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PRODUCT DATA SHEET

Dell EMC PowerEdge R740 / R740xd Server

2U two-socket rack server • 2nd Gen Intel® Xeon® Scalable • Up to 7.68 TB memory • Up to 16 × 2.5" (R740) or 24 × 2.5" / 12 × 3.5" (R740xd) drives • Up to 8 PCIe slots

2 × 28

cores — dual Intel® Xeon® Scalable, 1st or 2nd Gen

24 DIMM

slots — 3 TB DDR4 at 2933 MT/s, 7.68 TB with Optane PMem

8 PCIe

Gen3 slots across three risers, up to 4 × x16

3 GPU

double-width 300 W or 6 single-width 150 W accelerators

24 NVMe

up to 24 × 2.5" NVMe on the R740xd; 16 × 2.5" or 8 × 3.5" on the R740

2400 W

hot-plug PSUs from 495 W to 2400 W Platinum, 2600 W Titanium

Tested • Configured to order • 1-year ServerDove warranty • 1-day delivery across Qatar

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Technical content in this document is taken from the Dell EMC PowerEdge R740 and R740xd Technical Guide (Rev. A12, August 2022). ServerDove supplies this server refurbished, tested and configured to order.

About ServerDove and this data sheet

ServerDove Trading & Services is a Doha-based supplier of refurbished enterprise IT hardware, specialising in Dell PowerEdge and HPE ProLiant servers, enterprise storage, networking equipment, workstations and server components. We serve businesses across Qatar and the wider Middle East with reliable, cost-effective infrastructure for virtualisation, databases, data warehousing, e-commerce, software-defined storage and HPC.

Every Dell EMC PowerEdge R740 / R740xd Server we sell is professionally inspected, tested and certified before dispatch. Servers are configured to order — choose processors, memory, drive backplane, PERC controller, network daughter card, risers, GPUs and power supplies — and are delivered ready to rack, with optional installation and operating-system deployment.

This data sheet reproduces the technical detail of Dell's own PowerEdge R740 documentation so that you can size, configure and compare the PowerEdge R740 with confidence.

Why buy from ServerDove

- Refurbished, tested and certified Dell PowerEdge hardware at a fraction of new-system cost
- 1-year (365+ day) hardware warranty on every server and component; extended cover up to 3 years
- Configure-to-order builds with burn-in testing, Windows Server or VMware installation
- Genuine Microsoft licences supplied digitally through an authorised vendor
- Rack installation and on-site setup across Qatar; bulk and project pricing
- 1-day delivery across Qatar on orders over QAR 300
- Spare parts, drives, memory, PERC controllers and NICs kept in stock

PowerEdge R740 at a glance

2U / 2S

general-purpose rack platform with ideal balance of storage, I/O and accelerators

192 TB

maximum front storage on R740xd (12 × 3.5"); 184 TB with 24 × 2.5"; plus mid and rear bays

128 TB

maximum storage on R740 with 8 × 3.5" drives; 122.88 TB with 16 × 2.5"

4 × 25 GbE

rNDC choices from 4 × 1 GbE to 2 × 25 GbE without using a PCIe slot

N+1

six hot-plug redundant fans; 10 °C to 35 °C operation with extended ambient support

iDRAC9

Lifecycle Controller, Redfish, Quick Sync 2 wireless, System Lockdown

Overview and New Technologies

The Dell EMC PowerEdge R740 and R740xd are two-socket, 2U rack servers designed to run complex workloads using highly scalable memory, I/O capacity and network options. They feature the 2nd Generation Intel® Xeon® Scalable processor family, up to 24 DIMMs, PCI Express 3.0 expansion slots and a choice of network interface technologies covering NIC and rNDC.

The **PowerEdge R740** is a general-purpose platform capable of handling demanding workloads and applications such as data warehouses, e-commerce, databases and high-performance computing (HPC). The **PowerEdge R740xd** adds extraordinary storage capacity options, making it well suited to data-intensive applications that require greater storage without sacrificing I/O performance.

New technologies

2nd Generation Intel® Xeon® Scalable processors	Advanced features delivering exceptional performance and value; up to 28 cores per socket; Intel Deep Learning Boost.
Intel® C620 series chipset	Intel Platform Controller Hub (PCH).
2933 MT/s DDR4 memory	The R740 and R740xd support two DIMMs per channel at 2933 MT/s with select processors.
Intel® Optane™ DC persistent memory	Up to 6 per CPU socket (12 in 2S configurations); 256 GB and 512 GB modules at 1866–2666 MT/s; up to 6.14 TB (7.68 TB with DCPMM plus LRDIMM).
iDRAC9 with Lifecycle Controller	Hardware and firmware inventory and alerting, in-depth memory alerting, faster performance and a dedicated gigabit management port.
Wireless management	Quick Sync 2.0 replaces the previous NFC interface with wireless at-the-box management for a wide variety of mobile operating systems and higher throughput.

