R660-IR Server

R660-IR (IMMERSION READY)
COMPELLING PERFORMANCE,
HIGH SCALABILITY, AND DENSITY

The Dell EMC PowerEdge R660 optimized for Immersion by UNICOM Engineering, R660-IR, powered by the 4th or 5th Generation Intel® Xeon® Scalable processors is the optimal rack server to address application performance and acceleration. R660-IR is a dual-socket/1U rack server that delivers outstanding performance for the most demanding workloads. It supports 8 channels of memory per CPU, and up to 32 DDR5 DIMMs @ 5600 MT/s speeds.

In addition, to address substantial throughput improvements the R660-IR supports PCIe Gen5 and up to 10 SSD drives with liquid immersion cooling features to support increasing power and thermal requirements. This makes the R660-IR an ideal server for data center standardization on a wide range of workloads including Database and Analytics, High-Frequency Trading, Traditional corporate IT, and even HPC or AI/ML environments that require performance, and GPU support in a dense 1U form factor.

BUILT FOR COMPUTE INTESIVE WORKLOADS

Database & Analytics	High-Frequency Trading	Traditional Corporate IT	HPC	AI & Machine Learning

R660-IR Rear View

TESTING AND VALIDATION

Each R660-IR undergoes rigorous validation and testing to ensure optimal performance in immersion environments addressing:

- Thermal management requirements
- Signal integrity optimization
- Material compatibility verification
- Performance reliability in immersion conditions

TECHNICAL SPECIFICATIONS
R660-IR (IMMERSION READY)

Processor	Up to two 4th or 5th Generation Intel Xeon Scalable processors, with up to 56 cores per processor
Memory	32 DDR5 DIMM slots, supports RDIMM 8 TB max, speeds up to 5600 MT/s Supports registered ECC DDR5 DIMMs only
Storage Controllers	Internal Controllers (RAID): PERC H965i, PERC H755, PERC H755N, PERC H355, HBA355i Internal Boot: Boot Optimized Storage Subsystem (BOSS-N1): HWRAID 2 x M.2 NVMe SSD drives, or USB
Drive Bays (SSD Only)	Front Bays: Up to 10 x 2.5-inch NVMe SSD Rear Bays: Up to 2 x 2.50inch NVMe
Cooling	Optimized for Immersion Cooling Systems
Power Supplies	1400W Platinum or 1800W Titanium
Dimensions *excluding immersion mounting brackets*	Height: 42.8 mm (1.7 inches) Width: 482 mm (18.97 inches) Depth: 809 mm (31.85 inches)
Brackets	Immersion brackets are available for common-industry tanks
Embedded Management	iDRAC9 iDRAC Direct iDRAC RESTful API with Redfish iDRAC Service Module

Embedded NIC	2 x 1 GbE LOM riser
Networking Options	1 x OCP 3.0 (x8 PCIe lanes)
Front Ports	1 x iDRAC Direct (Micro-AB USB) port 1 x USB 2.0 1 x VGA
Rear Ports	1 x Dedicated iDRAC Ethernet port 1 x USB 2.0 1 x USB 3.0 1 x VGA (optional for Direct Liquid Cooling configuration)
Internal Ports	1 x USB 3.0 (optional)
PCIe	Up to three PCLE slots: • **Slot 1:** 1x16 Gen5 full-height, 3/4 length, half-length or 1 x8/ 1 x16 Gen5 or 1 x16 Gen4 low-profile, half-length • **Slot 2:** 1 x16 Gen5 full-height, 3/4 length, half-length or 1 x16 Gen5 or 1 x16 Gen4 low-profile, half-length • **Slot 3:** 1 x8/ 1 x16 Gen5 or 1 x16 Gen4 low-profile, half-length
Operating System and Hypervisors	Canonical Ubuntu Server LTS Citrix Hypervisor Microsoft Windows Server with Hyper-V Red Hat Enterprise Linux SUSE Linux Enterprise Server VMware ESXi

These specifications should be viewed as preliminary and final specifications may vary.

WARRANTY SUPPORT

UNICOM Engineering provides a standard 1-year base warranty that can be enhanced with extended coverage options up to 5 years, ensuring long-term protection for your critical infrastructure investment. This holistic approach helps organizations fully realize the efficiency and performance benefits of immersion cooling solutions, making it an ideal choice for high-density data centers facing increasing AI computational demands.

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