



# 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 PMems) 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.
- Protect your server from malicious malware with iDRAC9 Server Lockdown mode (requires Enterprise or Datacenter license)
- 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 Up to 12 NVDIMM, 384GB Max – Up to 24 Intel® Optane™ DC persistent memory PMem, max 12.28TB, (15.36TB max with PMem and LRDIMM) Supports registered ECC DDR4 DIMMs only	
Storage controllers	Internal Controllers: PERC H330, H730P, H740P, HBA330 External Controllers: H840, 12 Gbps SAS HBA, HBA355e Software RAID:S140	
Internal Boot	Boot Optimized Storage Subsystem (BOSS): HWRAID 2 x M.2 SSDs 240GB, 480GB Internal Dual SD Module <sup>1</sup>	
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 Platinum: 1100W, 1100W 240VDC <sup>2</sup> 1600W, 2000W, 2400W Titanium: 1600W HLAC, 2600W HLAC	Hot plug power supplies with full redundancy option 6 hot plugs fans with N +1 redundancy
Dimensions	Form factor: Rack (4U)	Height: 174.3 mm (6.87") Width: 441.16 mm (17.37") Depth: 835.9mm (32.9") Weight: 56.0kg (123.5lbs.) *Dimensions do not include bezel
Embedded management	iDRAC9 iDRAC Direct	Quick Sync 2 BLE/wireless
Bezel	Optional LCD bezel or security bezel	
OpenManage™ Software	OpenManage Enterprise	OpenManage Mobile 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 Dell EMC Update Package Dell EMC System Update Dell EMC Server Update Utility	iDRAC Service Module iDRAC RESTful API with Redfish OpenManage Server Administrator OpenManage Storage Services
Security	TPM 1.2/2.0 optional Cryptographically signed firmware Secure Boot	Secure Boot System Lockdown (requires iDRAC Enterprise or Datacenter) 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, 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 Internal port: 1 x USB 3.0 Video card: 2 x VGA 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 Citrix® Hypervisor Microsoft Windows Server® LTSC with Hyper-V Red Hat® Enterprise Linux	SUSE® Linux Enterprise Server VMware® ESXi 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. For more information, visit <a href="http://Dell.com/OEM">Dell.com/OEM</a> .	
Recommended support	Dell EMC ProSupport Plus for critical systems or Dell EMC ProSupport for premium hardware and software support for your PowerEdge solution. Consulting and deployment offerings are also available. Contact your Dell EMC representative today for more information. Availability and terms of Dell EMC Services vary by region. For more information, visit <a href="http://Dell.com/ServiceDescriptions">Dell.com/ServiceDescriptions</a> .	

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 EMC Financial Services TM has a wide range of options to make technology acquisition easy and affordable. Contact your Dell EMC Sales Representative for more information.\*

<sup>1</sup> ESXi (only OS supported)

<sup>2</sup> Available in China only.

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