

# Vantage 22G1-RG Server

Flexible, Scalable, and Secure



The 22G1-RG is a high-performance dual-socket server platform designed for enterprise and data center applications. Featuring the AMD EPYC™ 9004 series processors, this system offers cutting-edge computing power, high memory bandwidth, and extensive storage and networking capabilities. With PCIe Gen4 expansion, DDR5 memory support, and remote management, it is built for scalability, reliability, and efficiency.

## Key Specifications

- Dual AMD EPYC™ 9004 Series Processors – Delivers superior performance with advanced 5nm architecture
- 12-Channel DDR5 Memory Support – Up to 24 DIMM slots for high memory bandwidth
- High-Speed Storage Interfaces – Supports Gen5 NVMe, SATA, and PCIe Gen4 M.2
- Networking Connectivity – Dual 10GbE BASE-T LAN and dedicated management port
- Expansion Flexibility – 4 x PCIe Gen4 x16 slots
- Advanced Remote Management – Integrated Aspeed® AST2600 BMC for out-of-band system monitoring

## Key Features & Benefits

### Processor

- Dual AMD EPYC™ 9004 Series Processors – Harness the power of AMD's 5nm Zen 4 architecture, offering higher core counts, improved efficiency, and exceptional performance for modern workloads.
- Scalability & Multi-Threading – Ideal for cloud computing, AI inference, database processing, and virtualized environments.

### Memory Performance & Expandability

- 12-Channel DDR5 Memory Support – Up to 24 DIMM slots for expanded memory capacity, increased bandwidth, and lower latency.

### Storage & Expansion Versatility

- High-Speed Storage Interfaces – Supports PCIe Gen5 NVMe, SATA, and PCIe Gen4 M.2 for ultra-fast data transfer speeds.
- Flexible Storage Configurations – Accommodates a mix of NVMe, SAS, and SATA drives, enabling high-performance storage tiers.

## Vantageo 22G1-RG Details

### Advanced Networking & Connectivity

- Dual 10GbE BASE-T LAN ports
- Dedicated Management Port – Ensures reliable out-of-band remote management for system administrators.

### Expansion & Customization Options

- PCIe Gen4 Expansion – 4 x PCIe Gen4 x16 slots allow for GPU acceleration and additional storage controllers.
- Dedicated Management Port – Ensures reliable out-of-band remote management for system administrators.
- Optimized for AI, HPC, and Cloud Workloads – Expandability supports diverse enterprise applications.

### Intelligent Remote Management

- Aspeed® AST2600 BMC – Industry-leading Baseboard Management Controller (BMC) for remote monitoring, troubleshooting, and firmware updates.
- Secure & Scalable IT Infrastructure – Ensures maximum uptime, proactive maintenance, and efficient resource management.

Technical details

Vantageo 22G1-RG Details

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| Form Factor          | 2U Rack Server                                                                                                                                                                                                                                                                                                                |
| Processor            | AMD EPYC™ 9004 Series processors Dual processors, 5nm technology, cTDP up to 300W Up to 96-core, 192 threads per processor 2 x LGA 6096, Socket SP5                                                                                                                                                                           |
| Socket               | 2 x LGA 6096 Socket SP5                                                                                                                                                                                                                                                                                                       |
| Chipset              | System on Chip                                                                                                                                                                                                                                                                                                                |
| Memory slot          | 24 x DIMM slots<br>DDR5 memory supported<br>12-Channel memory architecture<br>RDIMM: Up to 4800 MT/s                                                                                                                                                                                                                          |
| LAN                  | 2 x 10Gb/s BASE-T LAN ports<br>1 x 10/100/1000 management LAN                                                                                                                                                                                                                                                                 |
| Video                | Integrated in Aspeed® AST2600- 1 x VGA port                                                                                                                                                                                                                                                                                   |
| Storage Interface    | 2 x SlimSAS 8i for 4 x Gen4 NVMe or 16 x SATA, from CPU_1<br>1 x SlimSAS 4i for 4 x SATA, from CPU_0                                                                                                                                                                                                                          |
| M.2                  | 1 x M.2 (2280/22110), PCIe Gen4 x4, from CPU_0                                                                                                                                                                                                                                                                                |
| PCIe Expansion Slots | Slot_4: PCIe x16 (Gen4 x16), from CPU_0<br>Slot_3: PCIe x16 (Gen4 x16), from CPU_0<br>Slot_2: PCIe x16 (Gen4 x16), from CPU_1<br>Slot_1: PCIe x16 (Gen4 x16), from CPU_1<br>2 x SlimSAS 8i (PCIe Gen4 x8 or SATA), from CPU_1                                                                                                 |
| Internal I/O         | 2 x MCIO 8i connectors<br>1 x M.2 slots,<br>2 x CPU fan headers,<br>3 x System fan headers,<br>1 x USB 3.2 Gen1 header,<br>1 x TPM header,<br>1 x Front panel header,<br>1 x HDD back plane board header,<br>1 x PMBus connector,<br>1 x IPMB connector,<br>1 x Clear CMOS jumper,<br>1 x BIOS recovery jumper,<br>1 x Buzzer |
| Rear I/O             | 2 x USB 3.2 Gen1 ports (Type-A)<br>1 x VGA port<br>1 x COM port<br>2 x RJ45 ports<br>1 x MLAN port                                                                                                                                                                                                                            |
| Security Modules     | 1 x TPM header with SPI interface - Optional TPM2.0                                                                                                                                                                                                                                                                           |
| OS Compatibility     | Windows Server 2019 / 2022<br>RHEL 8.6 / 8.7 / 9 / 9.1 (x64)<br>SLES 15 SP4 (x64)<br>Ubuntu 20.04.5 LTS / 22.04 LTS / 22.04.1 LTS (x64)<br>VMware ESXi 7.0 Update 3i / 8.0<br>Citrix Hypervisor 8.2.1                                                                                                                         |

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| Board Management     | Aspeed® AST2600 Baseboard Management Controller Management Console web interface<br>Dashboard<br>HTML5 KVM<br>Sensor Monitor (Voltage, RPM, Temperature, CPU Status ...etc.)<br>Sensor Reading History Data<br>FRU Information<br>SEL Log in Linear Storage / Circular Storage Policy<br>Hardware Inventory<br>Fan Profile<br>System Firewall<br>Power Consumption<br>Power Control<br>Advanced power capping<br>LDAP / AD / RADIUS Support<br>Backup & Restore Configuration<br>Remote BIOS/BMC/CPLD Update<br>Event Log Filter<br>User Management<br>Media Redirection Settings<br>PAM Order Settings<br>SSL Settings<br>SMTP Settings |
| PSU Connectors       | 1 x 24-pin ATX main power connector<br>2 x 8-pin ATX 12V power connectors<br>2 x 6-pin ATX 12V power connectors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Operating Properties | Operating temperature: 10°C to 40°C<br>Operating humidity: 8-80% (non-condensing)<br>Non-operating temperature: -40°C to 60°C<br>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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