



Dell PowerEdge RAID Controller H810

The Dell™ PowerEdge™ RAID Controller (PERC) H810 is an eight-port external SATA and SAS solution for performance-hungry external storage environments using up to 192 SAS or SATA hard-disk drives or solid-state drives.

As storage demands expand and processing loads grow, it becomes increasingly more difficult for administrators to achieve maximum performance and scale from their applications. The newest line of Dell PERC cards, built on the dual-core PowerPC RAID-on-chip (ROC), offer unmatched I/O performance for database applications and streaming digital media environments. The PERC H810, with eight external ports, delivers two PowerPC processor cores and a 72-bit DDR3 interface that drives 1 GB cache memory. This controller is ideal for configuring external storage enclosures with high-performance SAS hard drives and application-accelerating solid state drives. Users can deploy the PERC H810 in existing hard drive-based server environments for significant performance gains. Or for users implementing hybrid server platforms based on solid state storage, the PERC H810 exploits the potential of SSDs for unsurpassed performance and enterprise-class reliability. The PERC H810 offers external JBOD expansion using up to 192 3 Gb/s and 6 Gb/s and SAS hard drives or SSDs.

Support for advanced software options

The Dell family of 6Gb/s PERCs are designed to support advanced software options for Dell PowerEdge servers with enhanced performance and data protection capabilities. These new software options allow end users to address key business challenges while helping to deliver a higher return on their IT investments. CacheCade™ software and Dell FastPath™ software boost transactional I/O performance of solid state disk configurations, while SafeStore and Recovery software enable enhanced data protection.

Enterprise data protection

Standard support for the most popular RAID levels and accessories, including RAID 5, RAID 6 and NVCache, further strengthen the data protection capabilities of the PERC H810. NVCache technology allows protection of the cache for a nearly unlimited period of time.

Sophisticated DAS topologies

The PERC H810 can easily be connected and deployed within new 6Gb/s SAS Switch environments to further simplify direct attached storage (DAS) scale management and reduce single point of failures common in expanded DAS environments. The PERC H810 is unique in that it offers higher levels of connectivity, simplified management

and features and benefits typically available only in higher-end Storage Network configurations.

Intuitive RAID management utility

Protect your data using storage management utilities by configuring data-redundancy, assigning hot spares, and rebuilding failed physical disks. Dell OpenManage™ Storage Services (OMSS) provides the essential software tools to efficiently manage PowerEdge RAID Controller products, whether deployed in an enterprise or small business. Dell offers a collection of applications and tools including a pre-boot setup utility and a full spectrum of online RAID management utilities to easily configure, monitor, and manage RAID and JBOD volumes locally or over the LAN network. 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 H810 offers high server RAID performance for database and multimedia applications.

Feature	PERC H810 technical specification	
Solution provided	Eight-port external SATA+SAS solution for performance-hungry external storage environments	
Physical dimensions	167.6mm (6.6in) x 64.4mm (2.5in) (low profile)	
Connectors	Two mini-SAS SFF8088 external connectors	
Host bus type	8-lane, PCI Express 2.0 compliant	
Data transfer rates	Up to 6Gb/s per port	
SAS controller	Two dual-core PowerPC processors	
Cache size	1GB	
Key RAID data protection features	RAID levels 0, 1, 5, and 6 RAID spans 10, 50, and 60 Online Capacity Expansion (OCE) Online RAID Level Migration (RLM) Auto-resume on rebuild or reconstruction Single controller multipathing (failover) Load balancing Configurable stripe size up to 1MB Fast initialization for quick array setup Check Consistency for background data integrity SSD support	SED drive support Physical disk power management (Dimmer Switch™) Patrol read for media scanning and repairing 64 logical drive support Up to 64TB LUN support DDF compliant configuration on disk S.M.A.R.T. support Global and dedicated hot-spare with Revertible Hot-Spare support <ul style="list-style-type: none"> • Automatic rebuild of hot-spare drives • Enclosure affinity
RAID management	CTRL-R Dell OpenManage™ Storage Services Additional management: UEFI (HII) CEM	
Operating temperature	Maximum ambient: 60°C	
Operating voltage	+3.3V	
Optional SSD optimization	CacheCade™ software: provides boost in READs from SSD cache Dell FastPath™ software: delivers high IOPs performance on SSD arrays	
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	
Warranty	Up to five-year warranty available for controller (up to the length of purchased system warranty) Three-year warranty for battery	

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

© 2012 Dell Inc. All rights reserved. Dell, the DELL logo, the DELL badge, PowerEdge, and OpenManage are trademarks of Dell Inc. Other trademarks and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Dell disclaims proprietary interest in the marks and names of others. This document is for informational purposes only. Dell reserves the right to make changes without further notice to any products herein. The content provided is as is and without express or implied warranties of any kind.

