Dell PowerEdge Rack Servers

Quick Reference Guide

Dell PowerEdge rack servers help you build a modern infrastructure that minimizes IT challenges and drives business success. Our Quick Reference Guide (QRG) includes a condensed view of our entire rack server portfolio.

Rack Server	R770	R670	R470
			
Key attributes	Open ecosystem optimized for compute workloads and provides maximum performance with optimized power for virtualization and microservices, cloud-native applications, and large-scale analytics.	Open ecosystem optimized for compute workloads and designed to optimize power and balance performance for high-density deployments, cloud-native applications, and all-flash SDS.	Purpose-built to maximize efficiency and affordability with optimized single-socket servers, delivering power-packed performance for cloud scale web and app microservices, data services, virtualization, and scale-out database.
Target workloads	Max virtualization, Hyper-converged and Cloud-Native, Big Data and Analytics, Software-Defined Storage, Efficient GPU support	High density virtualization and Cloud-Native, Scale-Out Database, Software-Defined Storage, Efficient GPU support	Virtualization / Cloud Scale, Scale-Out Database, Edge Compute, High Performance Compute, Software-Defined Storage Node
Type of processor	2 x Intel Xeon 6 Processors; up to 144 cores per processor		1 x Intel Xeon 6 Processors; up to 144 cores per processor
DDR5 DIMM slots (max capacity)	32 (2 TB)		16 (1 TB)
Disk drives up to:	8 x E3.S, 16 x E3.S 8 x 2.5” NVMe 16 x 2.5”	8 x E3.S 8 x 2.5”	8 x 2.5”, 8 x E3.S
NVMe drives up to:	16	8	8
Gen5 PCIe slots up to:	4	2	2
Gen4 PCIe slots up to:	NA	NA	NA
Accelerator support up to:	4 x 75 W SW	2 x 75 W SW	2 x 75 W SW
Rack height (U)	2	1	1
Integrated security	Cryptographically signed firmware, Data at Rest Encryption (SEDs with local or external key mgmt), Secure Boot, Secured Component Verification (Hardware integrity check), Silicon Root of Trust, Secure Erase, System Lockdown (requires iDRAC10 Enterprise or Datacenter), TPM 2.0 FIPS, CC-TCG certified		TPM 2.0 FIPS, Cryptographically Signed Firmware, Secure Boot being standard security, Silicon Root of Trust on all racks

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Rack Server	R760	R660	R7625	R6625	R7615	R6615	R660xs	R760xs	HS5610***	HS5620***
										
