



Dell PowerEdge R840 Server Datasheet



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OVERVIEW

Designed to drive faster insights, the PowerEdge R840 delivers four-socket performance in a dense 2U design. Power your business-critical workloads with up to 24 direct-attached NVMe drives.

Figure 1. Dell PowerEdge R840 Server



FEATURES

Maximize performance for demanding workloads

The R840 delivers consistent, high performance results for data-intensive applications and data analytic workloads. With powerful 2nd Generation Intel® Xeon® Scalable processors and up to 112 cores, the R840 can quickly turn analytics into insights to drive your business forward faster. Create an optimal configuration of NVMe, SSD, HDD and GPU resources to address your most demanding workloads - all in a 2U chassis.

- Scale capacity and performance with up to 26 2.5" HDDs and SSDs, 62% more than the previous generation.
- Accelerate applications with up to 2 double-width GPUs or up to 2 FPGAs.
- Speed data transfers with a fully integrated ultra path interconnect across all four sockets.
- Eliminate bottlenecks with up to 48 DIMMs, including up to 24 DCPMMs or 12 NVDIMMs.

Automate everyday tasks with Dell EMC OpenManage

The Dell EMC OpenManage™ portfolio helps deliver peak efficiency for PowerEdge server customers, delivering intelligent, automated management of routine tasks. Combined with unique agent-free

management capabilities, the R840 is easy to manage, and by doing routine work automatically, you can free up time for higher-value projects.

- Unify monitoring and management of your IT infrastructure with OpenManage Enterprise.
- Utilize a variety of OpenManage integrations and connections to take advantage of your existing IT management platform.
- Take advantage of QuickSync 2 capabilities and gain access to your servers easily through your phone or tablet.

Safeguard your data center with built-in security

Every PowerEdge server is made with a cyber-resilient architecture, delivering security into all parts of a server's life cycle. The R840 uses these new security features so you can reliably and securely deliver the right data to where your customers are, no matter where they are. Dell EMC considers each part of system security, from design to end of life, to ensure trust and deliver worry-free systems.

- Rely on a secure component supply chain to ensure protection from factory to the data center.
- Maintain data safety with cryptographically signed firmware packages and Secure Boot.
- Prevent unauthorized or malicious change with Server Lockdown.
- Wipe all data from storage media including hard drives, SSDs and system memory quickly and securely with System Erase.

SPECIFICATION

Specification	Dell PowerEdge R840 Server
Processor	Up to four 2nd Generation Intel® Xeon® Scalable processors, up to 28 cores each
Memory	48 DDR4 DIMM slots, Supports RDIMM /LRDIMM, up to 2933MT/s, 6TB max

	<p>Up to 12 NVDIMM, 384GB Max</p> <p>Up to 24 Intel® Optane™ DC persistent memory DCPMM, max 12.28TB, (15.36TB max with DCPMM and LRDIMM)</p> <p>Supports registered ECC DDR4 DIMMs only</p>
Storage controllers	<p>Internal Controllers: PERC H730P, H740P, H330 Software RAID (SWRAID) S140</p> <p>Boot Optimized Storage Subsystem: HWRAID 2 x M.2 SSDs 240GB or 480GB</p> <p>External PERC (RAID): H840</p> <p>12Gbps SAS HBAs (non-RAID): External-12Gbps SAS HBA (non-RAID), Internal- HBA330 (non-RAID)</p>
Drive bays	<p>Front drive bays: Up to 8 x 2.5" SAS SATA (HDDs/SSDs) max 61.44TB, or up to 24 x 2.5" SAS/SATA (HDDs/SSDs) with up to 12 NVMe PCIe SSDs max 184.32TB, or up to 24 NVMe PCIe SSDs max 153TB</p> <p>Rear drive bays: Up to 2 x 2.5" SAS/SATA (HDDs/SSDs), max 15.36TB</p>
Power supplies	<p>Gold:1100W - 48VDC, Platinum: 750W, 750W 240VDC, 1100W, 1100W 240VDC 1600W, 2000W, 2400W</p> <p>Titanium: 750W</p> <p>Hot plug power supplies with full redundancy option</p> <p>6 hot plugs fans with N +1 redundancy</p>
Dimensions	<p>Form factor: Rack (2U) Height: 86.8mm (3.4")</p> <p>Width*: 434.0mm (17.08")</p> <p>Depth*: 835.9mm (32.9")</p>