PowerEdge R740/R740xd compared with the R730/R730xd

Feature	PowerEdge R740 / R740xd	PowerEdge R730 / R730xd
CPU	2 × 1st/2nd Gen Intel Xeon Scalable	Intel Xeon E5-2600 v3/v4
Interconnect	Intel Ultra Path Interconnect (UPI)	Intel QuickPath Interconnect (QPI)
Memory	24 × DDR4 RDIMM/LRDIMM; 12 × NVDIMM; 12 × DCPMM	24 × DDR4 RDIMM/LRDIMM
Disk drives	3.5" or 2.5" 12 Gb/s SAS, 6 Gb/s SATA; up to 24 × NVMe	3.5", 2.5" or 1.8" SAS/SATA; 4 × PCIe SSD
Storage controllers	Adapters: HBA330, HBA350i, H330 (R740), H350 (R740), H730P, H740P, H840, 12G SAS HBA, HBA355e, H750. Mini-mono: HBA330, H330, H730P, H740P, H350, HBA350i. SW RAID S140	Adapters: HBA330, H330, H730, H730P, H830 (ext). Mini-mono: HBA330, H330, H730, H730P. SW RAID S130
PCIe slots	Max 8 × PCIe 3.0	Max 7 or 6 × PCIe 3.0
rNDC	4 × 1 GbE, 4 × 10 GbE, 2 × 10 GbE + 2 × 1 GbE, or 2 × 25 GbE	4 × 1 GbE, 4 × 10 GbE, or 2 × 10 GbE + 2 × 1 GbE
USB / ports	Front: iDRAC Direct micro-USB, 2 × USB 2.0, 1 × USB 3.0 (optional, R740), video. Rear: iDRAC port, serial, 2 × USB 3.0, video	Front: 2 × USB 2.0, one managed port. Rear: 2 × USB 3.0. Internal: 1 × USB 3.0

Power supply	AC Platinum 495–2400 W; AC Titanium 750 W, 1600 W, 2600 W; DC 1100 W; mixed mode/HVDC 750 W, 1100 W	AC 495 W, 750 W, 1100 W; DC 750 W, 1100 W
System management	Lifecycle Controller 3.x, OpenManage, Quick Sync 2.0, OMPC3, digital licence key, iDRAC Direct, Easy Restore, vFlash	Lifecycle Controller 3.x, OpenManage, Quick Sync 1.0, PM3, iDRAC8, iDRAC Direct, Easy Restore, vFlash
Internal GPU	3 × 300 W double-width or 6 × 150 W single-width (max 2 × NVIDIA M10)	2 × 300 W double-width or 4 × 150 W single-width; not on R730xd
Availability	Hot-plug drives, redundant cooling and PSUs, IDSDM, BOSS	Hot-plug drives, redundant cooling and PSUs, IDSDM

Technical Specification Summary

PowerEdge R740

Processor	Up to two 2nd Generation Intel® Xeon® Scalable processors (1st Generation also supported), up to 28 cores per processor
Memory	24 DDR4 DIMM slots; RDIMM/LRDIMM up to 3 TB at speeds up to 2933 MT/s; up to 12 NVDIMM (192 GB max); up to 12 Intel Optane DC persistent memory modules, 6.14 TB max (7.68 TB with DCPMM + LRDIMM)
Storage controllers	Internal: PERC H330, H350, H730P, H740P, H750, HBA350i, software RAID S140. Boot: BOSS hardware RAID 2 × M.2 SSD 240 GB or 480 GB. External: PERC H840, HBA355e, 12 Gbps SAS HBA (non-RAID); internal HBA330 (non-RAID)
Drive bays	Front: up to 16 × 2.5" SAS/SATA HDD/SSD max 122.88 TB, or up to 8 × 3.5" SAS/SATA HDD max 128 TB; optional DVD-ROM or DVD+RW. No mid or rear bays
Power supplies	Titanium 750 W, 1600 W, 2600 W · Platinum 495 W, 750 W, 1100 W, 1600 W, 2000 W, 2400 W · 750 W mixed-mode HVDC / 240 V DC (China) · 1100 W 380 V DC (China/Japan) · Gold 1100 W –48 V DC. Hot-plug with full redundancy; up to 6 hot-plug fans with full redundancy
Dimensions	Rack 2U · height 86.8 mm (3.4") · width 434.0 mm (17.08") · depth 737.5 mm (29.03") · weight 28.6 kg (63 lb) — excluding bezel
Embedded management	iDRAC9, iDRAC RESTful API with Redfish, iDRAC Direct, optional Quick Sync 2 wireless module
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. Connections: Nagios Core and XI, Micro Focus OMi, IBM Tivoli Netcool/OMNIBus, IBM Tivoli Network Manager IP Edition
Security	TPM 1.2/2.0, optional TCM 2.0 · cryptographically signed firmware · Secure Boot · System Lockdown (requires OpenManage Enterprise) · secure erase
I/O and ports	rNDC options: 4 × 1 GbE, 2 × 10 GbE + 2 × 1 GbE, 4 × 10 GbE, 2 × 25 GbE. Front: video, 2 × USB 2.0, 1 × USB 3.0 (optional), 1 × iDRAC Direct micro-USB. Rear: video, serial, 2 × USB 3.0, 1 × dedicated iDRAC port. Riser options with up to 8 PCIe Gen3 slots, maximum 4 × x16
Accelerators	Up to three 300 W or six 150 W GPUs, or up to three double-width or four single-width FPGAs
Operating systems	Canonical Ubuntu LTS · Citrix Hypervisor · Oracle Linux · Microsoft Windows Server LTSC with Hyper-V · Red Hat Enterprise Linux · SUSE Linux Enterprise Server · VMware ESXi