Key attributes	Provides performance and versatility for demanding applications	Provides performance and versatility for demanding applications	Breakthrough performance	Breakthrough performance	Powerful performance and scalability	Peak performance and excellent TCO	Right-sized for the most popular IT applications	Right-sized for the most popular IT applications	Open ecosystem optimized for compute workloads	Open ecosystem optimized for storage dense workloads
Target workloads	Mixed Workload Standardization Database and Analytics Virtual Desktop Infrastructure	High Density Virtualization, Dense Database Analytics, Mixed Workload Standardization	High Performance Computing (HPC), Virtual Desktop Infrastructure (VDI), Virtualization	High Performance Computing (HPC), Virtual Desktop Infrastructure (VDI), Virtualization	Software-Defined Storage (SDS), Virtualization, Data Analytics	Virtualization, Hyper-Converged Infrastructure (HCI), Network Functions Virtualization (NFV)	Virtualization, Cloud, Scale-Out Database, High Performance Compute (HPC)	Virtualization, Software-Defined Storage, Medium density VM or VDI	Virtualization, Scale-out database, Software-Defined Storage Node	Virtualization, Medium VM Density or VDI, Software-Defined Storage Node
Type of processor	2 x 4th Generation Intel® Xeon® Scalable processors; up to 56 cores per processor or 2 x 5th Generation Intel® Xeon® Scalable processors; up to 64 cores per processor		2 x AMD EPYC™ 4th Generation 9004 Series Processor, up to 128 cores per processor		1 x AMD EPYC™ 4th Generation 9004 series processor; up to 128 cores		2 x 5th generation Intel® Xeon® Scalable processors with up to 28 cores or 2 x 4th Generation Intel Xeon Scalable processors with up to 32 cores per processor		2 x 5th generation Intel® Xeon® Scalable processors with up to 32 cores or 2 x 4th Generation Intel Xeon Scalable processors with up to 32 cores per processor	
DDR5 DIMM slots (max capacity)	32 (8 TB)		24 (6 TB)		12 (3 TB)		16 (1.5 TB)	16 (1.5 TB)	16 (2 TB)	16 (2 TB)
Disk drives up to:	12 x 3.5” 8 x 2.5” 16 x 2.5” 24 x 2.5” 16 x E3.S 2 x 2.5” (rear) 4 x 2.5” (rear) 4 x E3.S (rear)	8 x 2.5” 10 x 2.5” 2 x 2.5” (rear) 10 x 2.5” 14 x E3.S 16 x E3.S 2 x 2.5” (rear) 2 x E3.S (rear)	8 x 3.5” 12 x 3.5” 8 x 2.5” 16 x 2.5” 24 x 2.5” 2 x 2.5” (rear) 4 x 2.5” (rear) 4 x E3.S (rear)	4 x 3.5” 8 x 2.5” 10 x 2.5” 14 x E3.S 16 x E3.S 2 x 2.5” (rear) 2 x E3.S (rear)	8 x 3.5” 12 x 3.5” 8 x 2.5” 16 x 2.5” 24 x 2.5” 2 x 2.5” (rear) 4 x 2.5” (rear) 4 x E3.S (rear)	4 x 3.5” 8 x 2.5” 10 x 2.5” 14 x E3.S 16 x E3.S 2 x 2.5” (rear) 2 x E3.S (rear)	4 x 3.5” 8 x 2.5” 10 x 2.5” 2 x 2.5” (rear)	12 x 3.5” 8 x 3.5” 8 x 2.5” 16 x 2.5” + 8 x NVMe 2 x 2.5” (rear)	4 x 3.5” 8 x 2.5” 6 x NVMe 10 x 2.5” 2 x 2.5” (rear)	12 x 3.5” 8 x 3.5” 8 x 2.5” 16 x 2.5” + 8 x NVMe 2 x 2.5” (rear)
NVMe drives up to:	24	10	24	10	24	10	10	8	10	8
Gen5 PCIe slots up to:	4	2	4	2	4	2	2	2	2	2
Gen4 PCIe slots up to:	8	3	8	3	4	3	3	4	3	4
Accelerator support up to:	2 x 350 W DW or 6 x 75 W SW	3 x 75 W SW	2 x 300 W DW or 6 x 75 W SW	3 x 75 W SW	3 x 300 W DW or 6 x 75 W SW	3 x 75 W SW	N/A	2 x 75 W SW	N/A	2 x 75 W SW
Rack height (U)	2	1	2	1	2	1	1	2	1	2
Integrated security	TPM 2.0 FIPS, CC-TCG certified, TPM 2.0 China NationZ, Cryptographically Signed Firmware, Chassis Intrusion Alert, Secure Boot being standard security, Silicon Root of Trust, System Lockdown (requires iDRAC9 Enterprise or Datacenter), Data at Rest Encryption (SEDs with local or external key mgmt) Secured Component Verification (Hardware integrity check) and System Erase on all racks.		TPM 2.0 FIPS, CC-TCG certified, TPM 2.0 China NationZ, Cryptographically Signed Firmware, Secure Boot, Secure Erase, Silicon Root of Trust, System Lockdown (requires iDRAC9 Enterprise or Datacenter), AMD Secure Memory Encryption (SME) and AMD Secure Encrypted Virtualization (SEV)		TPM 2.0 FIPS, CC-TCG certified, TPM 2.0 China NationZ, Cryptographically Signed Firmware, Chassis Intrusion Alert, Secure Boot being standard security, Silicon Root of Trust, System Lockdown (requires iDRAC9 Enterprise or Datacenter), Data at Rest Encryption (SEDs with local or external key mgmt) Secured Component Verification (Hardware integrity check) and System Erase on all racks.				

