

# RS720Q-E11-RS8U

## Great Scalability and High Performance Computing (HPC) Multi-Node Server with Direct to Chip Liquid Cooling Solution



ASUS RS720Q-E11-RS8U is the ideal multi-node server powered by 4th Gen Intel® Xeon Scalable processors, with each node supporting up to 16 DIMM, two PCIe® 5.0 slot and two M.2, and a total of eight NVMe/SAS/SATA drives.

### FEATURE

- Powered by dual-socket 4th Gen Intel Scalable processors with DDR4 Memory up to 4800MHz
- Multi-Node Server with Immersion Cooling Solution
- Two PCIe 5.0 x16 slot module per node
- 8 x 2.5" Hot-swap Drive Bays support 8 x NVMe
- 3000W 80 Plus® Titanium power supplies
- Onboard ASUS ASMB11-iKVM
- ASPEED AST2600 controller

### 4th Gen Intel Xeon Scalable processors

The RS720Q-E11-RS8U is built with the latest Intel® Xeon® Processor Scalable Family with 16 DDR5 Memory up to 4800MHz, and designed for the demand of high scalability, high density computing, and wide range of existing and emerging workloads.

### Direct to Chip Liquid Cooling Solution

ASUS Direct to Chip Liquid cooling is another highly-effective solution from ASUS. This technique offers more advantages on PUE and encompasses higher-density servers. However, it also demands more space, and may require retooling of the data-center infrastructure. But Direct to Chip Liquid cooling can control temperatures more rapidly, efficiently and cost-effectively than traditional methods. For users of supercomputers in particular, immersion cooling is the preferred option.

### PCIe 5.0 Ready

PCI Express® (PCIe®) 5.0 delivers 16 GT/s bandwidth, which is double the speed of PCIe 4.0, offering lower power consumption, better lane scalability and backwards compatibility.

### Enhanced Security

PFR FPGA as the platform Root-of-Trust solution for firmware resiliency Trusted Platform Module 2.0 (TPM 2.0) to secure hardware through integrated cryptographic keys and offer regular firmware update for vulnerabilities.

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# SPECIFICATION

**Processor Support**

2 x Socket P+ (LGA 4189) per Node

3rd Gen Intel® Xeon® processor Scalable family (Up to 270W)  
UPI 11.2 GT/s

<b>Core Logic</b>		Intel® C741 PCH
<b>Memory</b>	<b>Total Slots</b>	16 (8-channel per CPU, 8 DIMM per CPU)
	<b>Capacity</b>	Maximum up to 8192GB per Node
	<b>Memory Type</b>	DDR5 4800 RDIMM/RDIMM 3DS (1DIMM per Channel) 512GB, 256GB, 128GB Intel® Optane™ persistent memory 300 series (Crow Pass) *Refer to Asus server AVL for the latest update
	<b>Memory Size</b>	64GB, 32GB, 16GB RDIMM 256GB, 128GB RDIMM 3DS * Refer to <a href="http://www.asus.com/support">www.asus.com/support</a> for more information
<b>Expansion Slots</b>	<b>Total PCI/PCI-X/PCI-E/PIKE Slots</b>	Per Node:
	<b>Slot Type</b>	2 x PCI-E x16 (Gen5 x16 link), HHL (CPU1) 2 x M.2 PCIe Gen4 x4 link or SATA (CPU1)
<b>Disk Controller</b>	<b>SATA Controller</b>	The Same as SAS Controller
	<b>SAS Controller</b>	Per Node: Broadcom SAS3008 (Support RAID 0, 1) - 2 x SAS 12Gb/s ports or - 2 x SATA 6Gb/s ports
	<b>NVMe Controller</b>	The Same as SAS Controller
<b>Storage Bays</b>	<b>I = internal A or S will be hot-swappable</b>	8 x 2.5" Hot-swap Storage Bays (NVMe Supported)
<b>Networking</b>	<b>LAN</b>	Per Node: 2 x Intel X710-AT2 Gigabit LAN Controller 1 x Management Port
<b>Graphic</b>	<b>VGA</b>	Aspeed AST2600 64MB
<b>Front I/O Ports</b>		N/A
<b>Rear I/O Ports</b>		Per Node: 2 x USB 3.1 Ports 1 x VGA Port 1 x RJ-45 GbE LAN Ports 1 x RJ-45 Management Port
<b>Switch/LED</b>		Per Node: Rear: 1 x Power Switch/LED 1 x Q-Code/Port 80 LED Front: 1 x Power Switch/LED 1 x Location Switch/LED 1 x Message LED 2 x LAN LED
<b>OS Support</b>		Please find the latest OS support from <a href="http://www.asus.com/">http://www.asus.com/</a>
<b>Management Solution</b>	<b>Software</b>	ASUS Control Center (Classic)
	<b>Out of Band Remote Management</b>	On-Board ASM10-iKVM for KVM-over-IP
<b>Dimension</b>		800mm x 444mm x 88mm (2U) 31.5" x 17.48" x 3.46"
<b>Net Weight Kg (CPU, DRAM &amp; HDD not included)</b>		35.5 Kg
<b>Gross Weight Kg (CPU, DRAM &amp; HDD not included, Packing included)</b>		41.5 Kg
<b>Power Supply (following different configuration by region)</b>		1+1 Redundant 3000W 80 PLUS Titanium Power Supply Rating: 220-240 Vac, 15.5A (x2), 50-60Hz, Class I
<b>Environment</b>		Operation temperature: 10°C ~ 35°C Non operation temperature: -40°C ~ 70°C Non operation humidity: 20% ~ 90% (Non condensing)