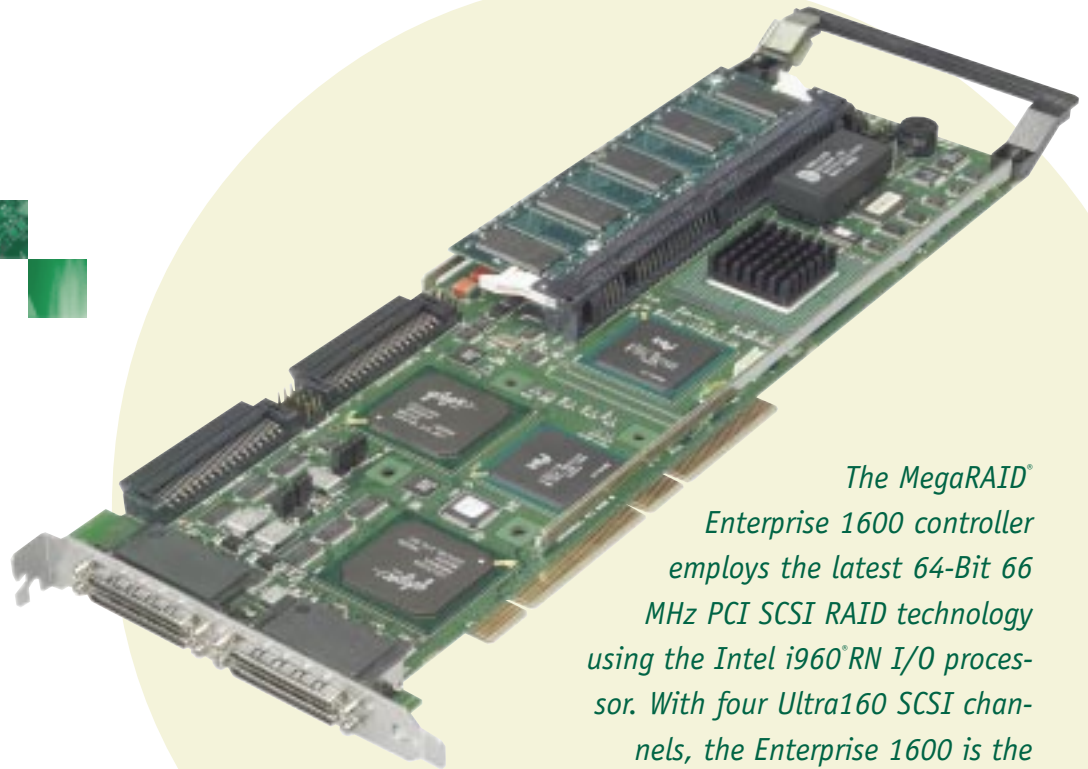


# MegaRAID® Enterprise 1600 (Series 471)

High Performance RAID Controller



*The MegaRAID® Enterprise 1600 controller employs the latest 64-Bit 66 MHz PCI SCSI RAID technology using the Intel i960® RN I/O processor. With four Ultra160 SCSI channels, the Enterprise 1600 is the ideal solution for enterprise server environments.*



**Front View**      **Back View**

*Optional Transportable Battery-Backed DIMM Module (Series 495) Allows Transfer of Cached Memory Between Controllers*

## Key Features

- IA-64 Ready
- Four Ultra160 SCSI Channels
- 64-Bit 66 MHz PCI
- Smart Init: Automatically Checks Logical Drive Consistency
- PCI 2.2 Compliant
- One DIMM Socket with 66 MHz 72-Bit Unbuffered 3.3 V ECC SDRAM Supporting up to 128 MB
- Standard NT® Clustering Support
- Advanced Management and Configuration Utilities
- 40 Logical Drives Per Controller and 32 Physical Drives Per Logical Array
- Auto Resume During Array Rebuild or Reconstruction

## Optional Features

- Optional Transportable Battery-Backed DIMM Module (Series 495)
- On-Board Battery Backup Module for Cache Memory
- Memory Options Shipped Include 32 and 64 MB ECC SDRAM

 **American  
Megatrends**  
[www.ami.com](http://www.ami.com)

### Controller Specifications

Intel i960<sup>®</sup> RN 64-Bit Intelligent I/O Processor  
- 100 MHz i960JX Core  
- 16 KB 2-Way I-Cache, 4 KB D-Cache  
- PCI Bus Master with Burst Data Rate up to 266 MB/Sec.  
Universal 64-Bit PCI  
PCI 2.2 Compliant  
Full-Size PCI Card  
I/O Messaging Unit  
Built-in Hardware XOR Engine for RAID Parity  
ACPI Support  
PC 99 Compliant

