



CoreStation® VM640 Virtual Blade Workstation

Datasheet

Performance and efficiency with up to 16 virtual workstations in less than 1U of rack space

Virtualized workstations for secure anywhere access

The Amulet Hotkey CoreStation VM640 packs true workstation performance in a data center optimized platform. Centralizing workstations can:

- protect sensitive data and valuable intellectual property in the datacenter;
- deliver mobility without compromising performance;
- boost productivity and team collaboration.

Powerful performance

The Amulet Hotkey CoreStation delivers powerful performance, with professional processors and graphics, large memory, and extensive network/storage options.

- **More cores:** Up to 56 cores per blade for compute intensive workloads
- **Fast clock speeds:** Up to 3.6 GHz base to 4.2 GHz boost core speeds for single-threaded task performance
- **AVX-512:** for faster encryption, compression, simulation, modeling tasks
- **Hardware GPU acceleration:** NVIDIA Tesla or AMD FirePro virtual GPUs for graphics and compute acceleration performance

Outstanding scalability and efficiency

The VM640 is designed for performance, high density and power efficiency.

- **Optimum balance:** as blade CPU and GPU resources power the most demanding environments
- **Up to 16:** GPU accelerated virtual workstations/blade (256 in a 10U chassis)

Enterprise management and reliability

The CoreStation VM640 is based on the Dell EMC PowerEdge M640 blade server. It combines Amulet Hotkey GPU accelerators and NIC cards to deliver superior agility, reliability and performance. With Dell EMC OpenManage tools, the VM640 accelerates time-to-production. Enhanced management and automation help realize the scalability and efficiency of virtualized workstation infrastructure.

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Key features and benefits

- Power and performance using one or two Intel Xeon Scalable processors
- NVIDIA Tesla or AMD MxGPU GPU accelerators deliver an exceptional user experience in a virtual environment
- Data center optimized with an agile and efficient architecture in a small footprint
- 3x density advantage due to optimal matching of CPU and GPU resources
- Second IO card option to boost blade I/O or for native Fibre Channel or Infiniband ports
- Flexible support for virtual environments such as VMware and Citrix
- Connect using Amulet Hotkey secure DXZ zero clients, or thin clients, laptops and mobile devices. Flexible deployment applications

Ideal platform for

- Virtual workstations with advanced visualization and computing
- High Performance Computing with GPU acceleration for IoT, AI, deep learning, machine learning and big data analytics
- Virtual desktop graphics acceleration for demanding programs such as Windows 10, Office 365 and video

Developed in partnership with



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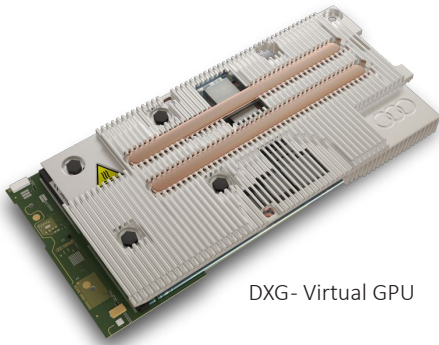
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More information

For latest VM640 news and technical advice, please contact Amulet Hotkey.



DXG - Virtual GPU



Towards greener computing

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CoreStation VM640 Specifications

Form factor	Half height blade for Dell PowerEdge® M1000e enclosure Up to 16 VM640 blades per 10U enclosure
Processors	Up to two Intel® Xeon® Scalable processors Single CPU up to 205W, dual CPU up to 165W each
Cache	Up to 38.5MB L3 cache
Cores	Up to 56 per blade server CPU (112 threads with Hyper-Threading)
Memory	Up to 2TB ECC Registered DDR4 (16 DIMM slots): RDIMM/LRDIMM speeds up to 2666MT/s
Chipset	Intel® C620 series
Drive bays	Front: Up to 2 x 2.5" hot-swappable SAS/SATA HDD, SSD, or PCIe NVMe, max 12.8TB
Virtual storage	VMware Virtual SAN
Storage controllers	Internal: Software RAID S140, PERC H330, PERC H730P iDSM or 2x M.2 SSDs, 120GB, 240GB Boot Optimized Storage System
Expansion slots	Two slots, Fabric B and Fabric C, with options for single-slot and dual-slot mezzanine cards for graphics accelerator, storage and networking cards
Power/cooling	Supplied by the Dell M1000e enclosure
Security	TPM 1.2/2.0 option, Cryptographically signed firmware, Hardware Root of Trust, Secure Boot, System Lockdown, System Erase
Embedded / at-server management	Chassis Management Controller (CMC), IPMI 2.0 compliant, iDRAC9 Express or Enterprise with Lifecycle Controller, Redfish compliant, at-server LCD screen and local server KVM access

Network expansion

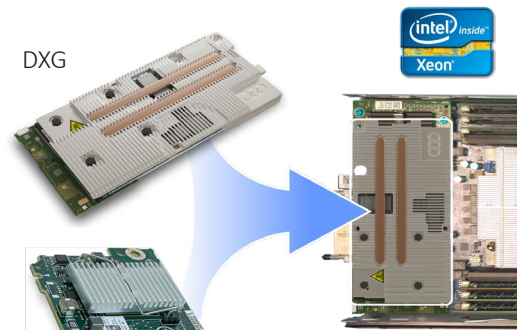
Network Daughter Card	4x 10GE, 2x 10GE and 4x 1GE adapter options (Fabric A)	
Secondary I/O NIC cards (Fabric B or Fabric C) for: Ethernet, Fibre Channel and Infiniband	Qlogic QME2572 Custom Qlogic QME2662* Custom Mellanox ConnectX-3* Custom Mellanox ConnectX-FDR10* Custom Intel X520* Custom Broadcom/Qlogic 57810*	dual 4 Gbps/8 Gbps Fibre Channel dual 8 Gbps/16 Gbps Fibre Channel dual 10 GbE dual 40 Gbps Infiniband/10 GbE dual 10 GbE dual 10 GbE
	* Available from Amulet Hotkey	

Amulet Hotkey dual slot DXG virtual GPU including

Virtual GPU accelerators	Software	# W Users	Virtualization support	
DXG-P6 NVIDIA Tesla P6	NVIDIA Quadro vDWS GRID vPC/vAPP	Up to 16	VMware vSphere 6.0 Horizon Desktops	Citrix XenServer XenDesktop XenApp and more
DXG-S7100X AMD FirePro S7100X	AMD Radeon Pro	Up to 16	VMware vSphere 6.0 Horizon Desktops	Citrix XenServer XenDesktop XenApp and more

Supported operating systems

VMware® ESXi
Citrix® XenServer®
Microsoft Windows Server® with Hyper-V
Canonical® Ubuntu® LTS
RedHat® Enterprise Linux
SUSE® Linux Enterprise Server



Second I/O card