

ADAPTEC® ULTRA 160 SCSI RAID CARD FAMILY

Maximum Performance and Expandability from the SCSI Card Leader



RAID Card Family Highlights

- Ultra160 SCSI performance, available in one, two, and four channels
- Microprocessor-based Intelligent RAID
- Advanced Storage Manager Pro GUI provides centralized view to storage
- Seamless backward compatibility protects legacy devices
- Industry-leading compatibility and reliability

Adaptec 2110S Highlights

- Low-profile MD2 design an ideal high-density server & workstation solution
- 64-bit / 66 MHz PCI (fully backward compatible with 32-bit / 33MHz PCI)
- 32 MByte cache memory

Adaptec 3210S/ 3410S Highlights

- Two and Four channels
- 64-bit / 66 MHz PCI (fully backward compatible with 32-bit / 33MHz PCI)
- Cache memory expandable to 256 MByte
- Supports battery backup module option

Adaptec's Ultra160 SCSI RAID cards provide maximum performance and expandability for today's entry-level and mid-range server environments. The product family delivers a range of affordable, full-featured RAID solutions for increased data protection and server availability.

Family Overview

The Adaptec Ultra160 SCSI RAID card family delivers industry-leading performance with data transfer rates of up to 160 MByte/sec on each channel. Offered in the product family are one-, two-, and four-channel cards that come fully loaded with fault tolerance and performance features typically found only in higher-end solutions. Features such as online capacity expansion (OCE), background initialization for immediate array availability, full support for RAID levels 0, 1, 0/1, 5, 0/5, and JBOD. These RAID cards are also compatible with all major network and server operating systems including Windows NT® 4.0, Windows® 2000, Windows 95/98/Me, RedHat and SuSE Linux, NetWare, SCO Unix and FreeBSD.

Storage Manager Pro™ Software

Adaptec's easy-to-use Storage Manager Pro software provides a centralized view of storage and greatly simplifies RAID configuration and management. RAID cards installed in one or more servers can be configured, managed, and monitored remotely from a single client workstation. Its graphical user interface is consistent across operating systems and between server and client terminals, making it easy to learn and extensible among different environments. Arrays can be expanded online when additional capacity is needed, providing convenience, flexibility, and maximum server uptime.

Compatibility, Reliability, and Support

Like all Adaptec products, the Adaptec SCSI RAID family has been rigorously tested with hundreds of systems and devices to deliver the utmost in compatibility – now and in the future. It's backed by a 3-year warranty and Adaptec's industry leading technical support.

Adaptec SCSI RAID 2110S

Affordable, full-featured, low-profile RAID solution for increased data protection and server availability. The Adaptec SCSI RAID 2110S card delivers high performance and availability for entry-level and high-density servers and workstations – conventional and rackmount. It is an affordable, microprocessor-based, fully-featured, Ultra160 SCSI RAID solution in a low-profile form factor – making it ideal for environments that require greater uptime, high-speed throughput, scalability, and space saving features.

Adaptec SCSI RAID 3210S

High performance RAID solution for increased data protection and server availability. The Adaptec SCSI RAID 3210S card offers high performance and scalability, making it an ideal pick for mid-range and rackmount server environments. This two-channel Ultra160 Adaptec SCSI RAID solution features a true 64-bit/66MHz 80303 microprocessor with a Battery Backup Module option, and is ideal for users requiring a high-performance RAID solution where performance is important, but cost is a consideration.

Adaptec SCSI RAID 3410S

High performance RAID solution where performance and expandability are paramount. The Adaptec SCSI RAID 3410S card delivers the highest performance and broadest scalability available in a single card. This four-channel, Ultra160 SCSI RAID solution features a true 64-bit/66MHz 80303 microprocessor with a Battery Backup Module option. It's ideal for users who require maximum RAID performance and expandability.

