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 straightforward 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.
<table>
<thead>
<tr>
<th>Feature</th>
<th>PERC H310 technical specification</th>
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<td><strong>Solution provided</strong></td>
<td>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</td>
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<td><strong>Physical dimensions</strong></td>
<td>167.6mm (6.6in) x 64.4mm (2.5in) (low profile)</td>
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<td><strong>Connectors</strong></td>
<td>Two x4 internal mini-SAS SFF8087</td>
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| **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                                                                                          |
| **RAID management**         | CTRL-R  
Dell OpenManage™ Storage Services                                                                 |
| **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.