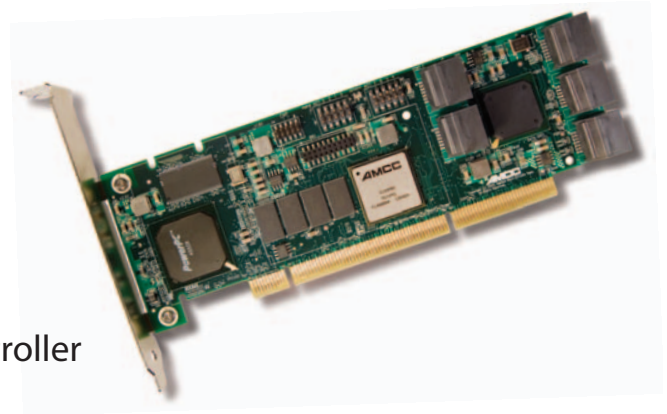




3ware® 9550SX

High-Performance PCI-X to Serial ATA II RAID Controller



The 3ware 9550SX SATA II RAID controller delivers unmatched performance, robust fault-tolerance, and multi-terabyte capacities. Combined with an advanced RAID management feature set that includes web-based, command-based, and API software components, the 9550SX, available in 4, 8, 12, and 16-port configurations, is the most compelling solution available.



Highlights

- 200% faster than the industry-leading 3ware 9500S RAID controller
- Over 380 MB/s RAID 5 writes and over 800 MB/s RAID 5 reads
- StorSwitch™ 7th generation non-blocking switch fabric for maximum controller throughput
- StreamFusion™ optimizes RAID 5 disk accesses to maximize application performance under multiple heavy stream loads
- StorSave™ BBU with write journaling optimizes data protection and performance
- Supports advanced SATA 2.5 specification features including 3 Gbps, NCQ, Port Multiplier and Port Selector
- Multi-lane™ combines four SATA ports into a single locked connection to improve I/O subsystem reliability
- A complete family of 4, 8, 12, and 16-port controllers

High Performance RAID Solution of Choice

The 3ware 9550SX PCI-X to Serial ATA II RAID controller delivers over 800 MB/sec RAID 5 reads and exceeds 380 MB/sec RAID 5 writes, making it 200% faster than the industry leading 3ware 9500S RAID controller. 7th generation StorSwitch™ non-blocking switch fabric technology and sophisticated SATA II features including 3 Gbps transfer speed, Native Command Queuing, and Port Multiplier support drive this unmatched performance.

AMCC's exclusive StreamFusion™ caching algorithms assure the most efficient use of available bandwidth when transferring multiple simultaneous data streams to an array. The on-board PowerPC processor manages RAID controller functions, which allows the host system CPU to manage system applications.

The 9550SX's advanced RAID features and powerful performance architecture make it the ideal controller for mid-range database applications, print and file server applications, and vertical applications including NAS storage, web servers, cluster servers, supercomputing, near-line backup and archival, security systems, and audio and video streaming applications.

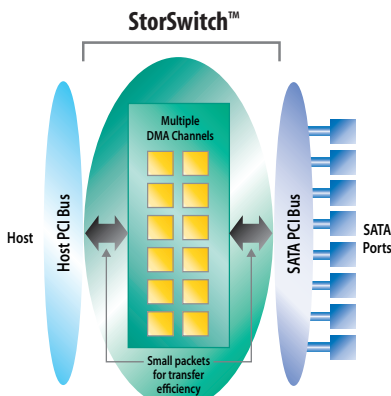
Enterprise-class Reliability and Scalability

StorSave™, AMCC's data reliability platform, delivers a comprehensive suite of advanced data protection and data recovery features, combined with a Battery Backup Unit. The BBU, complete with write journaling, provides added data protection in the event of a power outage. Reliability is further strengthened with features like out of band (OOB) staggered spin up, SMART disk drive monitoring and reporting, hot spare/hot swap, automatic rebuild, and dynamic sector repair.

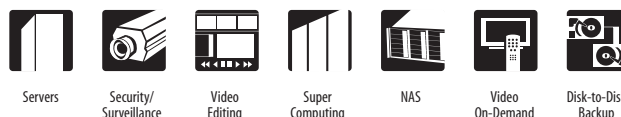
Enterprise RAID features such as on-line capacity expansion allows flexible scalability of the RAID array, while RAID level migration allows the reorganization of arrays when data protection requirements change. Other scalability features include 64-bit LBA support for addressing arrays greater than 2 TB and support for multiple cards within a system for large storage requirements. The 3ware 9550SX controller supports RAID levels 0, 1, 10, 5, 50, Single Disk, and JBOD.

Integrated Cabling Flexibility

AMCC's award winning Multi-lane™ SATA cabling system significantly reduces the number of cables needed to connect controllers, backplanes, and standard SATA drives. Multi-lane combines four SATA ports into a single locked connection. A 16-port controller requires only four cables with Multi-lane. A reduced cable count facilitates systems scalability and improved airflow.



