AcceleRAID<sup>™</sup> 250

ULTRA2 SCSI TO PCI RAID CONTROLLER

The AcceleRAID 250 is an affordable high performance single channel Ultra2 SCSI RAID controller that also upgrades existing system board SCSI channels to powerful RAID channels.





AcceleRAID 250, a single channel Ultra2 SCSI RAID controller with ECC cache memory and hardware implemented XOR, brings the performance and fault tolerance of RAID to entry level and mid-range server applications. The AcceleRAID 250 controller is designed to also support PCI based motherboards with embedded SCSI chips and systems that have a PCI expansion slot designated for add-in RAID controllers. The AcceleRAID 250 upgrades Symbios SCSI chips mounted on the system board to advanced RAID SCSI channels through use of interrupts routed to the designated PCI slot. Intel's N440BX, T440BX, NA440BX, NC440BX and SC450NX are examples of such motherboards and systems.

## Affordable RAID Solution

The AcceleRAID 250 employs the same architecture as the world record breaking performance leader, Mylex's DACPJ, but the hardware is optimized to be a single channel RAID controller with Ultra2 SCSI support. Alternatively, it can use the SCSI channels on the motherboard for a multiple channel solution. This means the AcceleRAID has lower component count and lower cost, yet delivers the same superior performance and fault tolerance expected from Mylex RAID controllers.

The AcceleRAID family of RAID controllers now provides users the option to use RAID in all high performance applications based on PC workstations, entry level servers and mid-range systems.

# **Unparalleled Performance**

The AcceleRAID 250's performance is enabled by Intel's i960RD 66MHz processor and the new Mylex 86238 RAID controller chip, as well as a filter NT driver that increases overall system throughput. AcceleRAID 250 also provides full RAID level 0, 1, 0+1, 3, 5, 10, 30, 50 and JBOD configuration capabilities. ECC cache, supporting 8MB or 32MB SIMM cache memory, provides error detection and correction for maximum data protection.

AcceleRAID 250 RAID controllers have a multitude of fault detection and fault tolerance features, as well as new functions to ease set-up, flexibility and management. The new Immediate RAID Availability (background initialization) feature enables other set-up tasks to be performed while the rest of the system is being configured. RAID expansion allows users to add drives to existing arrays and re-stripe data across all the drives. The additional storage space created by the new drive expands the capacity of the existing logical array and creates an additional logical drive.

## **Flexibility**

The AcceleRAID 250 has one Ultra2 SCSI LVD channel on the controller. This channel is fully independent and complements the SCSI channels on the motherboard. The AcceleRAID 250 RAID controller can also utilize the Symbios SCSI chips on the motherboard.

#### CONTROLLER SPECIFICATIONS

RISC Processor Intel i960RD
Speed 66MHz
PCI 2.1

ECC EDO RAM 8MB or 32MB

JEDEC SIMM 72 pin

Flash 1MB

Hardware YOP Yos

Hardware XOR Yes
ECC Memory Support Yes

#### PHYSICAL SPECIFICATIONS

PCI card Half length

Power Requirements +5.0v (+-5%) 3.5 A (max); 17.5 watts

Temperature 0 to 55° C
MTBF 200,000 Hr.
Warranty Three years

Certification FCC Class B, UL, CE

Windows 2000, Windows NT, NetWare

Solaris 7

### SCSI SPECIFICATIONS

- Supports SCSI1, SCSI2, Ultra SCSI, and Ultra2 SCSI devices
- Full support for Low Voltage Differential (LVD) devices
- Up to 80MB/s burst data rate
- · Automatic SCSI bus termination
- Disconnect/Reconnect
- · 64 concurrent host commands
- · 256 tagged commands per controller

- · Automatic sector remapping
- Ultra2 SCSI (LVD) cable length up to 25 meters for two devices or 12 meters for 15 devices
- One Wide Ultra2 SCSI LVD channel
- Up to 15 devices per channel
- Up to 3.24TB per system (depending on configuration; multiple controllers and SCSI channels on system board)

#### RAID FAULT TOLERANT AND FLEXIBILITY FEATURES

- RAID levels 0, 1, 0+1, 3, 5, 10, 30, 50, JBOD
- · Transparent disk drive rebuild
- · Online RAID expansion
- Up to four controllers per system (NT)
- Logical drive size of 2TB, 32 logical drives per controller
- Immediate RAID availability; background initialization
- · Variable stripe size per controller
- · Variable cache line size per controller
- Up to eight non-disk devices per controller
- · Drive roaming during power off

- · SAF-TE enclosure management
- StorageWorks compatible
- Automatic error recovery
- Write-through or write-back cache support/logical device
- · Automatic detection of failed drives
- · Automatic rebuild of hot spare drive
- · Hot drive swapping support
- Support for SMART capable drives
- · Configuration data stored on disk and NVRAM
- PCI Hot Plug (Windows 2000, Windows NT and NetWare)

# SYSTEM DRIVER SUPPORT

• Web Array Manager (WAM)

RAID MANAGEMENT

- Browser based Java applet and application
- Create, manage, expand and monitor programs
- Error statistics and performance information
- Global Array Manager (GAM)
  - Client server GUI interface
  - Create, manage, expand and monitor programs
  - Error statistics and performance information
- RAID EzAssist: BIOS resident RAID configurator
  - Automated menus for easy configuration
  - Custom menus for advanced users

- Windows 2000
  - Professional edition, server and advanced server
- · Windows NT server 4.0 and Enterprise edition
- NetWare 4.11 and above, 5.x and SMP with NWPA
- SCO UnixWare 7.x
- UNIX OSR 5.0.4, 5.0.5
- DOS 6.x and above
- Solaris 7 (x86)
- Linux

### AcceleRAID 250

RAID controller with Ultra2 SCSI; also uses SCSI channels on system board

DACPTLM-1-8E DACPTLM-1-32E

Mylex Corporation

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Mylex Corporation produces highperformance disk array (RAID) controllers and complementary computer products for network servers, mass storage systems, workstations, and system motherboards. Mylex controllers come with a three year limited warranty.

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