

ESC8000A-E13P

New Generation, High Performance 4U NVIDIA MGX™ Server



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

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

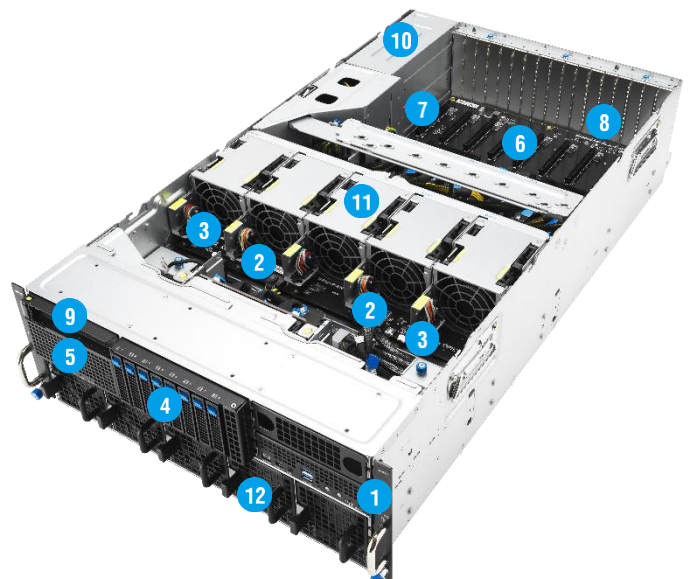
Based on the NVIDIA OVX™ system, the server is configured with a 2-8-5 topology (CPU-GPU-DPU/NIC). Five high-bandwidth PCIe NICs and DPUs enhance network traffic and system performance.

Toolless Design

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

Target market

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



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

ESC8000A-E13P

SPECIFICATION

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
Capacity
Memory Type

24 x DIMM slots (12 channel per CPU, 12 DIMM per CPU)
 Maximum up to 3TB per CPU socket
 DDR5 6400/6000/5600 RDIMM/ 3DS RDIMM
 *Refer to ASUS server AVL for the latest update

Memory Size

128GB, 64GB, 32GB RDIMM
 *Refer to ASUS server AVL for the latest update

Expansion Slots

Total Slots
Slot Type

14
 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
Out of Band Remote Management

ASUS Control Center (Classic)
 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)