

It's All About Your Data

SuperTrak® EX16350 PCI-Express RAID Controller

SuperTrak® EX16350 Serial ATA 3Gb/s PCI-Express RAID Controller



**High-Performance, Maximum Reliability
SATA 3Gb/s RAID Solution**

High Performance SATA 3Gb/s RAID Controller for Servers and Storage Systems

The SuperTrak EX16350 RAID controller is a high port count, high performance, high-capacity and maximum reliability solution for internal storage systems including rackmount and chassis servers. With support for SATA 3Gb/s hard disk drives and Promise's proven RAID engine, the SuperTrak EX16350 RAID controller is designed to meet the needs of NAS storage, security and surveillance, disk-to-disk backup, video editing, and near-line storage.

SATA 3Gb/s Support

The SuperTrak EX16350 controller supports SATA 3Gb/s drives and conforms to Serial ATA II, Extensions to SATA I.0 specification with Native Command Queuing and Disk Activity LED headers support. Command Queuing increases I/O performance by intelligently reordering data requests so that data can be accessed more quickly.

Supports PCI-Express for High Throughput

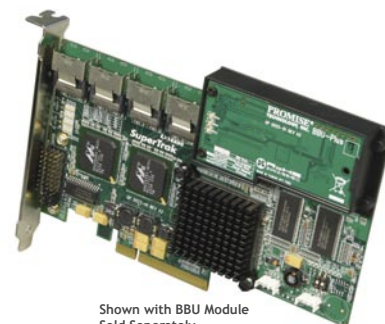
The SuperTrak EX16350 takes advantage of the high throughput performance of the PCI-Express host bus interconnects. Using the x8 PCI-Express bus, the controller is capable of achieving throughput of up to 2GB per second.

Intelligent RAID Architecture

The SuperTrak EX16350 delivers exceptional multi-drive performance by taking advantage of Intel's XScale IOP333 I/O processor technology. It offers advanced RAID 6 technology for high level fault tolerance, allowing up to two simultaneous drive failures without downtime or data loss.

Improved RAS Functions

The SuperTrak EX16350 adds enhanced features for improved RAS (Reliability, Availability and Serviceability). In addition to an improved RAID algorithm, some of the added features support more background activities, including redundancy check and media patrol, activity resume watermarking, bad block handling, non-volatile event logging, and multidrive failure prevention. Support for two controllers within a system helps enable satisfaction of large storage requirements.



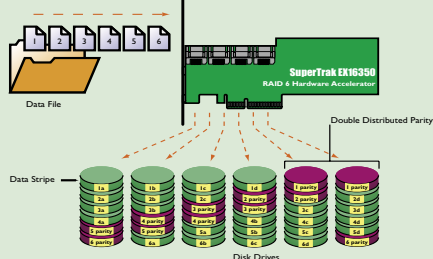
Shown with BBU Module
Sold Separately

SuperTrak® EX16350

- 16 Serial ATA 3Gb/s ports (4-multilane connectors)
- 16-Port Serial ATA (SATA) 3Gb/s RAID controller with PCI-Express bus (4-multilane connectors; cables included)
- 256MB ECC DDR Memory
- Support RAID levels 0, 1, 5, 6, 10, 50 and JBOD
- Linux open source driver support
- Online capacity expansion (OCE) and RAID level migration (RLM) to add capacity as needed
- Hardware-accelerated RAID 6 capable for maximum reliability
- Intel IOP333 XScale I/O processor
- Multiple logical drive support
- Automatic/manual rebuild of hot spare drive
- PerfectRAID™ technology for robust error handling and recovery
- Battery backup module optional

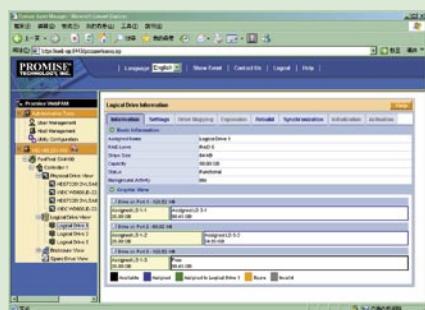


Boosts Storage Performance and Protects User Data and Programs
RAID 6



Shares work among up to 6 drives (RAID 6) for huge storage capacity. Dramatically increases read and write data transfer speeds. Calculates and distributes parity to protect data against drive failure.

Sophisticated Array Management 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 SuperTrak EX family supports industry standard SNMP so third party management application integration is simplified.

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.

www.promise.com

Specifications

Controller Specifications

- Sixteen SATA ports at 3.0Gb/s (300MB/sec) (One-to-four multilane connectors)
- Storage capacity up to 16.0 terabytes (with sixteen 500GB drives x 2 controllers/ system)
- PCI-Express x8 host bus interface
- Intel IOP333 XScale I/O processor (500 MHz)
- 256MB DDR ECC on-board controller cache
- Battery back-up module option
- Two controller support within a system

RAID Levels Supported

- RAID 0 -- Data striped across 2-8 drives for increased performance but no data protection
- RAID 1 -- Mirrored pairs of drives for data protection with increased read performance
- RAID 5 -- Striped parity on 3-8 drives, ultimate data protection, capacity and performance balance
- RAID 6 -- Double parity for maximum data protection; allow multiple simultaneous drive failures without downtime or data loss
- RAID 10 -- Data mirrored then striped across up to eight drives, for double drive failure protection
- RAID 50 -- Two RAID 5 Arrays striped together to improve performance and provide some additional data protection
- JBOD Just a Bunch Of Drives: independent connected drives with no RAID interconnection

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
- Online capacity expansion and RAID level migration to add capacity "on the fly" as needed
- 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 array data consistency

Advanced Performance Features

- Multiple caching policy support
- Packet commands and interrupt coalescing minimize interrupts for better performance
- Elevator seek streamlines commands based upon data location on the disk

Web-based Promise Array Manager

- Creates, deletes, expands, and converts disk arrays remotely
- Array synchronization and rebuild scheduling
- Monitors drive, array, and enclosure status and provides online event logging
- E-mail notification of drive, array, controller or enclosure events (e.g. error or degrade conditions)

Operating Systems*

- Microsoft Windows 2000/XP/2003 (32/64-bit)
- Red Hat Linux, SuSE Linux, Linux open source driver (32/64-bit)

Platform Support

- Intel IA32, EM64T, and AMD64
- Single and dual CPU servers

SuperBuild™ BIOS

- Array configuration utility at the BIOS level
- BIOS Boot Specification support: boot system from any array
- Flash-upgradeable BIOS for future upgrades

Cable in Kit

- Four multilane Serial ATA cables included (1 cable supports four drives)

Physical Dimension

- 7.4" x 4.3" (188 x 111 mm)

Limited Warranty 3 Years

* Check www.promise.com for latest operating system drivers
©2006 Promise Technology, Inc. Specifications subject to change without notice.

P/N: G6130SE16000000

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

Promise China
Beijing, China
Tel: 86-10-8857-8085 or 8095
E-mail: sales-china@promise.com

Promise Japan
Tokyo, Japan
Tel: 81-03-5823-1021
E-mail: sales-jp@promise.com.tw

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

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

Promise Germany
Dortmund, Germany
Tel: 49-02-31-56-76-48-0
E-mail: sales-de@promise-emea.com

Promise Italy
Roma, Italy
Tel: 0039-06-3671-2626
E-mail: sales-it@promise-emea.com

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