PowerEdge R740xd — differences

Storage controllers	Internal: PERC H730P, H740P, H750, HBA350i, S140; BOSS; external PERC H840, HBA355e, 12 Gbps SAS HBA; internal HBA330
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Drive bays	Front: up to 24 × 2.5" SAS/SSD/NVMe max 184 TB, or up to 12 × 3.5" SAS/SATA HDD max 192 TB. Mid bay: up to 4 × 2.5" SAS/SSD max 30.72 TB or 4 × 3.5" max 64 TB. Rear bays: up to 4 × 2.5" SAS/SSD max 30.72 TB or 2 × 3.5" max 32 TB. No internal optical drive
Power supplies	Titanium 750 W · Platinum 495 W to 2400 W · 1100 W 380 V DC · Gold 1100 W -48 V DC
Dimensions	Rack 2U · 86.8 × 434 × 737.5 mm · weight 33.1 kg (73.0 lb) — excluding bezel
Accelerators	GPU and FPGA options only on the 24 × 2.5" chassis; up to two GPUs with NVMe configurations

Chassis Views and Internal Layout

Front configurations

Model	Configuration	Notes
R740	8 × 2.5" hot-plug	Optional optical drive; secured by removable front bezel
R740	16 × 2.5" hot-plug	Max 122.88 TB
R740	8 × 3.5" hot-plug	Max 128 TB
R740xd	24 × 2.5" hot-plug (SAS/SSD/NVMe)	Max 184 TB; GPU/FPGA options available on this chassis
R740xd	12 × 3.5" hot-plug	Max 192 TB; plus optional 4 × 3.5" mid-bay and 2 × 3.5" or 4 × 2.5" rear drive bays

Rear panel

The back panel houses the PSUs, rNDC Ethernet connectors, up to 8 PCIe slots (or 4 with riser 2 and riser 3 blanks), VGA, serial, 2 × USB 3.0, the dedicated iDRAC network port and the system ID button. The R740xd can instead be fitted with a 2 × 3.5" or 4 × 2.5" rear drive backplane.

Internal view — R740

1	Hard-drive backplane	8	Expansion card riser 2
2	SAS expander card	9	System board
3	Cooling fans (6) in the cooling-fan assembly	10	Expansion card riser 1
4	Memory modules (24 DIMM slots)	11	Integrated storage controller (mini-mono PERC)
5	CPU 2 processor and heat-sink module	12	CPU 1 processor and heat-sink module
6	Expansion card riser 3	13	Air shroud; optional NVDIMM-N battery on the air shroud
7	Network daughter card (rNDC)		

Internal view — R740xd

1	Hard-drive backplane	7	Hard drives (2 or 4) in the rear cage
2	SAS expander card	8	System board
3	Cooling fans (6)	9	Expansion card riser 1
4	Hard drives (4) in the mid hard-drive tray	10	Integrated storage controller card
5	Mid hard-drive backplane	11	NVDIMM-N battery
6	Rear hard-drive backplane		

Single-CPU configurations

The R740 functions normally with a single processor in the CPU 1 socket; CPU and memory blanks for CPU 2 must be fitted for thermal reasons. With one CPU, any riser 1 (1A/1B/1D) and only riser 2B are functional. The system will not boot with only CPU 2 populated.

Processors and Chipset

The 2nd Generation Intel® Xeon® Scalable processor family provides the foundation for a powerful data-centre platform: up to 28 cores per socket; six memory channels and up to 6 DCPMMs per socket; Intel Deep Learning Boost for inferencing in the CPU; 48 lanes of PCIe 3.0; up to three Intel UPI channels; AVX-512 (a second FMA unit on Advanced-RAS SKUs); and near-zero encryption overhead with hardware mitigations.

Supported processors

2nd Generation Intel® Xeon® Scalable processors (Cascade Lake)

Intel Xeon model	Family	Speed (GHz)	Cache (MB)	Max memory (MT/s)	Cores	TDP
8280L	Platinum	2.7	38.5	2933	28	205 W
8280M	Platinum	2.7	38.5	2933	28	205 W
8280	Platinum	2.7	38.5	2933	28	205 W
8276L	Platinum	2.2	38.5	2933	28	165 W
8276M	Platinum	2.2	38.5	2933	28	165 W
8276	Platinum	2.2	38.5	2933	28	165 W
8270	Platinum	2.7	35.75	2933	26	205 W
8268	Platinum	2.9	35.75	2933	24	205 W
8260L	Platinum	2.4	35.75	2933	24	165 W
8260M	Platinum	2.4	35.75	2933	24	165 W
8260Y	Platinum	2.4	35.75	2933	24/20/16	165 W
8260	Platinum	2.4	35.75	2933	24	165 W
8253	Platinum	2.2	22	2933	16	125 W
6262V	Gold	1.9	33	2400	24	135 W
6258R	Gold	2.7	38.5	2933	28	205 W
6256	Gold	3.6	33	2933	12	205 W
6254	Gold	3.1	24.75	2933	18	200 W
6252	Gold	2.1	35.75	2933	24	150 W
6252N	Gold	2.3	35.75	2933	24	150 W
6250	Gold	3.9	35.75	2933	8	185 W
6248R	Gold	3.0	35.75	2933	24	205 W
6248	Gold	2.5	27.5	2933	20	150 W
6246R	Gold	3.4	22	2933	16	205 W
6246	Gold	3.3	24.75	2933	12	165 W
6244	Gold	3.6	24.75	2933	8	150 W
6242R	Gold	3.1	27.5	2933	20	205 W
6242	Gold	2.8	22	2933	16	150 W
6240R	Gold	2.4	35.75	2933	24	165 W
6240	Gold	2.6	24.75	2933	18	150 W
6240L	Gold	2.6	24.75	2933	18	150 W

