



PowerEdge XE9680L

Unmatched Performance for AI Excellence
in a 4U liquid cooled chassis

Unlock unprecedented business insights and achieve groundbreaking innovation with the Dell PowerEdge XE9680L, the ultimate solution for tackling AI and high-performance computing challenges.

Designed to optimize efficiency and productivity, this server delivers unmatched performance, seamless scalability, and advanced cooling, enabling you to stay ahead in a competitive landscape.

Experience a solution tailored to maximize your success and drive transformative outcomes.

Next level performance with choice

The XE9680L is designed to handle the most demanding AI and HPC tasks with ease. Equipped with dual 5th Generation Intel® Xeon® Scalable processors, each supporting up to 64 cores and, up to 8 NVIDIA HGX B200 or H200 GPUs for exceptional computational power. The inclusion of 32 DDR5 DIMM slots, supporting up to 4TB of memory at speeds up to 5600 MT/s, ensures rapid data processing and seamless performance for complex workloads.

Scalable architecture for future growth

Efficiency and scalability are at the forefront of the XE9680L's design. Its direct liquid cooling system effectively manages heat, enabling higher performance while reducing energy consumption. The server supports up to 12 PCIe Gen5 slots, allowing for flexible expansion to meet evolving business needs.

Additionally, Dell's rack-scale factory integration streamlines deployment, ensuring a reliable and efficient setup process that accelerates time-to-value for your AI initiatives.

Cyber Resilient Architecture for Zero Trust IT environment & operations

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

Increase efficiency and accelerate operations with autonomous collaboration

The Dell OpenManage™ systems management portfolio delivers a secure, efficient, and comprehensive solution for PowerEdge servers. Simplify, automate and centralize one-to-many management with the OpenManage Enterprise console and iDRAC.

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 Services.

Rest easier with Dell Technologies Services

ProSupport Plus for Infrastructure keeps your servers running with proactive and predictive support that prevents issues and provide fast resolutions. With an assigned customer advocate focused on your desired outcomes, 24/7 access to senior engineers, automatic case creation and proactive outreach when issues do arise, you can scale your operations without concern for downtime. It also provides Dell hardware and software support, third-party collaboration, and critical response for Severity 1 issues. Further optimize your servers with Dell Technologies Services expert consulting, deployment, managed services and more. Contact your Dell representative for more information.

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The Dell PowerEdge XE9680L is a high-performance server designed and optimized for AI & HPC use cases like

- Large Language Model (LLM) training, fine-tuning, and inference
- Recommendation engines
- Molecular Dynamics and Genome Sequencing

| Feature | Technical Specifications | |
|-----------------------------------|--|--|
| Processor | <ul style="list-style-type: none">Two 5th Generation Intel® Xeon® Scalable Processors with up to 64 cores per processor | |
| Memory | <ul style="list-style-type: none">32 DDR5 DIMM slots, supports RDIMM 4 TB max, speeds up to 5600 MT/s Note: Supports registered ECC DDR5 DIMMs only | |
| Storage controllers | <ul style="list-style-type: none">Internal Boot: Boot Optimized Storage Subsystem (NVMe BOSS-N1): HWR RAID 1, 2 x M.2 SSDs | |
| GPU | <ul style="list-style-type: none">8 x NVIDIA HGX B200 180GB 1000W SXM6 GPUs, fully interconnected with NVIDIA NVLink technology8 x NVIDIA HGX H200 141GB 700W SXM5 GPUs, fully interconnected with NVIDIA NVLink technology | |
| Rack | <ul style="list-style-type: none">IR5000 required | |
| Front bays | <ul style="list-style-type: none">Up to 8 x 2.5-inch NVMe SSD drives max 122.88 TB | |
| Power Supplies | <ul style="list-style-type: none">3000W Titanium 200-240 VAC or 240 VDC, hot swap redundant for B200 GPU2800W Titanium 200-240 VAC or 240 VDC, hot swap redundant for H200 GPU | |
| Cooling Options | Liquid cooled CPUs, GPUs, and NVLink Switches | |
| Chipset | Intel® C741 chipset | |
| PCIe | Up to 12 x16 Gen5 (x16 PCIe) full-height, half-length slots | |
| Embedded NIC | 2 x 1 GbE | |
| Network Options | 1 x OCP 3.0 (x8 PCIe lanes) | |
| Fans | <ul style="list-style-type: none">Six high performance (HPR) gold grade fans installed on the top layerSix high performance (HPR) gold grade fans installed on the bottom layer of the system | |
| Dimensions and weight | <ul style="list-style-type: none">Height — 174.3 mm (6.86 inches)Width — Upper 2U: 447 mm (17.59 inches)— Lower 2U: 434 mm (17.08 inches) | <ul style="list-style-type: none">Depth — 1037.57 mm (40.82 inches) with bezel— 1025.62 mm (40.37 inches) without bezelWeight — 95.60 kg (206.35 pounds) |
| Form Factor | 4U rack server | |
| Embedded Management | <ul style="list-style-type: none">iDRAC9iDRAC Direct | <ul style="list-style-type: none">iDRAC RESTful API with RedfishiDRAC Service Manual |
| Bezel | Optional LCD bezel or security bezel | |
| OpenManage Software | <ul style="list-style-type: none">CloudIQ for PowerEdge plug inOpenManage EnterpriseOpenManage Service plugin | <ul style="list-style-type: none">OpenManage Power Manager pluginOpenManage Update Manager plugin |
| OpenManage Integrations | <ul style="list-style-type: none">BMC TruesightOpenManage Integration with ServiceNow | <ul style="list-style-type: none">Red Hat Ansible ModulesTerraform Providers |
| Security | <ul style="list-style-type: none">Cryptographically signed firmwareData at Rest Encryption (SEDs with local or external key mgmt)Secure BootSecured Component Verification (Hardware integrity check) | <ul style="list-style-type: none">Secure EraseSilicon Root of TrustSystem Lockdown (requires iDRAC9 Enterprise or Datacenter)TPM 2.0 FIPS, CC-TCG certified |
| Ports | Front ports <ul style="list-style-type: none">1 x iDRAC Direct (Micro-AB USB) port1 x USB 2.01 x VGA | Rear ports <ul style="list-style-type: none">1 x USB 2.01 x USB 3.01 x iDRAC Direct ethernet port |
| Operating Systems and Hypervisors | <ul style="list-style-type: none">Canonical Ubuntu Server LTS For specifications and interoperability details, see Dell.com/OSsupport . | |
| 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 Dell.com > Solutions > OEM Solutions. | |

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