### Controller Cache

One DIMM Socket with 66 MHz 72-Bit  
Unbuffered 3.3 V ECC SDRAM  
- Configurable from 16 MB to 128 MB DIMM  
Optional Transportable Battery-Backed DIMM Module (Series 495)

### SCSI Specifications

Two Q Logic 12160A 160 LVD/SE Dual SCSI Controllers  
- Two External P68 Connectors (VHDC)  
- Two Internal P68 Connectors (UHD)  
- SCSI Cable Lengths of up to 12 Meters to the Drives  
- Auto-Switching LVD-SE Terminators  
- Automatic Termination Enable/Disable Via Cable Detection  
- Optional Jumpers for SCSI Bus Termination and Tempwr Control

### RAID Features

40 Logical Drives Per Controller and 32 Physical Drives Per Logical Array  
Smart Init: Automatically Checks Consistency of Logical Drives in RAID 5 Applications  
Auto Resume During Array Rebuild or Reconstruction if the System Shuts Down  
Supports up to 15 Devices per Channel  
RAID Levels 0, 1, 3, 5, 10, 30 and 50 Supported  
Tagged Command Queuing  
Supports Scatter/Gather  
Multi-Threading of up to 256 Commands Simultaneously  
Variable Stripe Size for All Logical Drives  
Supports up to 6 Non-Disk Drives per Adapter on Most Operating Systems  
Write Through or Write Back on a Logical Drive Basis  
Adaptive Read-Ahead  
I/O Shell Support

### On-Board Peripherals

1 MB Flash ROM  
32 K of NVRAM for RAID Configuration Storage  
Audio Buzzer Indicates RAID System Error/Warning  
RS232 Serial Communication Port for Diagnostics and Debugging

### Server Clustering Support

Hardware Support  
MSCS Support Via Unified Firmware

### Fault Tolerance

COD - Configuration On Disk  
Auto Detection of Failed Drives  
Automatic and Transparent Rebuild of Hot Spare Drives  
Hot Swapping New Drives without Bringing the System Down  
Optional Battery Backup for Cache Memory  
- Provides up to 72-Hour Data Retention  
Optional Transportable Battery-Backed DIMM Module (Series 495)  
Support for SAF-TE Enclosure Management  
Serial Communication Interface  
SMART Support

### Universal Driver Suite

Novell<sup>®</sup> NetWare<sup>®</sup> 4.2 and 5.x  
Microsoft Windows NT<sup>®</sup> 4.0/2000  
SCO OpenServer 5.x  
SCO UNIXWare  
BSDI  
FreeBSD  
DOS 6.xx  
Linux Redhat  
Sun Solaris x86 2.6, 7 and 8  
IBM OS/2 Warp Server 4 and E-Business  
Win64, Linux64, Monterey when Launched

### MegaRAID<sup>™</sup> Management

**Power Console<sup>™</sup> Plus**  
Creates and Manages Multiple Disk Arrays  
Controls and Monitors Multiple RAID Servers  
- Programmable Rebuild Rate by Logical Drive  
- Configuration Wizard  
- Event Monitoring by Severity Level  
- Y2K Compliant  
- User Friendly GUI  
- SNMP Support  
- FlexRAID Included  
- Client and Server Modules All-in-One  
- Background or Schedulable Check Consistency  
- Silent Install

### Hot Key "Boot-up" Configuration via BIOS WebBIOS

Browser-Based BIOS Configuration Utility  
- Color and Complete Mouse Control at Boot-Up Time  
- BUI (Browser User Interface) Look and Feel  
- Dynamic Links Set New Standards of Usability  
- Point-and-Click Configuration

### Non-GUI MegaManager

### Other High Performance RAID Controllers from AMI

MegaRAID<sup>™</sup> Enterprise 1500  
MegaRAID<sup>™</sup> Enterprise 1400

### How to Order AMI Products:

Use the coding system below to determine the correct product code for ordering MegaRAID Enterprise 1600 controllers.

4 7 1 4 \_ 10 \_ \_ \_ \_

#### Battery Code

0 - No Battery Backup  
5 - Battery Included

#### Memory Configuration

2 0 0 - No Memory Module  
2 3 2 - 32 MB ECC SDRAM  
2 6 4 - 64 MB ECC SDRAM  
3 6 4 - Battery-Backed 64 MB DIMM Module  
3 2 8 - Battery-Backed 128 MB DIMM Module

#### Packaging Options

A - Retail Packaging with Accessories\*  
D - Bulk Packaging with Accessories\* (Minimum 10 Controllers)  
M - Bulk Packaging with Controller Only (Minimum 10 Controllers)

\*Accessories include: Drivers, warranty and registration, Quick Installation Guide and Manuals on CD

#### Sample Order:

4 6 7 4 0 1 0 3 6 4 A

#### Customer Receives:

Enterprise 1600 Controller, No On-Board Battery, Battery-Backed 64 MB DIMM, in Retail Packaging

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