6240M	Gold	2.6	24.75	2933	18	150 W
6240Y	Gold	2.6	24.75	2933	18/14/8	150 W
6238R	Gold	2.2	38.5	2933	28	165 W
6238	Gold	2.1	30.25	2933	22	140 W
6238L	Gold	2.1	30.25	2933	22	140 W
6238M	Gold	2.1	30.25	2933	22	140 W
6234	Gold	3.3	24.75	2933	8	130 W
6230R	Gold	2.1	35.75	2933	26	150 W
6230N	Gold	2.3	27.5	2933	20	125 W
6230	Gold	2.1	27.5	2933	20	125 W
6226R	Gold	2.9	22	2933	16	150 W
6226	Gold	2.7	19.25	2933	12	125 W
6222V	Gold	1.8	27.5	2400	20	115 W
6212U	Gold	2.4	35.75	2933	24	165 W
6210U	Gold	2.5	27.5	2933	20	150 W
6209U	Gold	2.1	27.5	2933	20	125 W
6208U	Gold	2.9	22	2933	16	150 W
5222	Gold	3.8	16.5	2933	4	105 W
5220R	Gold	2.2	35.75	2933	24	150 W
5220S	Gold	2.7	24.75	2667	18	125 W
5220	Gold	2.2	24.75	2667	18	125 W
5218R	Gold	2.1	27.5	2667	20	125 W
5218N	Gold	2.3	22	2667	16	110 W
5218	Gold	2.3	22	2667	16	125 W
5217	Gold	3.0	11	2667	8	125 W
5215	Gold	2.5	13.75	2667	10	85 W
5215M	Gold	2.5	13.75	2667	10	85 W
5215L	Gold	2.5	13.75	2667	10	85 W
4216	Silver	2.1	22	2667	16	100 W
4215R	Silver	3.2	11	2400	8	130 W
4215	Silver	2.5	11	2667	8	85 W
4214R	Silver	2.4	16.5	2400	12	100 W
4214Y	Silver	2.2	16.5	2667	12/10/8	105 W
4214	Silver	2.2	16.5	2667	12	85 W
4210R	Silver	2.4	13.75	2400	10	100 W
4210	Silver	2.2	13.75	2667	10	85 W
4208	Silver	2.1	11	2667	8	85 W
3206R	Bronze	1.9	11	2400	8	85 W
3204	Bronze	1.9	8.25	2667	6	85 W

1st Generation Intel® Xeon® Scalable processors (Skylake)

Intel Xeon model	Family	Speed (GHz)	Cache (MB)	Max memory (MT/s)	Cores	TDP
8180M	Platinum	2.5	38.5	2667	28	205 W
8180	Platinum	2.5	38.5	2667	28	205 W
8176M	Platinum	2.1	38	2667	28	165 W
8176	Platinum	2.1	38	2667	28	165 W
8170M	Platinum	2.1	36	2667	26	165 W
8170	Platinum	2.1	36	2667	26	165 W
8168	Platinum	2.7	33	2667	24	205 W
8164	Platinum	2.7	33	2667	26	205 W
8160M	Platinum	2.1	33	2667	24	150 W
8160	Platinum	2.1	33	2667	24	150 W
8158	Platinum	3.0	24.75	2667	12	150 W
8156	Platinum	3.6	16.5	2667	4	105 W
8153	Platinum	2.0	22	2667	16	125 W
6154	Gold	3.0	25	2667	18	200 W
6152	Gold	2.1	25	2667	22	140 W
6150	Gold	2.7	25	2667	18	165 W
6148	Gold	2.4	27	2667	20	150 W
6146	Gold	3.2	24.75	2667	12	165 W
6144	Gold	3.5	24.75	2667	8	150 W
6142M	Gold	2.6	22	2667	16	150 W
6142	Gold	2.6	22	2667	16	150 W
6140M	Gold	2.3	25	2667	18	140 W
6140	Gold	2.3	25	2667	18	140 W
6138	Gold	2.0	27.5	2667	20	125 W
6136	Gold	3.0	24.75	2667	12	125 W
6134M	Gold	3.2	24.75	2667	8	130 W
6134	Gold	3.3	24.75	2667	8	130 W
6132	Gold	2.6	19.25	2667	14	140 W
6130	Gold	2.1	22	2667	16	125 W
6128	Gold	3.4	19.25	2667	6	115 W
6126	Gold	2.6	19.25	2667	12	125 W
5122	Gold	3.6	16.5	2400	4	105 W
5120	Gold	2.2	19.25	2400	14	105 W
5118	Gold	2.3	16.5	2400	12	105 W
5115	Gold	2.4	13.75	2400	10	85 W
4116	Silver	2.1	16	2400	12	85 W
4114	Silver	2.2	14	2400	10	85 W
4112	Silver	2.6	8.25	2400	4	85 W

4110	Silver	2.1	11	2400	8	85 W
4108	Silver	1.8	11	2400	8	85 W
3106	Bronze	1.7	11	2133	8	85 W
3104	Bronze	1.7	11	2133	6	85 W

Cache values marked in Dell's guide as not available have been completed from Intel published specifications. All Bronze processors run without Turbo Boost.

