RS700A-E12-RS4U AMD Genoa

New Generation, High Performance 1U Server

Form Factor 1U | CPU Number 2 | Memory Number 24

ASUS RS700A-E12-RS4U 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, RS700A-E12-RS4U 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

Target market

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

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

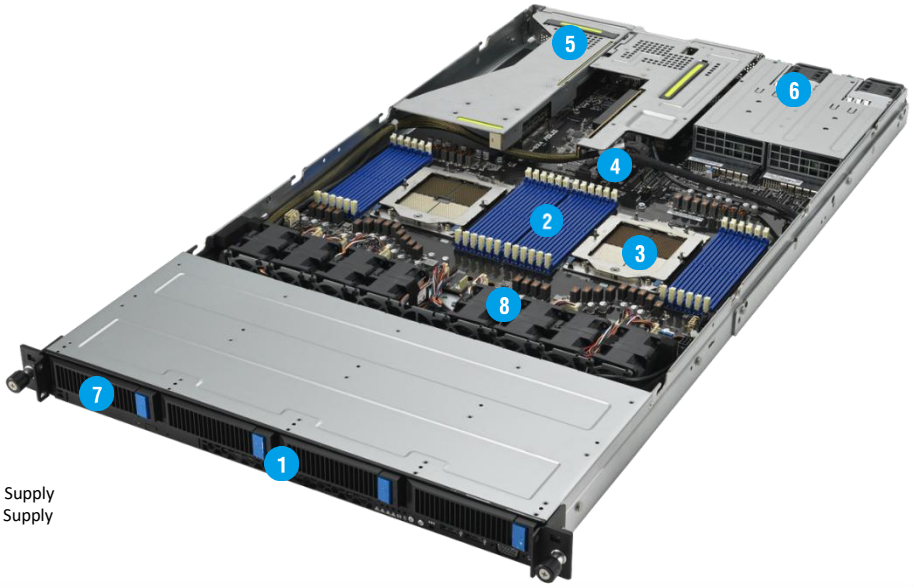
Up to 1 dual-slot GPU such as NVIDIA A100 in one 1U system and optimized acceleration for workloads across cloud, data center and for hybrid cloud environment

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.



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. 1 x PCIe Gen5 x16 (FHFL)
   1 x PCIe Gen5 x16 or OCP3.0 (FHFL)
   1 x PCIe Gen5 x16 (LP)
   1 x PCIe Gen4 x8 (LP, internal)
6. 1+1 Redundant 2000W/1600W 80 PLUS Platinum Hot-swap Power Supply
   1+1 Redundant 2600W/1600W 80 PLUS Titanium Hot-swap Power Supply
7. 4 x 3.5" Hot-swap HDD Bays
8. 8 x Easy-maintained fans

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RS700A-E12-RS4U

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
	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**	3 x Expansion slots + 1 x Internal PIKE slot
	Slot Type	**Total 3 x PCIe Gen5 slots + 1 x internal RAID slot** 1 x PCIe Gen5 x16 (FHFL) 1 x PCIe Gen5 x16 or OCP3.0 (FHFL) 1 x PCIe Gen5 x16 (LP) 1 x PCIe Gen4 x8 (LP, internal)
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**	4x 3.5" Hot-Swap Storage Device Bays up to (4x NVMe/SATA/SAS*) 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 Slim-type ODD (optional)
Front I/O Ports		2 x USB 3.2 Gen 1 ports 1 x VGA port
Rear I/O Ports		2 x USB 3.2 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 switch (w/ LED) 1 x Message LED
OS Support		Windows® Server 2019 RedHat® Enterprise Linux, SuSE® Linux Enterprise Server CentOS, Ubuntu, Vmware 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		842.5mm x 449mm x 43.85mm / 33.17” x 17.68” x 1.73” (1U)
Net Weight (CPU, DRAM & HDD not included)		13.93 kg
Gross Weight (CPU, DRAM & HDD not included, Packing include)		18.93kg
Power Supply (following different configuration by region)		1+1 Redundant 2600W/1600W 80 PLUS Titanium Hot-swap Power Supply 1+1 Redundant 2000W/1600W 80 PLUS Platinum Hot-swap Power Supply
Environment		Operation temperature: 10℃ ~ 35℃ Non operation temperature: -40℃ ~ 60℃ Non operation humidity: 20% ~ 90% (Non condensing)
Regulation Compliance		BSMI, CE, CB, FCC (ClassA), ENERGY STAR Computer Servers Version 4.0* *For more information on the ENERGY STAR® program see https://WWW.energystar.gov

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