

R2975

New Generation, High Performance 2U Server


2U

2

32

The R2975 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, the R2975 is optimized for rack placement.

FEATURE

- AMD EPYC 7003 Series Processors with AMD 3D V-Cache™ technology
- PCIe 4.0 Ready
- GPU and FPGA Support
- Cooling Solutions
- Enhanced Security

Target market

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

3rd 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 3rd Gen AMD EPYC™ processors with AMD 3D V-Cache™ technology.

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.

GPU and FPGA Support

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

Cooling Solutions

Air or liquid-cooled solutions. Asetek's Direct-to-Chip (D2C) liquid-cooling technology achieving lower power-usage effectiveness (PUE) and optimized TCO for data centers.

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. 32 x DIMM, DDR4-3200/2933, RDIMM, LRDIMM, LRDIMM 3DS
3. AMD EPYC™ 7003/7002 Series
4. Dual M.2 (Up to 22110)
5. 1 x PCI-E x16 (Gen4 x16 link) (CPU1),
1 x PCI-E x16 (Gen4 x16 link) or OCP3.0 (CPU1)
6. 1 x PCI-E x16 (Gen4 x16 link) (CPU2),
1 x PCI-E Gen4 x8 or x16 (if PCIe M.2 in use, it will drop to x8 link) (CPU2)
7. 1 x PCI-E x16 (Gen4 x16 link) (CPU2),
1+1 1600W/2400W 80 PLUS Platinum/Titanium CRPS
8. 24 x 2.5" Hot-swap HDD Bays
9. 4 x Hot-swap fan

Specifications:

| | | |
|---|---|---|
| Processor Support | | 2 x Socket SP3 (LGA 4094) xGMI (External Global Memory Interface Link) |
| Core Logic | | 3rd Gen AMD EPYC™ processors with AMD 3D V-Cache™ technology |
| Memory | Total Slots Capacity Memory Type Memory Size | 32 (8-channel per CPU, 16 DIMM per CPU) Maximum up to 4096GB DDR4 3200/2933 RDIMM/LR-DIMM/LR-DIMM 3DS *Refer to ASUS server AVL for the latest update 64GB, 32GB, 16GB (RDIMM), 128GB, 64GB (LRDIMM), 256GB, 128GB, 64GB (LRDIMM 3DS) *Refer to ASUS server AVL for the latest update |
| Expansion Slots | Total PCI/PCI-X/PCI-E/PIKE Slots Slot Type | 9 2 x PCIe Gen4 x8 or 1 x PCIe Gen4 x16, FHFL (CPU1 x1) 2 x PCIe Gen4 x8 or 1 x PCIe Gen4 x16, FHFL or OCP3.0 (CPU1 x1) (If choosing OCP3.0, another x8 slot will be limited to support PIKE card only) 4 x PCIe Gen4 x8 or 2 x PCIe Gen4 x16, FHFL (CPU2 x2) 1 x PCIe Gen4 x8 or x16, LP (if PCIe M.2 in use, it will operate at x8 link) (CPU2 x1) *Installing GPU cards will occupy expansion slots. |
| Disk Controller | SATA Controller | 8 x SATA3 6Gb/s ports 2 x M.2 connector (SATA 6Gb/s & PCI-E Gen4 x4 link) |
| | SAS Controller | Optional kits: Broadcom 9361-8i 8-port SAS 12G HW RAID card (Optional) 12G SAS Support |
| Storage Bays | I = internal A or S will be hot-swappable | 24 NVMe SKU: 24 x 2.5" Hot-swap Storage Device Bays up to (16x NVMe + 8x NVMe/SAS*/SATA) 2 x M.2 (Up to 22110) (Support SATA/PCIe M.2) (CPU2) 2 x 2.5" hot-swap drive bays (2x SATA/NVMe)(optional rear bays) *must use RAID card |
| 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 |
| I/O Ports | | Front I/O Ports: 2 x USB 3.2 Gen 1 ports Rear I/O Ports: 2 x USB 3.2 Gen 1 ports, 1 x VGA port, optional 2 x 10G or 4 x 1G RJ-45 GbE LAN ports, 1 x RJ-45 Mgmt LAN port, 1 x OCP 3.0 port |
| Switch/LED | | Rear Switch/LED: 1 x Q-Code/Port 80 LED, 1 x Power switch, 1 x Location switch/LED, 1 x Message LED Front Switch/LED: 1 x Power switch/LED, 1 x Location switch/LED, 1 x Reset switch, 1 x HDD Access LED, 1 x Message LED, LAN 1-4 LED* LAN3-4 for OCP3.0 card use |
| 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 Out of Band Remote Management | ASUS Control Center (Classic) On-Board ASMB10-iKVM for KVM-over-IP |
| Dimension | | 840mm x 449mm x 88.1mm (33.07" x 17.68" x 3.47") |
| Net Weight Kg (CPU, DRAM & HDD not included) | | 21.64 kg |
| Gross Weight Kg (CPU, DRAM & HDD not included, Packing included) | | 27.85 kg |
| Power Supply | | 1+1 Redundant 1600W 80 PLUS Platinum Power Supply Rating: 100-127/200-240 Vac, 9.4 A/4.72A (x2), 50/60Hz, Class I (240Vdc, 4.6A only for China) |
| Environment | | Operation temperature: 10°C ~ 35°C Non-operation temperature: -40°C ~ 60°C Non-operation humidity: 20% ~ 90% (non-condensing) |