



# Dell PowerEdge RAID Controller H730P

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), offer unmatched I/O performance for database applications and streaming digital media environments.

The PowerEdge RAID Controller (PERC) H730P, with eight internal ports, delivers two PowerPC processor cores and a 72-bit DDR3 interface that drives 2GB non-volatile cache memory. Deploy the PERC H730P in hard-drive-based server environments for significant performance gains. To implement 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 and accessories, including RAID 5, RAID 6, RAID 50, RAID 60 and NV Cache, further strengthen the data protection capabilities of the PERC H730P. 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.

## Intuitive RAID management

Managing the PERC H730P 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 H730P via the GUI or Dell's CLI (known as RACADM). Additionally, Dell's one-to-many OpenManage Essentials console allows a user to perform storage operations across multiple servers, including RAID controllers as well as 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 H730P supports real-time RAID monitoring and hardware inventory.

iDRAC incorporates Dell OpenManage™ Storage Services (OMSS) to provide 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.

# PowerEdge RAID Controller H730P

- Eight internal ports
- 72-bit DDR3 interface drives 2GB non-volatile cache memory
- Unsurpassed performance and enterprise-class reliability

Feature         PowerEdge RAID Controller H730P technical specification           Solution provided         (Eight-port internal SATA+SAS solution supporting 3Gbps, 6Gbps and 12Gbps SAS/SATA hard disk drives (H3Ds) and solid-state drives (SSDs)           Physical dimensions         167.6 mm (6.6 in) x 64.4 mm (2.5 in) [MD2 low profile)           Connectors         Two internal B1D Mini-SAS \$F18E43           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         2GB 1866MT/s DDR3 SDRAM           RAID levels 0.1, 5, 6         RAID spans 10, 50, 60           Non-RAID (pass - through)         RAID levels (pass - through)           Autor estume after power loss during array rebuild or reconstruction/RLM         Check Consistency for background data integrity Physical disk power management (Dimmer Switch-IW)           Key RAID and data protection features         RESTORMENT (Pass diprofile (M1)MAP Commands for SAS/SATA SSDs           Winkload profile (M1)MAP Commands for SAS/SATA SSDs           NYRAM "Wiley feature protects proprietary data once card is decommissioned SED drive support Load balancing Pass for pass		
HiDDs) and solid-state drives (SSDs)  Physical dimensions 167.6 mm (6.6 in) x 64.4 mm (2.5 in) (MD2 low profile)  Connectors Two internal HD Mini-SAS SFR8643  Device support Up to 255 (SAS, SATA)  Host bus type 8-lane, PCI Express 3.0 compliant  Data transfer rates Up to 12 (DSps per port)  SAS controller LSI SAS 3108 1200MT/s PowerPC 476 dual-core 12 Gbps ROC  Cache memory 26B 1866MT/s DDR3 SDRAM  RAID levels 0, 1.5, 6 RAID spans 10, 50, 60 RAID (pass-through)  Online Capacity Expansion (OCE)  Online RAID Level Migration (RLM)  Autor resume after power loss during array rebuild or reconstruction/RLM  Check Consistency for background data integrity  Physical disk power management (Dimmer Switch***)  Workload profile  Workload profile  SED drive support  Load balancing Fast initialization for quick array setup  Configurable stripe size up to 1 MB  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  CTRL-R  Dell OpenManage Storage Services  Additional management:  UEF1 (HII)  CEM  Operating temperature  Operating voltage +3.3V  Optional SSD optimization  Dell FastPath** firmware feature: delivers high IOPs performance on SSD arrays  Microsoft Windows Server 2012 Rs R2  Red Hat Enterprise Linux 6.5  SUSE* Linux Enterprise Server 10 SP4  SUSE* Linux Enterprise Server 10 SP4  SUSE* Linux Enterprise Server 10 SP4  SUSE* Linux Enterprise Linux 6.5  SUSE* Linux Enterprise Server 10 SP4  SUSE* Linux Enterprise Server 10 SP4  SUSE* Linux Enterprise Linux 6.5  SUSE* Linux Enterprise Server 10 SP4	Feature	PowerEdge RAID Controller H730P technical specification
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  2GB 1866MT/s DDR3 SDRAM  RAID levels 0, 1.5, 6 RAID spans 10, 50, 60 Non-RAID (pass-through) Online Capacity Expansion (OCE) Online RAID Level Ripgration (RLM) Auto resume after power loss during array rebuild or reconstruction/RLM Check Consistency for background data integrity Physical disk power management (Dimmer Switch™) Workload profiles  Key RAID and data protection features  Key RAID and data protection featu	Solution provided	
