

# RS720Q-E10-RS8U

Great Scalability and High Performance Computing (HPC)  
with 4 nodes in a 2U Rack Server



2U4N



CPU Number

2



Memory Number

16

ASUS RS720Q-E10-RS8U 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 3rd Gen Intel Scalable processors with DDR4 Memory up to 3200MHz
- One PCIe 4.0 x16 slot and One OCP 3.0 module per node
- 8 x 2.5" Hot-swap Drive Bays support 8 x SATA/SAS/NVMe
- 3000W 80 Plus® Titanium power supplies
- Flexible air- and liquid-cooling solution
- Onboard ASUS ASMB10-iKVM
- ASPEED AST2600 controller

### 3<sup>rd</sup> Gen Intel Xeon Scalable processors

The RS720Q-E10-RS8U is built with the latest Intel® Xeon® Processor Scalable Family with 16 DDR4 Memory up to 3200MHz, and designed for the demand of high scalability, high density computing, and wide range of existing and emerging workloads.

### PCIe 4.0 Ready

PCI Express® (PCIe®) 4.0 delivers 16 GT/s bandwidth, which is double the speed of PCIe 3.0, offering lower power consumption, better lane scalability and backwards compatibility.

### Cooling Solutions

Air or liquid-cooled solutions. Asetek's Direct-to-Chip (D2C) liquid-cooling technology achieving lower power-usage effectiveness (PUE) and optimized TCO for data centers.

### 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-E10-RS8U

# SPECIFICATION

**Processor Support**

2 x Socket P+ (LGA 4189) per Node

3rd Gen Intel® Xeon® processor Scalable family  
(Up to 205W for air cooling, up to 350W for liquid cooling)  
UPI 11.2 GT/s

**Core Logic**

Intel® C621A PCH

**Memory**

**Total Slots**

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

**Capacity**

Maximum up to 8192GB per Node

**Memory Type**

DDR4 3200/2933 RDIMM, LRDIMM, LR-DIMM 3DS

**Memory Size**

128GB, 64GB, 32GB, 16GB RDIMM  
256GB, 128GB, 64GB RDIMM 3DS  
128GB, 64GB, 32GB LR-DIMM 3DS  
512GB, 256GB, 128GB Intel® Optane™ DC persistent memory 200 Series (DCPMM)

**Expansion Slots**

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

Per Node:

**Slot Type**

1 x PCI-E x16 (Gen4 x16 link), LP, HL  
1 x OCP 3.0 Mezzanine (Gen4 x16 link)  
2 x M.2 (Gen4 x4 link, up to 2280, PCIe, SATA)

**Disk Controller**

**SATA Controller**

The Same as SAS Controller

**SAS Controller**

Per Node:  
Broadcom SAS3008 (Support RAID 0, 1)  
- 2 x SAS 12Gb/s ports or  
- 2 x SATA 6Gb/s ports

**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 (SATA/SAS/NVMe Supported)

**Networking**

**LAN**

Per Node:  
1 x Intel I210-AT 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 3.0 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**

800mm x 444mm x 88mm(2U), 31.5" x 17.48" x 3.46

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

35.5 Kg

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

41.5 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**

Operation temperature: 10°C ~ 35°C (for < 205W CPU, with air cooling)  
Operation temperature: 10°C ~ 30°C (for 205W CPU, with air cooling)  
Operation temperature: 10°C ~ 35°C (for > 205W CPU, with liquid cooling)  
Non operation temperature: -40°C ~ 60°C  
Non operation humidity: 20% ~ 90% (Non condensing)