

ESC8000-E12

New Generation, High Performance 4U GPU Server



4U



2



32

ESC8000-E12 is a dual-socket server powered by Intel® Xeon® 6 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

- Intel® Xeon® 6 Processors
- High-density 4U server
- Optimized Performance
- Flexible storage options
- Toolless Design

Intel® Xeon® 6 Processors

Powered by Intel® Xeon® 6 Processors featuring 86 cores, eight-channel DDR5 memory up to 6400MHz and a maximum TDP of 350 watts per socket.

High-density 4U server

Designed to support up to eight high-end GPUs in dual-slot configurations, each up to 600 watts. Also supports NVIDIA® NVLink™ 2-Way or 4-Way bridges, ideal for demanding workloads.

Optimized Performance

GPU, NIC/DPU, and dual M.2 boot drives are directly connected to the CPU, minimizing latency and enhancing speed without occupying storage.

Flexible storage options

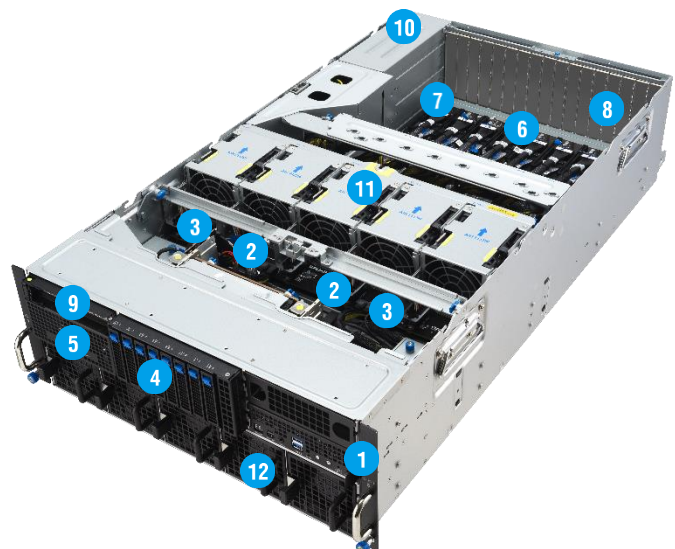
Supports up to six 2.5-inch U.2 NVMe drives with customizable hardware RAID configurations, delivering scalable and high-performance storage solutions.

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. 32 x DDR5 DIMM up to 6400Mhz
3. 2 x Intel® Xeon® 6 Processors
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/ NVIDIA BlueField®-3 DPUs (Gen5, x16 link, FHHL)
8. 1 x PCIe slot for NIC (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

ESC8000-E12

SPECIFICATION

Processor Support

2 x LGA 4710 sockets

Intel® Xeon® 6500/6700 processors
Up to 350 TDP

Core Logic

System on Chip (SOC)

Memory

Total Slots

32 x DIMM slots (8 channel per CPU, 16 DIMM per CPU)

Capacity

Maximum up to 4TB

Memory Type

DDR5 6400 (1DPC) / 5200 (2DPC) RDIMM

*Refer to ASUS server AVL for the latest update

Memory Size

128GB, 96GB, 64GB, 32GB RDIMM

*Refer to ASUS server AVL for the latest update

Expansion Slots

Total Slots

SKU1(with RAID) up to 11 slots

SKU2(w/o RAID) up to 10 slots

Slot Type

SKU1 (with RAID)

-8 x PCIe x 16 for dual-slot GPU cards (Gen5 x 16 link, FHFL)

-1 x PCIe x 16 for NIC/BlueField-3 cards (Gen5 x 16 link, FHFL)

-1 x PCIe x 16 for NIC cards (Gen5 x 8 link, FHHL)

-1 x PCIe x 16 for HBA/RAID cards (Gen5 x 8 link, FHHL)*

SKU2 (without RAID)

-8 x PCIe x 16 for dual-slot GPU cards (Gen5 x 16 link, FHFL)

-1 x PCIe x 16 for NIC/BlueField-3 cards (Gen5 x 16 link, FHFL)

-1 x PCIe x 16 for NIC cards (Gen5 x 8 link, FHHL)*

*Located on the front riser

Storage Bays

8 x 2.5" Front Hot-swap Storage Bays

SKU1 (with RAID) up to 6 NVMe devices based on HBA/Raid card model installed

SKU2 (without RAID) up to 4 NVMe devices

Networking

LAN

1 x Management Port (RJ45)

Graphic

VGA

Aspeed AST2600 64MB

Front I/O Ports

1 x Mini DisplayPort

2 x USB 5Gbps ports

1 x Debug port

Rear I/O Ports

1 x USB 5Gbps port

1 x RJ-45 management LAN port

Switch/LED

Front:

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*, 1 x Q-Code/Port 80 LED

Rear:

1 x Power switch/LED, 1 x Location switch/LED, 1 x Message LED

*SKU1 (with RAID) only

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"x6.9"

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)

*For operating temperatures above 30°C, please contact your local sales representative