*** HS560 and HS5620 are offered exclusively through the Hyperscale Next program for select customers

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Rack Server	R960	R860	R760xa	R760xd2	XE9680	XE9640	XE8640	XR7620	XR5610	R360	R260
											
Key attributes	Extreme acceleration for business continuity and scale out	Power business-critical, core workloads with high-density compute	High performance, scalable server for intensive GPU applications	Dense storage, faster retrieval and scalability	No-compromise accelerated AI training performance, Flexibility to choose H100 or A100 8-way SXM GPUs, 6U 2-socket with support up to 35C ambient	Density optimized AI and HPC performance with direct liquid cooled CPUs and GPUs in a 2U form factor	Faster ML/DL training and HPC performance, 4U 2-socket server, up to 35C ambient, standard rack depth	Edge-optimized high-performance, high-capacity short-depth 2U 2-socket server	High-performance, short depth, rugged, reverse mounting, filtered bezel, -5C to 55C operating temperatures	Streamlined productivity, high-enterprise GPU, and powerful compute to address common business applications.	Short-depth rack server with filter bezel for Near-Edge customers featuring the latest Intel Xeon-E 2400 series processors, DDR5 memory, NVMe BOSS, and Energy Star 4.0 PSU
Target workloads	Large in-memory databases, Data analytics, AI and virtualization, Virtual Desktop Infrastructure (VDI)		AI/ML/DL training and inferencing Digital Twins, render graphics Virtualization and VDI graphics	File and object storage, Video capturing & surveillance, Video streaming	Large model training, natural language processing, recommendation engines, conversational AI, translation, drug discovery	HPC Modeling and Simulation, seismic analysis, computational fluid dynamics, Oil & Gas, AI/ML training, object detection, image classification	HPC Modeling and Simulation, seismic analysis, computational fluid dynamics, Oil & Gas, AI/ML training, object detection, image classification	Industrial automation, video analytics, point of sale analytics, AI inferencing, edge asset data aggregation and analytics	vRAN, D-RAN, O-RAN, wIndustrial automation, video analytics, point of sale analytics, AI inferencing, edge asset data aggregation and analytics	Collaboration and Sharing, Mail and Messaging, Database	Collaboration and Sharing, Mail and Messaging, Near-Edge Applications
