PROMISE®
TECHNOLOGY, INC.

FastTrak® TX4310
4-Port SATA RAID Adapter

∴• **Cost-effective RAID 0/1/5/10 controller with SATA 3Gb/s drive support for motherboards with a PCI interface**

Cost-effective SATA RAID 0/1/5/10 PCI Adapter

The Promise FastTrak TX4310 4-port SATA RAID PCI adapter offers a low-cost solution for implementing a RAID 0, RAID 1, RAID 5 or RAID 10 storage system with up to four high-performance Serial ATA disk drives. Promise Technology is the leading provider of Serial ATA interface solutions, and with the FastTrak TX4310, users can benefit from Promise's experience in maximizing Serial ATA storage system performance.

Promise's Proven FastTrak RAID Engine

The FastTrak TX4310 leverages Promise's proven RAID 0/1/5/10 software engine for fast, efficient, and reliable RAID. Use RAID 0 for massive capacity and maximum performance, RAID 1 for data protection, RAID 5 for maximum data protection and four-drive RAID 10 for data protection and performance enhancement. Promise's RAID engine also offers performance-enhancing technology like elevator seek and load balancing for efficient performance. For maximum uptime, the FastTrak supports features like transparent data recovery and drive rebuilds performed in the background.

SATA 3Gb/s Support

The controller supports SATA 3Gb/s drives and conforms to Serial ATA II, Extensions to SATA 1.0a specification with Native Command Queuing and Disk Activity LED headers support. Command Queuing increases I/O performance by intelligently reordering data requests so that the data can be more quickly accessed than if the commands weren't ordered.

Advanced HBA Features

The low-profile form factor FastTrak TX4310 PCI adapter incorporates many of Promise Technology's advanced host bus adapter features. The 66MHz PCI bus supports up to 266MB/sec burst data transfer rate. The FastTrak TX4310 also includes large LBA support for drives above 137GB, and its onboard BIOS automatically identifies and configures drive type.
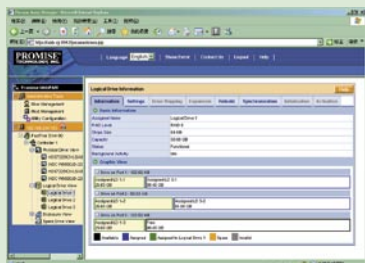
RAID Serial ATA

FastTrak® TX4310 highlights

:: 4 Serial ATA 3Gb/s Ports for support of up to 4 drives

:: RAID 0/1/5/10 and JBOD

:: PCI 32-bit / 66 MHz

:: Native Command Queuing

:: Large LBA support for drives above 137GB

:: Disk Activity LED Headers

:: Combine with the SuperSwap 1100 or SuperSwap 4100 for an advanced internal storage system

RoHS 2002/95/EC

Performance Boost with
NCQ/TCQ Support

SERIAL ATA 3Gb/s

Designed for
Microsoft®
Windows Server™2003

Designed for
Microsoft®
Windows® XP

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Sophisticated Array Monitoring Tools

Web-based Promise Array Management (WebPAM) software offers professional management tools in a simple-to-use, straightforward format. Array configurations, management and monitoring features are available via the web based interface. Moreover, the FastTrak TX4310 supports industry standard SNMP so third party management application integration is simplified.

Easy Upgrade/Migration Path

The FastTrak TX4310 is designed to maximize flexibility throughout the life of the storage system. For non-RAID SATA users, the FastTrak TX4310 simplifies the transition to a RAID array. For a FastTrak TX4310 RAID user, the software supports online capacity expansion and RAID level migration and as capacity and performance requirements grow, the FastTrak TX4310 supports MetaData on Disk, enabling easy migration to Promise external storage solutions.

The Leader in SATA RAID

Promise Technology is the originator of ATA RAID and worldwide leader in SATA RAID with over 14 million controllers shipped. Using Serial ATA and SCSI (SAS) technology to design and manufacture fast, reliable cost-effective data protection, Promise is the preferred choice for SATA host bus adapters, RAID controllers and SAS/SATA external storage systems.

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Specifications	
Disk Array Features	
Device Support	Storage capacity up to 4.0 terabytes (four 500GB drives x 2 controller system) 4 SATA 3Gb/s ports for up to 4 Serial ATA devices
Supported RAID Levels	RAID 0/1/5/10/JBOD RAID 0 – Data striped across 2-4 drives for increased performance RAID 1 – Mirrored pairs of drives for data protection RAID 5 – Striped data + rotate parity RAID 10 – Data mirrored then striped across 4 drives, ultimate data protection and performance (provides a level of double drive failure protection)
Data Transfer Rate	Up to 266 MB per second (Performance may vary depending upon drive make, motherboard and PCI bus speed)
RAID Features	Data handling optimizations include elevator seek and load balancing Supports hot-swap of failed drives Offers transparent data recovery and rebuilds drive in background Online Capacity Expansion - add capacity on the fly RAID Level Migration - change array levels on the fly MetaData on Disk (MDD) for drive roaming
Easy to Use	Quick initialization Arrays are bootable with built-in BIOS Upgrades your current disk drive to a RAID array by migrating existing data to the array
System Management	

Management Tools	WebPAM (Web-based Promise Array Management) local and remote monitoring for Windows and Linux:
	  –monitors status of arrays, hard drives, and controller via TCP/IP
	  –warns of drive failure
	  –allows rebuilds of mirrored arrays
	  –synchronizes data in fault-tolerant arrays
	  –email notification for array events
	  –S.M.A.R.T.-compatible status reporting

Notification	Email, audible, and visible alarms
Operating System Support	Microsoft Windows XP, Windows Server 2003, Windows 2000 RedHat Linux; SuSE Linux Linux partial open source code
Hardware	

Serial ATA 3G Support	Supports Serial ATA II: 3Gb/s Specification
	Supports Serial ATA II: Extensions to Serial ATA 1.0a, including
	  –Native Command Queuing
	  –Staggered Drive Spin-Up
	  –HDD Activity Indication

Multiple Controllers Support	Up to 2 controllers in the same system are supported
PCI Support	32-bit / 66MHz PCI interface compliant to PCI Rev 2.3 (Backward-compatible with PCI 33MHz)
HBA Features	Low-profile form factor (HW) 2.00 x 4.69 inches (51 x 119 mm) BIOS flash upgradeable for future updates Built in SMBus connector for Promise SuperSwap 4100/1100 Supports ACPI (S1, S3, S4)
Physical and Environmental	Operating temperature: 32 to 122˚F (0 to 50˚C) Relative humidity: 5%-95% non-condensing Built in SMBus connector for Promise SuperSwap 4100/1100
Cables in kit	4 x 25" (650mm) Serial ATA Cables
Agency Certifications	UL, cUL, CE, FCC Class B, BSMI, MIC, C-Tick, VCCI
Limited Warranty	3 Years