SuperTrak® EX
SAS and SATA RAID Controller

SuperTrak® EX SAS and SATA RAID Controllers

Reliability, Manageability and Performance Leadership for Today's SAS and SATA RAID Solutions

Enterprise-Class RAID Reliability

SuperTrak EX SAS and SATA RAID controllers are stable, robust platforms that can be trusted. Built on a leading edge hardware design, supported by a RAID stack developed and refined over more than 15 years, they incorporate a single chip solution for optimized reliability with 512MB data cache on-board, an available 72 hour battery backup module, and a x8 PCI-Express interface to the host.

The SuperTrak EX line of SAS and SATA RAID controllers, with RAID 5 and RAID 6 support, protects your mission-critical data by delivering the data protection features you expect from leadership solutions. Features such as global and dedicated hot spares, RAID level migration, media patrol, read check table, and bad sector remapping offer the most reliable data protection solutions in their class.

Easy Management

The new web-based Promise Array Manager Professional (WebPAM™ PRO) makes SuperTrak RAID Controllers easy to manage for both Windows and Linux environments through the browser-based graphical user interface to create, delete, expand, and convert disk arrays from anywhere in the world.

In the event of a drive or data path failure, WebPAM PRO supports an array of notification options including text and email, as well as an audio alarm located directly on the STEX RAID controller.

SAS RAID Controllers for Performance Hungry Storage

The SuperTrak SAS and SATA RAID controllers are high-performance solutions delivering reliability to demanding data-intensive applications such as tiered storage environments (disk-to-disk or disk-to-disk-to-tape backup), security and surveillance, video editing, and digital content creation.

Support for both SAS and SATA 3Gb/s drives on the same controller maintains configuration optimization for performance based on the characteristics of SAS and SATA drives available today. It's like getting SAS for free.
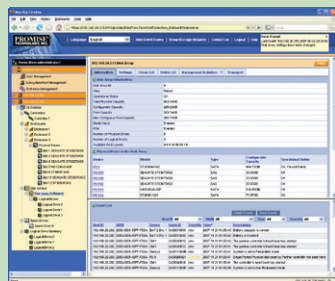
STEX8658   8 External Ports
STEX8654   4 Internal / 4 External Ports

:: 3Gb/s SAS/SATA

:: Hardware-accelerated RAID 6 maximum data protection

:: Supports RAID levels 0, 1, 1E, 5, 6, 10, 50, 60

:: PerfectRAID™ technology for robust error handling and recovery

:: Automatic/manual rebuild of dedicated and global hot spare drive

:: Online capacity expansion and RAID level migration to add capacity as needed

:: Optional 72 hour battery backup module

:: Linux Open Source driver support

:: Multiple logical drive support

:: Intel IOP348 Dual XScale I/O processor

:: PCI Express x8 Host Bus Interface

Sophisticated Array Management Tools

Web-based Promise Array Management (WebPAM PRO) software offers professional management tools in a simple-to-use, straight-forward format. Array configurations, management and monitoring features are available via the web-based interface. Moreover, the SuperTrak EX family supports industry standard SNMP and CIM/WBEM so third party management application integration is simplified.

A Leader in SAS and SATA RAID

Promise Technology is the originator of ATA RAID and is a worldwide leader in SAS/SATA RAID with over 15 million controllers shipped. Using SAS and SATA technology to design and manufacture fast, reliable, cost-effective data protection, Promise is the preferred choice for SAS/SATA host bus adapters, RAID controllers and SAS/SATA external storage systems.

