

Vantage 24G1

GPU

Flexible, Scalable, and Secure



This high-density AI and GPU server is engineered to deliver exceptional performance for artificial intelligence, machine learning, deep learning, and high-performance computing workloads. Powered by dual AMD EPYC™ 9005/9004 Series processors and supporting up to eight dual-slot PCIe Gen5 GPUs, including NVIDIA H200 NVL PCIe and NVIDIA RTX PRO™ 6000 Blackwell Server Edition GPUs, it provides outstanding computational power for training and inference tasks. With 48 DDR5 RDIMM slots across 12 memory channels, 12 hot-swappable Gen5 NVMe/SATA/SAS-4 drive bays, and extensive PCIe Gen5 expansion capabilities, the platform offers unmatched scalability, flexibility, and storage performance. Dual 1GbE networking and quad 3000W 80 PLUS Titanium redundant power supplies ensure reliable, enterprise-grade operation for the most demanding data center environments.

Key Features

- Supports up to 8 x Dual slot Gen5 GPUs
- **Conditionally** supports
 - 8 x NVIDIA H200 NVL PCIe GPUs with 4-way NVLink bridges
 - 8 x NVIDIA RTX PRO 6000 Blackwell Server Edition GPUs
- Dual AMD EPYC 9005/9004 Series Processors
- 12-Channel DDR5 RDIMM, 48 x DIMMs
- 2 x 1 Gb/s LAN ports via Intel I350-AM2
- 12 x 2.5" Gen5 NVMe/SATA/SAS-4 hot-swap bays
- 2 x M.2 PCIe Gen3 x4
- 8 x FHFL PCIe Gen5 x16 for GPUs
- 2 x FHFL PCIe Gen5 x16
- 1 x FHHL PCIe Gen5 x16 on the front side
- 3 x LP PCIe Gen5 x16
- Quad 3000 W 80 PLUS Titanium redundant power supply

Technical details

Vantageo 24G1 Details

Form Factor	4U (W448 x H176 x D880 mm)
CPU	AMD EPYC 9005 Series Processors AMD EPYC 9004 Series Processors Dual processor, cTDP up to 400 W - At 30°C ambient, cTDP up to 500 W
Socket	2 x LGA 6096 (Socket SP5)
Chipset	System on Chip
Memory	12-Channel DDR5 RDIMM, 48 x DIMMs [EPYC 9005] Up to 5200 MT/s (1DPC) Up to 4400 MT/s (1R 2DPC), 4000 MT/s (2R 2DPC) [EPYC 9004] Up to 4800 MT/s (1DPC), 3600 MT/s (2DPC)
LAN	2 x 1 Gb/s LAN (1 x Intel I350-AM2), Support NCSI 1 x 10/100/1000 Mb/s Management LAN, WEB based HTTPs Support
Video	Integrated in ASPEED AST2600 - 1 x VGA port
Storage	Front hot-swap: 12 x 2.5" Gen5 NVMe/SATA/SAS-4 Internal M.2: 2 x M.2 (2280/22110), PCIe Gen3 x4
Raid Controller	Broadcom 93XX / 94XX / 95XX / 96XX / PCIe SAS Raid Card 12Gbps 1GB/2GB/4GB/ 8GB cache, support Raid, 0, 1, 5, 6, 10, 50 ,60 with battery backup Broadcom 93XX / 94XX / 95XX / 96XX / PCIe SAS Raid Card 12Gbps 8GB cache, External 12G SAS Port support Raid, 0, 1, 5, 6, 10, 50 ,60 with battery backup(Supports NVMe) Raid controller cooling with heat sink
PCIe Expansion Slots	Rear: 8 x FHFL PCIe Gen5 x16, for GPUs 2 x FHHL PCIe Gen5 x16 3 x LP PCIe Gen5 x16 Front: 1 x FHHL PCIe Gen5 x16
I/O Ports	Front: 2 x USB 3.2 Gen1, 1 x VGA, 2 x RJ45, 1 x MLAN
TPM	1 x TPM header (SPI), Optional TPM 2.0 kit: CTM010
Power Supply	Quad 3000 W 80 PLUS Titanium redundant power supply AC Input: 100-240 V
System Fans	2 x 40x40x28mm 12 x 60x60x56mm
Operating Properties	Operating: 10°C to 35°C, 8% to 80% (non-condensing) Non-operating: -40°C to 60°C, 20% to 95% (non-condensing)

