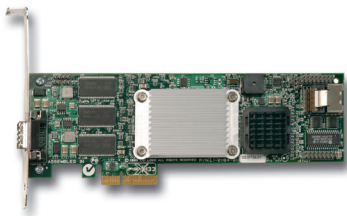# MegaRAID® SAS 8344ELP

Eight-Port 3Gb/s PCI Express SAS/SATA RAID Adapter

External and Internal Connectivity for Maximum Flexibility and Performance

KEY ADVANTAGES

- Four internal and four external SAS ports
- Low-profile form factor for 2U servers
- SAS built on proven MegaRAID stack
- Advanced RAID management suite

FEATURES

- **Eight SAS/SATA ports**
  - **– One SAS SFF8087 x4 internal connector**
  - **– One SAS SFF8470 x4 external connector**
- **3Gb/s throughput per port**
- **Greater than 2TB array support**
- **Intel® IOP333 I/O Processor**
- **PCI Express, x4 lane width**
- **128MB DDR Cache**
- **Optional remote battery backup**
- **RAID levels 0, 1, 5, 10 and 50**
- **Auto-resume on array rebuild and reconstruction**
- **Advanced data integrity and recovery**
- **Enhanced error handling and reporting**
- **Online Capacity Expansion (OCE)**
- **Online RAID Level Migration (RLM)**
- **Comprehensive management and configuration utilities**
- **Full SAS expander support (32 or 122 disk support based on version)**

Robust SAS RAID Solution

The MegaRAID SAS 8344ELP, with four internal and four external 3Gb/s Serial Attached SCSI (SAS) ports, is the ideal RAID solution for internal and external storage subsystems requiring the flexibility to use either SAS or SATA drives, or a combination of both. Based on LSI first-to-market SAS IC technology, the MegaRAID SAS 8344ELP provides a robust RAID solution complete with a high-performance Intel I/O processor, PCI Express host interface, 128MB DDRI SDRAM, and intelligent battery backup (iBBU) support. Additional fault tolerant RAID features include support for all key RAID levels, Online Capacity Expansion (OCE), RAID Level Migration (RLM) and Patrol Read for finding and resolving bad media blocks on disk drives.

MegaRAID SAS Advantage

As the recognized leader in driving and developing storage interface standards and technologies, LSI has extended its leadership with a complete family of SAS RAID solutions for the next generation of DAS for enterprise servers and high performance workstations. MegaRAID SAS solutions enable system builders to meet both performance and capacity requirements using

either SAS drives, SATA II drives or a combination of both within a single platform. SAS drives provide speed, reliability and scalability for enterprise class systems, while high capacity SATA drives allow for low-cost and efficient storage in data-dense environments.

Advanced RAID Management Utility

The MegaRAID Management Suite™ of software is a complete spectrum of applications and tools including a next generation pre-boot as well as advanced online RAID management utilities. This new suite of applications features a variety of configuration options and SAS topology views from the system host, controller and disk enclosure down to the logical and physical drive level. This allows administrators to efficiently configure, monitor and manage RAID volumes locally or over the network.

Operating System Support

The MegaRAID SAS 8344E supports all key versions of Microsoft and Linux. All OS drivers are backed by extensive testing and validation to ensure optimum system performance. For a list of the most current supported drivers, visit *lsi.com/support*.

Optional iBBU Support

The MegaRAID® LSIiBBU01 is a battery-backup module that protects the integrity of the cached data on a MegaRAID controller by providing backup power if there is a complete AC power failure or a brief power outage. The LSI MegaRAID battery backup units provide an inexpensive alternative to using an Uninterruptible Power Supply (UPS).

The LSIiBBU01 does not connect directly to the MegaRAID SAS 8344ELP adapter, but instead uses a supplied 20-pin, 10-inch cable to connect to it. Since server and workstation chassis vary from vendor to vendor, there is no standard mounting option that addresses all desired applications. Therefore, the LSIiBBU01 battery kit contains only the battery and the cable, allowing VARs and chassis manufacturers to customize the location of the remote battery to provide the most flexibility within various environments.

MegaRAID® SAS 8344ELP	
Solution Provided	Eight-port (four internal and four external port) SAS/SATA solution for storage systems requiring the flexibility to use either SAS or SATA II drives, or a combination of both
Environment	Internal and/or external sub-systems with up to 32 or 122 SAS and/or SATA II drives
Physical Dimensions	Low profile, extended half length (7.71" X 2.536")
Connectors	One SAS SFF8087 x4 internal connector, one SAS SFF8470 x4 external connector
Device Support	Up to 32 or 122 devices supported based on version
Host Bus Type	x4 lane PCI Express 1.0a compliant PCI Power Management Specification 1.1 compliant
Data Transfer Rates	Up to 3Gb/s per port
Processor	Intel® IOP333 I/O processor
Cache Memory	128MB DDR SDRAM integrated
Battery Backup Unit	Optional Remote Intelligent Battery Backup Unit (iBBU)
RAID and Fault Tolerant Features	■ RAID Levels 0, 1, 5, 10, and 50 ■ Online Capacity Expansion (OCE) ■ RAID Level Migration (RLM) ■ Auto resume on array rebuild and reconstruction ■ Fast initialization for quick array setup ■ Patrol read ■ Two 16-pin drive activity and default LED headers ■ Enclosure Management (SES and S GPIO) ■ 64 Logical drive support ■ Variable stripe size support ■ Configuration On Disk (COD) ■ S.M.A.R.T. support ■ Automatic rebuild of hot spare drives
Operating Temperature	Maximum Ambient: 50°C (40°C w/iBBU)
Operating Voltage	+3.3V
Warranty	3 years, free advanced technical support, advanced replacement option
Regulatory Certifications	CE, FCC, C-tick, UL, VCCI, BSMI and RRL
RAID Management	MegaRAID Management Suite ■ MegaRAID Storage Manager ■ MegaCLI (command-line interface) ■ WebBIOS (pre-boot utility) ■ SNMP support
OS Support	Microsoft® Windows® Server 2003/2000/XP Red Hat® Enterprise Linux® SuSE® Linux®/SLES

Warranty

For more than 15 years, LSI host adapters have been providing high-performance SCSI solutions to leading server, disk array and computer systems worldwide. Each host adapter carries a powerful chip built in LSI's ISO 9001-certified fabrication facilities. Using only the highest quality components, LSI host adapters are assembled and tested in world-class facilities to assure superior product reliability and performance. Because of stringent quality management programs, our host adapters carry a three-year limited warranty.

For more information and sales office locations, please visit the LSI web sites at: lsi.com lsi.com/contacts

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