LSI LOGIC

The Industry's First IOP-based, SATA II RAID Adapter Offers High Data Throughput, Extensive Fault Tolerance Capabilities and Advanced Management Utilities

Key Advantages
- Supports SATA II 3Gb/s and SATA Extensions
- Port Multiplier Technology - Supports 32 Drives with Eight, 1-to-4-Port Multipliers
- High Performance Throughput
- Extensive Fault Tolerant Capabilities
- Online Capacity Expansion

A Cost-Effective Serial ATA Solution
Developed for intensive storage applications, the MegaRAID SATA 300-8X provides speed and bandwidth for cost sensitive environments. Leveraging a stable, OEM-proven RAID firmware core, the MegaRAID SATA 300-8X offers unequalled fault tolerance capabilities, superior RAID performance, and reliable data availability.

High Performance Technology
The point-to-point scalable MegaRAID SATA 300-8X PCI-X RAID adapter offers data transfer speeds of up to 3Gb/s per port. Delivering a powerful coupling of technology with the Intel PCI-X Xscale IOP331 integrated I/O processor and Marvell 88SX6081 PCI-X SATA interface, the MegaRAID SATA 300-8X powers world-class SATA II storage solutions.

Powerful RAID Management Utilities
The MegaRAID SATA 300-8X management software suite consists of a complete set of tools including two BIOS-level utilities (MegaRAID BIOS Configuration Utility and WebBIOS), character-based MegaManager, and graphically powered Power Console Plus (PCP). This selection of powerful RAID management tools provides the capability to efficiently configure, monitor, and manage RAID systems locally or over a network.

Migrating to the Next Generation
Fully compliant with SATA I and SATA II, the MegaRAID SATA 300-8X includes Native Command Queuing, Port Multiplier and Enclosure Management support. MegaRAID SATA II solutions offer a proven software stack, consistent management utilities and an easy migration path to the next generation of SCSI product, Serial Attached SCSI (SAS). With the common interface of MegaRAID software, users can seamlessly upgrade to a SAS system by simply moving the SATA drives to an LSI Logic SAS controller.

OS Driver Availability
The MegaRAID SATA 300-8X supports a wide range of operating system drivers including Microsoft Windows, Linux, Netware, SCO UnixWare, and SCO OpenServer. LSI Logic drivers optimize the RAID interface providing the highest data transfer rates and data consistency checks on all mirrored drives.

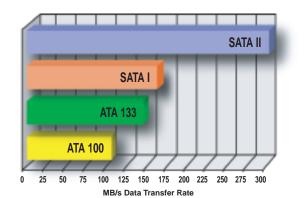Visit: **http://lsilogic.com/reseller** for partner program details.

ENVIRONMENTS
Entry-level to mid-range servers and network storage applications requiring a cost-effective scalable SATA interface

TYPICAL USES
Digital video editing, near line storage, workgroup server, backup and restoration

FEATURES
- Half-size PCI form factor
- Fast initialization for quick array setup
- Intel® XScale™ IOP331 I/O processor on-board
- Marvell 88SX6081 PCI-X SATA controller on-board
- Serial ATA 1.5Gb/s and 3Gb/s drive mode support
- Re-flashable BIOS
- 48-bit LBA support
- BIOS Boot Specs (BBS) support
- Post Memory Management (PMM) support
- FlexRAID® support
    – Online capacity expansion
    – Online RAID level migration
- Ships with 128MB embedded DDR SDRAM

LSI LOGIC®

LSI Logic MegaRAID SATA 300-8X	
Product Advantages	Supports SATA I and SATA II specs; increasing performance, reliability, flexibility, manageability and availability in storage environments
Solution Provided	High performance eight-port PCI-X SATA RAID adapter providing high data throughput, reliability, and availability in cost sensitive and near line servers
Environment	Entry-level to mid-range servers and network storage applications requiring a cost-effective scalable SATA RAID interface

Internal Connectors	Eight internal Serial ATA 7-pin, 1 meter cables
Device Support	Combined with Port Multiplier technology, the MegaRAID SATA 300-8X supports up to 32 drives with eight 1-to-4 Port Multipliers implemented in the chassis.
Data Transfer Rates	Up to 3Gb/sec per port
Cache Memory	128MB embedded DDR333 SDRAM
Processor	Intel® XScale™ IOP331 integrated I/O processor
Bus Type	64-bit, 133MHz PCI-X host interface
Physical Dimensions	Half-Size PCI (short card) 6.6" x 4.2" or 16.78cm x 10.67cm
Operating Temperature	0-60°C (w/o BBU card), 0-45°C (w/BBU card)
Operating Voltage	5.00V ±0.25V
Warranty	3 years, free advanced technical support, advance replacement option
Regulatory Certification	CE, FCC, C-tick, ETL, VCCI, BSMI and RRL
RAID and Fault Tolerant Features	• RAID levels 0, 1, 5, 10, and 50 • Fast initialization for quick array setup • Variable strip size support • Enhanced error handling and reporting • Flashable BIOS • Port Multiplier support • 40 logical drive support • Native command queuing • Drive hot plug support • 48-bit LBA for drives greater than 137GB • Patrol read • Configuration on Disk (COD)/NVRAM • Automatic rebuild of hot spare drives • S.M.A.R.T. support • FlexRAID power fail option • Online capacity expansion • Online RAID level migration • SAF-TE enclosure management • Battery backup support (optional) • Staggered drive spin-up
RAID Management	• Online Utilities: • Pre-Boot BIOS Utilities: – Power Console Plus (GUI-based) – MegaRAID BIOS Configuration Utility (character-based) – MegaManager (character-based) – WebBIOS Configuration Utility (browser-based)
OS Support	• Microsoft™ Windows® XP/2000/Server 2003 • Red Hat® AS Linux® • Suse® Professional Linux® • Novell® NetWare® • Suse® Linux® Enterprise Server (SLES) • SCO® OpenServer • SCO® UNIXWare
System Support	• IA-32 (or x-86) • IA-64 • AMD64 • Intel® EM64T

PERFORMANCE ADVANTAGE
Double your speed with SATA II, reaching up to 300MB/s (3Gb/s) data transfer speeds. The MegaRAID SATA 300-8X provides the industry's most cost-effective and robust Serial ATA RAID solution. LSI Logic is leading the market in advanced storage solutions.

Bar chart — MB/s Data Transfer Rate:
- SATA II
- SATA I
- ATA 133
- ATA 100

MB/s Data Transfer Rate (0 25 50 75 100 125 150 175 200 225 250 275 300)