



# POWEREDGE R940xa

## Extreme acceleration for Artificial Intelligence and Machine Learning

Rapidly transform data insights into business outcomes with the PowerEdge R940xa. The R940xa accelerates applications with powerful four-socket performance in a scalable 4U design.

### Accelerate application performance

The PowerEdge R940xa drives GPU database acceleration to deliver real-time decisions for compute-intensive applications. By combining four CPUs with four GPUs, the R940xa delivers consistent high performance for demanding applications. The R940xa allows you to dynamically scale capacity and performance as your business-critical workloads evolve including:

- Maximizing performance with 2<sup>nd</sup> Generation Intel® Xeon® Scalable processors, up to 112 cores.
- Choosing up to 4 double-width GPUs or up to 4 double-width or 8 single-width FPGAs for application acceleration.
- Supporting large data sets with up to 48 DIMMs (24 of which can be DCPMMs) and up to 15.36TB of memory.
- Scaling on-premise capacity with up to 32 x 2.5" HDDs/SSDs and up to 4 direct-attached NVMe drives.
- Expanding quickly with up to 12 PCIe slots for external device connections.

### Streamline operations with Dell EMC OpenManage

The Dell EMC OpenManage™ portfolio helps simplify IT operations across your data center, delivering intelligent, automated management of routine tasks. Combined with unique agent-free management capabilities, the R940xa is simply managed, freeing up time for high profile projects.

- 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.

### Deliver comprehensive data center protection 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 R940xa 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.

### PowerEdge R940xa

Combines four CPUs with four GPUs in a powerful 1:1 ratio to drive database acceleration

# PowerEdge R940xa

| Features                     | Technical Specification   |   |
|------------------------------|---|---|
| Processor                    | Up to four 2 <sup>nd</sup> Generation Intel® Xeon® Scalable processors, up to 28 cores each   |   |
| Memory                       | 48 DDR4 DIMM slots, Supports RDIMM /LRDIMM, up to 2933MT/s, 6TB max<br>Up to 12 NVDIMM, 384GB Max<br>Up to 24 Intel® Optane™ DC persistent memory DCPMM, max 12.28TB, (15.36TB max with DCPMM and LRDIMM)<br>Supports registered ECC DDR4 DIMMs only  |   |
| Storage controllers          | Internal Controllers: PERC H730P, H740P, H330 Software RAID (SWRAID) S140<br>Boot Optimized Storage Subsystem: HWRAID 2 x M.2 SSDs 240GB or 480GB<br>External PERC (RAID): H840<br>12Gbps SAS HBAs (non-RAID): External-12Gbps SAS HBA (non-RAID). Internal-HBA330 (non-RAID)   |   |
| Drive bays                   | Front drive bays: Up to 8x 2.5" SAS SATA (HDD/SSD) max 61.44TB, or up to 24 x 2.5" SAS/SATA (HDD/SSD) max 184.32TB, or up to 32 SAS/SATA (HDD/SSD) with up to 4 NVME PCIe SSD max 245.76TB  |   |
| Power supplies               | Gold 1100W -48VDC<br>Platinum: 1100W, 1100W 240VDC <sup>1</sup><br>1600W, 2000W, 2400W  | Hot plug power supplies with full redundancy option<br>6 hot plugs fans with N +1 redundancy  |
| Dimensions                   | Form factor: Rack (4U)  | Height: 174.3 mm (6.87")<br>Width: 441.16 mm (17.37")<br>Depth: 835.9mm (32.9")<br>Weight: 56.0kg (123.5lbs.)<br>*Dimensions do not include bezel   |
| Embedded management          | iDRAC9<br>iDRAC Direct  | iDRAC RESTful API with Redfish<br>Quick Sync 2 BLE/wireless   |
| Bezel                        | Optional LCD bezel or security bezel  |   |
| OpenManage™ Software         | OpenManage Enterprise<br>OpenManage Essentials  | OpenManage Mobile<br>OpenManage Power Center  |
| Integrations and connections | Integrations: Microsoft® System Center, VMware® vCenter™, BMC Truesight, Red Hat® Ansible® Modules  | Connections: Nagios® Core & Nagios® XI, Microfocus Operations Manager I, IBM Tivoli Netcool/OMNIBus   |
| Tools                        | Dell EMC Repository Manager<br>Dell EMC Update Package<br>Dell EMC System Update<br>Dell EMC Server Update Utility  | iDRAC Service Module<br>OpenManage Server Administrator<br>OpenManage Storage Services  |
| Security                     | TPM 1.2/2.0 optional<br>Cryptographically signed firmware<br>Secure Boot  | Secure Boot<br>System Lockdown (requires OpenManage Enterprise)<br>Silicon Root of Trust Secure Erase   |
| I/O & Ports                  | Network Daughter Card Options<br>4 x 1GbE, 4 x 10GbE, 2 x 10GbE+2 x 1GbE, or 2 x 25GbE<br>Front ports: 1 x Dedicated iDRAC Direct<br>Micro-USB, 2 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<br>Internal port: 1 x USB 3.0<br>Video card: 2 x VGA<br>PCIe: Up to 12 x Gen3 slots, (6x16 slots or 2x16 + 10x8 slots) |
| Accelerator Options          | Up to 4 doublewidth GPUs or up to 4 double-width or 8 single-width full-height FPGAs  | See Dell.com/GPU for latest information.  |
| Supported operating systems  | Canonical® Ubuntu® LTS<br>Citrix® Hypervisor<br>Oracle® Linux<br>Microsoft Windows Server® LTSC with Hyper-V<br>Red Hat® Enterprise Linux   | SUSE® Linux Enterprise Server<br>VMware® ESXi<br>For specifications and interoperability details, see <a href="http://Dell.com/OSsupport">Dell.com/OSsupport</a>                              |
| 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.<br>For more information, visit <a href="http://Dell.com/OEM">Dell.com/OEM</a> .  |   |
| Recommended support          | 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. For more information, visit <a href="http://Dell.com/ServiceDescriptions">Dell.com/ServiceDescriptions</a> . |   |

<sup>1</sup> Available in China only.

## Learn more at [Dell.com/PowerEdge](http://Dell.com/PowerEdge)

### 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 EMC for end-to-end solutions to maximize your performance and uptime. A proven leader in Servers, Storage and Networking, Dell EMC Services deliver innovation at any scale. And if you're looking to preserve cash or increase operational efficiency, Dell Financial Services TM 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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