Chipset — Intel® C620 series

- ACPI power management logic support rev. 4.0a; PCI Express Base Specification rev. 3.0
- Integrated SATA host controller up to 6 Gb/s; xHCI USB 3.0 controller
- Direct Media Interface; SPI and Enhanced SPI; Flexible I/O (PCIe root ports, PCIe uplink, SATA/sATA or USB 3.0)
- GPIO; LPC interface, interrupt controller and timers; SMBus 2.0; integrated clock and real-time clock controllers
- Integrated 10/1 Gb Ethernet and 10/100/1000 Mbps MAC
- Intel Rapid Storage Technology Enterprise; Active Management Technology and Server Platform Services; VT-d; Trusted Execution Technology; JTAG boundary scan; Intel Trace Hub

Memory

Each CPU has 12 DIMM slots organised in six channels (two DIMMs per channel). For best performance populate all channels with the same number of DIMMs — 6 or 12 per CPU. Supported DIMM types: RDIMM (best mix of frequency, capacity and rank choices), LRDIMM (maximum capacity at higher power), NVDIMM-N (persistent NAND plus DRAM; requires the NVDIMM-N battery; used with RDIMMs) and DCPMM (Intel® Optane™ DC persistent memory, 128/256/512 GB, up to 6 per CPU with RDIMMs or LRDIMMs; no battery required).

Supported memory

DIMM capacity	DIMM type	Speed 1 DPC – 2 DPC	Ranks	Data width
8 GB	RDIMM	2666 – 2666 MT/s	1	x8
16 GB	RDIMM	2933 – 2666 MT/s	2	x8
32 GB	RDIMM	2933 – 2666 MT/s	2	x4
64 GB	RDIMM	2933 – 2666 MT/s	2	x4
128 GB	LRDIMM	2666 – 2666 MT/s	8	x4
16 GB	NVDIMM-N	2666 MT/s	1	x4
256 GB	DCPMM	2666 MT/s	—	—
512 GB	DCPMM	2666 MT/s	—	—

Memory speed and CPU support

CPU family	DIMM type	Ranks	Capacities	Speed (MT/s)
Intel Xeon Scalable (1st Gen)	RDIMM	1R / 2R	8 GB, 16 GB, 32 GB	2666
2nd Gen Intel Xeon Scalable	RDIMM	1R	8 GB	2666
2nd Gen Intel Xeon Scalable	RDIMM	2R	16 GB, 32 GB, 64 GB	2933
Intel Xeon Scalable (1st Gen)	LRDIMM	4R / 8R	64 GB, 128 GB	2666
2nd Gen Intel Xeon Scalable	LRDIMM	8R	128 GB	2666
2nd Gen Intel Xeon Scalable	DCPMM	—	128 GB, 256 GB, 512 GB	2666
1st or 2nd Gen	NVDIMM	1R	16 GB	2666

Intel Optane DC persistent memory modes

Trait	Memory Mode	App Direct Mode
Application support	Any application	Application must support App Direct Mode
DRAM	Used as cache; not available as system memory	Both DCPMM and DRAM available as system memory
Persistence	No	Yes

Memory operating modes

Performance optimised (Optimizer) mode	Prioritises performance; standard ECC only.
Memory mirroring	Two adjacent channels write the same data; if one channel fails the other continues. Halves usable capacity.
Fault resilient memory	Dell-patented technology working with VMware ESXi to provide a fault-resilient zone that protects virtual machines from memory faults.
Memory sparing	Single- or multi-rank spare mode reserves one or two ranks per channel; correctable errors are moved to the spare rank while the OS runs.

Storage

The R740 offers 8 × 2.5", 8 × 3.5" or 16 × 2.5" front backplanes with no rear or mid-bay options. The R740xd offers 12 × 3.5" and 24 × 2.5" front backplanes plus a 4 × 2.5" rear option, a 2 × 3.5" rear option and a 4 × 3.5" mid-bay option (which also accepts 2.5" drives in the hybrid carrier). Express Flash NVMe drives connect directly to the processor over PCIe lanes and are hot-plug accessible.

Supported drives

Form factor	Type	Speed	Rotational	Capacities
2.5"	SATA SSD	6 Gb	—	120 GB boot, 240 GB boot, 240 GB, 400 GB, 480 GB, 800 GB, 960 GB, 1.6 TB, 1.92 TB, 3.2 TB, 3.84 TB
2.5"	SATA	6 Gb	7.2K	1 TB, 2 TB
2.5"	SAS	12 Gb	7.2K	1 TB, 2 TB, 2 TB (SED FIPS)
2.5"	SAS SSD	12 Gb	—	400 GB, 480 GB, 800 GB, 960 GB, 1.6 TB, 1.92 TB, 3.84 TB, 7.68 TB
2.5"	SAS	12 Gb	10K	300 GB, 600 GB, 768 GB, 1.2 TB, 1.8 TB, 2.4 TB; 1.2 TB and 2.4 TB SED FIPS
2.5"	SAS	12 Gb	15K	300 GB, 600 GB, 900 GB, 900 GB (SED FIPS)
3.5"	SATA	6 Gb	7.2K	1 TB, 2 TB, 4 TB, 8 TB, 10 TB, 12 TB, 14 TB, 16 TB
3.5"	SAS	12 Gb	7.2K	1 TB, 2 TB, 4 TB, 8 TB, 10 TB; 4 TB and 8 TB SED FIPS
2.5" NVMe	PM1735a / PM1733a PCIe SSD	PCIe	—	1.6 TB, 3.2 TB, 6.4 TB, 12.8 TB (PM1735a); 1.92 TB, 3.84 TB, 7.68 TB, 15.36 TB (PM1733a)

