

AAC™-364 PCI-TO-ULTRA2 SCSI RAID ARRAY CONTROLLER

64-Bit Performance With “No-Downtime” Storage Management

Overview

Information is the lifeblood of today's successful organization. Information bottlenecks and outages are not only costly, they impede progress and cut right to the bottom line. Ensuring fast, continuous and reliable access to your critical information is what Adaptec RAID solutions are all about.

The AAC-364 is Adaptec's 64-bit PCI-to-Ultra2 SCSI Array Controller. It is the first RAID solution that enables customers to take full advantage of the industry's hottest 64-bit server systems. With its 64-bit bandwidth, on-board processor, and on-line management features, the AAC-364 delivers the I/O performance, scalability and availability that today's information systems demand.

Key Benefits

Performance Leadership

The AAC-364's I/O capacity and throughput are more than a match for even the most data-intensive applications. Its on-board StrongARM RISC microprocessor and 64-bit data path deliver the power and bandwidth to drive up to 60 devices over 4 Ultra2 SCSI channels.

The AAC-364 can achieve sustained data rates in excess of 200 Mbytes/sec and 28,000 I/O's per second (IOPS). Additionally, its unique design significantly reduces I/O latency and host CPU utilization for I/O processing.

Data And Investment Protection

In addition to the data availability of RAID, the AAC-364 provides disk failover facilities to ensure uninterrupted access to data. When a drive fails, a designated spare takes over automatically and data is reconstructed in real time.

The AAC-364 also includes a non-volatile cache memory card that supports up to 128 MByte of industry-standard ECC memory. This removable daughter card includes battery-backup to preserve cached data for up to 72 hours in the event of a failure. Best of all, cached data can be easily restored by transferring the daughter card from the failed system to another AAC-364 controller.

The AAC-364 also protects your IT investments. With 4 Ultra2 SCSI channels, the AAC-364 delivers more storage capacity to your server systems by allowing you to configure more devices per server PCI slot. The AAC-364 is also 32-bit PCI-compatible, so it's the perfect fit for the newest 64-bit servers, as well as your existing 32-bit systems.

Easy Configuration And Management

The AAC-364 takes the complexity out of RAID. Adaptec's flexible array management software provides a graphical user interface and wizards for simple, point-and-click RAID array creation and management. System administrators can also manage storage remotely and create management scripts for automating routine management functions.

Storage Management With No Downtime

Planned downtime for storage reconfiguration and backup is a routine and costly disruption that every IS manager would like to eliminate. With the AAC-364 they can.

The AAC-364's on-line management tools enable administrators to manage storage without taking systems or information off-line. Administrators can perform on-line capacity expansion (OCE) and any-to-any array reconfigurations without interrupting user access to data. There is no system downtime and no reboot required.

These on-line storage management capabilities, which are typically found only in expensive mainframe storage solutions, are the perfect solution for reducing information downtime.

Standards Support And Compatibility

The AAC-364 Array Controller complies with Microsoft's PC 98/Server 98 specifications. It is also PCI 2.1-compliant, assuring compatibility with the very latest server hardware. Combined with a 3-year warranty and a worldwide support organization, the AAC-364 is engineered to deliver the high quality and reliability that users have come to expect from Adaptec.



Product Highlights

- High-performance 64-bit PCI RAID (32-bit compatible) with on-board StrongARM® 233 MHz microprocessor
- Sustained data rates in excess of 200 Mbytes/sec
- 4 Ultra2 SCSI channels with 2 internal and 4 external connectors
- Connect up to 60 drives per controller and up to 480 devices per system
- Battery-backed cache memory module supports up to 128 MB of industry standard ECC memory
- Adaptec array management software for simplified management of multiple controllers from any location
- On-line “no-downtime” storage capacity expansion and reconfiguration

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Complete Kit Contents:

- PCI-to-Ultra2 SCSI RAID Array Controller card
- Adaptec RAID, Windows® NT and Novell NetWare driver software
- Adaptec Flexible Array Storage Tool (FAST) software
- Complete user documentation

Technical Specifications:

Computer Bus:	64-bit PCI local bus
On-board Processor:	StrongARM RISC microprocessor (233 MHz)
Interface Protocol:	Bus Master DMA
Cache Memory:	Up to 128 MByte ECC-protected, battery-backed DRAM
Host Burst Data Transfer Rate:	Up to 266 MByte/sec burst rate (64-bit)
SCSI Synchronous Data Rate:	Up to 80 MByte/sec per channel
Device Protocol:	SCSI Ultra2, Ultra, Fast and Wide
RAID Support:	RAID 0, 1, 0/1, and 5
Array Support:	Up to 64 arrays per controller, with a maximum of 32 partitions per array

Advanced Storage Management Features:	Easy-to-use GUI and configuration wizards Command line interpreter for automated scripts Single-step array creation On-line capacity expansion On-line RAID level migration Warm-Swap, Hot-Swap and Hot-Spare Drive error tracking (S.M.A.R.T.) Enclosure environment tracking (SAF-TE) SNMP Support E-mail and pager event notification
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PCI Bus:	64-bit, 33 MHz (32-bit, 33 MHz compatible) Hot-Plug PCI-ready
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Ultra2 SCSI (LVD) Channels:	4 channels (4 external and two internal connectors)
Device Support:	Up to 60 devices per controller (15 per channel) Up to 8 AAC-364 controllers per server Supports RAID array as boot device

Operating System Support:	Windows NT 4.0 and NetWare 4.11
Remote Management:	Windows® 95 and Windows NT 4.0

Recommended Minimum System Requirements:

- PCI-based, 2.1-compliant, 90 MHz Pentium or equivalent motherboard
- 32 MBytes system memory
- Full-size, 3.3 or 5-volt PCI slot that supports bus mastering

Physical And Environmental Specifications:

Dimensions:	Full-size PCI card (12.283 x 4.2 inches; 31.191 x 10.668 cm)
Operating Temperature:	0°C to 40°C
Storage Temperature:	-40°C to 65°C
Humidity (Operating):	20% to 90%, non-condensing
Power Requirements:	4 amps @ +5v

