ESC8000A-E12P

New Generation, High Performance 4U Server

EPYC

Form Factor	4U	CPU Number	2	Memory Number	24

ESC8000A-E12P is an AMD EPYC™ dual-socket server built for the demands of enterprise AI infrastructure to deliver unprecedented performance with industry-leading GPUs, faster GPU interconnect and higher-bandwidth fabric, and supports up to eight dual-slot active or passive GPUs scalable configuration with a choice of NVIDIA NVLink® Bridge or AMD Infinity Fabric™ Link to enable scaling of performance with increased bandwidth — ready to match your AI and HPC workloads.

FEATURE

- AMD EPYC 9004 Series Processors
- PCIe 5.0 Ready
- 2+2 Redundant 80 PLUS Titanium Power Supply
- GPU and Bluefield DPU Support
- Comprehensive cooling solutions
- Enhanced Security

Target market

- Virtual Machines
- Data Center
- HPC
- AI Training
- All-flash Storage
- HCI

AMD EPYC 9004 Series Processors
Powered by AMD EPYC 9004 processors with 96 Zen 4 cores, 12-channel, up to 4800 MHz DDR5 and support for a maximum TDP of up to 400 watts per socket

PCIe 5.0 Ready
PCI Express® (PCIe®) 5.0 delivers 32 GT/s bandwidth, which is double the speed of PCIe 4.0, offering lower power consumption, better lane scalability and backwards compatibility.

2+2 Redundant 80 PLUS Titanium Power Supply
ESC8000A-E12P supports up to four 3000 W 80 PLUS® Titanium redundant power supplies to reduce operating costs and enable easier servicing.

GPU and Bluefield DPU Support
Up to eight dual-slot active or passive GPUs, NVIDIA NVLink® bridge, and NVIDIA Bluefield DPU support to enable performance scaling
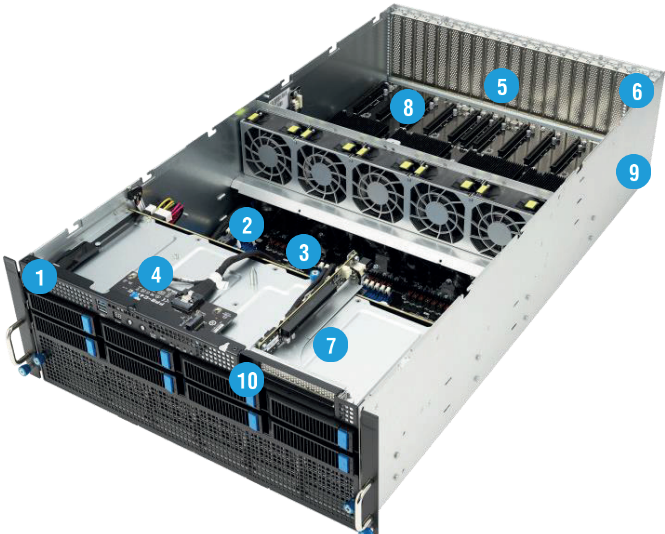
Comprehensive cooling solutions
Air or liquid-cooled solutions. ESC8000A-E12P supports liquid-cooled NVIDIA® A100 PCIe GPU that delivers powerful performance with less energy and provides direct-to-chip (D2C) cooling or immersion-cooling solutions for maximum data-center energy efficiency.

Enhanced Security
ASUS servers also include support 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/ 3DS RDIMM
3. AMD EPYC 9004 Series
4. 1 x M.2 (Up to 22110)
5. 4 x PCIe slot for NIC (Gen5 x16 link)
6. 1 x OCP3.0 socket option(Gen5 x16 links, will occupy one PCIe Slot)
7. 1 x PCIe slot for HBA/RAID cards (Gen5 x16 link,LP,HL)
8. 8 x PCIe slot for GPU (Gen5 x16 link, support up to eight dual slot GPU)
9. 2+2 Redundant 2600W~3000W 80 PLUS Titanium Power Supply
10. 8 x 3.5" Hot-swap HDD Bays

Ai ADVANCED INTEGRATION

ESC8000A-E12P

SPECIFICATION

Processor Support		2 x Socket SP5 (LGA 6096)
Core Logic		AMD EPYC™ 9004 Series
Memory	Total Slots	24 x DIMM slots (12 channel per CPU, 12 DIMM per CPU)
	Capacity	Maximum up to 3TB per CPU socket
	Memory Type	DDR5 4800/4400 RDIMM/ 3DS RDIMM *Refer to ASUS server AVL for the latest update
	Memory Size	64GB, 32GB, 16GB RDIMM 256GB, 128GB RDIMM 3DS *Refer to ASUS server AVL for the latest update
Expansion Slots	Total PCI/PCI-X/PCI-E/PIKE Slots	13
	Slot Type	1 x PCIe x16 slot (Gen5 ,LP,HL) for HBA/RAID cards 8 x PCIe x16 slot (Gen5, FH,FL) for dual-slot GPU card 4 x PCIe x16 slot (Gen5 ,FH,FL) for NIC card 1 x Gen5 x16 OCP socket option (will occupy one PCIe Slot)
Disk Controller	SATA Controller	4 x SATA 6Gbps ports 1 x M.2 connector (PCIe Gen3 x4 link)
	SAS Controller	Optional kits: -Broadcom MegaRAID 9560-16i -Broadcom MegaRAID 9540-8i - ASUS PIKE II 3008 8-port HBA Card - ASUS PIKE II 3108 8-port HW RAID Card
Storage Bays	I = internal A or S will be hot-swappable	8 x 3.5" Front Hot-swap Storage Bays (backplane supports up to 8 x NVMe/SATA/SAS*) *SAS support required an HBA/RAID card.
Networking	LAN	2 x 10GbE LAN ports (RJ45, X710-AT2) or 2 x Gigabit LAN ports (RJ45, I350-AM2) 1 x Management Port (RJ45)
Graphic	VGA	Aspeed AST2600 64MB
Front I/O Ports		2 x USB 3.2 Gen1 ports
Rear I/O Ports		1 x VGA port 1 x COM port 2 x 10GbE/1GbE LAN ports (RJ45, build for order) 1 x Management port (RJ45)
Switch/LED		Front Switch/LED: 1 x Power Button w/LED, 1 x Location Button w/LED, 1 x Message LED, 1 x Q-Code/Port 80 LED, 1 x Clear CMOS LED, 1 x Reset LED, 1 x M.2 LED Rear Switch/LED: 1 x Power Button w/LED, 1 x Location Button w/LED
OS Support		Windows Server RedHat® Enterprise Linux, SuSE® Linux Enterprise Server, CentOS, Ubuntu, VMware *Please find the latest OS support from https://www.asus.com/event/Server/OS_support_list/OS.html
Management Solution	Software	ASUS Control Center (Classic)
	Out of Band Remote Management	On-Board ASMB11-iKVM for KVM-over-IP
Dimension		780mm x 439mm x 175.6 mm (4U) 30.71''x17.28''x 6.91''
Net Weight Kg (CPU, DRAM & HDD not included)		52 kg
Gross Weight Kg (CPU, DRAM & HDD not included, Packing include)		62 kg
Power Supply (following different configuration by region)		2+2 Redundant 2600W/3000W 80 PLUS Platinum Power Supply 2+1 Redundant 2600W/3000W 80 PLUS Platinum Power Supply Rating: 220-240 Vac, 15.5A(x4), 50-60 Hz
Environment		Operation temperature: 10℃ ~ 35℃ Non operation temperature: -40℃ ~ 70℃ Non operation humidity: 20% ~ 90% (Non condensing)