



ASUS ESC8000 G4 Series

High-density GPU server with hybrid computing power



ESC8000 G4 Series features a powerful GPU architecture that supports up to eight high-performance NVIDIA® Quadro® or Tesla® GPU cards in a 4U chassis. With so much graphics power, ESC8000 G4 Series lets you accomplish demanding computing tasks more quickly and with greater efficiency. An optimized internal layout enables ESC8000 G4 Series to fit a wide variety of graphics cards — including dual-slot GPUs — with active or passive thermal modules.

Highlights

- High-density GPU server with hybrid computing power
- The Patented Adaptable Topology design
- Scalable design for growing workloads
- Efficient cooling with hot-swappable redundant fans and dedicated air tunnels
- Exclusive thermal radar technology for energy efficiency
- Comprehensive IT infrastructure management software — [ASUS Control Center](#) IT management software and ASMB9-iKVM module support
- Simplified maintenance and management

The Patented Adaptable Topology design

ESC8000 G4 Series provides flexible system topology configuration options, including the ability to choose a single or dual root complex, making it ideal for both deep learning requirements. The patented Adaptable Topology design enables users to switch the system topology easily via the intuitive web-based GUI of the ASUS ASMB9-iKVM server management solution, without changing any hardware configurations or cable routing.

Scalable design for growing workloads

ESC8000 G4 Series is designed for easy scalability to fit growing businesses and workloads. With eight PCIe Gen3 x16 slots that fit full-height, full-length GPU cards, two PCIe Gen3 x16 slots for high-speed networking cards, and one internal PCIe Gen3 x8 slot for an HBA/RAID card.

Exclusive thermal radar technology for energy efficiency

This design provides internal and external temperature monitoring and enables dynamic fan curve adjustment, lowering fan power consumption up to 20% and reducing TCO which is ideal for extreme workload data center.

Simplified maintenance and management

Easily Swappable Components - With the ingenious placement design, IT staff can swap key components with ease.

Specification

Processor Support		2 x Socket P (LGA 3647) 1st Gen Intel® Xeon® Processor Scalable Family 2nd Gen Intel® Xeon® Processor Scalable Family *Refer to support page for more information UPI (10.4 GT/s)
Core Logic		Intel® C621 PCH
Memory	Total Slots	24 (6-channel per CPU, 12 DIMM per CPU)
	Memory Type	DDR4 2933* (1 DIMM per Channel) DDR4 2666/2400/2133 RDIMM/LRDIMM/LRDIMM 3DS (2DIMM per Channel) Intel® Optane™ DC persistent memory (DCPMM) * 2933MHz will drop to 2666MHz when using 2DPC configurations ** Refer to ASUS server AVL for the latest update
Expansion Slots	Total PCI-E Slots	11
	Slot Type	8 x PCI-E x16 (Gen3 x16 link) , FH, FL Low-profile(Rear): 2 x PCI-E x16 (Gen3 x16 link), LP, HL or 1 X PCI-E x16 (Gen3 x16 link), LP, HL Low-profile(Front): 1 x PCI-E x8 (Gen3 x8 link) , LP, HL
Disk Controller	SATA Controller	Intel® C621 - 8 x SATA 6Gb/s ports + 2 x M.2 connector(SATA 6Gb/s & PCI-E Gen3 x4 link) or 6 x SATA 6Gb/s ports + 2 x NVMe + 2 x M.2 connector(SATA 6Gb/s & PCI-E Gen3 x4 link) Intel® RSTe (Support software RAID 0, 1, 10 & 5) Intel® VROC (Support software RAID 0, 1, 10 & 5)
	SAS Controller	ASUS PIKE II 3008 8-port SAS HBA card, ASUS PIKE II 3108 8-port SAS HW RAID card 12G SAS Support
Storage Bays	I = internal A or S will be hot-swappable	8 x 2.5" Hot-swap Storage Bays
Networking	LAN	1 x Dual Port Intel Ethernet Controller i350-AM2 + 1 x Mgmt LAN (ESC8000 G4) 1 x Dual Port Intel Ethernet Controller X550-AT2 + 1 x Mgmt LAN (ESC8000 G4/10G)
Graphic	VGA	Aspeed AST2500 with 64MB VRAM
Front I/O Ports		2 x USB 3.0 ports, 2 x USB 2.0 ports, 1 x VGA port, 1 x COM port
Rear I/O Ports		2 x RJ-45 GbE LAN ports, 1 x RJ-45 Mgmt LAN port
Switch/LED		Front Switch/LED: 1 x Q-Code/Port 80 LED, 1 x Power switch/LED, 1 x Location switch/LED, 1 x HDD Access LED, 1 x Message LED, LAN 1-4 LED
OS Support		https://www.asus.com/event/Server/OS_support_list/OS.html
Management Solution	Software	ACC
	Out of Band Remote Management	On-Board ASMB9-iKVM for KVM-over-IP
Regulatory Compliance		BSMI, CE, FCC(Class A)
Dimension		798mm x 439mm x 175.6mm(4U)
Power Supply (following different configuration by region)		1+1 Redundant 1600W 80 PLUS Platinum Power Supply Rating: 100-127Vac/200-240Vac,12.9A/9.5A (x2), 47-63Hz 1+1 Redundant 2200W 80 PLUS Platinum Power Supply Rating: 100-127Vac/200-240Vac,12.9A/9.5A (x2), 47-63Hz *2200W Power supply is only available for selected countries.
Environment		Operation temperature: 10°C ~ 35°C / Non operation temperature: -40°C ~ 70°C Non operation humidity: 20% ~ 90% (Non condensing)