

DL:R750-12LFF-Server Datasheet

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Overview

Dell EMC PowerEdge R750, powered by the 3rd Generation Intel Xeon Scalable processors is a rack server to address application performance and acceleration. The PowerEdge R750, is a dual-socket/2U rack server that delivers outstanding performance for the most demanding workloads. It supports 8 channels of memory per CPU, and up to 32 DDR4 DIMMs @ 3200 MT/s speeds

Table 1 shows the 3 configuration of Dell R750 12LFF Server.

Configuration	Processor	Memory	Hard Drive	Power Supply
Dell 2U R750 2*4310 12SFF Server	2 * Intel Xeon 4310	2 * 32G	2*1.2T SAS 10K	2*800W
Dell 2U R750 2*5317 12SFF Server	2 * Intel Xeon 5317	2 * 32G	2*1.2T SAS 10K	2*800W
Dell 2U R750 2*6330 12SFF Server	2 * Intel Xeon 6330	2 * 32G	2*1.2T SAS 10K	2*1100W

Quick Spec

Table 2 shows the quick spec of Dell R750 server.

Series	Dell EMC PowerEdge R750
Processor	Up to two 3rd Generation Intel Xeon Scalable processors, with up to 40 cores per processor
Memory	<ul style="list-style-type: none">• 32 DDR4 DIMM slots, supports RDIMM 2 TB max or LRDIMM 8 TB max, speeds up to 3200 MT/s• Up to 16 Intel Persistent Memory 200 series (BPS) slots, 8 TB max• Supports registered ECC DDR4 DIMMs only
Storage controllers	<ul style="list-style-type: none">• Internal controllers: PERC H745, HBA3551, S150, H345, H755, H755N• Boot Optimized Storage Subsystem (BOSS-S2): HW RAID 2 x M.2 SSDs 240 GB or 480 GB• Boot Optimized Storage Subsystem (BOSS-S1) HW RAID 2 x M.2 SSDs 240 GB or 480 GB• External PERC (RAID): PERC H840, HBA355E
Drive Bays	<p>Front bays:</p> <ul style="list-style-type: none">• Up to 12 x 3.5-inch SAS/SATA (HDD/SSD) max 192 TB• Up to 8 x 2.5-inch NVMe (SSD) max 122.88 TB• Up to 16 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 245.76 TB• Up to 24 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 368.84 TB <p>Rear bays:</p> <ul style="list-style-type: none">• Up to 2 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 30.72 TB• Up to 4 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 61.44 TB
Power Supplies	<ul style="list-style-type: none">• 800 W Platinum AC/240 mixed mode• 1100 W Titanium AC/240 mixed mode• 1400 W Platinum AC/240 mixed mode• 2400 W Platinum AC/240 mixed mode

Product Details

The Dell EMC PowerEdge R750 offers compelling performance, highspeed memory and capacity, I/O bandwidth and storage to address data requirements – Ideal for:

- Traditional corporate IT
- Database and Analytics
- Virtual Desktop Infrastructure
- AI/ML and HPC

Figure 1. Front view of the R750 system

Front view of the R750, 24x 2.5 inches Chassis:





24x SAS/SATA or 24x NVMe:



16x SAS/SATA + 8x NVMe:



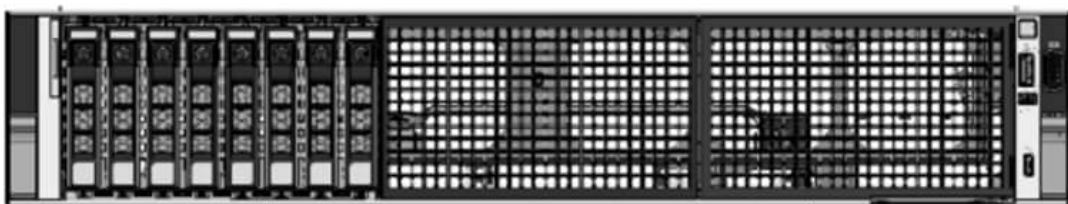
Front view of the R750, 16x 2.5 inches SAS/SATA Chassis:



