# Dell PowerEdge RAID Controller H710P

An eight-port 6Gb/s PCI Express RAID controller, the Dell PowerEdge RAID Controller (PERC) H710P supports up to thirty-two 3Gb/s and 6Gb/s SATA or SAS 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 from their applications. The newest line of Dell™ PowerEdge™ RAID Controller cards, built on the LSISA2208 dual-core PowerPC RAID-on-Chip (ROC), offer unmatched I/O performance for database applications and streaming digital media environments.

The PowerEdge RAID Controller (PERC) H710P, with eight internal ports, delivers two PowerPC processor cores and a 72-bit DDR3 interface that drives 1 GB cache memory. You can deploy the PERC H710P in hard-drive-based server environments for significant performance gains. If you are implementing hybrid server platforms based on solid-state storage, these next-generation PERCs exploit the potential of solid-state drives (SSDs) for unsurpassed performance and enterprise-class reliability.

## Advanced software options

The Dell family of 6Gb/s PowerEdge RAID Controllers is designed to support advanced software options for the Dell PowerEdge server family with enhanced performance and data protection capabilities. These new software options can help you to address key business challenges while helping to deliver a higher return on  your IT investments. The PERC CacheCade™ software and Dell's Cut Through I/O (CTIO) feature boost transactional I/O performance of both rotational hard-drive and SSD configurations.

Dell's FastPath™ software feature enables the use of the second core on our PowerPC chip to accelerate write-through I/O, which significantly enhances SSD performance.

## Enterprise data protection

Standard support for the most popular RAID levels and accessories, including RAID 5, RAID 6, RAID 50, RAID 60 and NVCache, further strengthen the data-protection capabilities of the PERC H710P. Dell's NVCache technology backs up the data to non-volatile storage in a power-loss event, and can store it safely for a nearly unlimited period of time.

## Intuitive RAID management utility

Dell OpenManage™ Storage Services (OMSS) provides the essential tools to efficiently manage PERC 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. This suite of applications allow administrators to adjust SAS or SATA topology views from the system host, controller and disk enclosure down to the logical and physical drive level. Extending to enterprise deployments, these tools can scale to easily configure, monitor and manage RAID and JBOD volumes locally or over the LAN network.

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| Feature | PERC H710P technical specification |
|---|---|
| **Solution provided** | Eight-port internal SATA+SAS solution supporting up to 32 hard disk drives (HDDs) and solid-state drives (SSDs) |
| **Physical dimensions** | 167.6mm (6.6in) x 64.4mm (2.5in) (MD2 low profile) |
| **Connectors** | Two internal mini-SAS SFF8088 |
| **Device support** | Up to 32 (SAS, SATA) |
| **Host bus type** | 8-lane, PCI Express 2.0 compliant |
| **Data transfer rates** | Up to 6Gb/s per port |
| **SAS controller** | LSISAS2208 dual-core PowerPC ROC |
| **Cache size** | 1GB |
| **Key RAID data protection features** | RAID levels 0, 1, 5, 6<br>RAID spans 10, 50, 60<br>Online Capacity Expansion (OCE)<br>Online RAID Level Migration (RLM)<br>Auto resume after power loss during array rebuild or reconstruction/RLM<br>Consistency check for background data integrity<br>Physical disk power management (Dimmer Switch™)<br>SED drive support<br><br>Load balancing<br>Fast initialization for quick array setup<br>Configurable stripe size up to 1MB<br>SSD support<br>Patrol read for media scanning and repairing<br>Up to 64 logical drive and 64TB LUN support<br>DDF compliant Configuration on Disk (COD)<br>S.M.A.R.T. support<br>Global and dedicated hot spare with revertible hot-spare support: automatic rebuild, enclosure affinity, emergency SATA |
| **RAID management** | CTRL-R<br>Dell OpenManage™ Storage Services<br><br>**Additional management:**<br>UEFI (HII)<br>CEM |
| **Operating temperature** | Maximum ambient temperature: 60°C |
| **Operating voltage** | +3.3V |
| **Optional SSD optimization** | CacheCade™ software: provides boost in READs from SSD cache<br>Dell FastPath™ software: delivers high IOPs performance on SSD arrays |
| **Operating systems** | Microsoft® Windows Server® 2008 R2 SP2<br>Red Hat® Enterprise Linux® 5.7<br>Red Hat® Enterprise Linux® 6.1<br>SUSE® Linux Enterprise Server 10 SP4<br>SUSE® Linux Enterprise Server 11 SP2<br><br>**Virtualization options:**<br>VMware® ESX/ESXi 4.1<br>VMware® 5.0 UL |
| **Warranty** | Up to five-year warranty available for controller (up to the length of purchased system warranty)<br>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