

Adaptec® Serial Attached SCSI RAID 4800SAS/4805SAS

High-performance, eight-port PCI-X and PCI Express (PCIe) SAS controllers with the industry's most advanced RAID for servers and workstations



Serial Attached SCSI (SAS), the successor to parallel SCSI for data storage, is a point-to-point technology that delivers full throughput to each storage device by managing multiple ports with a single controller. Adaptec SAS connects to either SAS or SATA disk drives and transfers data at rates up to 3Gb/s per port.

Adaptec Serial Attached SCSI RAID 4800SAS/4805SAS

The Adaptec 4800SAS and 4805SAS are the newest generation of Adaptec SCSI RAID controllers. Building on industry-standard Adaptec RAID technology, they provide the industry's most advanced feature set and highest data protection with SAS drives.

Advanced hardware features

With a 64-bit/133 MHz PCI-X (Adaptec 4800SAS) or an eight-lane PCIe (Adaptec 4805SAS) host interface, each controller can connect up to eight SAS or SATA drives via two x4 internal connectors. A configurable external x4 SAS connector provides expansion up to 128 disk drives through one or more SAS JBODs. The powerful Intel processors and eight-port Adaptec SAS I/O controller deliver high performance for servers and workstations. They each include 128MB of ECC-protected DDR2 DRAM with optional battery unit.

The industry's most widely deployed RAID code

Adaptec RAID Code (ARC) includes the industry's most advanced feature set, supporting RAID 0, 1, 5, 10, 50, optional upgrades, RAID Level Migration and Online Capacity Expansion without downtime. ARC supports arrays up to 512TB, enabling the creation of large arrays with today's high capacity disk drives. Only Adaptec offers Optimised Disk Utilisation, the ability to create multiple LUNs per disk and use all the space on dissimilar drive sizes.

Adaptec Advanced Data Protection Suite

Adaptec Advanced Data Protection Suite includes Snapshot Backup that creates point-in-time copies of an array for better data backup. Copyback Hot Spare lets administrators designate a drive location as a hot spare. After a drive replacement, the controller migrates back to the original configuration. New data protection includes Striped Mirror (RAID 1E), mirroring over an odd number of drives; Hot Space (RAID 5EE) allows a hot spare while using all drives for data; and Dual Drive Failure Protection (RAID 6, 60), survival of two drive failures. These optional features are sold separately.

Why Adaptec Serial Attached SCSI RAID?

Adaptec makes it easy to cost-effectively deploy, manage, scale and protect storage. Our products and technology are based on a proven RAID core; advanced ASIC designs; tested compatibility with operating systems, motherboards, applications and drives; RAID education; and global support.

Easy-to-use storage management

The intuitive Adaptec Storage Manager™ (ASM) tool centralises management of all Adaptec RAID products. ASM enables remote RAID management, monitoring and configuration through secure, encrypted communication. Pop-up tips and online help simplify RAID array creation and management.

Compatibility, reliability and support

Adaptec has been delivering storage and I/O solutions for over 24 years, and is the undisputed RAID leader – no technology is more proven. These cards are tested thoroughly for third-party compatibility, and backed by a three-year warranty and legendary Adaptec technical support.

Product Highlights

Scalable to 128 SAS or SATA disk drives

Configuration flexibility: up to eight internal ports or four internal and four external ports for simple expansion

PCI-X 64-bit/133 MHz host interface (Adaptec 4800SAS)

Eight-lane PCIe host interface (Adaptec 4805SAS)

SAS, SATA and SATA II compliant

Native command queuing (NCQ)

3Gb/s per port

SES2 enclosure management

Standard RAID levels 0, 1, 5, 10, 50

Adaptec Advanced Data Protection Suite (optional)

128MB ECC DDR2 fixed cache (optional 256MB)

Optional battery backup module

Online applications extend feature set: Online Capacity Expansion, RAID Level Migration, Optimised Disk Utilisation

Operating system support for both 32 and 64-bit Windows, Linux, Netware and FreeBSD

Adaptec® Serial Attached SCSI RAID

Adaptec Serial Attached SCSI RAID 4800SAS/4805SAS Ordering Part Number: 2183100/2183300

Why buy	High-performance and cost-effective RAID controllers offer advanced features and flexibility to connect both performance SAS disk drives and cost-optimised SATA II disk drives
Customer needs	Ideal for supporting server and workgroup applications where high levels of sustained read and write operations are required, such as video streaming, web content, video-on-demand, security and surveillance, fixed content, and reference data storage
Environment	Departmental and workgroup servers and workstations
Device support	Eight SAS ports support both SAS and SATA devices Configuration flexibility for up to eight internal devices and external expansion to storage JBODs
Data transfer rates	Up to 3Gb/s with SAS or SATA II interface
RAID features	Standard Features: RAID 0, 1, 5, 10, 50, hot swap, hot spares, RAID Level Migration, Online Capacity Expansion, Optimised Disk Utilisation
Optional features	Adaptec Advanced Data Protection Suite: Striped Mirror (RAID 1E), Hot Space (RAID 5EE), Dual Drive Failure Protection (RAID 6, 60), Snapshot Backup, Copyback Hot Spare
Cache memory	128MB of ECC-protected DDR2 memory (optional 256MB) Optional battery unit sold separately
Bus type	PCI-X 64-bit/133 MHz host interface (Adaptec 4800SAS) Eight-way PCIe host interface (Adaptec 4805SAS)
Internal connectors	Two x4 SAS connectors
External connectors	One x4 SAS connector
System requirements	Intel or AMD architecture with available PCI-X or eight-lane PCIe slot Supports EM64T and AMD64 architectures
Operating system support	Windows 2000, Windows XP, Windows Server 2003, Red Hat and SuSE Linux, Netware, Free BSD (for most current Linux drivers go to www.adaptec.com); Linux driver source code available for compiling into other distributions
Software in kit	Adaptec Storage Manager™, BIOS configuration utility (ACU), Command line interface (ARCCONF)
Cables in kit	Two 1-m SAS fanout cables with integrated power adapters
Physical dimensions	3/4 Length PCI form factor Full Height 11.5cm H x 24cm L (4.53in H x 9.44in L)
Operating temperature	0 to 55 degrees C
Warranty	Three years

○ **4800SAS**



4805SAS



adaptec®

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