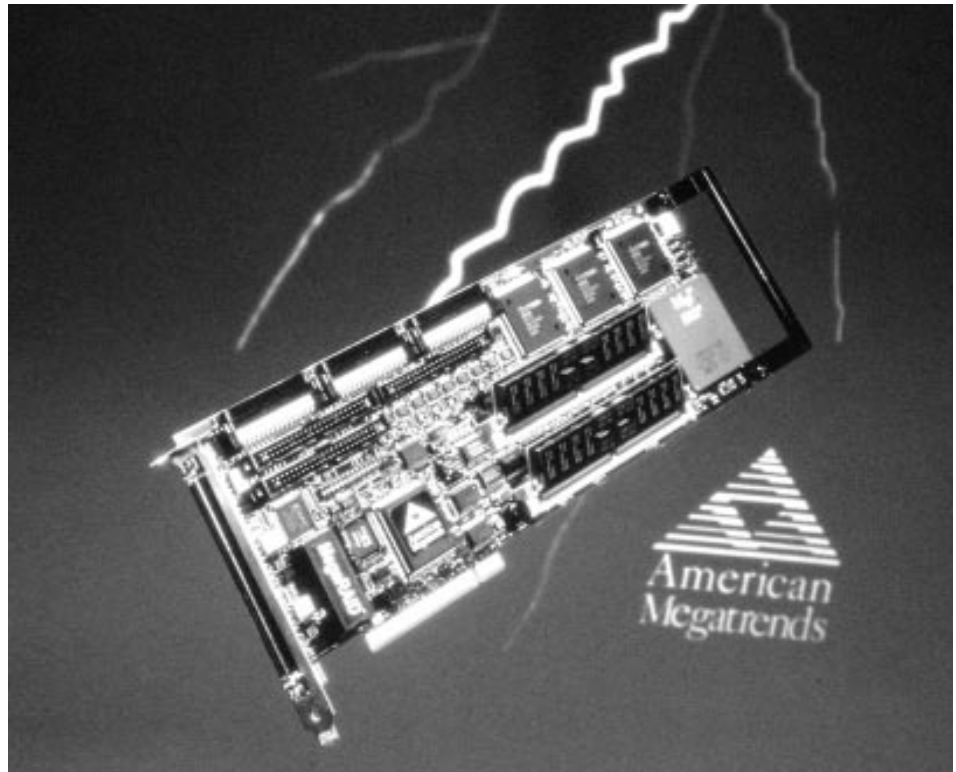# MegaRAID* PCI SCSI Disk Array Controllers

Controller Specifications

- Intel i960® CA 32 Bit RISC Processor @ 33 MHz
- PCI 2.1 Compliant
- PCI Bus Master With Burst Data Transfer Rate of 132 MB/s
- 4, 8, 16, 32, 64 or 128 MB Cache Using Two 72 Pin Industry Standard SIMMs
  - Write Through or Write Back on a Logical Drive Basis
  - Adaptive Read-Ahead
- AMIBIOS* RAID Firmware on Flash EPROM
- Nonvolatile RAM Stores RAID Configuration
- Tone Generator Provides Audible System Warnings
- Full Length PCI Footprint (12.3" x 4.2")

SCSI Specifications

- Three Symbios Logic 53C770 (FAST-20) or 53C720 (FAST/WIDE) SCSI Processors
- Single Ended SCSI Bus With Active Termination
- Automatic Termination Disable Via Cable Detection
- Three Different SCSI Connectors For Flexibility:
  - 68 Pin Internal High Density For 16 Bit Devices
  - 50 Pin Internal Header For 8 Bit Devices
  - 68 Pin External Ultra High Density For Two Channel Supports 8 or 16 Bit Devices
- Supports Up to 15 Devices Per Channel
- RAID Levels 0, 1, 3, 5, 10, 30 & 50 Supported
- Supports Up to Four MegaRAID* Controllers Per System
- Tagged Command Queuing
- Supports Scatter/Gather
- Multi-Threading of Up to 256 Commands Simultaneously
- Multiple Rebuilds and Consistency Checks With Transparent and User Definable Priority
- Variable Stripe Size For All Logical Drives
- Supports Up to 6 Non-Disk Drives Per Adapter

Fault Tolerance

- Automatic Detection of Failed Drives
- Automatic and Transparent Rebuild of Hot Spare Drives
- Hot Swapping of New Drives Without Bringing the System Down
- Optional Module to Provide Battery Backed Cache
- Support for SAF-TE Enclosure Management
- Serial Communication Interface

Raid Management

- MegaRAID Power Console GUI RAID Manager
  - User Friendly Graphical User Interface
  - Create and Manage Multiple Disk Arrays
  - Control and Monitor Multiple RAID Servers From Any Network Node or Remote Location
  - Client Server Strategy, Provides Error Statistics Logging and On-Line Maintenance
- Hot Key "Boot Up" Configuration Through BIOS

American Megatrends

In Over Half the Computers in the World

- Non-GUI RAID Manager also Available
- MegaRAID General Alert Failure Notification Module (Optional Software Package)
  – Broadcasts Event and Failure Alert Messages to Selected Users
  – Broadcasts Through Multiple Paths:
    - Pager
    - Program Execution
    - Audio Signal (.Wav File)
    - Visual Icon
    - SNMP Trap
    - E-Mail
    - Native Log

Software Drivers
- Novell* NetWare* 3.1x and 4.x
  – HAM, DDFS, and ASPI Driver
- Windows NT* 3.1 and 3.5/3.51
  – Miniport Driver
- SCO* UNIX* SVR 4.2 and ODT* 3.0 & 5.0
  – MSCSI Driver
- OS/2* 2.x and Warp 3.x
  – ADD Driver
- UnixWare* 2.0 / 2.01
  – PDI Driver
- DOS 5.0 and Above
  – ASPI Support
- Windows '95
- Banyan 6.0

Two MegaRAID MODELS:
- MegaRAID *Ultra* - 1,2, or 3 FAST-20 Channels, Up to 40 MB/s Each
- MegaRAID - 1,2, or 3 FAST/WIDE Channels, Up to 20 MB/s Each