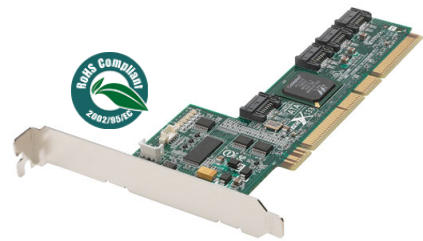# Adaptec® **Serial ATA II RAID** 1420SA

HostRAID™ Serial ATA II controller supporting RAID 0, 1, & 10 for data protection and increased performance

Serial ATA II, the successor technology to SATA for data storage, is a point-to-point connection that delivers full throughput to each storage device by allowing multiple ports to be managed by a single controller.

Adaptec Serial ATA II RAID 1420SA

The Adaptec Serial ATA II RAID 1420SA card is a four-port SATA controller featuring Adaptec HostRAID™ – an integrated RAID technology that maximizes system performance and uptime.

The Adaptec 1420SA supports up to four Serial ATA 3Gb/s ports and offers RAID levels 0, 1 and 10 for desktops, workstations and entry-level servers. Additional advanced features include support for Native Command Queuing – NCQ increases I/O performance by arranging data requests into the most efficient order, and support for 48-bit Logical Block Addressing (LBA) to enable use of disk drives larger than 137 GB.

The Adaptec 1420SA supports Windows® 2000, Windows Server 2003, Windows XP, RedHat Linux, SuSE Linux, and NetWare.

Adaptec Serial ATA RAID applications

The Adaptec 1420SA allows end-users to tune their system performance and data protection. On personal computers, the RAID 0 feature of the Adaptec 1420SA bolsters the performance of applications such as audio/video streaming and gaming.

The RAID 1 and 10 capability of the Adaptec 1420SA protects data for a wide variety of applications that require high availability. In the small office and home office environment, the Adaptec 1420SA can be used as a boot device to protect the operating system in print, file, and storage servers. Four-drive connectivity allows use of up to two striping or mirroring RAID arrays at the same time.

Why Adaptec Serial ATA RAID?

The Adaptec 1420SA Serial ATA II RAID family of controllers is a key part of the Adaptec effort to help organizations cost-effectively deploy, manage, scale, and protect storage resources. Adaptec is driving RAID adoption with new RAID product and technology development, compatibility testing with motherboards, operating systems, applications and disk drives, RAID application education, and global customer care.

Adaptec Serial ATA RAID 1420SA performance advantages

The Adaptec 1420SA improves performance over a comparable SATA RAID controller by offering four 3Gb/sec Serial ATA ports, NCQ support and a PCI-X/133 MHz host interface with bandwidth up to 1056 MB/s, which is twice as much as a common 64bit PCI interface.

Easy-to-use storage management

The Adaptec Serial ATA RAID 1420SA operates under Adaptec Storage Manager™, a storage management tool that centralizes management of all Adaptec host-based and all hardware based RAID products. The software enables remote management, monitoring, and configuration of RAID arrays through secure, encrypted remote communications. The intuitive RAID management tool provides pop-up tips and online help to simplify the creation and management of RAID arrays.

Compatibility, reliability, and support

Adaptec has been delivering storage and I/O solutions to the industry for more than 24 years. In fact, Adaptec is the undisputed RAID leader, and no other vendor's technology is more proven. The Adaptec Serial ATA RAID 1420SA has been extensively tested with third-party systems to deliver the utmost in compatibility. It is backed by a 3-year warranty and Adaptec's legendary technical support.

Product Highlights

- Four Serial ATA 3Gb/s ports
- HostRAID technology for data protection RAID levels 0, 1, and 10
- Low-profile form factor
- PCI-X 133 MHz host interface
- Native Command Queuing (NCQ)
- 48-bit LBA supports large capacity SATA drives
- Supports bootable arrays

Adaptec **Serial ATA II RAID** 1420SA

Adaptec Serial ATA II RAID 1420SA
Ordering Part Number: 2170500-R

Why to buy	Low-cost Serial ATA II card with HostRAID RAID 0, 1 and 10 for data protection and increased performance.
Customer needs	Ideal for desktop and workstations as well as entry-level servers requiring low cost SATA RAID 0, 1, and 10.
Environment	Small office and home office as a boot device for print, file, and storage servers.
Device support	Up to four Serial ATA / Serial ATA II disk drives
Data transfer rates	3 Gb/s, 1.5 Gb/s
RAID levels	0, 1, 10 and JBOD
Bus type	PCI-X /133 MHz (compatible to PCI 32/64 bit)
System requirements	Intel IA-32, AMD32, EM64T or AMD64 type servers PCI 2.2 compliant systems PCI-X 64-bit/66-133MHz PCI 64-bit/66MHz Support for both 3.3 and 5 volt PCI signaling
Operating system support	Windows 2000, Windows Server 2003, Windows XP, NetWare, and RedHat and SuSE Linux (for most current Linux drivers, go to www.adaptec.com)

Kit includes	Adaptec 1420SA controller with full-size bracket
	Low-profile replacement bracket
	Quick Install Guide
	Bootable Installation CD containing:
	  -Operating system drivers
	  -Complete user documentation (pdf)
	Adaptec Storage Manager CD containing:
	  -Adaptec Storage Manager GUI software
	  -Complete user documentation (pdf)

Physical dimensions	2.5 inch H x 6.6 inch L 6.4 cm H x 16.8 cm L
Operating temperature	0 to 55 degrees C
Power requirements	0.3 amps @ +5V

1420SA

adaptec®