Type of processor	4 x 4th Generation Intel® Xeon® Scalable processors; up to 60 cores per processor and with optional Intel® QuickAssist Technology		2 x 4th Generation Intel® Xeon® Scalable processors; up to 56 cores per processor or 2 x 5th Generation Intel® Xeon® Scalable processors; up to 64 cores per processor	2 x 4th Generation Intel® Xeon® Scalable processors; up to 32 cores per processor or 2 x 5th Generation Intel® Xeon® Scalable processors; up to 28 cores per processor	2 x 4th Generation Intel® Xeon® Scalable processors; up to 56 cores per processor or 2 x 4th Generation Intel® Xeon® Scalable processors; up to 56 cores per processor	2 x 4th Generation Intel® Xeon® Scalable processors; up to 56 cores per processor	2 x 5th Generation Intel® Xeon® Scalable processors; up to 64 cores per processor	2 x 5th Generation Intel® Xeon® Scalable processors; up to 16 cores per processor or 2 x 4th Generation Intel® Xeon® Scalable processors; up to 32 cores per processor	1 x 5th Generation Intel® Xeon® Scalable processors; up to 16 cores per processor or 1 x 4th Generation Intel® Xeon® Scalable processors; up to 32 cores per processor	1 x Intel Xeon E-2400 series processor with up to 8 cores or 1 x Intel Pentium processor with 2 cores	1 x Intel Xeon E-2400 series processor with up to 8 cores or 1 x Intel Pentium processor with 2 cores
DDR5 DIMM slots (max capacity)	64 (16 TB)		32 (8 TB)	16 (1.5TB)	32 (4 TB)	• 16 (1 TB) Intel GPU • 8, 16, 32 (2 TB) NVIDIA GPU	32 (4 TB)	16 (1 TB)	8 (1 TB)	4 (128 GB)	4 (128 GB)
Disk drives up to:	8 x 2.5” 16 x 2.5” 24 x 2.5” 32 x 2.5” 16 x E3.S 8 x 2.5” + 16 x E3.S	8 x 2.5” 16 x 2.5” 24 x 2.5” 8 x E3.S 2 x 2.5” (rear)	6 x 2.5” 8 x 2.5” 6 x E3.S	12 x 3.5” (Front bay) + 12 x 3.5” (Mid bay) 2 x 2.5” or 4 x 2.5” or 4 x 3.5” or 4 x E3.S (rear)	8 x 2.5” 16 x E3.S	4 x 2.5”	8 x 2.5”	4 x 2.5” 8 x E3.S	4 x 2.5”	4 x 3.5” 8 x 2.5”	2 x 3.5” 6 x 2.5”
NVMe drives up to:	24	24	8	4	8	4	8	4	4	N/A	N/A
Gen5 PCIe slots up to:	12	8	12	N/A	10	4	4	2	2	N/A	N/A
Gen4 PCIe slots up to:	N/A	**4**	N/A	**5**	N/A	N/A	N/A	5	N/A	2	2
Accelerator support up to:	4 x 400 W DW	N/A	4 x 400 W DW or 12 x 75 W SW	2 x 75 W SW , 1 x 75 W SW + 1 x 150 W SW or 1 x 180 W DW	8 NVIDIA HGX H100 80 GB 700 W SXM5 GPUs or 8 NVIDIA HGX A100 80 GB 500 W SXM4 GPUs or 8 AMD Instinct MI300X 192GB 750W OAM GPU or 8 Intel Gaudi3 128GB 900W OAM GPU	4 NVIDIA H100 SXM 7000W NVLINK GPUs or Intel Data Center Max GPU Series 1550 OAM 600W Xelink GPUs	4 NVIDIA HGX H100 80 GB 700 W SXM5 GPUs, fully interconnected with NVIDIA NVLink technology	4 x 150 W SW or 2 x 300 W DW	2 x 75 W SW	1 x 60 W SW	N/A
Rack height (U)	4	2	2	2	6	2	4	2	1	1	1
Integrated security	TPM 2.0 FIPS, CC-TCG certified, TPM 2.0 China NationZ, Cryptographically Signed Firmware, Chassis Intrusion Alert, Secure Boot being standard security, Silicon Root of Trust, System Lockdown (requires iDRAC9 Enterprise or Datacenter), Data at Rest Encryption (SEDs with local or external key mgmt) Secured Component Verification (Hardware integrity check) and System Erase on all racks.										

