

# RS920Q-E12-RS16

Great scalability and performance optimized Computing  
Multi-node server with direct-to-chip liquid cooling solution



2U4N



CPU Number

2



Memory Number

24

ASUS RS920Q-E12-RS16 is the ideal multi-node server powered by 6<sup>th</sup> Gen Intel® Xeon Scalable processors, with each node supporting up to 24 DIMM, two PCIe® 5.0 slots and two M.2 slots plus a total of eight NVMe/SAS/SATA and eight SATA/SAS drives.

## FEATURES

- Powered by dual-socket 6th Gen Intel Scalable processors, Granite Rapids-AP, with DDR5 RDIMM up to 6400MTs or MRDIMM Gen1 up to 8800 MTs
- Multi-node server with direct-to-chip liquid cooling Solution
- Two PCIe 5.0 x16 slot module and one OCP 3.0 x 16 per node
- 3600W 80 PLUS® Titanium power supplies
- Onboard ASUS ASMB12-iKVM
- ASPEED AST2600 controller

### Xeon® 6 processors

RS920Q-E12-RS16 is built with Intel® Xeon®6 processors, Granite Rapids-AP, with per node 24 DDR5 RDIMM up to 6400MTs (1DPC) or MRDIMM Gen1 up to 8800MTs (1DPC), designed for the demand of high scalability, high density computing, and a wide range of existing and emerging workloads.

### Direct-to-chip liquid cooling solution

Direct-to-chip liquid (D2C) cooling is another highly-effective solution from ASUS. This technique offers more advantages on PUE and encompasses higher-density servers. D2C demands more space and may require retooling of the data-center infrastructure, but can control temperatures more rapidly, efficiently and cost-effectively than traditional methods.

### 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

RS920Q-E12-RS16 features EPFR FPGA as the platform root-of-trust solution for firmware resilience - Trusted Platform Module 2.0 (TPM 2.0) to secure hardware through integrated cryptographic keys, and benefits from regular firmware updates for vulnerabilities – elevating security to enterprise-grade heights.

# RS920Q-E12-RS16

# SPECIFICATION

Processor Support		2 x Intel 6 processors, Granite Rapids-AP per Node (with Liquid cool up to 500W)
Core Logic		CPU self-boot only (NO PCH)
Memory	Total Slots	Per Node: 24 (12-channel per CPU) DDR5 RDIMM up to 6400MTs (1DIMM per Channel) and MRDIMM Gen1 up to 8800 MTs (1DIMM per Channel)
Expansion Slots	Total PCI/PCI-X/PCI-E/PIKE Slots Slot Type	Per Node: 1 x PCIe Gen5 x16 link (HH, HL) 1 x PCIe Gen5 x16 link (Reserve for D2C) 1 x OCP 3.0 2 x M.2 PCIe Gen5 x4 link, up to 22110
Disk Controller	SATA Controller	The Same as SAS Controller
	SAS Controller	Per Node: Broadcom SAS3008 (Support RAID0 4pcs , RAID1 2pcs) or - 4 x SAS 12Gb/s ports or 4 x SATA 6Gb/s ports Broadcom SAS3808N (Support RAID0 4pcs , RAID1 2pcs) or - 4 x SAS 12Gb/s ports or 4 x SATA 6Gb/s ports Broadcom SAS3808N (Support RAID0 , RAID1 2pcs) or - 2 x NVMe PCIe Gen4 ports
	NVMe Controller	The Same as SAS Controller
Storage Bays	I = internal A or S will be hot-swappable	16 x 2.5" Hot-swap Storage Bays (8 x SATA/SAS/NVMe + 8 x SATA/SAS supported)
Networking	LAN	Per Node: 2 x Intel X710-AT2 Gigabit LAN Controller (option) 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 Mini-DP Port 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 <a href="http://www.asus.com/">http://www.asus.com/</a>
Management Solution	Software	ASUS Control Center (Classic)
	Out of Band Remote Management	On-Board ASM12-iKVM for KVM-over-IP
Dimension		950mm x 448mm x 87.3mm (2U) 37.4" x 17.64" x 3.44"
Net Weight Kg (CPU, DRAM & HDD not included)		55 Kg
Gross Weight Kg (CPU, DRAM & HDD not included, Packing included)		58 Kg
Power Supply (following different configuration by region)		2+spare Redundant 3600W 80 PLUS Titanium Power Supply
Environment		Operation temperature: 10°C ~ 35°C Non operation temperature: -40°C ~ 70°C Non operation humidity: 20% ~ 90% (Non condensing)