

# RR-0812-LVD-RAID

## Product Overview

The RR-0812-LVD-RAID provides performance, value and capacity in an 8 drive SCSI system with the added security of RAID protection provided by Chaparral Network Storage Inc.

This innovative storage system is part of the new RS family offered in the Salient range of storage devices. The RS family is built to the same high standards as the existing Salient range but the technological development in low profile drives allows for greater storage density. In this case, the system offers 580GB in just 2U of 19 inch rack space (based on 8 x 73GB low profile drives).

The new generation of chassis provides exceptional cooling, rotational vibration and acoustic performance characteristics.

The Chaparral JSS122 RAID controller has two Ultra 160 host channels and two Ultra 160 SCSI drive channels; integrated within the product, it provides very high speed and data protection. It has many outstanding features such as uncompromised data reliability and exceptional high input/output processing power. The close working relationship between Chaparral and Xyratex ensures an optimized system solution.

The combination of Enclosure Management and SAF-TE make a system you can rely upon. Ease of use is an important characteristic;

green and amber LEDs combined with an audible alarm allow simple isolation of disk drive, power supply, cooling or controller problems. For remote users the SAF-TE and RAID controller management can detect problems and provide detailed information on the error.

The RR-0812-LVD-RAID has a fully redundant architecture offering 2 channels of 4 drives and is very easily expandable using an additional RR-00812-LVD enclosure without a RAID module installed. There are no terminators or address range switches to set up.

The look of the enclosure is easily customized in color or plastic shapes allowing OEMs to provide a unique appearance for their solutions.

## Product Features

- FCC class B, UL cUL & CE mark
- U160 & U320 SCSI compliant
- 8 drives in a 2U form factor
- Two host attachment channels
- Two drive SCSI channels
- SAF-TE enclosure management
- 2 drive LEDs (activity and fault)
- Auto-termination & termination active LED on expansion bus
- Suitable for 19" rack mounting



- Customizable look and feel
- Enclosure fault indicators for power, cooling and system
- Single or redundant 350w power supplies. Autoranging 115/240VAC & 50/60 cycle operation
  - redundant operation
  - current Sharing
  - power factor correction
- Individual fault indicators for drives, PSU, fan & controller FRUs

## RAID Controller Features

- RAID Levels 0, 1, 0/1, 3, 4, 5, 10
- Battery backed ECC-protected disk cache
- Sustained transfer rates over 180MB/s
- Greater than 15,000 IOPS
- On-line capacity expansion allowing reconfiguration without interruptions
- OS independent, so no special software drivers required
- Drive hot-swap supported
- Array status monitoring
- On-line capacity expansion
- Spare pooling and dedicated spares; array verification
- Controller/drive hot-swap supported

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# Features

## General Description

**Product Code:** RR-0812-LVD-RAID

**Number of U160 SCSI drives supported:** 8 Per enclosure

**External interface:** VHDCI connectors

**RAID controller JSS122:** 3.5mm jack

**Device types supported:** Ultra 2 and U160 LVD SCSI drives to 15,000 rpm

**Chassis & drive carrier material:** Combination of pre-plated sheet metal, injection molded plastics & metal castings

**Hot pluggable components:** PSU, cooling module, disk drives, I/O Modules and RAID controller.

**U320 SCSI Compliant JBOD**

## Dimensions

**Height:** 2U - 85.7mm

**Width:** 447mm

**Depth:** 545mm

**Weight:** overall - 22kg; with all modules except drives - 14kg

## Altitude

**Operating:** 0 to 3,047m (0 to 10,000ft)

**Non Operating:** -305 to 12,192m (-1000 to 40,000 ft)

## Acoustics

 - at ambient 20°C

**Sound Power Operating:** Less than 6.0 B LwA

## RAID Features

**Host Interface:** Two Ultra 160 SCSI channels

**Device Interface:** Two Ultra 160 SCSI device channels

**RAID Levels Supported:** 0, 1, 0/1, 3, 4, 5, 10, JBOD

**Advanced RAID Features:** 128 Mbytes of PC-100 compatible SDRAM DIMM, ECC-protected, write-back data cache memory bus, 800 Mbytes/sec bandwidth Integrated Nickel Metal Hydride (NiMH) cache battery backup interface

## Power

**Voltage:** 100-120 or 200-240V AC (Autoranging)

**Frequency:** 47-63 Hz

**Power Consumption:** 370 VA max

**Operational currents:** 1.55A@230V, 2.8A@110V

**Inrush Current:** (25°C cold start 1 PSU) 9A @ 230 VAC

## Shock and Vibration

**Operational Shock:** 5g 10ms ½ Sine

**Operational Vibration:** 0.21 grms 5-500Hz Random

**Non-Op Shock:** 30g 10ms ½ Sine

**Non-Op vibration:** 1.04 grms 2-200Hz Random

**Relocation Vibration:** 0.3g 2-200Hz Sine

## Temperature and Humidity

	Operating (Rack Disks Only)	Non Operating	Storage	Shipping
Temperature Range	5°C to 35°C	0°C to 50°C	1°C to 60°C	-40°C to 60°C
Relative Humidity	20% to 80% non condensing	8% to 80% non condensing	5% to 80% non condensing	5% to 100% condensing but not precipitating
Max Wet Bulb	23°C	27°C	29°C	29°C

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P/N 39667-01A