Storage controllers

Internal	PERC H330 (R740 only), H350 (R740 only), H730P, H740P, H750, HBA350i, HBA330, software RAID S140 and the BOSS module
External	PERC H840, 12 Gbps SAS HBA and HBA355e
BOSS	Simple RAID card for OS boot supporting up to two 6 Gbps M.2 SATA drives (240 GB or 480 GB) as non-RAID or a RAID 1 volume; x8 connector using PCIe Gen2 x2 lanes; low-profile/half-height
IDSDM with vFlash	Combined module in a Dell-proprietary rear slot with three microSD cards (two IDSDM at 16/32/64 GB, one vFlash at 16 GB); options: vFlash only, IDSDM only, or both
Optical	R740: internal DVD-ROM or DVD+RW. R740xd: no internal optical drive

Tape	No internal tape; external RD1000 USB, LTO-5/6/7/8 6 Gb SAS drives, and 114X, TL1000, TL2000, TL4000, ML6000 and ML3 libraries with SAS or 8 Gb FC drives
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Networking and PCIe Expansion

Dell EMC Network Daughter Cards let you choose the network fabric without consuming a PCIe slot: 4 × 1 GbE, 2 × 10 GbE + 2 × 1 GbE, 4 × 10 GbE or 2 × 25 GbE, with options such as switch-independent partitioning. Specific riser options are required for GPU and NVMe enablement; "no riser" configurations are also offered.

PCIe riser slots

Riser	Slot	Height	Length	Link
Riser 1A	Slot 1	Full height	Full length	x16
	Slot 3	Full height	Half length	x16
Riser 1B	Slot 1	Full height	Full length	x8
	Slot 2	Full height	Full length	x8
	Slot 3	Full height	Half length	x8
Riser 1D	Slot 1	Full height	Full length	x16
	Slot 2	Full height	Full length	x8
	Slot 3	Full height	Half length	x8
Riser 2A / 2E / 2D / 2F	Slot 4	Full height	Full length	x16
	Slot 5	Full height	Full length	x8
	Slot 6	Low profile	Half length	x8
Riser 2B	Slot 4	Low profile	Half length	x8
Riser 2C	Slot 4	Low profile	Half length	x16
Riser 3A / 3B	Slot 7	Full height	Full length	x8
	Slot 8	Full height	Full length	x16

Riser configurations

Riser configuration	Number of CPUs	Supported PERC type	Rear storage possible
No riser	1 or 2	Mini-mono	Yes
1B + 2B	1 or 2	Mini-mono / adapter	Yes
1B + 2C	2	Mini-mono / adapter	Yes
1A + 2A	2	Adapter	No
1A + 2A + 3A or 1A + 2E + 3B	2	Adapter	No
1B + 2A + 3A	2	Mini-mono / adapter	No
1D + 2A + 3A or 1D + 2E + 3B	2	Adapter	No
1A + 2D + 3A or 1A + 2F + 3B	2	Adapter	No

Accelerators

Up to three 300 W double-width or six 150 W single-width GPUs (maximum two NVIDIA M10), or up to three double-width or four single-width FPGAs. On the R740xd, GPU and FPGA options are available only on the 24 × 2.5" chassis, with up to two GPUs in NVMe configurations.

Power, Thermal, Acoustics and Rails

Power supply units

Wattage	Frequency	Voltage / current	Class	Heat dissipation
495 W	50/60 Hz	100–240 V AC / 6.5–3 A	Platinum	1908 BTU/hr
750 W	50/60 Hz	100–240 V AC / 10–5 A	Platinum	2891 BTU/hr
750 W	50/60 Hz	200–240 V AC / 5 A	Titanium	2843 BTU/hr
750 W mixed mode / HVDC (China)	50/60 Hz	100–240 V AC / 10–5 A; 240 V DC / 4.5 A	Platinum	2891 BTU/hr
1100 W DC	—	–48 to –60 V DC / 32 A	Gold	4416 BTU/hr
1100 W	50/60 Hz	100–240 V AC / 12–6.5 A	Platinum	4100 BTU/hr
1100 W mixed mode / HVDC (China, Japan)	50/60 Hz	100–240 V AC / 12–6.5 A; 200–380 V DC / 6.4–3.2 A	Platinum	4100 BTU/hr
1600 W	50/60 Hz	100–240 V AC / 10 A	Platinum	6000 BTU/hr
2000 W	50/60 Hz	100–240 V AC / 11.5 A	Platinum	7500 BTU/hr
2400 W	50/60 Hz	100–240 V AC / 16 A	Platinum	9000 BTU/hr

