vantageo™

Vantageo 2450-RG-H100GPU Server

Flexible, Scalable, and Secure

High-Performance Computing (HPC) & Artificial Intelligence (AI) Server Solution

Overview

- Engineered with 4th/5th Gen Intel® Xeon® Scalable processors
- Designed for AI, AI Training, AI Inference, Visual Computing, and HPC applications

Supports

NVIDIA HGX™ brings together the full power of 2450-RG-H100GPU and fully optimized NVIDIA AI and NVIDIA HPC software stacks. 2450-RG-H100GPU is available as a server building block in the form of integrated baseboards in four or eight H100 GPU configurations. 2450-RG-H100GPU offers fully interconnected point to point NVLink™ connections between GPUs while the eight GPU configuration offers full GPU to GPU bandwidth through NVSwitch. Leveraging the power of H100 multi-precision Tensor Cores, an 8-way 2450-RG-H100GPU provides over 32 petaFLOPS of FP8 deep learning compute performance. NVIDIA HGX™ 2450-RG-H100GPU also includes NVIDIA BlueField®-3 data processing units (DPUs) to enable cloud networking, composable storage, zero-trust security, and GPU compute elasticity in hyperscale AI clouds.

Power Efficiency

Vantageo servers are enabled with Automatic Fan Speed Control to achieve the best cooling and power efficiency. Individual fan speeds will be automatically adjusted according to temperature sensors strategically placed in the servers.

MostHigh-endCPUsupport

Under 35 degree air cool, with excellent thermal solution, 2450-RG-H100GPU series is able to support the high end CPU on Sapphire Rapid/ Genoa platform.

Accelerators

Increase ROI while improving efficiency and performance

High CPU Performance

The best in computational performance relies on a system well designed by our engineers to adequately dissipate heat to achieve peak performance.

Vantageo 2450-RG-H100GPU

Energy Efficiency

Our engineers have baked in features to achieve higher efficiency from power supplies and server fans. Along with Titanium and Platinum offerings.

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Feature

- NVIDIA-Certified Systems™ – Data Center Servers

- NVIDIA HGX™ H100 8-GPU

- 900GB/s GPU-to-GPU bandwidth with NVIDIA® NVLink™ and NVSwitch™

- Dual 5th/4th Gen Intel® Xeon® Scalable Processors

- Dual Intel® Xeon® CPU Max Series

- 8-Channel DDR5 RDIMM, 32 x DIMMs

- Dual ROM Architecture

- Compatible with NVIDIA BlueField®-3 DPUs/SuperNICs

- 2 x 10Gb/s LAN ports via Intel® X710-AT2

- 8 x 2.5" Gen5 NVMe/SATA/SAS-4 hot-swap bays

- 4 x FHHL PCIe Gen5 x16 slots

- 8 x LP PCIe Gen5 x16 slots

- 4+2 3000W 80 PLUS Titanium redundant power supplies

Technical details   Vantageo 2450-RG-H100GPU

Processor	5th Generation Intel® Xeon® Scalable Processors
	4th Generation Intel® Xeon® Scalable Processors
	Intel® Xeon® CPU Max Series
	Dual processor, CPU TDP up to 350W
Chip Set	Intel® C741 Chipset
Socket	2 x LGA 4677 Socket E
Memory	32 x DIMM slots
	DDR5 memory supported
	8-Channel memory per processor
LAN	**Front (I/O board - CDCG120):**
	2 x 10Gb/s LAN (1 x Intel® X710-AT2) - Support NCSI function
	1 x 10/100/1000 Mbps Management LAN
	Rear (MLAN board - CDB66):
	1 x 10/100/1000 Mbps Management LAN
Video	Integrated in Aspeed AST2600 2D Video Graphic Adapter with PCIe bus interface
	1920x1200@60Hz 32bpp, DDR4 SDRAM
Storage	**Front hot-swap:**
	8 x 2.5" Gen5 NVMe/SATA/SAS-4 [1] - (NVMe from PEX89104)
SAS	Require SAS add-in cards
PCIe Expansion Slots	**Extension Board CPBG044 x 2:**
	- 8 x LP x16 (Gen5 x16), from PEX89104
PCIe Cable x 4:	- 2 x FHHL x16 (Gen5 x16), from CPU_0
	- 2 x FHHL x16 (Gen5 x16), from CPU_1
Front I/O	**I/O board - CDCG120:**
	2 x USB 3.2 Gen1 ports (Type-A)
	1 x VGA port
	2 x RJ45 ports
	1 x MLAN port (default)
	1 x Power button with LED
	1 x ID button with LED
	1 x NMI button
	1 x Reset button
	1 x Storage activity LED
	1 x System status LED
Rear I/O	**MLAN board - CDB66:**
	1 x MLAN port
Backplane Board	**Speed and bandwidth:**
	PCIe Gen5 x4 or SATA 6Gb/s or SAS-4 24Gb/s

Security Modules	1 x TPM header with SPI interface – Optional TPM2.0 kit: CTM010
Power Supply	4+2 3000W 80 PLUS Titanium redundant power supplies [1]
Dimensions (WxHxD, mm)	447 x 219.7 x 945
Weight	Net Weight: 91 kg
System Management	Dashboard HTML5 KVM Sensor Monitor (Voltage, RPM, Temperature, CPU Status …etc.) Sensor Reading History Data FRU Information SEL Log in Linear Storage / Circular Storage Policy Hardware Inventory Fan Profile System Firewall Power Consumption Power Control Advanced power capping LDAP / AD / RADIUS Support Backup & Restore Configuration Remote BIOS/BMC/CPLD Update Event Log Filter User Management Media Redirection Settings PAM Order Settings SSL Settings
OS Compatibility	Please refer to OS compatibility table in support page
System Fans	Motherboard: 2 x 40x40x28mm (25,000rpm) 4 x 60x60x56mm (24,000rpm) PCIe slots: 4 x 40x40x28mm (25,000rpm) 2 x 40x40x56mm (29,700rpm) GPU tray: 6 x 60x60x76mm (21,700rpm) 11 x 80x80x80mm (17,000rpm)
Operating Properties	Operating temperature: 10°C to 35°C Operating humidity: 8%-80% (non-condensing) Non-operating temperature: -40°C to 60°C Non-operating humidity: 20%-95% (non-condensing)

Recommended support

24x7 - 4 hours Response, Next Business Day Call to Resolution CTR

24x7 - 4 hours Response, 24 Hours Call to Resolution CTR

24x7 - 4 Hours Response, 6 Hours Call to Resolution CTR

Default support Next Business Day Consulting and deployment offerings are also available. Contact Vantageo representative for the more information.

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