	<p>Weight: 36.6kg (80.7lbs.)</p> <p>*Dimensions do not include bezel, brackets or PSU handles</p>
Embedded management	<p>iDRAC9</p> <p>iDRAC Direct</p> <p>iDRAC RESTful API with Redfish</p> <p>Quick Sync 2 BLE/wireless</p>
Bezel	Optional LCD bezel or security bezel
OpenManage™ Software	<p>OpenManage Enterprise</p> <p>OpenManage Essentials</p> <p>OpenManage Mobile</p> <p>OpenManage Power Center</p>
Integrations and connections	<p>Integrations: Microsoft® System Center,</p> <p>VMware® vCenter™,</p> <p>BMC Truesight ®,</p> <p>Red Hat® Ansible® Modules</p> <p>Connections: Nagios® Core & Nagios® XI,</p> <p>Microfocus Operations Manager I,</p> <p>IBM Tivoli Netcool/OMNibus</p>
Tools	<p>Dell EMC Repository Manager</p> <p>Dell EMC Update Package</p> <p>Dell EMC System Update</p> <p>Dell EMC Server Update Utility</p>

	iDRAC Service Module OpenManage Server Administrator OpenManage Storage Services
Security	TPM 1.2/2.0, TCM 2.0 optional Cryptographically signed firmware Secure Boot Secure Boot System Lockdown (requires OpenManage Enterprise) Silicon Root of Trust Secure Erase
I/O & Ports	Network Daughter Card Options 4 x 1GbE, 4 x 10GbE, 2 x 10GbE+2 x 1GbE, or 2 x 25GbE Front ports: 1 x Dedicated iDRAC Direct Micro USB, 1 x USB 2.0, 1 x VGA. (Optional 1 x USB 3.0 only offered on the 8-drive configuration) Rear ports: 1 x Dedicated iDRAC port, 1 x Serial, 2 x USB 3.0, 1 x VGA Internal port: 1 x USB 3.0 Video card: 2 x VGA PCIe: Up to 6 x Gen3 slots, (4x16 slots or 2x16 + 4x8 slots)
Accelerator Options	Up to 2 doublewidth GPUs or up to 2 full-height FPGAs
Supported operating systems	Canonical® Ubuntu® Server LTS

	<p>Citrix® Hypervisor</p> <p>Microsoft Windows Server® LTSC with Hyper-V</p> <p>Red Hat® Enterprise Linux</p> <p>Oracle® Linux</p> <p>SUSE® Linux Enterprise Server</p> <p>VMware® ESXi</p>
OEM-ready version available	From bezel to BIOS to packaging, your servers can look and feel as if they were designed and built by you.
Recommended support	<p>Dell ProSupport Plus for critical systems or Dell ProSupport for premium hardware and software support for your PowerEdge solution. Consulting and deployment offerings are also available. Contact your Dell representative today for more information. Availability and terms of Dell Services vary by region.</p>

ORDERING INFORMATION

Configured Models

[Dell PowerEdge R840 5115*2/8G DDR4/2*600G SAS 2.5 10k/H330/DVD/4*1GE/2*750W/2.5-8 Server](#)

[Dell PowerEdge R840 5117*2/8G DDR4/2*600G SAS 2.5 10k/H330/DVD/4*1GE/2*750W/2.5-8 Server](#)

[Dell PowerEdge R840 5118*2/8G DDR4/2*600G SAS 2.5 10k/H330/DVD/4*1GE/2*750W/2.5-8 Server](#)

[Dell PowerEdge R840 5120*2/8G DDR4/2*600G SAS 2.5 10k/H330/DVD/4*1GE/2*750W/2.5-8 Server](#)

[Dell R840 5215*2/2*8G DDR4/2*600G SAS 2.5 10k/H330/DVD/4*1GE/2*750W/2.5-8](#)

[Dell R840 5217*2/2*8G DDR4/2*600G SAS 2.5 10k/H330/DVD/4*1GE/2*750W/2.5-8](#)

[Dell R840 5218*2/2*8G DDR4/2*600G SAS 2.5 10k/H330/DVD/4*1GE/2*750W/2.5-8](#)

[Dell R840 5220*2/2*8G DDR4/2*600G SAS 2.5 10k/H330/DVD/4*1GE/2*1100W/2.5-8](#)

[Dell R840 6230*2/2*8G DDR4/2*600G SAS 2.5 10k/H330/DVD/4*1GE/2*1100W/2.5-8](#)

WHERE TO BUY

Want to buy this series of products? please contact:

- Tel: +1-626-239-8066 (USA) +852-3050-1066 / +852-3174-6166
- Fax: +852-3050-1066 (Hong Kong)
- Email: sales@router-switch.com (Sales Inquiries)

Or visit: [Dell PowerEdge R840 Server](#)

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SOURCES

https://i.dell.com/sites/csdocuments/Shared-Content_data-Sheets_Documents/en/poweredge-r840-spec-sheet.pdf