

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 5th 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 5th Gen Intel Scalable processors with DDR4 Memory up to 5600MHz
- 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

5th 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 5600MHz, 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

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

5th Gen Intel® Xeon® processor Scalable family (350W)

Core Logic

Intel® C741 PCH

Memory

Total Slots

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

Capacity

Maximum up to 4096GB per Node

Memory Type

DDR5 5600/5200/4800/4400/4000 RDIMM/RDIMM 3DS (1DIMM per Channel)

*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 for more information

Expansion Slots

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

Per Node:

Slot Type

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