



Dell PowerEdge RAID Controller H310

An eight-port 6Gb/s PCI Express RAID controller, the Dell PowerEdge RAID Controller (PERC) H310 offers robust data protection, seamless migration, and the flexibility to use both SATA, SAS, and solid-state drives.

Small to medium business owners can enjoy the latest RAID technology at affordable prices and low-power consumption with the Dell™ PowerEdge™ RAID Controller (PERC) H310. Ideal for file, web, database, and email servers, the PERC H310 delivers trusted Dell PERC reliability with minimal maintenance effort.

Our entry-level controller cards offer a straight-forward solution that includes essential RAID levels and uncomplicated configuration options. In addition, these cards connect to SATA and SAS hard disk drives and solid state drives, allowing for tiered storage that optimizes cost and performance. Another cost-optimizing feature is physical disk power management (Dimmer Switch™) technology, which manages power consumption for idle, unconfigured and configured drives. Dell's entry-level RAID controllers cover the spectrum of tiered storage requirements for cost-sensitive applications that require robust data protection.

Seamless migration

A unique feature of the PERC H310 is its ability to seamlessly migrate to other PERC product lines. Simply plug in a new controller to recognize and import the existing array without any reconfiguration. Plus, Dell OpenManage™ Storage Services (OMSS) provides a consistent user interface to manage any PowerEdge SATA or SAS arrays.

6Gb/s SAS performance advantage

6Gb/s SAS is designed for backward compatibility with 3Gb/s SAS and 3Gb/s SATA hard drives. Regardless of the drive speed, 6Gb/s PowerEdge RAID controllers deliver significant performance improvements in both read and write applications as compared to their 3Gb/s predecessors.

Simplified storage management

Protect your data using storage management utilities by configuring data-redundancy, assigning hot spares, and rebuilding failed physical disks. Dell OMSS provides enhanced features for configuring and monitoring a system's locally-attached RAID and non-RAID disk storage. With the Storage Management service, you can perform controller and enclosure functions for all supported RAID and non-RAID controllers and enclosures from a single graphical or command-line interface.

This intuitive interface of the Dell Lifecycle Controller is the Unified Server Configurator, which is a preinstalled configuration utility that enables storage management tasks from an embedded environment throughout the controller's lifecycle. The wizard-driven interface offers features for novice to advanced users, and the command-line interface is fully-featured and scriptable.

The PERC H310 is a low-cost, green RAID solution for high-density, entry-level servers.

Feature	PERC H310 technical specification	
Solution provided	Low-cost, green SATA+SAS RAID solution for high-density servers (1U or 2U) and workstations with the flexibility to use both SATA and SAS hard drives, solid state drives, and pass-through drive configurations	
Physical dimensions	167.6mm (6.6in) x 64.4mm (2.5in) (low profile)	
Connectors	Two x4 internal mini-SAS SFF8087	
Maximum number of physical devices	Non-RAID: 32 RAID 0: 16 per volume RAID 1: 2 per volume plus hot spare	RAID 5: 16 per volume RAID 10: 16 per volume RAID 50: 16 per volume
Host bus type	8-lane, PCI Express 2.0 compliant	
Data transfer rates	Up to 6Gb/s per port	
SAS controller	LSISAS2008	
Key RAID data protection features	RAID levels 0, 1, 5, 10, 50: Selectable logical drive as boot drive Consistency check Fast initialization for quick array setup Native command queuing Staggered spin-up for SATA drives Hot-plug support Global hot-spare support Online Capacity Expansion (OCE) Online RAID Level Migration (RLM) PowerPC 440	Automatic rebuild of hot-spare drives Auto resume during array rebuild Greater than 2TB logical drive support Soft bad block management Error recovery support DDF compliant configuration on disk S.M.A.R.T. support Patrol read for media scanning and repairing Physical disk power management (Dimmer Switch™)
RAID management	CTRL-R Dell OpenManage™ Storage Services Additional management: UEFI (HII) CEM	
Environments	Operating: 0°C to 65°C 5 to 90% non-condensing	Storage: -45°C to 105°C 5 to 90% non-condensing
PCI card type	3.3V add-in card	
PCI voltage	+12V ±10%	
LED indicators	Internal Activity/Fault per x4 port: Heartbeat	
Operating systems	Microsoft® Windows Server® 2008 R2 SP2 Red Hat® Enterprise Linux® 5.7 Red Hat® Enterprise Linux® 6.1 SUSE® Linux Enterprise Server 10 SP4 SUSE® Linux Enterprise Server 11 SP2 Virtualization options: VMware® ESX/ESXi 4.1 VMware® 5.0 UL	
Brackets	Full-height, low-profile	
Warranty	Up to five-year warranty available for controller (up to the length of purchased system warranty)	

Global services and support

Dell Services can help reduce IT complexity, lower costs and eliminate inefficiencies by making IT and business solutions work harder for you. The Dell Services team takes a holistic view of your needs, and designs solutions for your environment and business objectives while leveraging proven delivery methods, local talent and in-depth domain knowledge for the lowest total cost of ownership.

Learn more at Dell.com/PERC

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