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Data transfer rates         Up to 12Gbps per port           SAS controller         LSI SAS 3108 1200MT/s PowerPC 476 dual-core 12Gbps ROC           Cache memory         2GB 1866MT/s DDR3 SDRAM           RAID levels 0, 1, 5, 6 RAID spans 10, 50, 60 Non-RAID (pass-through) Online Capacity Expansion (OCE) Online RAID Level Migration (RLM) Autor 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           Key RAID and data protection features         Workload profiles Support for TRIM/UNMAP Commands for SAS/SATA SSDs NYRAM Wipe freature protects proprietary data once card is decommissioned SSED drive support Load balancing Fast initialization for quick array setup Configurable stripe size up to 1MB SSD support Patrol read from redia scanning and repairing Discourable stripe size up to 1MB SSD support Goldal and pedicated 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	Device support	Up to 255 (SAS, SATA)
SAS controller  LSI SAS 3108 1200MT/s PowerPC 476 dual-core 12Gbps ROC  Cache memory  RAID levels 0, 1, 5, 6 RAID spans 10, 50, 60 RAID spans 10, 50, 60 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 Vorkload 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) SMA-R.T. support Global and dedicated hot spare with revertible hot-spare support: automatic rebuild, enclosure affinity, emergency SATA  CTR_R Dell OpenManage Storage Services Additional management: UEFI (HII) CEM  Operating temperature  Maximum ambient temperature: 60°C  Operating systems  Alicrosoft* Windows Server* 2008 R2 SP1 Microsoft Windows Server* 2012 R1 & R2 Red Hat* Enterprise Linux* 6.5 SUSE** Linux Enterprise Server 10 SP4 SUSE Linux Enterprise Server 10 SP	Host bus type	8-lane, PCI Express 3.0 compliant
A CTEL-R  RAID management  Cache memory  2GB 1866MT/s DDR3 SDRAM  RAID levels 0, 1, 5, 6 RAID spans 10, 9, 00, 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/UNIMAP 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  CTEL-R Dell OpenManage Storage Services Additional management: UEFI (Hill) CEM  Operating temperature  Maximum ambient temperature: 60°C  Operating voltage  4.3.3V  Optional SSD optimization  Dell FastPath™ firmware feature: delivers high IOPs performance on SSD arrays  Microsoft Windows Server "2008 R2 SP1 Microsoft Windows Server" 2008 R2 SP1 Microsoft Windows Server 2012 R1 & R2 Red Hat* Enterprise Linux €, S SUSE** Linux Enterprise Server 10 SP4 SUSE** Linux Ente	Data transfer rates	Up to 12Gbps per port
RAID levels 0, 1, 5, 6 RAID spans 10, 50, 60 Non-RAID (pass-through) Online Capacity Expansion (OCE) Online RAID Levels 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  CTRL-R Dell OpenManage Storage Services Additional management: UEFI (HIII) 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  Microsoft® Windows Server 2012 R1 & R2 Red Hat® Enterprise Linux 6.5 SUSE® Linux Enterprise Server 10 SP4 SUSE Linux Enterprise Server 11 SP3  Warranty  Up to five-year warranty available for controller (up to the length of purchased system warranty)	SAS controller	LSI SAS 3108 1200MT/s PowerPC 476 dual-core 12Gbps ROC
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RAID managementDell OpenManage Storage Services Additional management: UEFI (HII) CEMOperating temperatureMaximum ambient temperature: 60°COperating voltage+3.3VOptional SSD optimizationDell FastPath™ firmware feature: delivers high IOPs performance on SSD arraysMicrosoft® Windows Server® 2008 R2 SP1 Microsoft Windows Server 2012 Microsoft Windows Server 2012 R1 & R2 Microsoft Windows Server 2012 R2 R2 Microsoft Windows Server 2012 R3 R2 Microsoft Windows Server 2012 R3 R2 Microsoft Windows Server 2012 R3 R3 Virtualization options: VMware® ESXi 5.1 VMware 6.0Operating systemsWarranty Up to five-year warranty available for controller (up to the length of purchased system warranty)		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,
Optional SSD optimization  Dell FastPath™ firmware feature: delivers high IOPs performance on SSD arrays  Microsoft® Windows Server® 2008 R2 SP1 Microsoft Windows Server 2012 Microsoft	RAID management	Dell OpenManage Storage Services  Additional management:  UEFI (HII)
Optional SSD optimization       Dell FastPath™ firmware feature: delivers high IOPs performance on SSD arrays         Microsoft® Windows Server® 2008 R2 SP1 Microsoft Windows Server 2012 Microsoft Windows Server 2012 R1 & R2 Micros	Operating temperature	Maximum ambient temperature: 60°C
Microsoft® Windows Server® 2008 R2 SP1 Microsoft Windows Server 2012 Microsoft Windows Server 2012 R1 & R2 Wirtualization options: VMware® ESXi 5.1 VMware 6.0 SUSE® Linux Enterprise Server 10 SP4 SUSE Linux Enterprise Server 11 SP3  Warranty Up to five-year warranty available for controller (up to the length of purchased system warranty)	Operating voltage	+3.3V
Operating systems  Microsoft Windows Server 2012 Microsoft Windows Server 2012 R1 & R2 Microsoft Windows Server 2012 R1 & R2 Microsoft Windows Server 2012 R1 & R2 Morrosoft Windows Server 2012 R1 & R2 Windows Server 2012 Wirtualization options: VMware® ESXi 5.1 VMware 6.0  VMware 6.0  Warranty  Up to five-year warranty available for controller (up to the length of purchased system warranty)	Optional SSD optimization	<u> </u>
Warranty Up to five-year warranty available for controller (up to the length of purchased system warranty)	Operating systems	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  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)

# 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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