ESC8000-E12

New Generation, High **Performance 4U GPU** Server

Form Factor / 4U | CPU Number / 2 | Memory Number / 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

Target market

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

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

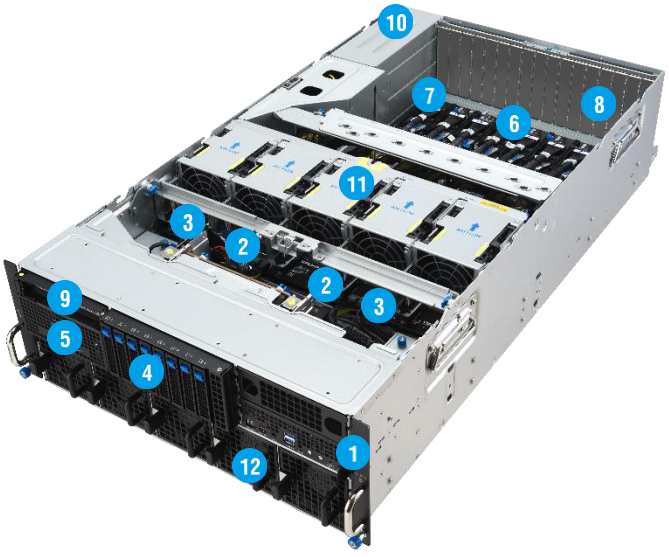
GPU, NIC/DPU, and dual M.2 boot drives are directly connected to the CPU, minimizing latency and enhancing speed without occupying storage.

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.



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

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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''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

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