MegaRAID® SAS 9280-4i4e
Four-Port Internal / Four-Port External 6Gb/s PCI Express SATA+SAS RAID Controller

Key Features

- Four internal + Four external 6Gb/s SATA+SAS ports
- One Mini-SAS internal connector (SFF-8087)
- One Mini-SAS external connector (SFF-8088)
- 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 high bandwidth applications
- Support for 3Gb/s and 6Gb/s SATA and SAS hard drives
- SafeStore™ Encryption Services for more secure data protection

Protect Business Critical Data with the Industry's Most Trusted SATA+SAS RAID Controllers

Next-Generation 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. The MegaRAID SAS 9280-4i4e, with four internal and four external ports, supports both internal drive storage and external JBOD expansion. Using the external SAS ports, multiple JBODs can be connected to a server, providing a scalable and affordable solution for growing storage requirements.

6Gb/s SAS Performance Advantage

With data transfer rates of up to 6Gb/s per port, the MegaRAID SAS 9280-4i4e bring users new features and improved performance, while continuing to support all the features of the previous 3Gb/s SATA+SAS generation. 6Gb/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.

SafeStore Encryption Services

Avago 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 provides instant data protection via cryptographic erase. Whether the drive is 73GB or 1TB, this feature will delete the existing encryption key and regenerate a new data encryption key in less than a second, enabling drives to be returned, retired, sold or reused securely.

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. Avago 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.

MegaRAID SAS 9280-4i4e

Solution Provided	Four-port internal / Four-port external SATA+SAS solution for internal drive storage and external JBOD expansion using up to 240 SAS and/or SATA drives.
Physical Dimensions	MD2 Low profile (6.6" X 2.536")
Internal Connectors	One Mini-SAS SFF8087 4i internal connector
External Connectors	One Mini-SAS SFF8088 x4 external connector
Device Support	Up to 240 SAS and/or SATA hard drives
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	LSIiBBU08, 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™
	• 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)
	  –SGPIO (sideband)

Operating Temperature	Maximum ambient: 60°C (44.5°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/2008/Server 2003, Linux®, Solaris™ (x86), FreeBSD®, VMware® and more. Visit the download center for the most complete list of supported operating systems: www.lsi.com/support

Ordering Information

MegaRAID SAS 9280-4i4e Single Pack	LSIiBBU08
MPN: L5-25305-05	MPN: L5-25343-06
OPN: LSI00209	OPN: LSI00264

Visit the Avago Server Storage website at: avagotech.com/server-storage