

ESC8000-E12P

New Generation, High Performance 4U NVIDIA MGX™ Server



4U



2



32

ESC8000-E12P 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
- Modularized Design
- Support 8 x 600W dual-slot GPU
- Optimized Server Configuration
- 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.

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

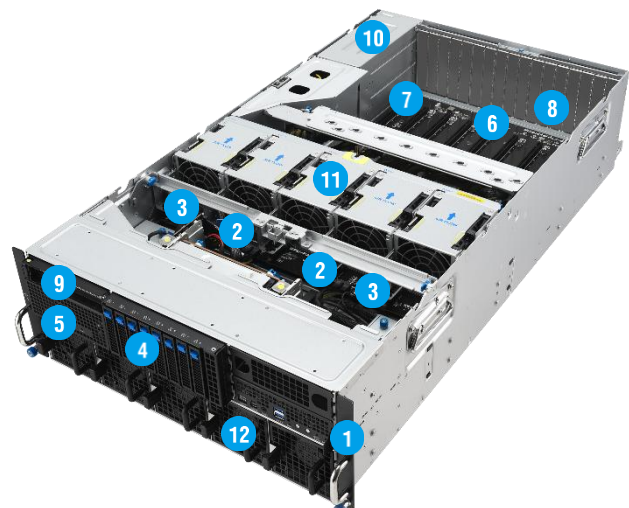
Based on the NVIDIA OVX™ system, the server is configured with a 2-8-5 topology (CPU-GPU-DPU/NIC). Five high-bandwidth PCIe NICs and DPUs enhance network traffic and system performance.

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. 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 (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 8080 Tool-less, Hot-Swap GPU Fan Modules
12. 5 x 8080 Tool-less, Hot-Swap System Fan Modules

ESC8000-E12P

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

14

Slot Type

-8 x PCIe x 16 for dual-slot GPU cards (Gen5 x 16 link, FHFL)
-5 x PCIe x 16 for NIC/ BlueField-3 cards (Gen5 x 16 link, FHFL)
-1 x PCIe x 16 (Gen5 x 8 link, FHHL)

Storage Bays

8 x 2.5" Front Hot-swap Storage Bays
(Backplane supports up to 8 x NVMe)

Networking

LAN

2 x M.2 socket (Gen 5 x4 link, up to 22110)
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 DisplayPort
2 x USB 5Gbps ports
1 x Debug port

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:
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:
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

Management Solution

Software

Please find the latest OS support from [OS Compatibility Guide | ASUS](#)

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