Dell PowerEdge RAID Controller H730

Eight-port 12Gbps PCI Express (PCIe) RAID controller supporting 3Gbps, 6Gbps and 12Gbps SAS or SATA hard-disk 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 LSI® SAS 3108 dual-core PowerPC® RAID-on-Chip (ROC), offers unmatched I/O performance for database applications and streaming digital media environments.

The PowerEdge RAID Controller (PERC) H730, with eight internal ports, delivers two PowerPC processor cores and a 72-bit DDR3 interface that drives 1GB non-volatile cache memory. You can deploy the PERC H730 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.

Enterprise data protection
Standard support for the most popular RAID levels, including RAID 5, RAID 6, RAID 50, RAID 60 and NV Cache, further strengthen the data-protection capabilities of the PERC H730. Dell's NV Cache technology backs up the data to non-volatile memory in a power-loss event, and can store it safely for a nearly unlimited period of time. The H730 also supports non-RAID mode (pass-through) for applications managing storage independently.

Intuitive RAID management
Managing the PERC H730 is easy using the integrated Dell Remote Access Controller (iDRAC) with Lifecycle Controller. Without having to deploy an agent, IT admins can configure, deploy, update and monitor the PERC H730, via the GUI or through Dell's CLI (known as RACADM). Additionally, Dell's one-to-many OpenManage Essentials console allows the user to perform storage operations across multiple servers, including the RAID controllers as well as the physical disks in the PowerEdge system and external enclosures.

Benefits include:

- iDRAC automatically creates and executes jobs for each storage configuration operation
- Customer can reboot the host OS automatically or schedule reboot for a later date.
- PERC H730 supports real-time RAID monitoring and hardware inventory.

iDRAC incorporates Dell OpenManage™ Storage Services (OMSS) which provides the tools to efficiently manage PERC products, including a pre-boot setup utility and a full spectrum of online RAID management utilities. This suite of applications allows administrators to adjust SAS or SATA topology views from the system host 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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- Eight internal ports
- 72-bit DDR3 interface drives 1GB non-volatile cache memory
- Unsurpassed performance and enterprise-class reliability

Feature	PowerEdge RAID Controller H730 technical specification
Solution provided	Value/performance RAID and non-RAID (pass-through) solution for high-density servers (1U or 2U) with the flexibility to use both SATA and SAS HDDs, SSDs, and pass-through drive configurations
Physical dimensions	167.6 mm (6.6 in) x 64.4 mm (2.5 in) (MD2 low profile)
Connectors	Two internal HD Mini-SAS SFF8643
Device support	Up to 255 (SAS, SATA)
Host bus type	8-lane, PCI Express 3.0 compliant
Data transfer rates	Up to 12Gbps per port
SAS controller	LSI SAS 3108 1200MT/s PowerPC 476 dual-core 12Gbps ROC
Cache memory	1GB 1333MT/s DDR3 SDRAM
Key RAID and data protection features	RAID levels 0, 1, 5, 6 RAID spans 10, 50, 60 Non-RAID (Pass-through) Online Capacity Expansion (OCE) Online RAID Level Migration (RLM) Auto resume after power loss during array rebuild or reconstruction/RLM Check Consistency for background data integrity Physical disk power management (Dimmer Switch™) 4K native sector support Workload profiles Support for TRIM/UNMAP Commands for SAS/SATA SSDs NVRAM "Wipe" feature- protects proprietary data once card is decommissioned SED drive support Load balancing Fast initialization for quick array setup Configurable stripe size up to 1MB SSD support Patrol read for media scanning and repairing DDF compliant Configuration on Disk (COD) S.M.A.R.T. support Global and dedicated hot spare with revertible hot-spare support: automatic rebuild, enclosure affinity, emergency SATA
RAID management	CTRL-R Dell OpenManage Storage Services **Additional management:** UEFI (HII) CEM
Operating temperature	Maximum ambient temperature: 60°C
Operating voltage	+3.3V
Optional SSD optimization	Dell FastPath™ firmware feature: delivers high IOPs performance on SSD arrays
Operating systems	Microsoft® Windows Server® 2008 R2 SP1 Microsoft Windows Server 2012 Microsoft Windows Server 2012 R1 & R2 Red Hat® Enterprise Linux® 5.8 Red Hat Enterprise Linux 6.5 SUSE® Linux Enterprise Server 10 SP4 SUSE Linux Enterprise Server 11 SP3 **Virtualization options:** VMware® ESXi 5.1 VMware 6.0
Warranty	Up to five-year warranty available for controller (up to the length of purchased system warranty) Three-year warranty for battery

End-to-end technology solutions

Reduce IT complexity, lower costs and eliminate inefficiencies by making IT and business solutions work harder for you. You can count on Dell for end-to-end solutions to maximize your performance and uptime. A proven leader in Servers, Storage and Networking, Dell Enterprise Solutions and Services deliver innovation at any scale. And if you're looking to preserve cash or increase operational efficiency, Dell Financial Services™ has a wide range of options to make technology acquisition easy and affordable. Contact your Dell Sales Representative for more information.**

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