

E5402E 3Gb SAS-SAS/SATA-II RAID



The E5402E combines Serial Attached SCSI (SAS) connectivity with SAS and Serial ATA (SATA) disk drive technology, redefining system flexibility and availability.

Business dynamics and requirements are in a constant state of flux. System and IT professionals are battling to balance system performance within budgetary constraints. The Xyratex E5402E SAS-SAS/SATA RAID gives these professionals a performance tool to meet their growing needs in both the direct attached and networked storage environment and continues Xyratex's commitment to the Small and Medium Business market.

Today's businesses demand ever more affordable high-performance data storage and retrieval systems for performing a variety of critical business functions. The Xyratex E5402E offers the high performance and continuous availability demanded by today's market and provides customers with choices in performance and capacity. Customers can use the E5402E to create tiered storage solutions by mixing both SAS and SATA-II drives in the same system. This results in optimal performance and accelerated return on investment.

The Xyratex E5402E leverages SAS full duplex, point-to-point architecture with dedicated connections for maximum data throughput. With cost-effective connectivity, maximum flexibility, superior performance and continuous availability, the Xyratex E5402E sets new standards for entry-level RAID storage offerings.

Xyratex's management software also differentiates the Xyratex E5402E over other entry level storage solutions on the market today. All models in the Xyratex 5000 series of RAID systems feature StorView for intuitive administration and performance monitoring. Automated control of an individual controller's cache, arrays, and devices via a web-based interface simplifies storage administration, resulting in decreased management costs and improved storage utilization.

StorView also features a full-function Command Line Interface (CLI) allowing customers to integrate array management into existing operational procedures. Additionally, customers can upgrade to StorView Global Manager. This provides greater control of configuration and monitoring, and enables users to manage any 5000 Series RAID controller from any location on the network.

Features

- Single (2) or Dual (4) 3Gb/s high speed SAS host connections per system
- Mix up to 60 high performance SAS and cost effective SATA-II drives
- StorView™ controller based management software
- Dual active high availability and low cost single controller configurations
- Host based dynamic multi-pathing for high availability
- Exceptional expandability with 30TB of total capacity
- Online capacity growth through dynamic array and LUN expansion
- Redundant modular design with hot-swappable components
- Fully customizable fascia and management

Technical Specification

General Information

Product Code	RS-1220-E3-5402E
External Interface	3Gb 4-lane SAS connection via LSI SAS3442x SAS HBA
Supported Operating Platforms	Windows 2003 (IA32 and EM64T); RedHat Linux AS3/AS4 (32 & 64 bit); SuSE Linux 8/9 (32 & 64 bit)
Supported Hosts	256, 512 LUNs, LUN Masking, >2TB LUNs
Total Capacity per Unit	6TB
Expansion Chassis	RS-1220-E3-XPN (4 maximum), SAS connected (SFF-8470), single & dual IO Module configurations
Total Expansion Capacity	30TB, 512MB and 1GB Cache per controller (selectable by volume – read, adaptive read-ahead, write through, write-back), battery backup

Disk Drives

Disk Drives Supported	Seagate SAS (15K/36G/73G/146G), Seagate SATA-II (7.2K/250G/500G/750G)
Interface Types	SAS (3Gb/s), SATA-II (3Gb/s), NCQ, dedicated bandwidth to each drive
Max Drives per Enclosure	12, 512 Logical Drives/system, automatic bad sector assignment

RAID Controllers

No. of Raid Controllers	1 (single) or 2 (dual – HA)
RAID Levels Supported	Up to 60 disk arrays with independent RAID level 0, 1, 5, 10, and 50 support, selectable strip sizes (64K, 128K, and 256K)
RAID Protection Features	Background initialization, background parity checking, and automatic drive rebuild with redundant RAID arrays

System Management

Software	StorView, StorView Global, StorView Path Manager
Interfaces supported	Ethernet (out-of-band), FC host based (in-band), Xyratex Command Line Interface (CLI) for RAID

System Availability

Hot Swappable Components	Disk drives, RAID controllers, power supplies and cooling module
Additional Reliability Features	StorView Path Manager – Windows host based dynamic multi-path failover

Dimensions

Height	87.9mm (3.46") 2 EIA units
Width	443.7mm (17.49") 1EC rack compliant
Depth	550mm (21.65")
Weight	32.2Kg (71 lbs.) dual controller configuration with drives

Altitude, Power and Temperatures

Operational Altitude	2,133m (7,000 ft)
Non-operational Altitude	12,192m (40,000 ft)
Voltage	100-240VAC 5.0A maximum per input
Frequency	60/50 Hz, single-phase
Power Consumption	300W typical
Temperature Range	Operating: 5° to 40°C (41° F to 104° F)
Humidity	Operating: 10% to 80% (non condensing)

Shock and Vibration

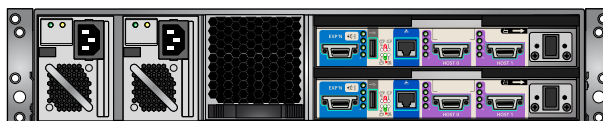
Operational Shock	5g 10ms 1/2 sine
Operational Vibration	Random .21grms 5-500Hz
Non-operational Shock	30g 10ms 1/2 sine
Non-operational Vibration	Random .1.04 grms 2-200Hz
Relocation Vibration	Swept Sine 0.9g 2-200Hz
Acoustics	<58 dB LpA @20°C

Approvals

CCC, BSMI, CE, UL, cUL, RoHS (R5), Microsoft WHQL, Microsoft RAID System Submission – MPIO (Single Host)

Warranty Information

Enclosures with drives Up to 3 years
Please contact Xyratex for detailed warranty information.



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