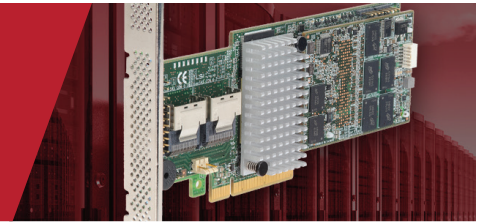# MegaRAID® SAS 9270-8i
Eight-Port 6Gb/s PCI Express® 3.0 SATA+SAS RAID Controller

Key Features

- Eight internal 6Gb/s SATA+SAS ports
- Two Mini-SAS internal connectors (SFF8087)
- LSI SAS 2208 Dual- core 6Gb/s ROC
- –x2 800MHz PowerPC Processors
- PCI Express 3.0 Host Interface
- 1GB DDRIII cache memory
- RAID Levels 0, 1, 5, 6, 10, 50 and 60
- Support for optional heat-tolerant battery backup

Key Advantages

- Unmatched RAID performance
- Connect up to 128 3Gb/s and 6Gb/s SATA and SAS hard drives or SSDs
- Helps users realize potential of solid-state storage deployments
- Heat-tolerant battery backup option (LSIiBBU09)
- Support for Advanced Software Options

Unmatched RAID Performance for Next-Generation Servers and Storage

Today's data center, cloud and high-performance computing environments not only require increased storage capacity to handle massive volumes of data, but are also challenged to protect and deliver data as quickly as possible to meet the needs of applications and end users. To address these performance demands as capacity scales, the newest 6Gb/s SAS RAID controllers from Avago offer a powerful combination of intelligent performance, enterprise RAID data protection and proven interoperability with the latest server platforms based on the PCI Express 3.0 specification. The MegaRAID SAS 9270-8i, with eight internal ports, delivers two 800MHz PowerPC® processor cores and a 72-bit DDRIII interface that drives 1GB cache memory. Powered by the LSI SAS 2208 dual-core ROC, the 9270-8i controller includes the latest PCI Express 3.0 and 6Gb/s SAS technology and helps users to maximize the performance benefits of solid state storage.

Enterprise Data Protection

Standard support for the most popular RAID levels and accessories, including RAID 5, RAID 6 and battery backup, further strengthen the data protection capabilities of the MegaRAID SAS 9270-8i. The intelligent LSIiBBU09 battery backup unit uses heat-tolerant cell technology to withstand ambient temperatures up to 55 degrees Celsius while protecting the integrity of cache memory in the event of a power or server failure. This resistance to a high temperature environment along with remote mounting options gives system builders the flexibility to place the LSIiBBU09 away from thermal hot spots in multiple locations throughout the chassis.

Support for Advanced Software Options

The family of 6Gb/s MegaRAID controllers are designed to support advanced software options that provide white box channel partners with enhanced performance and data protection capabilities. These new software options help enable end users to address key business challenges while helping to deliver a higher return on their IT investments. MegaRAID CacheCade™ Pro 2.0 software and MegaRAID Fast Path software boost transactional I/O performance of solid state disk configurations, while MegaRAID Recovery software and MegaRAID SafeStore™ software enable enhanced data protection and security.

Intuitive RAID Management Utility

The MegaRAID Management Suite™ software provides essential tools to 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 allows administrators to adjust SAS or SATA 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 more easily configure, monitor and manage RAID and JBOD volumes locally or over the LAN network.

MegaRAID® SAS 9270-8i

Solution Provided	Eight-port internal SAS solution for performance-hungry applications using up to 128 SAS, SATA and solid state drives (SSDs)
Physical Dimensions	MD2 Low profile (6.6" X 2.536")
Internal Connectors	Two Mini-SAS SFF8087 internal connectors (top mount)
Device Support	Up to 128 SAS and/or SATA hard drives and SSDs
Host Bus Type	x8 lane PCI Express 3.0 compliant
Data Transfer Rates	Up to 6Gb/s per port
I/O Processor/SAS Controller	LSI SAS 2208 Dual-Core RAID on Chip (ROC)
Cache Memory	1 GB 1333MHz DDRIII SDRAM
Cache Protection	MegaRAID LSIiBBU09 (optional – LSIiBBU09 / LSI00279)

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
	• SSD Support with SSD Guard™ technology
	
	• 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: Controller Card: 60°C, with optional LSIiBBU09: 55°C
Operating Voltage	+3.3V, +12V
MTBF (Calculated)	766,841 hours
Hardware 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
Optional SSD Optimization	• MegaRAID CacheCade Pro 2.0 Software leverages SSDs in front of HDD volumes to create high-capacity, high-performance controller cache pools • MegaRAID Fast Path Software provides high-performance I/O acceleration for SSD arrays connected to 6Gb/s MegaRAID SATA+SAS controllers
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: avagotech.com/support

Ordering Information

MegaRAID SAS 9270-8i (Single Pack)	LSIiBBU09	BBU-BRACKET-05
MPN: L5-25422-19	MPN: L5-25407-00	MPN: L5-25376-00
OPN: LSI00326	OPN: LSI00279	OPN: LSI00291

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