# MegaRAID® SAS 9240-4i
## Four-Port 6Gb/s PCI Express SATA+SAS RAID Controller

## Key Features

- 6Gb/s data transfer rate
- Four internal 6GB/s SATA+SAS ports
- One x4 Mini-SAS internal connector (SFF8087)
- LSI SAS 2008 controller
  - PowerPC 440 @ 533MHz
- RAID 0, 1, 5, 10, 50 and JBOD mode
- Hardware RAID solution
- x8 PCI Express 2.0 host interface
- Low-profile form factor
- Supports up to 64 physical devices
  - Up to 16 physical devices in a RAID configuration
- Patrol read
- Consistency Check
- S.M.A.R.T. error detection
- Power management support
- MegaRAID Storage Manager
- Environmentally friendly with low-power controller and cardboard packaging

## Key Advantages

- High performance with 6Gb/s data transfer rates
- PCI Express® 2.0 host interface drives superior system performance
- MegaRAID Entry delivers robust RAID functionality with simplicity
- Flexible SATA+SAS array architecture optimizes cost
- Complete kit package includes necessary cables and brackets

## Power Workstations and Entry Level Servers with a Low-Cost, Green RAID Solution

### MegaRAID SATA+SAS Entry Product Line

MegaRAID® SATA+SAS entry controller cards allow small to medium business owners and gaming enthusiasts to enjoy the latest RAID technology at affordable prices with low power consumption. This product line delivers trusted MegaRAID reliability with minimal maintenance effort. MegaRAID entry controller cards offer users a straight-forward solution that includes essential RAID levels and uncomplicated configuration options. In addition, they are able to connect to SATA and SAS hard disk drives and solid state drives, allowing for tiered storage that optimizes cost and performance. SAS drives are optimal when speed and reliability are of the utmost concern while SATA drives are appropriate when capacity and cost are more important. MegaRAID entry controllers cover the spectrum of tiered storage requirements for cost-sensitive applications that require robust data protection.

### Seamless Migration to MegaRAID Value and Feature Products

A unique feature of the MegaRAID SATA+SAS entry line is the ability to seamlessly migrate from these low-cost RAID 5 controllers to the more full-featured MegaRAID product lines. Users can simply plug in a new controller to recognize and import the existing array without requiring any reconfiguration. Plus, a single management client provides a consistent user interface to manage any MegaRAID SATA and/or SAS arrays.

### 6Gb/s SAS Performance Advantage

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. Other new features of 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.

### 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. And now intuitive configuration wizards make creating storage arrays even faster and simpler. MSM allows administrators to efficiently configure, monitor and manage RAID volumes locally or over the network. Extending to enterprise deployments, these tools scale to easily configure, monitor and manage RAID volumes locally or over the LAN network.

## MegaRAID SAS9240-4i Controller Card

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| Solution Provided | Low-cost, green SATA+SAS RAID solution for high-density servers and workstations with the flexibility to use both SATA and SAS hard drives and solid state drives |
| Physical Dimensions | 6.6" x 2.536" (Low-Profile) |
| Connector | Internal; One X4 Mini-SAS SFF8087 (vertical orientation) |
| Max Number of Physical Devices | Non-RAID: 64<br>RAID 0: 16 per volume<br>RAID 1: 2 per volume plus hotspare<br>RAID 5: 16 per volume<br>RAID 10: 16 per volume<br>RAID 50: 16 per volume |
| Host Bus Type | 8-lane, 5 GT/s PCI Express 2.0 Compliant |
| Data Transfer Rates | Up to 6Gb/s per port |
| SAS Controller | LSI SAS 2008 |
| Key RAID Data Protection Features | ■ RAID levels 0, 1, 5, 10, 50 and JBOD mode<br>■ Selectable logical drive as boot drive<br>■ Consistency Check<br>■ Fast initialization for quick array setup<br>■ Native Command Queuing<br>■ Staggered spin up for SATA drives<br>■ Hot plug support<br>■ Global hot spare support<br>■ Online Capacity Expansion (OCE)<br>■ Online RAID Level Migration (RLM)<br>■ Single controller Multipathing (failover)<br>■ Load balancing<br>■ SafeStore Encryption Services<br> – Instant Secure Erase<br><br>■ SSD support with SSD Guard<br>■ Automatic rebuild of hot spare drives<br>■ Auto resume during array rebuild<br>■ Fault LED support through SGPIO<br>■ >2TB logical drive support<br>■ Soft bad block management<br>■ Error recovery support<br>■ DDF compliant Configuration on Disk<br>■ S.M.A.R.T. support<br>■ Patrol read for media scanning and repairing<br>■ Enclosure management<br> – SES (inband)<br> – SGPIO (sideband) |
| RAID Management | MegaRAID Management Suite<br>■ MegaRAID Storage Manager™<br>■ MegaCLI (command-line interface)<br>■ WebBIOS |
| Environments | Operating<br>10°C to 55°C<br>20 to 80% Non-condensing<br><br>Storage<br>-40°C to +70°C<br>5 to 90% Non-condensing |
| PCI Card Type | 3.3V Add-in Card |
| PCI Voltage | +12V ±10% |
| PCI Power | 13.5W |
| PCI Modes | Bus Master DMA |
| LED Indicators | Internal; Activity/Fault per x4 port – Heartbeat |
| MTFB | >2,000,000 Hours |
| Compliances | EMC: Class B-US (CFR 47, P15B); Canada (ICES-003); Japan (V-3/02.04); Europe (EN55022/EN55024); Australia/New Zealand (AS/NZS 3548); Safety: EN60950 |
| OS Support | Microsoft® Windows®, Linux® (SuSE®, Red Hat®), Solaris®, Vmware®. See www.lsi.com/support for details on versions. |
| Brackets | Full Height and Low-Profile |
| Warranty | 3 years, advanced replacement option, free technical support at www.lsi.com/support |

## Ordering Information

**MegaRAID SAS 9240-4i**

MPN: L5-25091-05
OPN: LSI00199

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