PSU efficiency

Output	Class	10% load	20% load	50% load	100% load
495 W AC	Platinum	82.0%	90.0%	94.0%	91.0%
750 W AC	Titanium	90.0%	94.0%	96.0%	91.0%
750 W AC	Platinum	82.0%	90.0%	94.0%	91.0%
750 W HVDC	Platinum	82.0%	90.0%	94.0%	91.0%
1100 W AC	Platinum	89.0%	93.0%	94.5%	92.0%
1100 W DC	Gold	80.0%	88.0%	91.0%	88.0%
1600 W AC	Platinum	87.0%	90.0%	94.0%	91.0%
2000 W AC	Platinum	89.0%	93.0%	94.0%	91.0%
2400 W AC	Platinum	89.0%	93.0%	94.0%	91.5%

Thermal design

Thermal management delivers cooling at the lowest fan speeds across 10 °C to 35 °C and extended ambient ranges; the recommended ambient is generally 30 °C (with exceptions for some R740xd GPU and NVMe configurations). The design provides optimised component layout, comprehensive sensor-based thermal control, open- and closed-loop fan speed control, user-configurable settings in iDRAC9/BIOS and N+1 fan redundancy.

Acoustics

The R740 is quiet enough for office use in typical and minimum configurations; boot-up fan speed is limited to about half of full speed. Noise rises with 15K drives, more than two PCIe cards, GPUs, PCIe SSDs, non-RAID configurations and the Performance thermal profile. Reference: 60 dBA conversation level, 75 dBA data centre, 90 dBA loud concert.

Rack rails

Rail	Type	Mounting	Adjustment range	Min mounting depth
ReadyRails sliding	Sliding, drop-in, optional CMA	Tool-less in square/round-hole 4-post; tooled in threaded 4-post	Square 631–868 mm · round 617–861 mm · threaded 631–883 mm	714 mm (845 mm with CMA)
Stab-in / drop-in sliding (14G)	Sliding, optional CMA; required for Dell Titan/Titan-D racks	Tool-less in square, round and threaded 4-post	603–915 mm (all hole types)	714 mm (845 mm with CMA)
Static	Static, stab-in; no CMA	Tool-less in square/round 4-post; tooled in threaded 4-post and 2-post	Square 608–879 mm · round 594–872 mm · threaded 608–890 mm	622 mm

Supported operating systems

Canonical Ubuntu Server LTS · Citrix Hypervisor · Microsoft Windows Server LTSC with Hyper-V · Oracle Linux · Red Hat Enterprise Linux · SUSE Linux Enterprise Server · VMware ESXi. See Dell.com/OSsupport for versions. ServerDove can pre-install Windows Server or VMware ESXi on servers purchased with drives.

Additional Specifications

Chassis dimensions and weight

Dimension	Value
Xa — width across rack ears	482.0 mm
Xb — chassis width	434.0 mm
Y — height	86.8 mm
Za — bezel depth / ear depth without bezel	35.84 mm / 22.0 mm
Zb — chassis depth to rear wall	678.8 mm
Zc — depth to PSU handle	715.5 mm

Configuration	Maximum weight
R740, 2.5" drives	26.3 kg (57.98 lb)
R740, 3.5" drives	28.6 kg (63.05 lb)
R740xd, 2.5" drives	28.1 kg (61.95 lb)
R740xd, 3.5" drives	33.1 kg (72.91 lb)

Video (Matrox G200eW3)

Resolution	Refresh	Horizontal frequency	Pixel clock	Rear panel	Front panel
1024 × 768	60 Hz	48.4 kHz	65.0 MHz	Yes	Yes
1280 × 800	60 Hz	49.7 kHz	83.5 MHz	Yes	Yes
1280 × 1024	60 Hz	64.0 kHz	108.0 MHz	Yes	—
1360 × 768	60 Hz	47.71 kHz	85.5 MHz	Yes	Yes
1440 × 900	60 Hz	55.9 kHz	106.5 MHz	Yes	—
1600 × 900	60 Hz (RB)	55.54 kHz	97.75 MHz	Yes	Yes
1600 × 1200	60 Hz	75.0 kHz	162.0 MHz	—	—
1680 × 1050	60 Hz (RB)	64.7 kHz	119.0 MHz	Yes	—
1920 × 1080	60 Hz	67.158 kHz	173.0 MHz	—	No
1920 × 1200	60 Hz	74.556 kHz	193.25 MHz	—	No

USB

Front, rear and internal USB ports are included: rear and internal ports support USB 3.0, front ports USB 2.0. The R740 offers an option adding a USB 3.0 port to the front of the chassis.

Environmental

Standard operating range 10 °C to 35 °C (50 °F to 95 °F) with extended-ambient (Fresh Air) support for approved configurations; see the Dell EMC PowerEdge R740/R740xd Installation and Service Manual for full environmental specifications, de-rating and contamination limits.

