

# RS720A-E12-RS12

## New Generation, High Performance 2U Server



2U



2



24

ASUS RS720A-E12-RS12 was designed to accelerate application performance leveraging accelerator cards and storage scalability. With the CPU and memory configured in a front parallel design that enables efficient airflow for excellent thermal performance, RS720A-E12-RS12 is optimized for rack placement.

### FEATURE

- AMD EPYC 9004 Series Processors with AMD 3D V-Cache™ technology
- PCIe 5.0 Ready
- GPU and FPGA Support
- Enhanced Security

### 4th Gen AMD EPYC™ processors with AMD 3D V-Cache™ technology

AMD was first with X86 multi-chip-module server CPUs and continues to innovate with the 4th Gen AMD EPYC™ processors with AMD 3D V-Cache™ technology.

### 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.

### GPU and FPGA Support

Up to 3 dual-slot GPU such as NVIDIA A100 in one 2U system and optimized acceleration for workloads across cloud, data center and for hybrid cloud environment

### Cooling Solutions

Enhanced Volume Air Cooling (EVAC) Heatsink for Versatile Workload and dedicated GPU fan to support GPU SKU.

### 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.

### Target market

- Hot Data Cache Server
- Cloud Solution Provider
- Enterprise Storage
- Virtualized Storage



1. Asset Tag
2. 24 x DIMM, DDR5-4800/4400, RDIMM, LRDIMM, LRDIMM 3DS
3. AMD EPYC™ 9004 Series
4. Dual M.2 (Up to 2280)
5. 3 x PCIe Gen5 x16 (FHFL)  
1 x PCIe Gen5 x16 or OCP3.0 (FHFL)  
1 x PCIe Gen5 x16 (LP)
6. 1+1 Redundant 2000W/1600W 80 PLUS Platinum Power Supply  
1+1 Redundant 2600W/1600W 80 PLUS Titanium Power Supply
7. 12 x 3.5" Hot-swap HDD Bays
8. 4 x Easy-maintained fans



# RS720A-E12-RS12

# SPECIFICATION

**Processor Support.**

2 x Socket SP5 (LGA 6096)  
 AMD EPYC™ 9004 Series Processors (up to 400W)  
 4th Generation AMD EPYC Processors with AMD 3D V-Cache technology  
 xGMI (External Global Memory Interface Link)

**Core Logic**

(INTEGRATED I/O – NO CHIPSET)

**Memory**

**Total Slots**

24 (12 channel per CPU, 1 DIMM per CPU)

**Capacity**

Maximum 6144GB

**Memory Type**

DDR5 4800/4400 RDIMM/ 3DS RDIMM

\*Refer to ASUS server AVL for the latest update

**Memory Size**

128GB, 64GB, 32GB RDIMM

128GB, 64GB, 32GB 3DS RDIMM

\*Refer to ASUS server AVL for the latest update

**Expansion Slots**

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

9 x Expansion slots

**Slot Type**

Up to 9 PCIe Gen5 slots

6 x PCIe Gen5 x8 or 3 x PCIe Gen5 x16 (FHFL)

2 x PCIe Gen5 x8 or 1 x PCIe Gen5 x16 or 1 x OCP3.0 (FHFL)

1 x PCIe Gen5 x16 (LPHL)

\*GPU SKU do not support OCP3.0

**Disk Controller**

**SATA Controller**

8 x SATA 6Gb/s ports

2 x M.2 connectors (SATA 6Gb/s & PCI-E Gen4 x4 link)

**SAS Controller**

Optional kits:

Broadcom HBA CARD 9500-16i

Broadcom MegaRAID 9540-8i / 9560-16i

**Storage Bays**

**I = internal**

**A or S will be hot-swappable**

**Front Bays:**

12 x 3.5" Hot-Swap Drive Bays

Support up to 8 x NVMe/SATA/SAS\* + 4 x SATA/SAS\*

**Rear Bays:**

2 x 2.5" hot swap drive bays (Optional)

Support 2 x NVMe\*

2 x M.2 (Up to 2280 from CPU1)

\*RAID card is required to support SAS hard drives

**Networking**

**LAN**

1 x Quad Port Intel I350-AM4 1G LAN Controller or

1 x Dual Port Intel X710-AT2 Gigabit 10G LAN Controller or None

1 x Management Port

**Graphic**

**VGA**

Aspeed AST2600 64MB

**Auxiliary storage Device Bay**

1 x External ODD (optional)

**Front I/O Ports**

2 x USB 3.2 Gen1 ports

**Rear I/O Ports**

2 x USB 3.1 Gen1 ports, 1 x VGA port, 1 x RJ-45 Mgmt LAN port

2 x 10G or 4 x 1G RJ-45 GbE LAN port (Optional)

1 x OCP3.0 port (Optional)

**Switch/LED**

Front Switch/LED:

1 x Power Switch (w/ LED), 1 x Reset Switch, 1 x Location Switch (w/ LED)

1 x HDD Access LED, 1 x Message LED, LAN 1-4 LED (on NIC module)

Rear Switch/LED:

1 x Port 80 LED (Q-Code), 1 x Power Switch (w/ LED), 1 x Location LED (w/ LED)

1 x Message 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 ASMB11-iKVM for KVM-over-IP

**Dimension**

840mm x 449mm x 88.1mm / 33.07" x 17.68" x 3.47" (2U)

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

19.3 kg

**Gross Weight Kg**

25.77kg

**Power Supply**

(following different configuration by region)

1+1 Redundant 2600W/1600W 80 PLUS Titanium Power Supply

1+1 Redundant 2000W/1600W 80 PLUS Platinum Power Supply

**Environment**

Operation temperature: 10°C ~ 35°C

Non operation temperature: -40°C ~ 60°C

Non operation humidity: 20% ~ 90% ( Non condensing)