APPLICATIONS FOR 3WARE CONTROLLERS



3ware 9550SX

3ware 9550SX Features

- 7th-generation StorSwitch™ point-to-point, non-blocking switched architecture
- On-board PowerPC RISC processor provides true hardware RAID
 - SCSI device driver model to take advantage of the benefits of SCSI using inexpensive Serial ATA drives
- Bootable array support for greater fault tolerance
- Variable stripe size for performance tuning by application
- 64-bit LBA support
- ATA pass-through mode support
- Up to 256 MB DDR2 400 memory with ECC protection
- 32 pooled DMA channels
- Complete configuration management suite
 - 3ware BIOS Manager 2 (3BM2) – easy to use BIOS configuration tool
 - 3ware Disk Manager 2 (3DM2) – browser-based management tool
 - * Features include: secure access via ssh or https, create unit, delete unit, remove unit, import unit, migrate unit, verify unit rebuild unit
 - Command Line Interface (CLI) – scriptable configuration tool
- SNMP support
- SMTP support for email/pager notification
- ATA/6 and Out of band (OOB) staggered drive spin-up support
- Auto carving allows logical units larger than 2 TB to be divided into multiple units for legacy operating systems that are limited to a maximum of 2 TB per logical unit
- StorSave platform for advanced performance tuning with the BBU
- Multiple logical unit sizes and RAID levels on one card
- Multiple card support within a system for large storage requirements
- Hot-swap and hot-spare support for data availability
- Dynamic sector repair for robust data protection
- S.M.A.R.T. disk drive monitoring for reliability
- Emergency Flash Recovery protects against failed firmware upgrade
- Drive activity LED support
- Online Capacity Expansion and RAID Level Migration
- Battery Backup Unit (BBU) ready
- Enhanced data protection with write journaling for non-redundant arrays and accidental drive removal
- Drive insertion and removal notification

- Array/Drive Status and drive identification LED support
- Chassis Control Unit for enclosure management via I²C
- Low operating temperature at full utilization

Operating System Support

- Microsoft® Windows® 2003/XP/2000, Red Hat Linux, SuSE Linux, Fedora Linux, 2.4 Linux kernel, 2.6 Linux kernel, FreeBSD, 32/64-bit support
- For complete OS listing, go to:

www.3ware.com/support/OS-support

3ware 9550SX Specifications

- Low profile (4 and 8-port) and half-length form factors
- 4, 8, 12, and 16-port configurations
- PCI-X 1.0b (and PCI 2.3) compliant 64-bit/133/100/66MHz bus master
- Serial ATA 2.5 Specification support
- BIOS PnP (plug and play) and BBS (BIOS boot specification) support
- Operating Temperature

Without BBU:	0°C to 50°C
With BBU:	10°C to 40°C
- Power Requirements

3.5 – 10 W @ 3.3 V (depending on configuration)

- Dimensions

9550SX-4LP	7.475"L x 2.536"H	(18.987cm x 6.441cm)
9550SX-8LP	7.475"L x 2.536"H	(18.987cm x 6.441cm)
9550SX-12	6.875"L x 4.2"H	(17.463cm x 10.668cm)
9550SX-12MI	6.875"L x 4.2"H	(17.463cm x 10.668cm)
9550SX-16ML	6.875"L x 4.2"H	(17.463cm x 10.668cm)

Service and Support

- 3-year warranty
- Support via the web at www.3ware.com/support
- For latest motherboard and hard drive compatibility listing go to: www.3ware.com/products/compatibility_sata.asp

Accessories

- BBU-9550SX-01 Battery Backup Unit
- RDC-400-SATA SATA internal drive cage
- RDE-400-XSATA SATA RAID drive enclosure
- CBL-SATA-39 1m Serial ATA cable
- CBL-IB-05M 0.5m Serial ATA Multi-lane (4x) cable
- CBL-IB-10M 1m Serial ATA Multi-lane (4x) cable
- BATT-9550SX-SPARE Replacement battery for BBU-9550SX-01

3ware 9550SX Series Selection Guide

Model	9550SX-4LP	9550SX-8LP	9550SX-12	9550SX-12MI	9550SX-16ML
Form Factor	Half length/low profile	Half length/low profile	Half length	Half length	Half length
Port Count	4	8	12	12	16
Host Interface	PCI-X	PCI-X	PCI-X	PCI-X	PCI-X
Host Interface Speed	64-bit/133MHz	64-bit/133MHz	64-bit/133MHz	64-bit/133MHz	64-bit/133MHz
Onboard Memory	128 MB	128 MB	256 MB	256 MB	256 MB
Connector Type	Discrete	Discrete	Discrete	Multi-lane	Multi-lane



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