



# PowerEdge XE8545

## AI infrastructure without compromise

Supercharge your compute performance with a 2 socket, 4U system designed to optimize the latest industry technologies. Develop, train, and deploy cutting edge machine learning models, accelerate complex high-performance computing workloads or host accelerated virtualization services.

### Optimized CPU & GPU performance

The XE8545 uses the highest core count AMD CPUs with the highest powered Nvidia A100s for a large and powerful range of processing needs.

- Combine the **highest core counts (128)** of the new generation of AMD Epyc processors and the **most GPU memory and bandwidth** available today to break through the bounds of AI computing
- Host multi-tenant environments using a **flexible set of virtualization options**: NVIDIA's **vGPU** software and their new Multi-Instance GPU (**MIG**) capability.
- Choose between 400W and 500W GPU options, while maintaining air-cooled (35C/25C) efficiency

### Accelerated I/O throughput

The XE8545 stands out by combining all its components - NVLink, PCIe Gen 4.0, and NVMe SSDs to push the boundaries of data flow and computing possibility.

- Achieve **6-7\* the machine learning performance** (2x the HPC performance) over today's accelerators with PCIe Gen 4 A100 SXM4 GPUs with the highest peer to peer bandwidth (600Gb/s) in a low latency switchless design.
- Improve machine learning training with **20x performance gain** based on sparsity-enabled matrix multiplication and 600GB/s bandwidth for GPU-GPU communication, 2x more than the previous generation.

### Simplified management

The XE8545 simplifies data center operations with the full OpenManage stack, standard rack depth, and air cooling.

- Manage your data center efficiently and consistently with full **iDRAC compliance** and Open Management Enterprise (**OME**) support.
- Readily integrate this innovative technology into your data center with a **standard depth rack**, and **air-cooled** (35C) chassis, avoiding expensive costs.

### Fortify your data center with integrated security

Every PowerEdge server is designed with a cyber resilient architecture, integrating security deeply into every phase in the lifecycle, from design to retirement.

- Enhance security with platform enablement of AMD Secure Memory Encryption (SME) and Secure Encrypted Virtualization (SEV).
- Operate your workloads on a secure platform anchored by cryptographically trusted booting and silicon root of trust.
- Maintain server firmware safety with digitally signed firmware packages.
- Detect and remediate unauthorized or malicious change with drift detection and system lockdown.
- Securely and quickly wipe all data from storage media including hard drives, SSDs and system memory with System Erase

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Features	Technical Specification	
CPU	Up to two 3 <sup>rd</sup> Generation AMD EPYC™ processors (280W) with up to 64 cores per processor	
Memory	32 x DDR4 Bandwidth up to 3200 MT/s	
Accelerators	4 x A100 GPUs with NVLink Options: 40GB/400W or 80GB/500W	
Front Storage	10 x 2.5" Hot Plug SAS/SATA Up to 8 x 2.5" NVMe	
Controllers	BOSS S1.5, H745	
I/O	1 x PCIe Gen4 LP (x16) 1 x PCIe Gen4 FH (x16) 1 x PCIe Gen4 FH (x16) or 2 x PCIe Gen4 FH (x8)	
Thermal	Air Cooled Up to 35C for 400W GPUs or 25C for 500W GPUs	
Fans	12 x Front Hot Plug Fans, 6 x Internal Fans (CPU)	
Embedded Management	iDRAC9 iDRAC Direct	Quick Sync 2.0
OpenManage SW	iDRAC9 Enterprise Power Manager	SupportAssist Update Manager
Power Supplies	4 x Hot-plug redundant 2400W AC Power Supply	
Rack Height	4U	
Ports	Front: 1 x USB 2.0 – iDRAC dedicated	Rear: 1 x USB 3.0, 1 x USB 2.0
Security	Cryptographically signed firmware Secure Boot Secure Erase Silicon Root of Trust System Lockdown	TPM 1.2/2.0, TCM 2.0 optional Secure Memory Encryption™ Secure Encrypted Virtualization™
Dimensions (add LxW)	Depth: 810mm Width: 447mm Height: 86.8	
Rack Unit	4U Rack Server	
Embedded NIC	2x 1GbE LOM,	
Networking Options	OCP x16 mezz 3.0	
Operating Systems & Hypervisors	Ubuntu® Windows Server® with Hyper-V	Red Hat® Enterprise Linux VMware® ESXi®
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 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>	
Recommended services	ProSupport Plus with SupportAssist provides proactive and predictive support for critical systems. ProSupport provides comprehensive hardware and software support. Get more from your technology starting on day one with ProDeploy Enterprise Suite deployment offers. For more information, visit <a href="http://Dell.com/Services">Dell.com/Services</a> .	

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