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Rack Server	R750	R750xa	R650	R7525	R6525	R7515	R6515	R750xs	R650xs	R450	R550	XR11	XR12	R350	R250
															
Key attributes	Outstanding performance for the most demanding workloads	Highly intensive GPU workloads	High scalability, optimized workload performance	Powerful performance and flexibility	Dense virtualization	Powerful performance and scalability	High density compute	Purpose-built 2U server for growing scale-out solutions	Purpose-built, full performance 1U server for dense, fast growing scale-out solutions	Value and density-focused, built for general purpose IT	Versatile, value-optimized, virtualization-ready, built for general purpose IT	Edge-centric, short depth and rugged with reverse mounting options	Edge-centric, short depth and rugged with reverse mounting options	Powerful performance in 1U server for productivity and data intensive applications	Powerful compute for common business applications and streamlines productivity
Target workloads	Database and analytics, HPC, traditional corporate IT, VDI, AI, or ML environments	AI, ML or DL training or inferencing, HPC, and vitualization environments	Mixed workload standardization, database and analytics, HFT, traditional corporate IT, VDI, HPC, AI, or ML environments	All flash SDS, VDI, and data analytics	HPC, Dense VDI, and Virtualization	SDS, Virtualization, and Data Analytics	Virtualization, HCI and NFV	Virtualization, medium VM density or VDI, and scale-out database workloads	Virtualization, cloud, scale-out database and highperformance compute workloads	Small IT infrastructure, light VM, small business specific workloads	Small IT infrastructure, light VM density, small business specific workloads	Telco/5G (MEC, CDN, vRAN), Military, Retail (Analytics - video surveillance/ POS/IOT aggregation)	Telco/5G (MEC, CDN, vRAN), Military, Retail (Analytics - video surveillance/POS/ IOT aggregation)	Small mid-sized businesses, remote office/branch office, collaboration and sharing, data analytics and virtualization workloads	Small mid-sized businesses, remote office/branch office, collaboration and sharing, mail/messaging and file/print workloads
Type of processor	2 x 3rd Generation Intel® Xeon® Scalable processors; up to 40 cores per processor			2 x 2nd or 3rd Generation AMD EPYC™ processors; up to 64 cores per processor		1 x 2nd or 3rd Generation AMD EPYC™ processor; up to 64 cores per processor		2 x 3rd Generation Intel® Xeon® Scalable processors; up to 32 cores per processor		2 x 3rd Generation Intel® Xeon® Scalable processors; up to 24 cores per processor		1 x 3rd Generation Intel® Xeon® Scalable processors; up to 36 cores per processor		1 x Intel Xeon E-2300 series processors with up to 8 cores or 1 x Intel Pentium processor with up to 2 cores	
DDR4 DIMM slots (max capacity)	32 (8 TB)		32 (4 TB)			16 (2 TB)		16 (1 TB)				8 (1 TB)		4 (128 GB)	
Disk drives up to:	12 x 3.5” 8 x 2.5” 16 x 2.5” 24 x 2.5” 2 x 2.5” or 4 x 2.5” (rear)	6 x 2.5” 8 x 2.5”	4 x 3.5” 8 x 2.5” 10 x 2.5” 2 x 2.5” (rear)	12 x 3.5” 26 x 2.5”	4 x 3.5” 12 x 2.5”	12 x 3.5” 24 x 2.5”	4 x 3.5” 8 x 2.5”	8 x 3.5” 12 x 3.5” 8 x 2.5” 16 x 2.5 + 8 x 2.5”	4 x 3.5” 8 x 2.5” 10 x 2.5” 2 x 2.5” (rear)	4 x 3.5” 8 x 2.5”	8 x 3.5” 8 x 2.5” 16 x 2.5”	4 x 2.5”	6 x 2.5”	4 x 3.5” 8 x 2.5”	4 x 3.5” 4 x 3.5” (cabled) 2 x 3.5” (cabled)
NVMe drives up to:	24	8	12	24	12	24	10	8	10	N/A		4	6	N/A	
Gen4 PCIe slots up to:	8	8	3	8	3	2	1	5	3	2	3	3	5	3	2
Gen3 PCIe slots up to:	N/A					2	1	1	N/A		1	N/A			
Accelerator support up to:	2 x 300 W DW or 4 x 150 W SW or 6 x 75 W SW	4 x 150 W SW or 4 x 300 W DW 2 x 75 W SW	3 x 75 W SW	3 x 300 W DW or 6 x 75 W SW	3 x SW	4 x SW; 1 x DW; 1 x FPGA	1 x SW	N/A				2 x 75 W SW	2 x 75 W or 150 W SW 2 x 300 W DW	N/A	
Rack height (U)	2	2	1	2	1	2	1	2	1	1	2	1	2	1	1
Integrated security	TPM 1.2/2.0 FIPS, CC-TCG certified, TPM 2.0 China NationZ, Cryptographically Signed Firmware, Chassis Intrusion Alert, and Secure Boot being standard security on all racks. Integrated security features such as Silicon Root of Trust, System Lockdown (requires iDRAC9 Enterprise or Datacenter), and System Erase on all racks														

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Rack Server	R940	R940xa	R840	R740xd	R740	R740xd2	R640	R540	R440	R340	R240
											
