3ware® SAS 9750-8i

Eight-Port 6Gb/s PCI Express® SATA+SAS RAID Controller Card

Unprecedented power in multi-stream RAID environments delivers high-performance and reliable data protection

KEY FEATURES

- Eight internal 6Gb/s SATA+SAS ports
- Two Mini-SAS internal connectors (SFF-8087)
- RAID levels 0, 1, 5, 6,10, 50 and Single Disk
- LSISAS2108 6Gb/s RAID-on-Chip – 800MHz PowerPC®
- 512MB 800MHz DDRII cache memory
- Optional battery backup module with StorSave BBU
- Support for up to 96 SATA or SAS physical devices

KEY ADVANTAGES

- Superior Performance
  – Maximum RAID 5 Reads: 2500MB/s
  – Maximum RAID 5 Writes: 1100MB/s
- PCI Express 2.0 provides faster signaling for high- bandwidth applications
- Support for 3Gb/s and 6Gb/s, SAS and SATA, HDDs and SSDs
- StreamFusion+ improves multi-stream read and write performance

TYPICAL APPLICATIONS

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

Expand Your Horizon

LSI 3ware SATA+SAS RAID controllers provide a new level of reliability, availability, and performance to businesses that are facing storage challenges, particularly in sequential I/O intensive and multi-stream environments. This 3ware controller, great for inside-the-box connectivity, employs the latest in LSI RAID-on-Chip (ROC) technology and provides a higher standard of data protection and performance.

Offering data transfer rates of up to 6Gb/s per port, the latest generation of 3ware SATA+SAS controllers provide many new features while also ensuring investment protection for existing SATA and SAS implementations. LSI delivers unprecedented power in multi-stream RAID environments where performance, redundancy, and data protection are most important.
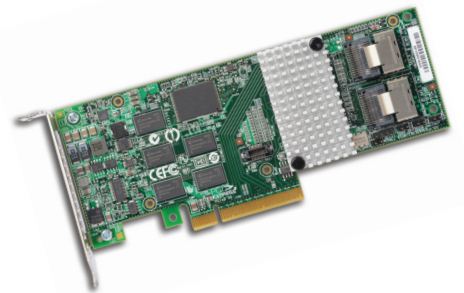
6Gb/s SAS Advantage

6Gb/s SAS is designed for backward compatibility with 3Gb/s SAS as well as with 3Gb/s SATA drives. In addition, 6Gb/s 3ware controllers deliver significant performance improvements in both read and write applications regardless of drive speed. StorSave™ strengthens array performance during peak usage by allowing the controller to use both controller cache and disk cache for RAID operations. Other new features of the 6Gb/s 3ware SATA+SAS controller cards 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.

StreamFusion™+ Performance

3ware's advanced algorithms allow for optimized reads and writes in multi-stream environments. StreamFusion+ enables higher throughput even in degraded modes to deliver a superior standard of data protection and to boost performance. It is the result of countless hours of engineering aimed at delivering breakthroughs in high-load applications and providing enhanced features and functionality in all environments. Focusing on the latest technology trends and customer requirements, StreamFusion+ firmware reaffirms our commitment to customer success and industry leadership.

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Remote Creation, Management and Monitoring with 3DM®2

3DM2 is powerful remote management software that simplifies the configuration, management and monitoring of 3ware storage arrays. 3DM2 provides an intuitive interface to remotely create, manage and monitor your 3ware RAID arrays and single disks in a robust, secure array management environment for your RAID protected data. Proven self-monitoring technologies and automatic notification services can maximize your storage availability while minimizing the pressure on system administrators.

3ware SAS 9750-8i CONTROLLER CARD	
Solution Provided	Eight-port internal SATA+SAS solution for high-density servers and workstations using up to 96 drives with the flexibility to use both SATA and SAS hard drives and solid state drives (SSDs)
Physical Dimensions	Low profile (6.6" X 2.536")
Connectors	Two Mini-SAS SFF-8087 internal connectors
Device Support	Up to 96 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	LSISAS2108 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 controller
Key RAID Data Protection Features	• RAID levels 0, 1, 5, 6,10, 50 and Single Disk • Rapid RAID Recovery • StreamFusion+ • Online Capacity Expansion (OCE) • Online RAID Level Migration (RLM) • Auto resume after loss of system power during array rebuild or reconstruction • Single controller Multipathing (failover) • Load Balancing • Variable stripe size support • Fast initialization for quick array setup • Background Task Activity Policies • Multiple logical unit sizes and RAID levels on one card • Bootable array support for greater fault tolerance of your OS • SMTP support for email notification • SNMP support • Emergency Flash Recovery protects against failed firmware upgrade • Up to 32 active units support • Up to 32 drives per unit support • Support for greater than 2TB volumes • S.M.A.R.T support • Staggered drive spin-up support • Drive insertion and removal notification • Global Hot Spare – Automatic rebuild • Enclosure management for SES 2.0 via I2C or in-band signaling • Optional Battery Backup with StorSave BBU
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	3ware® Disk Manager 2 (3DM®2) Command Line Utility (CLI) 3ware BIOS Manager (3BM) SNMP support
OS Support	Extensive support includes Microsoft® Windows Vista®, Windows 7®, Windows Server® 2003/2008, Red Hat Linux®, SuSE Linux®, Fedora Core Linux®, FreeBSD®, and more. Visit the LSI download center for the most complete list of supported operating systems: lsi.com/support
Ordering Information	3ware SAS 9750-8i Single Pack P/N: LSI00214; 3ware SAS 9750-8i Kit P/N: LSI00213

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