

## F5404E 4G FC-SATA-II RAID



### Redefining flexibility and availability, the Xyratex F5404E offers affordable RAID data storage with high performance capabilities.

The Xyratex F5404E sets a new standard in the design of mass storage enclosures and provides unsurpassed disk storage capacity in a single enclosure. Housing 48 SATA drives in 4U of rack space, the F5404E can store 36TB of data in a single unit. With a combination of high performance controllers and high density packaging, the fully HA design of the F5404E increases the flexibility of storage deployment to the end user. The F5404E provides an ideal solution to the secondary disk storage needs of compliance, disk to disk backup, and CAS environments.

Software clearly differentiates the Xyratex F5404E over other near-line 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 individual controller's cache, arrays, and devices via a web-based interface simplifies storage administration, resulting in decreased management costs and improved storage utilization.

All models in the Xyratex 5000 RAID series come with Snapshot. Four snapshots are available to start implementing point-in-time recovery capabilities. An optional Snapshot upgrade allows for up to 24 snapshots per Logical Drive and up to 8 Logical Drives in snapshot mode. A full-function Command Line Interface (CLI) can be used to integrate array management into existing operational procedures. Available an optional upgrade to StorView, StorView Global configures, monitors, and manages Xyratex 5000 Series RAID controllers from any location, anywhere on the network.

The Xyratex F5404E provides the bandwidth needs for disk-to-disk backup, archive, and other storage intensive applications. The Xyratex F5404E leverages SAS full duplex, point-to-point architecture with dedicated connections for maximum data throughput. With maximum flexibility, superior performance and continuous availability, the Xyratex F5404E sets new standards for near-line RAID storage offerings.

### Features

- RAID 1, 5, 6, 10 & 50 support
- Snapshot support for up to 192 snaps
- Four (4) 4Gb/s high speed Fibre Channel host connections per system
- Up to 48 high performance cost effective SATA drives in one system
- StorView™ controller based or host based management software
- Online capacity growth through dynamic array and LUN expansion
- Cableless, modular design and redundant, hot-swappable components for fault tolerance
- Customizable fascia, SCSI Inquiry Strings, management interface, multi-path manager

## Technical Specification

### General Information

<b>Product Code</b>	RS-4835-F4-5404E
<b>External Interface</b>	4G FC, point-to-point, loop and fabric (switched) topologies
<b>Supported Operating Platforms</b>	Windows 2003 (IA32, EM64T); RedHat Linux AS3/AS4 (IA32, EM64T); SuSE Linux 9/10 (IA32, EM64T)
<b>Supported Hosts</b>	256, 512 LUNs, LUN Masking, >2TB LUNs
<b>Total Capacity per Unit</b>	36TB
<b>Expansion Chassis</b>	RS-4835-E3-XP (1 maximum), SAS connected, single and dual IO Module configurations
<b>Total Expansion Capacity</b>	72TB, 512MB and 1G Cache per controller (selectable by volume – read, adaptive read-ahead, write through, write-back), battery backup

### Disk Drives

<b>Disk Drives Supported</b>	Seagate SATA (7.2K/750G)
<b>Interface Types</b>	SATA-II (3GB/s), NCQ, dedicated bandwidth to each drive
<b>Max Drives per Enclosure</b>	48, 512 Logical Drives/system, automatic bad sector assignment

### RAID Controllers

<b>No. RAID Controllers</b>	2 (dual – HA)
<b>RAID Levels Supported</b>	Up to 96 disk arrays with independent RAID level 0, 1, 5, 6, 10, and 50 support, selectable strip sizes (64K, 128K, and 256K), partial strip read/write
<b>RAID Protection Features</b>	Background initialization, background parity checking and automatic drive rebuild with redundant RAID arrays

### System Management

<b>Software</b>	StorView, StorView Global, StorView Path Manager
<b>Interfaces Supported</b>	Ethernet (out-of-band), FC host based (in-band)

### System Availability

<b>Hot Swappable Components</b>	PSU/cooling modules, disk drives, RAID controllers
<b>Additional Reliability Features</b>	StorView Path Manager for Windows and StorView Path Manager for Linux - host based dynamic multi-path failover

### Dimensions

<b>Height</b>	175mm (6.89") 4 EIA Units
<b>Width</b>	482mm (19") (1EC Rack Compliant)
<b>Depth</b>	810mm (31.9") 1000mm depth rack required
<b>Weight</b>	74.8Kg (165 lbs) with drives
<b>Service Clearance</b>	559mm (22") shelf pull-out

### Altitude, Power and Temperatures

<b>Operational Altitude</b>	2,133m (7,000 ft)
<b>Non-operational Altitude</b>	12,192m (40,000 ft)
<b>Voltage</b>	100-240VAC 5.0A maximum per input
<b>Frequency</b>	60/50 Hz, single-phase
<b>Power Consumption</b>	800W typical
<b>Temperature Range</b>	Operating: 5° to 35°C (41° F to 95° F)
<b>Humidity</b>	Operating: 10% to 80% (non condensing)

### Shock and Vibration

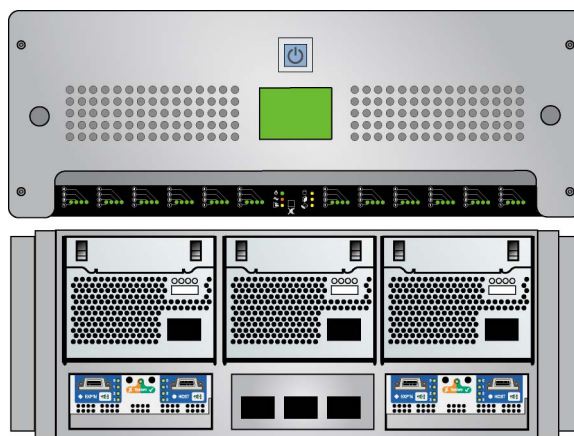
<b>Operational Shock</b>	5g 10ms ½ Sine
<b>Operational Vibration</b>	Random 0.21 grms 5-500Hz
<b>Non-operational Shock</b>	30g 10ms ½ Sine
<b>Non-operational Vibration</b>	Random 1.04 grms 2-200Hz
<b>Relocation Vibration</b>	Swept Sine 0.9g 2-200Hz
<b>Acoustics</b>	<58 dB LpA @20°C

### Approvals

CCC, CE, UL, cUL, RoHS (R5)  
Microsoft WHQL, Microsoft RAID System Submission – MPIO 2-Node Cluster

### Warranty Information

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



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