four-port internal SATA+SAS RAID solution for cost-sensitive 1U and 2U server environments using up to 32 SATA or SAS hard drives or solid state drives
- Physical Dimensions: MD2 Low profile (6.6" X 2.536")
- Connectors: One Mini-SAS SFF-8087 internal connector
- Device Support: Up to 32 SATA and/or SAS hard drives and SSDs
- Host Bus Type: x8 lane PCI Express 2.0 Compliant
- Data Transfer Rates: Up to 6Gb/s per port
- I/O Processor/SAS Controller: LSI SAS 2108 RAID-on-Chip (ROC)
- Cache Memory: 512MB 800MHz DDR II SDRAM
- Battery Backup Unit: LSIiBBU07, an intelligent battery backup module option that directly connects to the adapter
- Key RAID Data Protection Features:
 - RAID levels 0, 1, 5, and 6
 - RAID spans 10, 50 and 60
 - Online Capacity Expansion (OCE)
 - Online RAID Level Migration (RLM)
 - Auto resume after loss of system power during 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
 - SafeStore Encryption Services
 - Instant Secure Erase
 - SSD Support with SSD Guard ™
 - $\circ\,$ Patrol read for media scanning and repairing
 - 64 logical drive support
 - DDF compliant Configuration on Disk (COD)
 - S.M.A.R.T support
 - Global and dedicated Hot Spare with Revertible Hot Spare support
 - Automatic rebuild
 - Enclosure affinity
 - Emergency SATA hot spare for SAS arrays
 - Enclosure management

- SES (inband) Storage Applicance
- SGPIO (sideband)
- Operating Temperature: Ambient: 0-60°C (10-45°C w/iBBU)
- Operating Voltage: +3.3V
- Warranty: 3 years, free advanced technical support, advanced replacement option
- Regulatory Certifications: EN55022, EN55024, EN60950, EN 61000-3-2, EN 61000-3-3; FCC Class A, Class B;
 UL1950; UL; CSA C22.2; VCCI; RRL for MIC; BSMI; C-tick
- RAID Management:
 - MegaRAID Management Suite
 - MegaRAID Storage Manager™
 - MegaCLI (command-line interface)
 - WebBIOS
- OS Support: Extensive support includes Microsoft® Windows® Vista/Server 2003, Linux® and more

For more information of this Broadcom MegaRAID SAS 9260-4i SATA+SAS RAID Controller, please visit Broadcom website:

https://docs.broadcom.com/doc/12352326

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