Technical details

Server Management	AST2600 with dual BMC supports IPMI and Redfish (1) 1000Base-T Dedicated Server Management Port Dual BIOS22, (1) MicroSD card slot for BMC log RESTful API to discover and deploy servers Web Management interface Monitoring of critical components like Fan, Power ,CPU , HDD, Raid Telemetry details Support sending alarm notification securely to OEM / Personal for troubleshooting <u>Vantageo</u> Manage Grid
Security	TPM 2.0(Trusted Platform Module), Authenticated BIOS, Secure Boot, Silicon Root of Trust, Disk Encryption, Hardware Root of Trust Sign firmware updates and BIOS code / Scan for malicious firmware Malicious code free design Secured Configuration Upgrade Secured Default Passwords Secure Erase Advanced Encryption Standard (AES) Rapid OS Recovery Secure Recovery Infrastructure lifecycle management-Checks Hardware security identifies configuration drift indicative of a breach.
BIOS	UEFI compliant BIOS Flash EPROM update by software BIOS settings save and restore Local BIOS update from USB device Secure boot support
Remote Management	Remote management supports hardware components, Power on/off and boot process. Supports Management log , Audit Logs and dedicated Management roles bases on users Ports can be integrate with industry wide KVM solution. Remote KVM Support for Virtual Media Redirection Monitoring fan, power supply, memory, CPU, RAID, NIC for failures. Remote management supports telemetry streaming and Idle Server Detection. Supports Role Based Security through LDAP or Local and able to provide pre-failure alarms for CPU, Memory and HDD by SMTP. Out of band management