Specifications

Model	STEX8654	STEX8658
Features		
Controller Configuration	• Four internal SAS/SATA ports at 3Gb/s • Four external SAS/SATA ports at 3Gb/s — One SAS SFF-8088 connector — One SAS SFF-8087 connector • 1.2Ghz Intel 81348 XScale I/O processor • Onboard 512MB ECC DDR II memory	• Eight external SAS/SATA ports at 3Gb/s — Two SAS SFF-8088 connectors • 1.2Ghz Intel 81348 XScale I/O processor • Onboard 512MB ECC DDR II memory
Hardware Features	• PCI-Express x8 host bus interface • Hardware XOR engine to offload parity calculation • Hardware RAID 6 accelerator • Low-profile MD2 form factor • Optional on-board battery backup unit for data retention up to 72 hours	
Supported RAID Levels	• RAID 0 – Data striped across 1-16 drives for increased performance, but no data protection • RAID 1 – Mirrored pair of drives for data protection with increased read performance • RAID 1E – Data mirroring extended to maximize balanced performance. Allows odd number drive mirroring • RAID 5 – Striped parity on 3-16 drives, ultimate data protection, capacity and performance balance • RAID 6 – Double parity for maximum data protection on 4-16 drives; allows double drive failures without downtime or data loss • RAID 10 – Mirrored pair of RAID 0 for double drive failure protection; can be split into two RAID 0 sets • RAID 50 – Striped multiple RAID 5 sets to improve performance and provide additional data protection • RAID 60 – Striped multiple RAID 6 sets to allow multiple drive failures to achieve high-data availability	
RAID Fault Tolerance and Robustness Features	• Multiple logical drive support enables combining different RAID levels on one set of disks • Read Check table to avoid data read errors • PerfectRAID™ technology for error handling and recovery of fatal, media and disk errors • Support hot swap of failed drives and hot spares • Automatic/Manual rebuild of hot spare drive • Background initialization for instant drive availability • Supports bad sector remapping • Variable stripe block size support to meet various application requirements • Synchronization can be scheduled periodically for RAID data consistency	
Web-based Promise Array Manager	• Creates, deletes, expands, and converts disk arrays remotely • Media Patrol and Redundancy Check scheduling • Monitors drive, array, and enclosure status and provides online event logging • Email notification of drive, array, controller or enclosure events (e.g. error or degrade conditions) • Remote management based on industry standard CIM/WBEM • Interface displays in 10 languages • CLI support • Remote firmware update	
Operating System Support	• Microsoft Windows Vista, 2000, XP, Windows Server 2003, Windows Server 2008 • Red Hat Linux, SuSE Linux, Miracle Linux, Fedora Core, Linux open source driver (32/64-bit) • FreeBSD, VMware 3.0.1/3.0.2	
Platform Support	• Intel IA32, EM64T, and AMD64	
SuperBuild™ BIOS	• Array configuration utility at the BIOS level • BIOS Boot specification support: boot system from any array • Flash-upgradeable BIOS for future upgrades	
Enclosure Management	• SES-2 • SGPIO • I²C	
Cable in Kit	**STEX8654** One 0.5-meter cable	**STEX8658** (No cables in kit)
Accessories	Battery Backup Unit PN: STEXBBUIII	
Operating Temperature	0 to 50°C (40°C w/ BBU) Relative humidity: 5%-95% non-condensing	
Physical Dimensions	16.7 cm x 6.8 cm (6.6" x 2.7")	
Agency Certifications	UL, cUL, CE, FCC Class B, BSMI, VCCI, MIC, C-tick	
Limited Warranty	3 Years	

About Promise

With a long history of innovation, Promise Technology develops and manufactures sophisticated RAID solutions recognized worldwide, ranging from a complete line of RAID controller cards to SAS/SATA RAID subsystems. Catering to enterprise, mid-range and entry-level data protection needs, Promise products are distinguished by their common RAID code, unified management interface and unparalleled support. Known as the originator of SATA/ATA RAID products, Promise's comprehensive product base includes high available (HA) standalone RAID subsystems with standards-based management interfaces, host-based (internal) RAID controllers, NAS appliances for SOHO, and SATA ASICs integrated into an extensive list of industry-leading motherboards. Headquartered in Milpitas, Calif., Promise has operations throughout Asia and Europe. For more information, visit Promise Technology's website at **http://www.promise.com**

:: **Promise USA**
Milpitas, USA
Tel: +1 408 228 1400
E-mail: sales@promise.com

:: **Promise Germany**
Dortmund, Germany
Tel: +49 0 2 31 56 76 48 0
E-mail: sales-de@promise-emea.com

:: **Promise UK**
Wokingham, United Kingdom
Tel: +44 0 870 112 59 77
E-mail: sales@promise-emea.com

:: **Promise China**
Beijing, China/Shanghai, China
Tel: +86 10 8857 8085/8095 (Beijing)
Tel: +86 21 6249 4192/93/99 (Shanghai)
E-mail: sales@promisechina.com

:: **Promise EMEA**
Son, The Netherlands
Tel: +31 0 40 235 2600
E-mail: sales@promise-emea.com

:: **Promise Italy**
Rome, Italy
Tel: +39 0 6 367 126 26
E-mail: sales-it@promise-emea.com

:: **Promise Taiwan**
Hsin-Chu, Taiwan
Tel: +886 3 578 2395
E-mail: sales@promise.com.tw

:: **Promise Japan**
Tokyo, Japan
Tel: +81 3 5333 3631
E-mail: sales-jp@promise.com.tw