Standards compliance

Standard	Specification
ACPI	Advanced Configuration and Power Interface v2.0c
Ethernet	IEEE 802.3-2005
HDG	Hardware Design Guide v3.0 for Microsoft Windows Server
IPMI	Intelligent Platform Management Interface v2.0
DDR4 memory	DDR4 SDRAM specification (JESD79-4)
PCI Express	PCI Express Base Specification rev. 2.0 and 3.0
PMBus	Power System Management Protocol v1.2
SAS	Serial Attached SCSI v1.1
SATA	Serial ATA rev. 2.6; SATA II, SATA 1.0a extensions rev. 1.2
SMBIOS	System Management BIOS reference specification v2.7
TPM	Trusted Platform Module specification v1.2 and v2.0
UEFI	Unified Extensible Firmware Interface v2.1
USB	Universal Serial Bus rev. 2.0

Dell EMC OpenManage Systems Management

Dell EMC OpenManage helps IT administrators deploy, update, monitor and manage servers in physical, virtual, local and remote environments, in-band and out-of-band (agent-free). The key tools are the embedded iDRAC9 with Lifecycle Controller and the one-to-many OpenManage Enterprise console, integrated with frameworks from VMware, Microsoft, Ansible and ServiceNow.

iDRAC9 with Lifecycle Controller	Embedded in every PowerEdge server; deploy, update, monitor and maintain with no additional software, independent of OS or hypervisor. iDRAC Direct front port, RESTful API with Redfish, optional Quick Sync 2 wireless module, vFlash, Easy Restore, Server Lockdown mode (Enterprise/Datacenter licence). Licences: Basic (default), Express and Enterprise upgrades.
Server and chassis managers	Integrated Dell Remote Access Controller (iDRAC) · iDRAC Service Module (iSM)
Dell EMC consoles	OpenManage Enterprise · OpenManage Enterprise Power Manager plug-in · Repository Manager (DRM) · OpenManage Mobile (OMM) · OpenManage Power Center
Automation enablers	OpenManage Ansible Modules · iDRAC RESTful APIs (Redfish) · Standards-based APIs (Python, PowerShell) · RACADM CLI · GitHub scripting libraries
Integrations with third-party consoles	OpenManage Integrations with Microsoft System Center · OpenManage Integration for VMware vCenter (OMIVV) · OpenManage Ansible Modules · OpenManage Integration with ServiceNow · BMC Truesight
Connections for third-party consoles	IBM Tivoli Netcool/OMNIBus and Network Manager IP Edition · Micro Focus Operations Manager i · OpenManage Plug-in for Nagios Core and XI
Update utilities	Dell System Update (DSU) · Repository Manager (DRM) · Update Packages (DUP) · Server Update Utility (SUU) · Platform Specific Bootable ISO (PSBI)
Standards	IPMI 2.0; SMBIOS 2.7; Redfish; DCMI 1.5; WSMAN

Support technologies (for systems under Dell contracts)

SupportAssist	Automated proactive and predictive technology that detects issues, creates cases and alerts before they become critical.
TechDirect	Self-dispatch of replacement parts, technical support requests, API integration and Dell certification training.
ProSupport / ProSupport Plus	Dell hardware and software support with next-business-day or four-hour mission-critical response. Refurbished {short} units supplied by ServerDove are covered by the ServerDove warranty — see Where to Buy.

Where to Buy — ServerDove



Request a quote or configure your Dell EMC PowerEdge R740 / R740xd Server

Talk to our team or request a custom configuration. We respond during business hours (Doha, Qatar) and typically reply instantly on WhatsApp.

ServerDove Trading & Services

Office 7, Floor 2, Building 216,
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Doha, Qatar

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Support:

support@serverdove.com

Call / WhatsApp: +974 5521 2108

Web: www.serverdove.com

Dell EMC PowerEdge R740 /
R740xd Server listings:

serverdove.com/collections/dell-poweredge-r740

ServerDove warranty

All hardware and components supplied by ServerDove are covered by the ServerDove 1-year (365+ day) warranty; any defective part is replaced at our cost. Cover includes motherboard, processors, memory and DIMM slots, RAID controller and battery, PCIe risers and NICs, hard drives and power supplies. Extended warranties of up to 3 years are available on request. Claims: email support@serverdove.com with your order number and a brief description of the issue. Software or application support is not covered; ServerDove supports Windows Server or VMware installation on servers purchased with drives from us.

Services from ServerDove

- **Configure a server** — processors, memory, drives, PERC, network adapters and power supplies matched to your workload, assembled and burn-in tested
- **Installation services** — rack or on-site installation and setup across Qatar; Windows Server or VMware installation
- **Bulk orders** — project and volume pricing for system integrators, data centres and enterprises
- **Hardware support and warranty** — 1-year (365+ day) warranty with extended cover up to 3 years; replacement parts at our cost
- **Spares and upgrades** — DDR4 RDIMMs and LRDIMMs, PERC H730P/H740P/H750 controllers and batteries, BOSS cards, SAS/SATA/NVMe drives, rNDC and PCIe NICs, risers, GPU kits, fans and power supplies
- **Delivery** — 1-day delivery across Qatar on orders over QAR 300

About ServerDove

ServerDove is a trusted supplier of refurbished enterprise IT hardware, specialising in Dell PowerEdge servers, HPE ProLiant servers, enterprise storage, networking equipment, workstations and server components. Based in Doha, Qatar, we serve businesses across the Middle East with reliable, cost-effective IT infrastructure solutions. Our mission is to make enterprise-grade technology accessible by providing professionally tested and certified refurbished servers and hardware at competitive prices. Every product undergoes thorough inspection, testing and quality assurance to ensure performance and reliability in production environments. We work with organisations of all sizes, including SMBs, enterprises, system integrators and government entities.

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