Technical details

Supported Components

CPU

Name	# of CPU Cores	# of Threads	Max. Boost Clock	Base Clock	L3 Cache	Default TDP
AMD EPYC™ 9965	192	384	Up to 3.7 GHz	2.25 GHz	384 MB	500W
AMD EPYC™ 9845	160	320	Up to 3.7 GHz	2.1 GHz	320 MB	390W
AMD EPYC™ 9825	144	288	Up to 3.7 GHz	2.2 GHz	384 MB	390W
AMD EPYC™ 9755	128	256	Up to 4.1 GHz	2.7 GHz	512 MB	500W
AMD EPYC™ 9745	128	256	Up to 3.7 GHz	2.4 GHz	256 MB	400W
AMD EPYC™ 9655P	96	192	Up to 4.5 GHz	2.6 GHz	384 MB	400W
AMD EPYC™ 9655	96	192	Up to 4.5 GHz	2.6 GHz	384 MB	400W
AMD EPYC™ 9645	96	192	Up to 3.7 GHz	2.3 GHz	256 MB	320W
AMD EPYC™ 9575F	64	128	Up to 5 GHz	3.3 GHz	256 MB	400W
AMD EPYC™ 9565	72	144	Up to 4.3 GHz	3.15 GHz	384 MB	400W
AMD EPYC™ 9555P	64	128	Up to 4.4 GHz	3.2 GHz	256 MB	360W
AMD EPYC™ 9555	64	128	Up to 4.4 GHz	3.2 GHz	256 MB	360W
AMD EPYC™ 9535	64	128	Up to 4.3 GHz	2.4 GHz	256 MB	300W
AMD EPYC™ 9475F	48	96	Up to 4.8 GHz	3.65 GHz	256 MB	400W
AMD EPYC™ 9455P	48	96	Up to 4.4 GHz	3.15 GHz	256 MB	300W
AMD EPYC™ 9455	48	96	Up to 4.4 GHz	3.15 GHz	256 MB	300W
AMD EPYC™ 9375F	32	64	Up to 4.8 GHz	3.8 GHz	256 MB	320W
AMD EPYC™ 9365	36	72	Up to 4.3 GHz	3.4 GHz	192 MB	300W
AMD EPYC™ 9355P	32	64	Up to 4.4 GHz	3.55 GHz	256 MB	280W
AMD EPYC™ 9355	32	64	Up to 4.4 GHz	3.55 GHz	256 MB	280W
AMD EPYC™ 9335	32	64	Up to 4.4 GHz	3 GHz	128 MB	210W
AMD EPYC™ 9275F	24	48	Up to 4.8 GHz	4.1 GHz	256 MB	320W
AMD EPYC™ 9255	24	48	Up to 4.3 GHz	3.2 GHz	128 MB	200W
AMD EPYC™ 9175F	16	32	Up to 5 GHz	4.2 GHz	512 MB	320W
AMD EPYC™ 9135	16	32	Up to 4.3 GHz	3.65 GHz	64 MB	200W
AMD EPYC™ 9115	16	32	Up to 4.1 GHz	2.6 GHz	64 MB	125W
AMD EPYC™ 9015	8	16	Up to 4.1 GHz	3.6 GHz	64 MB	125W
AMD EPYC™ 9754S	128	128	Up to 3.1 GHz	2.25 GHz	256 MB	360W
AMD EPYC™ 9754	128	256	Up to 3.1 GHz	2.25 GHz	256 MB	360W
AMD EPYC™ 9734	112	224	Up to 3 GHz	2.2 GHz	256 MB	340W
AMD EPYC™ 9684X	96	192	Up to 3.7 GHz	2.55 GHz	1152 MB	400W
AMD EPYC™ 9654P	96	192	Up to 3.7 GHz	2.4 GHz	384 MB	360W
AMD EPYC™ 9654	96	192	Up to 3.7 GHz	2.4 GHz	384 MB	360W
AMD EPYC™ 9634	84	168	Up to 3.7 GHz	2.25 GHz	384 MB	290W
AMD EPYC™ 9554P	64	128	Up to 3.75 GHz	3.1 GHz	256 MB	360W
AMD EPYC™ 9554	64	128	Up to 3.75 GHz	3.1 GHz	256 MB	360W
AMD EPYC™ 9534	64	128	Up to 3.7 GHz	2.45 GHz	256 MB	280W
AMD EPYC™ 9474F	48	96	Up to 4.1 GHz	3.6 GHz	256 MB	360W
AMD EPYC™ 9454P	48	96	Up to 3.8 GHz	2.75 GHz	256 MB	290W
AMD EPYC™ 9454	48	96	Up to 3.8 GHz	2.75 GHz	256 MB	290W
AMD EPYC™ 9384X	32	64	Up to 3.9 GHz	3.1 GHz	768 MB	320W
AMD EPYC™ 9374F	32	64	Up to 4.3 GHz	3.85 GHz	256 MB	320W
AMD EPYC™ 9354P	32	64	Up to 3.8 GHz	3.25 GHz	256 MB	280W
AMD EPYC™ 9354	32	64	Up to 3.8 GHz	3.25 GHz	256 MB	280W
AMD EPYC™ 9334	32	64	Up to 3.9 GHz	2.7 GHz	128 MB	210W
AMD EPYC™ 9274F	24	48	Up to 4.3 GHz	4.05 GHz	256 MB	320W
AMD EPYC™ 9254	24	48	Up to 4.15 GHz	2.9 GHz	128 MB	200W
AMD EPYC™ 9224	24	48	Up to 3.7 GHz	2.5 GHz	64 MB	200W
AMD EPYC™ 9184X	16	32	Up to 4.2 GHz	3.55 GHz	768 MB	320W
AMD EPYC™ 9174F	16	32	Up to 4.4 GHz	4.1 GHz	256 MB	320W
AMD EPYC™ 9124	16	32	Up to 3.7 GHz	3 GHz	64 MB	200W

