

## RS-1603-E3-EBD SAS/SATA EBOD



**IT managers are faced with the problem of supporting the rapid growth of data within their organization while working within the confines of limited budgets. They therefore require storage systems that enable them to optimize capacity (\$/GB), performance and reliability as their needs evolve.**

Xyratex's RS-1603-E3-EBD delivers a highly-flexible solution designed to support the needs of every application through delivering an optimal blend of performance, scalability, reliability and cost. This new Serial Attached SCSI (SAS) based storage system replaces traditional parallel SCSI (U160, U320) systems. SAS provides an inherently more flexible infrastructure as it seamlessly supports the use of SATA or SAS disk drives. This capability enables the 1603 EBD system to support the high performance and reliability features of enterprise class SAS disk drives or the low cost, high capacity class of SATA disk drives.

The advanced SAS architecture of the RS-1603-E3-EBD eliminates the performance bottlenecks associated with a parallel SCSI interface, resulting in a significant improvement in performance, scalability and system availability. The sustained throughput and point-to-point disk connections of the system's design minimize latency, while dramatically improving system management and reliability.

The RS-1603-E3-EBD is a key building block for implementing a Tiered Storage Architecture (TSA) as it supports the use of both high performance SAS and low cost, high capacity SATA drives in a single storage system. This capability enables you to tailor the performance profile of the storage system to meet both your application and budget requirements through using, high performance SAS drives for low latency, I/O intensive online applications and SATA drives for non-mission critical, nearline archival applications.

Xyratex's industry-leading enclosure provides enterprise-class reliability, and features hot-swappable data path logic, power and cooling modules and enclosure management functions. This fully-redundant enclosure combines outstanding performance with cost-effective scalability, and is fully capable of meeting the demands of 24/7 operations.

#### Features

- Provides up to 12TB of storage in a single enclosure
- Support for SAS and SATA-II drives in multiple enclosure configurations
- Dual 4-lane 3Gb SAS ports per control module
- Delivers an Enterprise-class HA design with no single point-of-failure
- Multi-initiator support is provided for SAS devices
- StorView™ server-based management software
- FCC class A, UL, cUL & CE mark

## Technical Specification

### General Information

|                                  |                                                                                  |
|----------------------------------|----------------------------------------------------------------------------------|
| <b>Order code</b>                | RS-1603-E3-EBD-1 & RS-1603-E3-EBD-2<br>RS-1603-E3-EBD-DC-1 & RS-1603-E3-EBD-DC-2 |
| <b>Controller</b>                | Single/dual EBOD controllers                                                     |
| <b>Performance</b>               | Up to 1200 MB/s                                                                  |
| <b>External interface</b>        | 4 aggregated 3Gb SAS lanes (4x3Gb SAS lanes)<br>per port                         |
| <b>Host/expansion interface</b>  | Dual 12Gb (4x3Gb) SAS ports per controller module                                |
| <b>Error/status reporting</b>    | SES (SCSI Enclosure Services) 2.0                                                |
| <b>Max. system configuration</b> | 4 enclosures                                                                     |

### Disk Drives

|                               |                                                                                                        |
|-------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>Drives supported*</b>      | 16 per enclosure<br>(SAS) 73GB, 146GB & 300GB up to 15k RPM<br>(SATA II) (3Gb) 500GB & 750GB, 7.2k RPM |
| <b>Device types supported</b> | SAS, SATA II 3Gb Direct Dock (single port),<br>SATA II 3Gb Active-Active (dual port)                   |

### System Availability

|                                 |                                               |
|---------------------------------|-----------------------------------------------|
| <b>Hot Swappable Components</b> | PSU/Cooling modules, disk drives, I/O modules |
|---------------------------------|-----------------------------------------------|

### Dimensions

|               |                                      |
|---------------|--------------------------------------|
| <b>Height</b> | 130mm (5.12") (3 EIA Units)          |
| <b>Width</b>  | 482.6mm (19.0") (1EC Rack Compliant) |
| <b>Depth</b>  | 551mm (21.7")                        |
| <b>Weight</b> | 35Kg (77.6 lbs)                      |

### Altitude, Power and Temperatures

|                                 |                                  |
|---------------------------------|----------------------------------|
| <b>Operational Altitude</b>     | 0 to 2133m                       |
| <b>Non-operational Altitude</b> | -305 to 12,192m                  |
| <b>Voltage</b>                  | 100 to 240V AC or -40 to -58V DC |
| <b>Frequency</b>                | 48 - 62 Hz                       |
| <b>Power Consumption</b>        | 450W                             |
| <b>Temperature Range</b>        | +5 to +40°C                      |
| <b>Humidity</b>                 | 20% - 80%                        |

### Shock and Vibration

|                                  |                                          |
|----------------------------------|------------------------------------------|
| <b>Operational Shock</b>         | 5g 10ms 1/2 Sine                         |
| <b>Operational Vibration</b>     | Random 0.21grms 5-500Hz                  |
| <b>Non-operational Shock</b>     | 30g 10ms 1/2 Sine                        |
| <b>Non-operational Vibration</b> | Random 1.04 grms 2-200 Hz                |
| <b>Relocation Vibration</b>      | Swept Sine 0.3g 2-200Hz                  |
| <b>Acoustics</b>                 | Sound Power Operating: < 58 dB LpA @20°C |

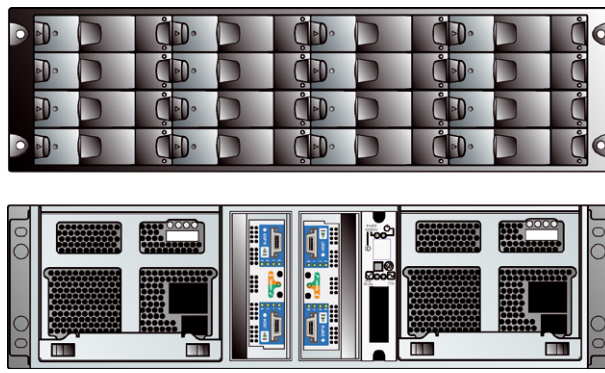
### Approvals

UL and cUL listed. Tested to UL 60950-1.  
FCC Class A.  
Certified Body Certificate & Report to IEC60950.  
CE marked to the requirements of the Low Voltage Directive 73/23/EEC and the Electromagnetic Compatibility Directive 89/336/EEC.

### Warranty Information

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

*\* Additional drive types and capacities will be qualified as new releases are made. For a full list of supported drives, please contact your account or sales manager.*



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