

# 4Gb FC & FC-SATA SBOD

## RS-1600/2-F4-SBD

Xyratex integrates the power, flexibility and reliability of Fibre Channel switching into its industry-leading 4Gb Fibre Channel enclosures, supercharging back-end performance to achieve leading edge system operation and design.

### • Innovative and Cost Effective

Following on from the very successful RS-1600-FC and RS-1602-FC family of storage systems, Xyratex presents its latest product range, the RS-1600-F4 and RS-1602-F4 family. This equally innovative and cost effective range of high performance, modular, storage systems provides a highly stable and reliable enclosure for sixteen Low Profile (1in) disk drives in only 5.25" of rack space. 16 drives in a 3U rack enclosure represents industry leading capacity in this form factor, with absolutely no compromise in cooling capability. Highly effective cooling ensures your drives will provide the best possible Mean Time Between Failure, maintaining the drive manufacturer's warranty in full effect.

The standard enclosure is designed for 24x7 operation, with fully redundant and hot-swappable data path logic, power supplies, cooling and enclosure management functions. Disk drive carriers are lockable and hot-swappable.

### • Investment Protection

A range of optional modules provides customer flexibility and investment protection. Operating to the latest industry Fibre Channel standards at 1, 2 or 4Gb, enclosures can perform a number of SBOD and JBOD loop architectures. The use of interchangeable I/O modules allows customers to use 1Gb/2Gb solutions today and upgrade to a fully featured 4Gb dual SBOD system at a later date supporting improved functionality.

Customers can now realize both high performance and ultra high capacity in a single enclosure with the introduction of SATA II (3Gb) drive support. This seamless mixing of 4Gb Fibre Channel and SATA II (3Gb) in the same enclosure is the first in the industry and allows customers to standardize on this single enclosure, protecting capital investment and maximizing system flexibility.

The following modules are available for the product; full redundancy is provided if two modules are installed.

- FC-AL Single loop 1Gb/2Gb, with DB9 or SC Optical connections.
- FC-AL Single or Dual Loop 1, 2 or 4Gb, with SFP interfaces



### Features

- Supports FC-AL 4 at 1Gb, 2Gb or 4Gb
- FC & SATA II (3Gb) tiered storage in a single enclosure
- High drive packing density (16 drives in 3U/5.25")
- Dual PSUs with Power Factor Correction & auto-ranging and a -48VDC PSU option for Telco applications
- Drive cooling provided by 4 centrifugal blowers
- Suitable for standard 19" rack or Telco style centre of gravity mounting and also available with deskside tower options
- Fault indicators and audible alarm for power, cooling, system faults, loop speed and hub configuration
- Components hot swap for maximum availability and dual redundant feature select module
- StorView™ server-based management software

# 4Gb FC & FC-SATA SBOD

## RS-1600/2-F4-SBD

### Technical Specification

#### General Information

<b>Product Code</b>	RS-1600-F4-SBD and RS-1602-F4-SBD
<b>External Interface</b>	1, 2 & 4Gb/s FC-AL external ports (4 x SFP via IO Modules Optical)
<b>Supported Hosts</b>	Single/dual active/dual independent bridge
<b>Total Capacity/Unit</b>	16 drives
<b>Expansion Chassis</b>	7 enclosures (112 drives maximum)
<b>Total Expansion Capacity*</b>	48.8TB (@400GB/drive FC) 112TB (@1TB/drive SATA II)

#### Disk Drives

<b>2Gb Drives</b>	73GB, 146GB & 300GB up to 15K RPM
<b>3Gb Drives*</b> <i>RS-1602 only</i>	250GB, 500GB, 750GB & 1TB SATA II (3Gb) 7.2k RPM
<b>4Gb Drives*</b>	73GB, 146GB & 300GB up to 15K RPM 400GB 10k RPM

<b>Interface Types</b>	Fibre Channel
<b>Max Drives per Enclosure</b>	16 hot-swappable FC drives with point-to-point connections (per enclosure)

#### System Availability

<b>Hot Swappable Components</b>	PSU/Cooling modules, disk drives, I/O modules
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<b>Dimensions</b>	(Both enclosures unless stated otherwise)
<b>Height</b>	130mm (5.12") (3 EIA Units)
<b>Width</b>	482.6mm (19.0") (1EC Rack Compliant)
<b>Depth</b>	RS-1600: 500mm (19.7") RS-1602: 551mm (21.7")
<b>Weight</b>	35Kg (77.6 lbs)

#### Altitude, Power and Temperatures

<b>Operational Altitude</b>	0 to 2133m
<b>Non-Operational Alt.</b>	-305 to 12,192m
<b>Voltage</b>	100 to 240V AC or -48V 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-Op. Shock</b>	30g 10ms 1/2 Sine
<b>Non-Op. 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: < 6.0 LwA @20°C

#### Approvals

UL and cUL listed. Tested to UL/IE/EN 60950. 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. FCC Class A EMC: EN55022/EN61000-3-2; EN61000-3-3.

#### Warranty Information

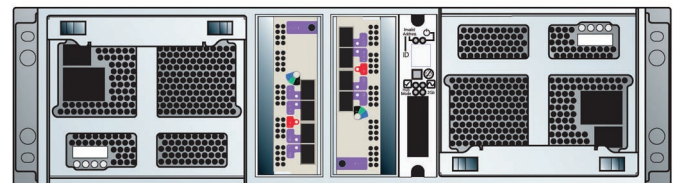
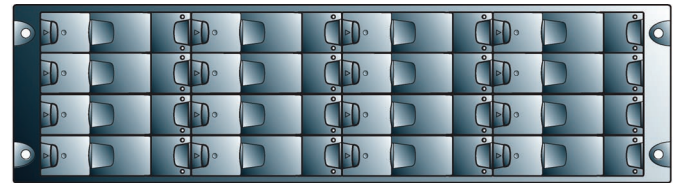
**Enclosures with drives** Up to 3 years. Please contact Xyratex for detailed warranty information.

#### Environmental Standards



**ISO 14001:** 2004 Cert No. EMS91560

\* 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.



#### USA Sales & Support

**T** +1 877 997 2839  
**T** +1 877 XYRATEx

#### UK HQ

**T** +44(0)23 9249 6000  
**F** +44(0)23 9245 3654

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