ESC N8A-E12

ASUS 1st NVIDIA HGX 8-GPU Architecture: The Best Choice for Heavy AI Workloads

Form Factor 7U | CPU Number 2 | Memory Number 24

7U NVIDIA HGX H100 8-GPU server with dual AMD EPYC 9004 Series Processors that designed for large scale of AI and HPC, 12 PCIe slots, 24 DIMM, 10 NVMe, dual 10G LAN. NIC and storage are placed close to the GPUs, use a ratio of up to 1:1 GPUs to network interface card and have GPU Direct Storage design could reduce read/write latency. ESC N8A-E12 is optimal for cultivating AI advancements for enterprise applications.

FEATURE

- AMD EPYC 9004 Series Processors
- PCIe 5.0 Ready
- Powerful Performance
- Enhanced IT-infrastructure management

Target market

- High Performance Computing
- Generative AI
- Deep Learning/Machine Leaning
- Data Analysis
- Scientific Research

AMD EPYC 9004 Series Processors

Powered by AMD EPYC 9004 processors with 96 Zen 4 cores, 12-channel, up to 4800 MHz DDR5 and support for a maximum TDP of up to 400 watts per socket

PCIe Gen5.0 Ready

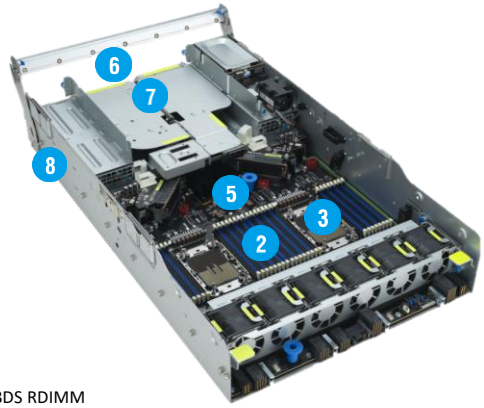
PCI Express® (PCIe®) 5.0 delivers 32 GT/s bandwidth, which is double the speed of PCIe 4.0, offering lower power consumption, better lane scalability and backwards compatibility.

Powerful Performance

Support NVIDIA HGX H100 8-GPUs and connected with latest NVSwitch design. NIC and storage are placed close to the GPUs, use a ratio of up to 1:1 GPUs to network interface card and have GPU Direct Storage design could reduce read/write latency.

Enhanced IT-infrastructure management

ASUS ASMB11-iKVM remote control with ASPEED AST2600, ASUS Control Center IT management software and hardware-level Root-of-Trust solution



1. Asset Tag
2. 24 x DIMM, DDR5 4800/4400 RDIMM/ 3DS RDIMM
3. 2 x AMD EPYC™ 9004 Series
4. 8 x HGX H100 GPUs 80G with NVLink NVSwitch
5. 2 x M.2 Gen5x4 (CPU1)
6. 8 x PCI-E x16 (Gen5 x16 link) HHHL
7. 2 x PCI-E x16 (Gen5 x16 link) FHHL + 2 x PCI-E x16 (Gen5 x8 link) FHHL
8. 4+2 or 3+3 Redundant 3000W 80 PLUS Titanium Power Supply
9. 10 x 2.5" hot-swap drive bays (8 x NVMe, 2 x NVMe/SATA*/SAS*)

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SPECIFICATION

Processor Support		Dual Socket AMD EPYC 9004 Series Processors
Memory	**Total Slots**	24 (12 channel per CPU, 12 DIMM per CPU)
	Capacity	Maximum up to 3TB per CPU socket
	Memory Type	DDR5 4800 RDIMM/RDIMM 3DS *Please refer to www.asus.com for latest memory AVL update
	Memory Size	128GB, 96gb, 64GB, 32GB, 16GB RDIMM 128GB RDIMM 3DS * Refer to www.asus.com/support for more information
Expansion Slots	**Total PCI/PCI-X/PCI-E/PIKE Slots**	12
	Slot Type	[PCIe Switch directly] - 8 x PCIe Gen5 x16 link (HHHL) [CPU directly] - 1 x PCIe Gen5 x16 link (FHHL)* + 1 x PCIe Gen5 x16 link (FHHL)* - 1 x PCIe Gen5 x8 link (FHHL) + 1 x PCIe Gen5 x8 link (FHHL) *Support PCIe x 16 link up to 150W
	M.2	2 x M.2 Gen5x4 (CPU1)
Disk Controller	**SATA/NVMe/SAS Controller (Rear 2 NVMe)**	Optional Kits: -Broadcom MegaRAID 9560-16i -Broadcom RAID CARD 9540-8i
Storage Bays	**I = internal A or S will be hot-swappable**	10 x 2.5” hot-swap drive bays (8 NVMe, 2 NVMe/SATA/SAS*) [PCIe Switch directly] Front: 8 NVMe [CPU directly] Rear: 2 NVMe(CPU1)/SATA*/SAS* *SATA/SAS support required an HBA/RAID card
Networking	**LAN**	2 x 10 Gigabit LAN ports (Intel X710-AT2 Controller) 1 x Management Port
Graphic	**VGA**	Aspeed AST2600 64MB
Front I/O Ports		4 x USB3.2 Gen1 ports 1 x VGA port 2 x 10Gb RJ45 LAN module (Intel-x710 Based) 1 x Mgmt LAN 1 x locate button 1 x power button
Rear I/O Ports		1 x locate button 1 x power button

SPECIFICATION

Switch/LED		Front : 1 x Power Button/LED 1 x Location Button/LED 1 x Message LED 1 x Q-Code/Port 80 LED Rear : 1 x Location LED 1 x Power Button/LED
OS Support		Windows Server RedHat® Enterprise Linux Rocky Ubuntu VMware *Please find the latest OS support from https://www.asus.com/event/Server/OS_support_list/OS.html
Management Solution	**Software**	ASUS Control Center
	Out of Band Remote Management	On-Board ASMB11-iKVM
Dimension		885mm x 447mm x 306.65mm
Net Weight Kg (CPU, DRAM & HDD not included)		99 kg
Gross Weight Kg (CPU, DRAM & HDD not included, Packing include)		154 kg
Power Supply (following different configuration by region)		4+2 or 3+3 3000W 80 PLUS Titanium Power Supply
Environment		Operation temperature: 10℃ ~ 35℃ Non operation temperature: -40℃ ~ 70℃ Non operation humidity: 20% ~ 90% (Non condensing)

ESC N8A-E12 with Front Bezel (Optional)