Front view of the R750, 16x 2.5 inches SAS/SATA Chassis:



Front view of the R750, 8x 2.5 inches Chassis:



Front view of the R750, 8x 2.5 inches Chassis:



Front View of the R750, 12x 3.5 inches SAS/SATA Chassis:



Front View of the R750, 12x 3.5 inches SAS/SATA Chassis:

SLOT0	SLOT3	SLOT6	SLOT9
SLOT1	SLOT4	SLOT7	SLOT10
SLOT2	SLOT5	SLOT8	SLOT11

Figure 2. Rear view of the R750 system

Rear view of the R750 with 8x PCIe Gen4 slots and Hot-plug BOSS:



Rear view of the R750 with 4x 2.5 inches Storage drives, 4x PCIe Gen4 slot and Hot-plug BOSS:



Compare to Similar Items

Table 3 shows the R750 vs R740.

Series	Dell EMC PowerEdge R750	Dell EMC PowerEdge R740
Processor	Up to two 3rd Generation Intel Xeon Scalable processors, with up to 40 cores per processor	Up to two 2nd Generation Intel Xeon Scalable processors, up to 28 cores per processor
Memory	<ul style="list-style-type: none"> • 32 DDR4 DIMM slots, supports RDIMM 2 TB max or LRDIMM 8 TB max, speeds up to 3200 MT/s • Up to 16 Intel Persistent Memory 200 series (BPS) slots, 8 TB max • Supports registered ECC DDR4 DIMMs only 	<ul style="list-style-type: none"> • 24 DDR4 DIMM slots, Supports RDIMM /LRDIMM, speeds up to 2933MT/s, 3TB max • Up to 12 NVDIMM, 192 GB Max • Up to 12 Intel® Optane™ DC persistent memory PMem, 6.14TB max (7.68TB max with PMem + LRDIMM) • Supports registered ECC DDR4 DIMMs only
Storage controllers	<ul style="list-style-type: none"> • Internal controllers: PERC H745, HBA355I, S150, H345, H755, H755N • Boot Optimized Storage Subsystem (BOSS-S2): HW RAID 2 x M.2 SSDs 240 GB or 480 GB • Boot Optimized Storage Subsystem (BOSS-S1) HW RAID 2 x M.2 SSDs 240 GB or 480 GB • External PERC (RAID): PERC H840, HBA355E 	<ul style="list-style-type: none"> • Internal Controllers: PERC H330, H730P, H740P, HBA330 • External Controllers: H840, 12 Gbps SAS HBA

Drive Bays	<p>Front bays:</p> <ul style="list-style-type: none"> Up to 12 x 3.5-inch SAS/SATA (HDD/SSD) max 192 TB Up to 8 x 2.5-inch NVMe (SSD) max 122.88 TB Up to 16 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 245.76 TB Up to 24 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 368.84 TB <p>Rear bays:</p> <ul style="list-style-type: none"> Up to 2 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 30.72 TB Up to 4 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 61.44 TB 	<ul style="list-style-type: none"> Front drive bays: Up to 16 x 2.5" SAS/SATA (HDD/SSD) max 122.88TB or up to 8 x 3.5" SAS/SATA HDD max 128TB Optional DVD-ROM, DVD+RW
Power Supplies	<ul style="list-style-type: none"> 800 W Platinum AC/240 mixed mode 1100 W Titanium AC/240 mixed mode 1400 W Platinum AC/240 mixed mode 2400 W Platinum AC/240 mixed mode 	<ul style="list-style-type: none"> Titanium 750W, Platinum 495W 750W 750W 240VDC, 1100W, 1100W 380VDC 1600W, 2000W and 2400W, Gold 1100W -48VDC