	<i>Adaptec SCSI RAID 2110S</i>	<i>Adaptec SCSI RAID 3210S</i>	<i>Adaptec SCSI RAID 3410S</i>
Why To Buy	Affordable, full-featured, low-profile RAID solution for increased data protection and server availability	High performance RAID solution for increased data protection and server availability	High performance RAID solution where performance and expandability are paramount
Customer Needs	Ideal for entry-level and high-density servers and workstations requiring up to 15 disk drives	Ideal for mid-range servers requiring up to 30 disk drives	Ideal for mid-range servers requiring up to 60 disk drives
Environment	Entry-level SCSI servers and workstations, conventional and rackmount	Workgroup and departmental SCSI servers, conventional and rackmount	Mid-range to enterprise-level SCSI servers, conventional and rackmount
Device Support	Up to 15 SCSI devices	Up to 30 SCSI devices	Up to 60 SCSI devices
Data Transfer Rate	Up to 160 MByte/sec	Up to 320 MByte/sec	Up to 640 MByte/sec
RAID Levels	0, 1, 0/1, 5, 0/5, JBOD	0, 1, 0/1, 5, 0/5, JBOD	0, 1, 0/1, 5, 0/5, JBOD
Cache Memory	32 MB (onboard)	32 MB (expandable to 256 MB)	64 MB (expandable to 256 MB)
Bus Type	64-bit/66MHz PCI	64-bit/66MHz PCI	64-bit/66MHz PCI
Internal Connectors	One 68-pin high-density	Two 68-pin high-density	Two 68-pin high-density
External Connectors	One 68-pin VHDCI	Two 68-pin VHDCI	Four 68-pin VHDCI
System Requirements	Intel PC or equivalent with available PCI slot	Intel PC or equivalent with available PCI slot	Intel PC or equivalent with available PCI slot
Operating System Support	Windows NT 4.0/2000; Windows 95/98/Me; RedHat & SuSE Linux; NetWare 4.2, 5.x; SCO Unix and FreeBSD <i>(for latest supported kernels visit www.adaptec.com)</i>	Windows NT 4.0/2000; Windows 95/98/Me; RedHat & SuSE Linux; NetWare 4.2, 5.x; SCO Unix and FreeBSD <i>(for latest supported kernels visit www.adaptec.com)</i>	Windows NT 4.0/2000; Windows 95/98/Me; RedHat & SuSE Linux; NetWare 4.2, 5.x; SCO Unix and FreeBSD <i>(for latest supported kernels visit www.adaptec.com)</i>
Key RAID Features	<ul style="list-style-type: none"> • Online capacity expansion • Background initialization <i>(for immediate RAID availability)</i> • S.M.A.R.T. support • SES/SAF-TE support 	<ul style="list-style-type: none"> • Online capacity expansion • Background initialization <i>(for immediate RAID availability)</i> • S.M.A.R.T. support • SES/SAF-TE support 	<ul style="list-style-type: none"> • Online capacity expansion • Background initialization <i>(for immediate RAID availability)</i> • S.M.A.R.T. support • SES/SAF-TE support
Software in Kit	Storage Manager Pro, Storage Manager & RAIDUTIL <i>(Command Line Interface)</i>	Storage Manager Pro, Storage Manager & RAIDUTIL <i>(Command Line Interface)</i>	Storage Manager Pro, Storage Manager & RAIDUTIL <i>(Command Line Interface)</i>
Cable in Kit	One 5-position 68-pin LVD internal cable with integrated active terminator	One 5-position 68-pin LVD internal cable with integrated active terminator	One 5-position 68-pin LVD internal cable with integrated active terminator
Physical Dimensions	Low-profile card: 2.5in H x 6.6in L 6.4cm H x 16.8cm L	4.2in H x 12.3in L 10.7cm H x 31.2cm L	4.2in H x 12.3in L 10.7cm H x 31.2cm L
Operating Temperature	0°C to 55°C	0°C to 55°C	0°C to 55°C
Power Requirements	4 amps @ +5V	4 amps @ +5V	4 amps @ +5V
Warranty	3 years	3 years	3 years
Order Number	1931600	1917200	1917400



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