Technical details

Memory	SK Hynix / DDR5 / ECC / Registered DIMM / 96GB / 2R*4 / 6400MHz / HMCGM4MHBRB505N / 24DIMMs
	SK Hynix / DDR5 / ECC / Registered DIMM / 32GB / 2R*8 / 5600MHz / HMCG88AGBRA186N / 24DIMMs
	SK Hynix / DDR5 / ECC / Registered DIMM / 32GB / 1R*4 / 5600MHz / HMCG84AGBRA190N / 24DIMMs
	Samsung / DDR5 / ECC / Registered DIMM / 96GB / 2R*4 / 6400MHz / M321RYGA0PB2-CCPKC / 24DIMMs
	Samsung / DDR5 / ECC / Registered DIMM / 32GB / 2R*8 / 5600MHz / M321R4GA3PB0-CWM / 24DIMMs
	Samsung / DDR5 / ECC / Registered DIMM / 64GB / 2R*4 / 5600MHz / M321R8GA0PB0-CWM / 24DIMMs
	Samsung / DDR5 / ECC / Registered DIMM / 16GB / 1R*8 / 4800MHz / M321R2GA3BB6-CQK / 24DIMMs
	Samsung / DDR5 / ECC / RegisteredDIMM / 16GB / 1R*8 / 4800MHz / M321R2GA3BB6-CQK / 24DIMMs
	Samsung / DDR5 / ECC / Registered DIMM / 128GB / 4R*4 / 4800MHz / M321RAGA0B20-CWK / 24DIMMs
	Samsung / DDR5 / ECC / Registered DIMM / 64GB / 2R*4 / 4800MHz / M321R8GA0BB0-CQK / 24DIMMs
	Samsung / DDR5 / ECC / RegisteredDIMM / 64GB / 2R*4 / 4800MHz / M321R8GA0BB0-CQK / 24DIMMs
	Samsung / DDR5 / ECC / Registered DIMM / 32GB / 2R*8 / 4800MHz / M321R4GA0BB0-CQK / 24DIMMs
	Samsung / DDR5 / ECC / Registered DIMM / 64GB / 2R / 4800MHz / M321R8GA0BB0-CQKVG / 24DIMMs
	Micron / DDR5 / ECC / Registered DIMM / 64GB / 2R*4 / 6400MHz / MTC40F2046S1RC64BD2 / 24DIMMs
	Micron / DDR5 / ECC / Registered DIMM / 64GB / 2R*4 / 5600MHz / MTC40F2046S1RC56BD1 / 24DIMMs
	Micron / DDR5 / ECC / Registered DIMM / 32GB / 2R*8 / 5600MHz / MTC20F2085S1RC56BD1 / 24DIMMs
	Micron / DDR5 / ECC / Registered DIMM / 96GB / 2R*4 / 4800MHz / MTC40F204WS1RC48BB1 / 24DIMMs
	Micron / DDR5 / ECC / Registered DIMM / 48GB / 2R*8 / 4800MHz / MTC20F208XS1RC48BB1 / 24DIMMs
	Micron / DDR5 / ECC / Registered DIMM / 64GB / 2R*8 / 4800MHz / MTC40F2046S1RC48BA1 / 24DIMMs
	Micron / DDR5 / ECC / Registered DIMM / 32GB / 2R*8 / 4800MHz / MTC20F2085S1RC48BA1 / 24DIMMs
	Micron / DDR5 / ECC / RegisteredDIMM / 32GB / 2R*8 / 4800MHz / MTC20F2085S1RC48BA1 / 24DIMMs
	Micron / DDR5 / ECC / Registered DIMM / 64GB / 2R*4 / 4800MHz / MTC40F2046S1RC48BA1 / 24DIMMs
	Micron / DDR5 / ECC / Registered DIMM / 16GB / 1R*8 / 4800MHz / MTC10F1084S1RC48BA1 / 24DIMMs
	Micron / DDR5 / ECC / Registered DIMM / 128GB / 4R*4 / 4800MHz / M321RAGA0B20-CWK / 24DIMMs

