ESC N8-E11 with NVIDIA HGX™ H100 /ESC N8-E11V with NVIDIA HGX™ H200

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

Form Factor 7U | CPU Number 2 | Memory Number 32

7U NVIDIA HGX H100/H200 8-GPU server with dual 4th/5th Gen Intel Xeon Scalable processors that designed for large scale of AI and HPC, 12 (H100) or 10+1 (H200) PCIe slots, 32 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 N8-E11(V) is optimal for cultivating AI advancements for enterprise applications.

FEATURE

- 4th/5th Gen Intel® Xeon® Scalable 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

5th Gen Intel® Xeon® Scalable Processors

Powered by 5th Gen Intel® Xeon® Scalable Processors with 8-channel, up to 4400 MHz DDR5 and support for a maximum TDP of up to 350 watts per socket

PCIe Gen5.0 Ready

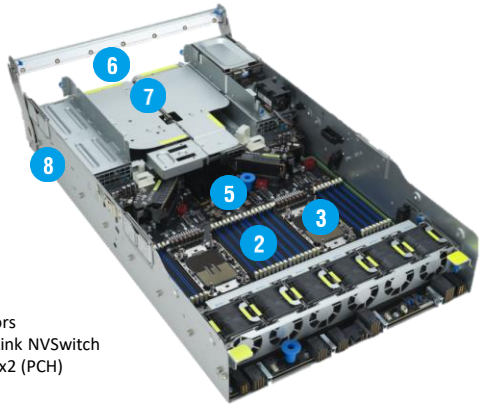
PCI Express® (PCIe®) 5.0 delivers 32 GT/s bandwidth, which is double the speed of PCIe 4.0, offering lower power consumption, better lane scalability and backwards compatibility.

Powerful Performance

Support NVIDIA HGX H100/H200 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. 32 x DIMM, DDR5 4400 RDIMM/ 3DS RDIMM
3. 2 x 4th/5th Gen Intel® Xeon® Scalable Processors
4. 8 x HGX H100 80G/H200 GPUs 141G with NVLink NVSwitch
5. H100: 2 x M.2 Gen5x4 (CPU1) & 2 x M.2 Gen3x2 (PCH)
   H200: 2 x M.2 Gen3x2 (PCH)
6. 8 x PCI-E x16 (Gen5 x16 link) HHHL
7. H100: 1 x PCI-E x16 (Gen5 x16 link) + 1 x PCI-E x16 (Gen5 x16 link) FHHL + 1 x PCI-E x16 (Gen5 x8 link) FHHL + 1 x PCI-E x16 (Gen5 x8 link) FHHL
   H200: 1 x PCI-E x16 (Gen5 x16 link) + 1 x PCI-E x16 (Gen5 x16 link) FHHL + 1 x PCI-E x16 (Gen4 x8 link) FHHL
8. 4+2 Redundant 3000W 80 PLUS Titanium Power Supply
9. 10 x 2.5” hot-swap drive bays (8 x NVMe, 2 x NVMe/SATA)

ESC N8-E11(V)

SPECIFICATION

Processor Support		2 x Socket 4th Gen Intel® Xeon® Scalable Processors 5th Gen Intel® Xeon® Scalable Processors
Memory	**Total Slots**	32 (8-channel per CPU, 16 DIMM per CPU)
	Capacity	Maximum up to 4 + 8 TB (DDR5 + Crow Pass)
	Memory Type	DDR5 4400 RDIMM/RDIMM 3DS (2DIMM per Channel) *Please refer to www.asus.com for latest momory AVL update
	Memory Size	512GB, 256GB, 128GB Intel® Optane™ persistent memory 300 series * Refer to www.asus.com/support for more information
Expansion Slots	**Total PCI/PCI-X/PCI-E/PIKE Slots**	12 (H100) or 10+1 (H200)
	Slot Type	**ESC N8-E11 H100 SKU:** 12 x PCIe Gen5 slots [PCIe Switch directly] - 8 x PCIe Gen5 x16 link (LP, HL) [CPU directly] - 1 x PCIe Gen5 x16 link (FH, HL)* + 1 x PCIe Gen5 x16 link (FH, HL)* - 1 x PCIe Gen5 x8 link (FH, HL) + 1 x PCIe Gen5 x8 link (FH, HL) *Support PCIe x16 link for DPU **ESC N8-E11V H200 SKU:** 10+1 x PCIe Gen5 slots [PCIe Switch directly] - 8 x PCIe Gen5 x16 link (LP, HL) [CPU directly] - 1 x PCIe Gen5 x16 link (FH, HL)* + 1 x PCIe Gen5 x16 link (FH, HL)* - 1 x PCIe Gen4 x8 link from CPU2 DMI (FH, HL)** *Support PCIe x16 link for DPU **For Raid card to connect storage [BF3 operation temperture 30℃ when using transceiver]
	M.2	**ESC N8-E11 H100 SKU:** 2 x M.2 Gen5 x4 link (CPU1) / 2 x M.2 Gen3 x2 link (PCH) **ESC N8-E11V H200 SKU:** 2 x M.2 Gen3 x2 link (PCH)
Disk Controller	**SATA Controller**	Intel PCH Integrated
	SAS Controller	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) [PCIe Switch directly] Front: 8 NVMe [CPU directly] Rear: 2 NVMe(CPU2)/SATA(PCH)
Networking	**LAN**	2 x 10 Gigabit LAN ports (Intel X710-AT2 Controller) 1 x Management Port
Graphic	**VGA**	Aspeed AST2600 64MB

SPECIFICATION

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
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)		113 kg
Gross Weight Kg (CPU, DRAM & HDD not included, Packing include)		174 kg
Power Supply (following different configuration by region)		4+2 3000W 80 PLUS Titanium Power Supply
Environment		Operation temperature: 10℃ ~ 35℃ Non operation temperature: -40℃ ~ 70℃ Non operation humidity: 20% ~ 90% (Non condensing)