

# Vantageo 2450-RG-H200GPU

## Server

Flexible, Scalable, and Secure



### Accelerating Artificial Intelligence and Leading Efficiency

Engineering richer features in a revolutionary platform, Intel has made an incredible jump in processor performance in the business transformation journey. AI and deep learning performance will benefit from the built-in AI acceleration engines, while networking, storage, and analytics leverage other specialized accelerators in the 4th & 5th Gen Intel Xeon Scalable processors. Adding a host of new features to target a wide range of workloads, the new families of Intel Xeon processors will deliver even better CPU performance and performance per watt, and do so on a PCIe 5.0 platform with 2x the prior gen throughput to greatly speed up data movement to and from GPUs and storage. Intel also created the Intel Xeon CPU Max Series with High Bandwidth Memory (HBM) for improvements in memory bound HPC and AI workloads. For this new platform, Vantageo has products ready to get the most out of Intel Xeon CPU-based systems that support fast PCIe Gen5 accelerators and Gen5 NVMe drives, in addition to support for high performant DDR5 memory.

### Supports

The NVIDIA HGX™ Vantageo 2450-RG-H200GPU combines H200 Tensor Core GPUs with high-speed interconnects to deliver extraordinary performance, scalability, and security for every data center. Configurations of up to eight GPUs deliver unprecedented acceleration, with a staggering 32 petaFLOPS of performance to create the world's

most powerful accelerated scale-up server platform for AI and HPC. An eight-way HGX Vantageo 2450-RG-H200GPU provides over 32 petaflops of FP8 deep learning compute and 1.1TB of aggregate high-bandwidth memory. NVIDIA HGX™ Vantageo 2450-RG-H200GPU 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.

### 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.

### 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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### Optimal Price

Vantageo releases multiple product models and configurations to target exactly what users want without paying for extra features that go unused.

### Continuous Operation

Systems are rigorously designed and tested to ensure downtime will not occur. Customers have come to expect stable performance.

### Feature

- 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 and ConnectX®-7 NICs
- 2 x 10Gb/s LAN ports via Intel® X710-AT2
- 2 x M.2 slots with PCIe Gen3 x2 and x1 interface
- 8 x 2.5" Gen5 NVMe/SATA hot-swap bays
- 4 x FHHL dual-slot PCIe Gen5 x16 slots
- 8 x FHHL single-slot PCIe Gen5 x16 slots
- 4+4 3000W 80 PLUS Titanium redundant power supplies

## Technical details Vantageo 2450-RG-H200GPU

Processor	5th Generation Intel® Xeon® Scalable Processors 4th Generation Intel® Xeon® Scalable Processors Intel® Xeon® CPU Max Series  Dual processor, TDP up to 350W
Chip Set	Intel® C741
Socket	2 x LGA 4677 Socket E
Memory	32 x DIMM slots DDR5 memory supported 8-Channel memory per processor <b>5th Gen Intel® Xeon®:</b> RDIMM: Up to 5600 MT/s (1DPC), 4400 MT/s (2DPC) <b>4th Gen Intel® Xeon®:</b> RDIMM: Up to 4800 MT/s (1DPC), 4400 MT/s (2DPC) <b>Intel® Xeon® Max Series:</b> RDIMM: Up to 4800 MT/s (1DPC), 4400 MT/s (2DPC)
LAN	Front (I/O board - CFPG540): 2 x 10Gb/s LAN (1 x Intel® X710-AT2)- Support NCSI function
Video	Integrated in ASPEED® AST2600- 1 x VGA port
Storage	<b>Front hot-swap:</b> 8 x 2.5" Gen5 NVMe/SATA - (NVMe from PEX89104)  <b>Internal M.2::</b> 1 x M.2 (2280/22110), PCIe Gen3 x2, from PCH 1 x M.2 (2280/22110), PCIe Gen3 x1, from PCH
RAID	Intel® SATA RAID 0/1/10/5
Modular GPU	NVIDIA HGX™ H200 with 8 x SXM GPUs
PCIe Expansion Slots	PCIe Bridge Board - CBG76: - 8 x FHHL x16 (Gen5 x16), from PEX89104  PCIe Bridge Board - CPBG045 x 2: - 4 x FHHL x16 (Gen5 x16), from PEX89048
Front I/O	I/O board - CFPG540: 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
Security Modules	1 x TPM header with SPI interface - Optional TPM2.0 kit: CTM010
Power Supply	4+4 3000W 80 PLUS Titanium redundant power supplies [1][2]
Dimensions (WxHxD, mm)	447 x 351 x 920
System Management	<ul style="list-style-type: none"> <li>• Dashboard</li> <li>• HTML5 KVM</li> <li>• Sensor Monitor (Voltage, RPM, Temperature, CPU Status ...etc.)</li> <li>• Sensor Reading History Data</li> <li>• FRU Information</li> <li>• SEL Log in Linear Storage / Circular Storage Policy</li> <li>• Hardware Inventory</li> <li>• Fan Profile</li> <li>• System Firewall</li> <li>• Power Consumption</li> <li>• Power Control</li> <li>• Advanced power capping</li> <li>• LDAP / AD / RADIUS Support</li> <li>• Backup &amp; Restore Configuration</li> <li>• Remote BIOS/BMC/CPLD Update</li> <li>• Event Log Filter</li> <li>• User Management</li> <li>• Media Redirection Settings</li> <li>• PAM Order Settings</li> <li>• SSL Settings</li> <li>• SMTP Settings</li> </ul>
OS Compatibility	Please refer to OS compatibility table in support page
System Fans	<p><b>Motherboard:</b></p> <p>2 x 60x60x56mm (24,600rpm)</p> <p>4 x 60x60x76mm (21,800rpm)</p> <p><b>PCIe slots:</b></p> <p>4 x 80x80x56mm (15,500rpm)</p> <p><b>GPU tray:</b></p> <p>16 x 80x80x80mm (16,400rpm)</p>
Operating Properties	<p>Operating temperature: 10°C to 25°C</p> <p>Operating humidity: 8%-80% (non-condensing)</p> <p>Non-operating temperature: -40°C to 60°C</p> <p>Non-operating humidity: 20%-95% (non-condensing)</p>

## 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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