

ASUS ESC4000 G4

High performance 2U accelerator server with 16 DIMMs and 8 hot-swap HDD bays



Intel® Xeon® Scalable platform design

ESC4000 G4 is built on the Intel® Xeon® Scalable Platform to deliver incredible 2U server performance, packing incredible power into minimal space. 16 DIMM slots provide best-in-class memory capacity and bandwidth, and an integrated I/O controller on the processor eliminates data transfer bottlenecks caused by discrete I/O chipsets for reduced latency and dramatically faster system performance.

Flexible choice on versatile accelerators



ESC4000 G4 supports up to four double-deck server GPUs in a 2U form factor. Broad GPU support including NVIDIA, AMD and Intel.

Maximum flexible 8+3 expansion slots in a 2U server

ESC4000 G4 offers eight full-length PCI Express 3.0 x16 (4 at x16 Link or 8 at x8 Link), one low-profile PCI Express 3.0 x24 with support of a riser card for additional one PCI Express x16 (x16 Gen3 Link) and one PCI Express x8. One PCI Express x8 for internal HBA/RAID card. Flexible expandability in a 2U form factor supports diverse storage and networking applications to meet the demands of future expansion and high scalability.

User-friendly design for easier server maintenance

ESC4000 G4 features numerous user-friendly design features that simplify server maintenance. The server's Q-code is visible from the outside of the case to make diagnosing issues easier and more convenient.

Expandable storage for faster transfer speeds

ESC4000 G4 features full-bandwidth port-to-port OCUlink for two NVMe storage devices with 3X faster transfer speeds compared to PCIe switch IC solutions. One M.2 slot accommodates 2280-size SSDs with support for additional OS storage and PCIe 3.0 x4 bandwidth — 5.3X faster than 6 Gb/s SATA III — for faster boot speeds. ESC4000 G4 is ideal for data centers with high storage and processing demands.

Smart thermal design for energy efficiency

ESC4000 G4 features a smart thermal radar design reduces fan power consumption by up to 20% and eliminates the power-sharing board for improved efficiency and lower operation costs.

Highlights

- Powered by Intel® Xeon® Scalable Platform
- 150W CPU with 16 DIMM support
- Flexible choice on versatile accelerators
- Maximum flexible 8+3 expansion slots in a 2U server
- Expandable storage for faster transfer speeds
- High power-efficiency with 1+1 redundant 1600W 80 plus (platinum level) power supply
- User-friendly design for easier server maintenance — tool-less chassis design for installation and removal
- Fully integrated remote server management — ASUS Control Center IT management software and ASMB9-iKVM module support
- Smart thermal design for energy efficiency



Specification

Processor Support		2 x Socket P (LGA 3647)
		1st Gen Intel® Xeon® Processor Scalable Family (150W)
		2nd Gen Intel® Xeon® Processor Scalable Family (150W)
		*Refer to support page for more information UPI 9.6 /10.4 GT/s
Core Logic		Intel® C621 PCH
Memory	Total Slots	16 (6-channel per CPU, 8 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/PCI-X/PCI-E/PIKE Slots	8+3
	Slot Type	Full-length/Full-height 8 * PCI-E 3.0 x16 (4 at x16 Link or 8 at x8 Link) Half-length/Low-profile Rear: 1 * PCI-E 3.0 x24 (support with riser card) (1 * PCI-E x16 (x16 Gen3 Link) and 1 * PCI-E x8 (x8 Gen3 Link)) Front: 1 * PCI-E x8 (internal HBA/RAID card)
Disk Controller	SATA Controller	Intel® C621 8 x SATA3 6Gb/s ports + 1 x M.2 connector (SATA 6Gb/s & PCI-E Gen3 x4 link /2280/2260) or 6 x SATA3 6Gb/s ports + 2 x NVMe drives + 1 x M.2 connector (SATA 6Gb/s & PCI-E Gen3 x4 link /2280/2260) Intel® Rapid Storage Technology Enterprise(RSTe) (For Linux/Windows) (Support Software RAID 0, 1, 5, 10)
	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 Hot-swap 3.5" HDD Bays
Networking	LAN	1 x Dual Port Intel I350-AM2 Gigabit LAN controller + 1 x Mgmt LAN
Graphic	VGA	Aspeed AST2500 with 64MB VRAM
Auxiliary Storage Device Bay (Floppy / Optical Drive)		-
Front I/O Ports		1 x 80 port 2 x USB 3.0 ports + 2 x USB 2.0 ports
Rear I/O Ports		2 x USB 3.0 port, 1 x VGA port, 1 x RJ-45 Mgmt LAN port, 2 x RJ-45 GbE LAN ports
Switch/LED		Rear Switch/LED: 1 x Power switch/LED, 1 x Location LED, 1 x Message LED, 1 x HDD Access LED Front Switch/LED: 1 x Power switch/LED, 1 x Location switch/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		800mm x 440mm x 88mm (2U)
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)



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