

RD-1030 DAS JBOD Subsystem



High-capacity modular disk storage expansion enclosure.

SIMPLE SERVER EXPANSION

If you're running out of storage space, there's a low-cost, seamlessly integrated, direct attach storage solution that can extend the storage capacity of your server: RAVE's RD-1030. With 15 3.5" disk drives in a single 3U rackable chassis and support for mixed SAS and SATA drives in a single enclosure, this solution provides excellent flexibility to align data requirements with drive capabilities, speed, capacity, and cost to help optimize your storage environment. All in all, it's an effective solution for customers looking for compelling cost-per-gigabit server expansion.

MODULAR AND VERSATILE

The RD-1030 is the most versatile product. The modular enclosure allows it to be daisy chained for seamless scaling of disk performance and capacity. Plus, the multiple deployment options of the RD-1030 help ensure this investment is protected today and in the future.

PERC RAID CONTROLLER

Together, the RD-1030 expansion enclosure, the PERC 6/E controller, and the Dell OpenManage™ Storage Services management software help enable advanced levels of performance, security, reliability, and scalability for enterprises seeking to deploy server-centric storage. The PERC 6/E RAID controllers have a number of notable advances including:

- **Increased Performance:** Support for up to 512MB to allow quick access to data and support for RAID levels 0, 1, 5, 6, 10, 50, and 60.
- **Enhanced Ease of Use:** The Advanced Import feature allows administrators to preview configurations prior to committing to them, which provides a new level of comfort with migrations. Enclosure and drive firmware updates can be conducted while online, helping to reduce planned downtime. Smart Cache technology offers pre-tuned cache ratios for read and write operations that automate cache allocations based on the characteristics of the storage environment.
- **Superb Reliability:** Redundant path and load balancing offers failover protection and provides static load balancing and performance improvements over non-redundant systems. In addition, providing consistency checks, a battery backup unit, and revertible hot spares helps ensure that data is available when it's expected.
- **Comprehensive Management:** Dell OpenManage software provides a complete set of disk configuration and administrative utilities for both internal and external server-resident disk drives, allowing administrators to manage all storage from a single, management solution.

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RAVE RD-1030	
Features	Description
Drives and Capacity	
Hard Disk Drives	Up to fifteen (15) 3.5" SAS or SATA hot-pluggable hard disk drives
Drive Performance and Capacities	15,000 RPM SAS drives available in 73GB, 146GB, 300GB or 450GB 10,000 RPM SAS drives available in 300GB or 400GB Nearline SAS (7,200 RPM) drives available in 500GB, 750GB or 1TB 7,200 RPM SATA II drives available in 250GB, 500GB, 750GB or 1TB Energy efficient SATA II (5,400 RPM) drives available in 1TB
Maximum Capacity Per Enclosure	15TB using fifteen (15) 1TB 7.2K SATA disk drives
Expansion Capabilities	Behind dual-ported PERC RAID Controller: Expands to six (6) shelves, 90 drives Behind the PowerVault MD3000 and MD3000i: Expands to three (3) shelves, 45 drives
Host Connectivity	
Unified Mode	Direct connectivity to 15 disk drives and beyond
Split Mode – Dual Host access	Connectivity to drives 0 through 6 to one host; A separate connectivity to drives 7 through 14 to the second host
Enclosure Management Modules and RAID Levels	
Enclosure Management Modules (EMMs)	1 or 2 hot-pluggable management modules
RAID Controllers and Levels	PERC 5/E Supports RAID levels 0, 1, 5, 10, 50 PERC 6/E Supports RAID levels 0, 1, 5, 6, 10, 50, 60 PowerVault MD3000 and MD3000i: Supports RAID levels 0, 1, 5, 6, and 10 Up to 30 physical disks per group Up to 256 virtual disks
Back-Panel Connectors (per EMM)	
Host Connectivity	One x4 3GB SAS (SFF 8470)
Expansion Connectivity	One x4 3GB SAS (SFF 8470)
Service Management	One 6-pin UART mini-DIN connector
LED Indicators	
Front Panel	1 two-color LED indicator for system status, 2 single-color LED indicators for power and split mod
Hard Drive Carrier	1 single-color activity LED, 1 two-color LED status indicator per drive
EMM	3 two-color LED status indicators: one for each of the EMM SAS ports and one for the EMM status
Power Supply/Cooling Fan Module	3 LED status indicators for power supply status, power/supply/fan fault and AC status
Power Supplies (per supply)	
Wattage	478W (Maximum continuous); 550W (peak)
Maximum Heat Dissipation	1430 BTU/hour (maximum)
Input Voltage Range	100-240V rated (actual 90-26V)
Frequency Range	47-63Hz
Amperage	7.2A at 100V, 3.6A at 200V
Available Hard Drive Power (per slot)	
Supported Continuous Consumption	Up to 1.3A +12V; Up to 1.5A at +5V
Physical	
Height x Width x Depth	13.11 cm (5.16") x 44.63 cm (17.57") x 48.01 cm (18.90")
Weight	35.37 kg (78 lbs) (maximum configuration)
Environmental	
Temperature	Operating: 10° to 35°C (50° to 95°F), Storage: -40° to 65°C (-40° to 149°F)
Relative Humidity	Operating: 20% to 80% (non-condensing), Storage: 5% to 95% (non-condensing)
Altitude	Operating: -15 to 3048 m (-50 to 10,000 ft), Storage: -15 to 10,668 m (-50 to 35,000 ft)