

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 4<sup>th</sup> or 5<sup>th</sup> 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  
INTENSIVE 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)

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

<b>Embedded NIC</b>	2 x 1 GbE LOM riser
<b>Networking Options</b>	1 x OCP 3.0 (x8 PCIe lanes)
<b>Front Ports</b>	1 x iDRAC Direct (Micro-AB USB) port 1 x USB 2.0 1 x VGA
<b>Rear Ports</b>	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)
<b>Internal Ports</b>	1 x USB 3.0 (optional)
<b>PCIe</b>	Up to three PCIe slots: <ul style="list-style-type: none"> <li><b>Slot 1:</b> 1x16 Gen5 full-height, 3/4 length, half-length or 1 x8/ 1 x16 Gen5 or 1 x16 Gen4 low-profile, half-length</li> <li><b>Slot 2:</b> 1 x16 Gen5 full-height, 3/4 length, half-length or 1 x16 Gen5 or 1 x16 Gen4 low-profile, half-length</li> <li><b>Slot 3:</b> 1 x8/ 1 x16 Gen5 or 1 x16 Gen4 low-profile, half-length</li> </ul>
<b>Operating System and Hypervisors</b>	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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