RS720Q-E10-IM

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

Form Factor 2U4N | CPU Number 2 | Memory Number 16

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 3rd Gen Intel Scalable processors with DDR4 Memory up to 3200MHz
- Multi-Node Server with Immersion Cooling Solution
- 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 NVMe
- 3000W 80 Plus® Titanium power supplies
- Onboard ASUS ASMB10-iKVM
- ASPEED AST2600 controller

3rd Gen Intel Xeon Scalable processors

The RS720Q-E10-IM 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.

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 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.

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
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 22110, 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 (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 3.1 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