Specification

Dell EMC PowerEdge R750 Specification

Processor	Up to two 3rd Generation Intel Xeon Scalable processors, with up to 40 cores per processor
Memory	<ul style="list-style-type: none"> 32 DDR4 DIMM slots, supports RDIMM 2 TB max or LRDIMM 8 TB max, speeds up to 3200 MT/s Up to 16 Intel Persistent Memory 200 series (BPS) slots, 8 TB max Supports registered ECC DDR4 DIMMs only
Storage controllers	<ul style="list-style-type: none"> Internal controllers: PERC H745, HBA355I, S150, H345, H755, H755N Boot Optimized Storage Subsystem (BOSS-S2): HW RAID 2 x M.2 SSDs 240 GB or 480 GB Boot Optimized Storage Subsystem (BOSS-S1): HW RAID 2 x M.2 SSDs 240 GB or 480 GB External PERC (RAID): PERC H840, HBA355E
Drive Bays	<p>Front bays:</p> <ul style="list-style-type: none"> Up to 12 x 3.5-inch SAS/SATA (HDD/SSD) max 192 TB Up to 8 x 2.5-inch NVMe (SSD) max 122.88 TB Up to 16 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 245.76 TB Up to 24 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 368.84 TB <p>Rear bays:</p> <ul style="list-style-type: none"> Up to 2 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 30.72 TB Up to 4 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) max 61.44 TB
Power Supplies	<ul style="list-style-type: none"> 800 W Platinum AC/240 mixed mode 1100 W Titanium AC/240 mixed mode 1400 W Platinum AC/240 mixed mode 2400 W Platinum AC/240 mixed mode
Cooling Options	Air cooling, optional processor liquid cooling
Fans	<ul style="list-style-type: none"> Standard fan/High performance SLVR fan/High performance GOLD fan Up to six hot plug fans
Dimensions	<ul style="list-style-type: none"> Height – 86.8 mm (3.41 inches) Width – 482 mm (18.97 inches) Depth – 758.3 mm (29.85 inches) - without bezel 772.14 mm (30.39 inches) - with bezel
Form Factor	2U rack server
Embedded Management	<ul style="list-style-type: none"> iDRAC9 iDRAC Service Module iDRAC Direct Quick Sync 2 wireless module
Bezel	Optional LCD bezel or security bezel

OpenManage Software	<ul style="list-style-type: none"> • OpenManage Enterprise • OpenManage Power Manager plugin • OpenManage SupportAssist plugin • OpenManage Update Manager plugin
Mobility	OpenManage Mobile
Integrations and Connections	<p>OpenManage Integrations</p> <ul style="list-style-type: none"> • BMC Truesight • Microsoft System Center • Red Hat Ansible Modules • VMware vCenter and vRealize Operations Manager <p>OpenManage Connections</p> <ul style="list-style-type: none"> • IBM Tivoli Netcool/OMNIBus • IBM Tivoli Network Manager IP Edition • Micro Focus Operations Manager • Nagios Core • Nagios XI
Security	<ul style="list-style-type: none"> • Cryptographically signed firmware • Secure Boot • Secure Erase • Silicon Root of Trust • System Lockdown (requires iDRAC9 Enterprise or Datacenter) • TPM 1.2/2.0 FIPS, CC-TCG certified, TPM 2.0 China NationZ
Embedded NIC	2 x 1 GbE LOM
Network Options	1 x OCP 3.0 (x8 PCIe lanes)
GPU Options	Up to two double-width 300 W, or four single-width 150 W, or six single-width 75 W accelerators
Ports	<p>Front Ports</p> <ul style="list-style-type: none"> • 1 x Dedicated iDRAC Direct micro-USB • 1 x USB 2.0 • 1 x VGA <p>Rear Ports</p> <ul style="list-style-type: none"> • 1 x USB 2.0 • 1 x Serial (optional) • 1 x USB 3.0 • 2 x RJ-45 • 1 x VGA (optional for liquid cooling configuration) <p>Internal Ports</p> <ul style="list-style-type: none"> • 1 x USB 3.0
PCIe	Up to 8 x PCIe Gen4 slots (up to 6 x16) with support for SNAP I/O modules
Operating System and Hypervisors	<ul style="list-style-type: none"> • Canonical Ubuntu Server LTS • Citrix Hypervisor • Microsoft Windows Server with Hyper-V • Red Hat Enterprise Linux • SUSE Linux Enterprise Server • VMware ESXi

