ESC4000A-E12

1-Socket 2U Accelerator Server with 4 GPUs supported

EPYC

Form Factor	**2U**	CPU Number	**1**	Memory Number	**12**

ESC4000A-E12 is a four-GPU server built for the demands of enterprise AI and high-performance computing. With AMD EPYC™ 9004 single-processor 2U GPU server that supports four dual-slot GPUs, liquid PCIe 5.0 slots, six NVMe, OCP 3.0 and ASMB11-iKVM. cooling solution, up to 12 DIMM, 8 PCIe 5.0 slots, six NVMe, OCP 3.0 and ASMB11-iKVM

FEATURE

- AMD EPYC™ 9004 series with AMD 3D V-Cache technology

- PCIe Gen5.0 Ready

- AI and HPC workloads ready

- Comprehensive cooling solutions

- Enhanced IT-infrastructure management

Target market

- Streaming Media
- Cloud Computing
- Virtualized & VDI Application
- Enterprise & HPC Application

AMD EPYC™ 9004 series with AMD 3D V-Cache technology
Powered by AMD EPYC 9004 processors with AMD 3D V-Cache technology 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 64 GT/s bandwidth, which is twice the speed of PCIe 4.0, and offers lower power consumption, better lane scalability and backwards compatibility

AI and HPC workloads ready
Up to four dual-slot active or passive GPUs, NVIDIA NVLink® bridge, and NVIDIA Bluefield DPU support to enable performance scaling
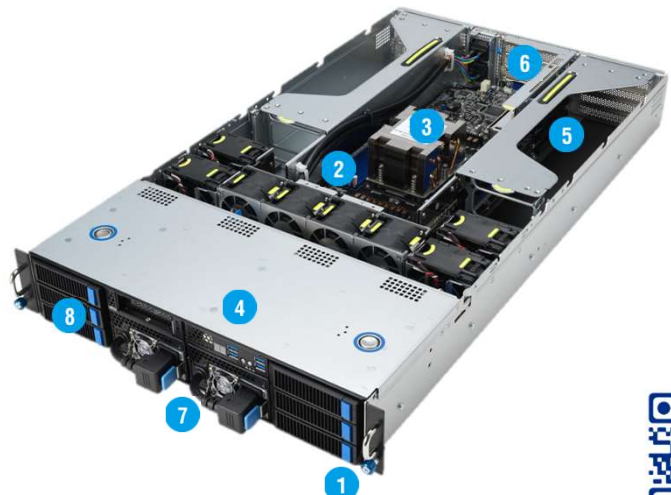
Comprehensive cooling solutions
Designed for both liquid cooling and enhanced air cooling based on CPU TDP for versatile workloads

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. 12 x DIMM, DDR5 4800/4400 RDIMM/ RDIMM 3DS
3. AMD EPYC™ 9004 Series
4. 1 x PCI-E x8 (Gen5 x8 link)
5. 4 x PCI-E x16 (Gen5 x16 link)
6. 2 x PCI-E x16 (Gen5 x16/8 link) or OCP socket and 1 x PCI-E x8 (Gen5 x8 link)
7. 1+1 Redundant 2600W 80 PLUS Titanium CRPS-R Power Supply
8. 2 x 2.5" & 4 x 3.5" Hot-swap HDD Bays

ESC4000A-E12

SPECIFICATION

Processor Support.		1 x Socket SP5 (LGA 6096) AMD EPYC™ 9004 series (up to 400W) 4th Generation AMD EPYC Processors with AMD 3D V-Cache technology
Memory	**Total Slots**	12 (12-channel per CPU, 12 DIMM per CPU)
	Capacity	Maximum up to 3TB per CPU socket
	Memory Type	DDR5 4800/4400 RDIMM/ 3DS RDIMM *Please refer to www.asus.com for latest momory AVL update
	Memory Size	64GB, 32GB, 16GB RDIMM 256GB, 128GB 3DS RDIMM * Refer to www.asus.com/support for more information
Expansion Slots	**Total PCI/PCI-X/PCI-E/PIKE Slots**	12
	Slot Type	Rear: -4 x PCIe x16 slots (Gen5 x16 link, FH, FL) for dual-slot GPU cards or 8 x PCIe x16 slots (Gen5 x8 link, FH,FL) for single-slot GPU cards -1 x PCIe x16 slots (Gen5 x16 link, FH, HL) -1 x PCIe x16 slot (Gen5 x16/x8 link, FH, HL) or OCP socket option -1 x PCIe x8 slot (Gen5 x0/x8 link, LP, HL) Front: 1 x PCIe x8 slot (Gen5 x8 link, LP, HL) Only for SKU1
Disk Controller	**SATA Controller**	6 x SATA 6Gb/s ports
	SAS Controller	Optional kits: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card Broadcom MegaRAID 9540-8i Broadcom MegaRAID 9560-16i
Storage Bays	**I = internal** **A or S will be hot-swappable**	2 x 2.5" & 4 x 3.5" Hot-swap Storage Bays SKU1: 2 x 2.5" SATA/SAS*/NVMe + 2 x 3.5" SATA/SAS*/NVMe + 2 x 3.5" SATA/SAS* SKU2: Build to order 2 x 2.5" SATA/SAS*/NVMe + 4 x 3.5" SATA/SAS*/NVMe (Occupy 1 x PCIe x8 link) *SAS support required a HBA/RAID card. **For SKU1 additional 2 x NVMe support required a RAID card.
Networking	**LAN**	2 x Gigabit LAN ports (Intel I350 Controller) 1 x Management Port
Graphic	**VGA**	Aspeed AST2600 64MB
Front I/O Ports		4 x USB 3.2 Gen1 ports
Rear I/O Ports		2 x USB 3.2 Gen1 ports 2 x Gigabit LAN ports (RJ45) 1 x MAnagement port (RJ45) 1 x VGA port
Switch/LED		Front : 1 x Power Button/LED 1 x Location Button/LED 1 x Message LED 1 x Q-Code/Port 80 LED 2 x LAN LED Rear : 1 x Power Button/LED 1 x Location LED 1 x Message LED

OS Support		Windows Server
		RedHat® Enterprise Linux
		SuSE® Linux Enterprise Server
		CentOS
		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 (Classic)
	Out of Band Remote Management	On-Board ASMB11-iKVM
Dimension		800mm x 439.5mm x 88.9mm (2U)
		845.45mm x 439.5mm x 88.9mm (2U) for immersion cooling
Net Weight Kg (CPU, DRAM & HDD not included)		24 kg
Gross Weight Kg **(CPU, DRAM & HDD not included, Packing include)**		34.8 kg
Power Supply **(following different configuration by region)**		1+1 Redundant 2600W 80 PLUS Titanium CRPS-R Power Supply
Environment		Operation temperature: 10℃ ~ 35℃
		Non operation temperature: -40℃ ~ 70℃
		Non operation humidity: 20% ~ 90% (Non condensing)