ESC8000A-E13P

New Generation, High Performance 4U NVIDIA MGX™ Server

EPYC

Form Factor	4U	CPU Number	2	Memory Number	24

ESC8000A-E13P is a dual-socket server powered by AMD EPYC™ processors, designed for enterprise AI infrastructure with exceptional computational capabilities, accelerating GPU interconnects and high-bandwidth fabric, supporting up to eight 600W dual-slot GPUs, and offering scalable performance through configurable NVIDIA® NVLink™ 2-Way or 4-Way Bridges to optimize bandwidth and performance for demanding AI and HPC workloads.

FEATURE

- AMD EPYC 9005 Series Processors
- Modularized Design
- 8 x 600W dual-slot GPU Support
- Optimized Server Configuration
- Toolless Design

Target market

- Virtual Machines
- Data Center
- HPC Application
- AI Training
- LLM Inference

5th Gen AMD EPYC™ Processors
Powered by AMD EPYC 9005 processors with up to 128 Zen 5/5c cores and support for a maximum TDP of 500 watts per socket.

Modularized Design
Fully compliant with NVIDIA MGX™ architecture, it can enable multiple configurations and rapidly deploy in large-scale enterprise AI infrastructures.

GPU and NVIDIA® NVLink™ bridge Support
Support up to eight dual-slot 600W GPUs, NVIDIA® NVLink™ 2-Way or 4-Way bridges, and NVIDIA BlueField®-3 DPUs to enable performance scaling.
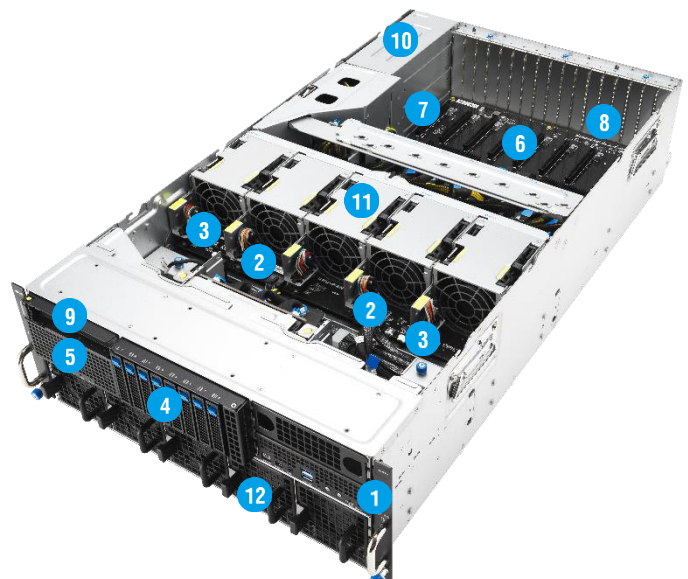
Optimized Server Configuration
Based on the NVIDIA OVX™ system, the server is configured with a 2-8-5 topology (CPU-GPU-DPU/NIC). Five high-bandwidth PCIe NICs and DPUs enhance network traffic and system performance.

Toolless Design
The ASUS-exclusive toolless design empowers easy service and saves over 90% maintenance time for maximum efficiency.

1. Asset Tag
2. 24 x DDR5 DIMM up to 6000Mhz
3. 2 x AMD EPYC™ 9005 Series Processor
4. 8 x 2.5" Hot-swap HDD Bays
5. 2 x M.2 (Gen 5 x4 link, up to 22110)
6. 8 x PCIe slot for dual-slot GPU (Gen5 x16 link, support up 600W)
7. 1 x PCIe slot for NIC (Gen5, x16 link, FHHL)
8. 4 x PCIe slot for NIC/ NVIDIA BlueField®-3 DPUs (Gen5, x16 link, FHHL)
9. 1 x PCIe slot for PCIe card (Gen5 x8 link, FHHL)
10. 3+1 Redundant 3200W 80 PLUS Titanium Power Supply
11. 5 x GPU Fan
12. 5 x System Fan

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Processor Support		2 x Socket SP5 (LGA 6096) AMD EPYC™ 9005 series processors* * At 25°C Operating temperature, cTDP up to 500W
Core Logic		System on Chip (SOC)
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 6400**/6000/5600 RDIMM/ 3DS RDIMM *Refer to ASUS server AVL for the latest update ** DDR5 6400 support expected in Q1 2025
	Memory Size	128GB, 64GB, 32GB RDIMM *Refer to ASUS server AVL for the latest update
Expansion Slots	**Total Slots**	14
	Slot Type	Rear: - 8 x PCIe x16 (Gen5 x16 link, FHFL) for dual-slot GPU cards - 5 x PCIe x16 (Gen5 x16 link, FHHL) for NIC cards or NVIDIA BlueField®-3 DPUs Front: - 1 x PCIe x8 (Gen5 x8 link, FHHL)
Storage Bays		8 x 2.5" Front Hot-swap Storage Bays (Backplane supports up to 8 x NVMe) 2 x M.2 socket (Gen 5 x4 link, up to 22110)
Networking	**LAN**	2 x 10GbE LAN ports (RJ45, X710-AT2) 1 x Management Port (RJ45)
Graphic	**VGA**	Aspeed AST2600 64MB
Front I/O Ports		1 x Mini display port 2 x USB 5Gbps ports
Rear I/O Ports		1 x USB 5Gbps port 2 x RJ-45 LAN ports 1 x RJ-45 management LAN port
Switch/LED		Front Switch/LED: 1 x Power switch/LED, 1 x Location switch/LED, 1 x Message LED, 1 x Clear CMOS switch, 1 x Reset switch, 2 x M.2 LEDs, 2 x LAN LEDs, 1 x Q-Code/Port 80 LED Rear Switch/LED: 1 x Power switch/LED, 1 x Location switch/LED, 1 x Message LED
OS Support		Windows Server RedHat® Enterprise Linux, SuSE® Linux Enterprise Server, CentOS, Ubuntu, VMware Please find the latest OS support from OS Compatibility Guide | ASUS
Management Solution	**Software**	ASUS Control Center (Classic)
	Out of Band Remote Management	On-Board ASMB12-iKVM for KVM-over-IP
Dimension		800mm x 439.5mm x 175 mm (4U) 31.5''x17.3''x 6.9''
Net Weight Kg (CPU, DRAM & HDD not included)		42 kg
Gross Weight Kg (CPU, DRAM & HDD not included, Packing include)		44.23 kg
Power Supply (following different configuration by region)		3+1 Redundant 3200W 80 PLUS Titanium power Rating: 220-240 Vac, 16A (x4) 50/60Hz
Environment		Operating temperature: 10°C ~ 35°C Non-operating temperature: -40°C ~ 60°C Non-operating humidity: 20% ~ 95% (Non-condensing)