Key attributes	Powerful performance	Extreme acceleration	Turbocharge data analytics	Scalable storage performance	Optimal application performance	Enterprise content server	Performance and density	Balanced and adaptable	Scale-out computing	Accelerate business growth	Compute made simple
Target workloads	In-memory databases	GPU database acceleration and machine learning	Data-intensive workloads, HFT, and dense virtualization	SDS, service providers, and big data servers	VDI and cloud workloads	Media streaming and SDS	Dense scale-out data center computing and storage	Mail messaging and virtualization	HPC, web tech, and scale-out infrastructure	ROBO productivity and data-intensive applications	Small business and service provider workloads
Type of processor	4 x 2nd Generation Intel® Xeon® Scalable processors			2 x 2nd Generation Intel® Xeon® Scalable processors						1 x Intel Xeon E-2200, Intel Core i3®, Intel Pentium®, or Intel Celeron® processor	
DDR4 DIMM slots (max capacity)	48 (15.36 TB)			24 (7.68 TB)		16 (1 TB)	24 (7.68 TB)	16 (1 TB)		4 (64 GB)	
Disk drives up to:	24 x 2.5”	32 x 2.5”	26 x 2.5”	18 x 3.5” 32 x 2.5”	8 x 3.5” 16 x 2.5”	26 x 3.5” 16 x 3.5” + 10 x 2.5”[2]	4 x 3.5” 12 x 2.5”	14 x 3.5”	4 x 3.5” 10 x 2.5”	4 x 3.5” 8 x 2.5”	4 x 3.5” 4 x 2.5”[2]
NVMe drives up to:	12	4	24		N/A		10	N/A	4	N/A	
Gen4 PCIe slots up to:	N/A										
Gen3 PCIe slots up to:	13	12	6	8		5	3	5	2	2	
Accelerator support up to:	N/A	4 x DW GPUs or 4 x DW or 8 x SW FPGAs	2 x DW GPUs or 2 x SW or DW FPGAs	3 x DW or 6 x SW GPUs or 3 x DW or 4 x SW FPGAs		N/A	1 x SW GPU or 1 x SW FPGA	N/A			
Rack height (U)	3	4	2				1	2	1	1	
Integrated security	TPM 1.2/2.0 FIPS, CC-TCG certified, TPM 2.0 China NationZ, Cryptographically Signed Firmware, Chassis Intrusion Alert, and Secure Boot being standard security on all racks. Integrated security features such as Silicon Root of Trust, System Lockdown (requires iDRAC9 Enterprise or Datacenter), and System Erase on all racks										

[1] Not all features are available on all platforms.

[2] Drives use hybrid carrier to fit in 3.5” drive bay. (For the R740xd2 - a hybrid configuration is available with up to 10 2.5” SSDs)

Cyber Resilient Architecture for Zero Trust IT environment & opoperations

Security is integrated into every phase of the PowerEdge lifecycle, including protected supply chain and factory-to-site integrity assurance. The Silicon-based root of trust anchors end-to-end boot resilience while Multi-Factor Authentication (MFA) and role-based access controls safeguard trusted operations.

Increase efficiency and accelerate operations with an autonomous infrastructure

The Dell OpenManage systems management portfolio tames the complexity of managing and securing IT infrastructure. Using Dell Technologies' intuitive end-to-end tools, IT can deliver a secure, integrated experience by reducing process and information silos in order to focus on growing the business. The Dell OpenManage portfolio is the key to your innovation engine, unlocking the tools and automation that help you scale, manage, and protect your technology environment.

Sustainability

From recycled materials in our products and packaging, to thoughtful, innovative options for energy efficiency, the PowerEdge portfolio is designed to make, deliver, and recycle products to help reduce the carbon footprint and lower your operation costs. We even make it easy to retire legacy systems responsibly with Dell Technologies.

Rest easier with Dell Technologies Services

Maximize your PowerEdge Servers with comprehensive services designed to meet you wherever you are. Accelerate time to value in achieving high AI use cases with Professional Services for AI, choose from tailored deployment options with the ProDeploy Suite, receive proactive and predictive support with our ProSupport Suite, and so much more with our services available across 170 locations and backed by our 60K+ employees and partners.

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