

# RS720Q-E11-IM

## Great Scalability and High Performance Computing (HPC) Multi-Node Server with Immersion Cooling Solution



ASUS RS720Q-E10-IM is the ideal multi-node server powered by 3rd Gen Intel® Xeon Scalable processors, with each node supporting up to 16 DIMM, one PCIe® 4.0 slot, one OCP 3.0 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

### 4<sup>th</sup> 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.

### Immersive Cooling Solution

ASUS Immersion 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 immersion 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.

# RS720Q-E11-IM

# SPECIFICATION

**Processor Support**

2 x Socket P+ (LGA 4677) per Node

Dual 4th Gen Intel® Xeon® processor Scalable family (Up to 350W)

**Core Logic**

Intel® C741 PCH

**Memory**

**Total Slots**

16 (8-channel per CPU, 8 DIMM per CPU)

**Capacity**

Maximum up to 8192GB per Node

**Memory Type**

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

**Memory Size**

64GB, 32GB, 16GB RDIMM  
256GB, 128GB RDIMM 3DS  
\* Refer to [www.asus.com/support](http://www.asus.com/support) for more information

**Expansion Slots**

**Total PCI/PCI-X/PCI-E/PIKE Slots  
Slot Type**

Per Node:  
2 x PCI-E x16 (Gen5 x16 link), HHHH (CPU1)  
2 x M.2 PCIe Gen4 x4 link or SATA (CPU1)

**Disk Controller**

**NVMe Controller**

Per Node:  
Intel® VROC (Support RAID 0, 1)  
- 2 x NVMe ports

**Storage Bays**

**I = internal  
A or S will be hot-swappable**

8 x 2.5" Hot-swap Storage Bays (NVMe Supported)

**Networking**

**LAN**

Per Node:  
2 x Intel X710-AT2 Gigabit LAN Controller  
1 x Management Port

**Graphic**

**VGA**

Aspeed AST2600 64MB

**Front I/O Ports**

N/A

**Rear I/O Ports**

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

**Switch/LED**

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

**OS Support**

Please find the latest OS support from <http://www.asus.com/>

**Management  
Solution**

**Software**

ASUS Control Center (Classic)

**Out of Band Remote Management**

On-Board ASM10-iKVM for KVM-over-IP

**Dimension**

735mm x 446mm x 88mm (2U)  
28.94" x 17.57" x 3.46"

**Net Weight Kg (CPU, DRAM & HDD not included)**

25.10 Kg

**Gross Weight Kg  
(CPU, DRAM & HDD not included, Packing included)**

31.70 Kg

**Power Supply**

**(following different configuration by region)**

1+1 Redundant 3000W 80 PLUS Titanium Power Supply  
Rating: 220-240 Vac, 15.5A (x2), 50-60Hz, Class I

**Environment**

Inlet coolant temperature (per 2U server system): 20°C ~ 40°C  
Coolant flow rate (per 2U server system): At least 12 LPM

\* Evaluated using Noah® 3000A coolant