SAS HDD	HDD-600GB-SAS-2.5"-10K-12Gb/s-2.5-inch hard disk box
	HDD-1.2TB-SAS-2.5"-10K-12Gb/s-TOSHIBA-2.5-inch hard disk box
	HDD-1.8TB-SAS-2.5"-10K-12Gb/s-2.5-inch hard disk box
	HDD-2.4TB-SAS-2.5"-10K-12Gb/s-2.5-inch hard disk box
	HDD-1.2TB-SAS-2.5"-10K-12Gb/s-TOSHIBA-3.5-inch hard disk box
	HDD-12TB-SAS-3.5"-7.2K-12Gb/s-3.5-inch hard disk box
	HDD-1.8TB-SAS-2.5"-10K-12Gb/s-3.5-inch hard disk box
	HDD-2.4TB-SAS-2.5"-10K-12Gb/s-3.5-inch hard disk box
	HDD-4TB-SAS-3.5"-7.2K-12Gb/s-WD-3.5-inch hard disk box
	HDD-600GB-SAS-2.5"-10K-12Gb/s-SEAGATE-2.5-inch hard disk box
	HDD-600GB-SAS-2.5"-10K-12Gb/s-SEAGATE-3.5-inch hard disk box
	HDD-600GB-SAS-2.5"-10K-12Gb/s-3.5-inch hard disk box

SATA HDD	HDD-12TB-SATA-3.5"-7.2K-6Gb/s-3.5-inch hard disk box
	HDD-14TB-SATA-3.5"-7.2K-6Gb/s-3.5-inch hard disk box
	HDD-16TB-SATA-3.5"-7.2K-6Gb/s-3.5-inch hard disk box
	HDD-16TB-SATA-3.5"-7.2K-6Gb/s-3.5-inch hard disk box
	HDD-20TB-SATA-3.5"-7.2K-6Gb/s-3.5-inch hard disk box
	HDD-2TB-SATA-3.5"-7.2K-6Gb/s-3.5-inch hard disk box
	HDD-4TB-SAS-3.5"-7.2K-12Gb/s-WD-3.5-inch hard disk box
	HDD-4TB-SATA-3.5"-7.2K-6Gb/s-3.5-inch hard disk box
	HDD-8TB-SATA-3.5"-7.2K-6Gb/s-3.5-inch hard disk box
	HDD-8TB-SATA-3.5"-7.2K-6Gb/s-3.5-inch hard disk box
	HDD-24TB-SATA-3.5"-7.2K-6Gb/s-3.5-inch hard disk box

Technical details

SSD SATA	SSD-480GB-SATA-2.5"-6Gb/s-Intensive read type-Samsung PM893-2.5-inch hard disk box SSD-960GB-SATA-2.5"-6Gb/s-Intensive read type-Samsung PM893-2.5-inch hard disk box SSD-1.92TB-SATA-2.5"-6Gb/s-Intensive read type-Samsung PM893-2.5-inch hard disk box SSD-1.92TB-SATA-2.5"-6Gb/s-Intensive read type-Samsung PM893-3.5-inch hard disk box SSD-240GB-SATA-2.5"-6Gb/s-Intensive read type-Intel S4510-2.5-inch hard disk box SSD-240GB-SATA-2.5"-6Gb/s-Intensive read type-Intel S4510-3.5-inch hard disk box SSD-3.84TB-SATA-2.5"-6Gb/s-Read-write hybrid-Samsung PM897-2.5-inch hard disk box SSD-3.84TB-SATA-2.5"-6Gb/s-Read-write hybrid-Samsung PM897-3.5-inch hard disk box SSD-3.84TB-SATA-2.5"-6Gb/s-Intensive read type-Intel S4520-2.5-inch hard disk box SSD-3.84TB-SATA-2.5"-6Gb/s-Intensive read type-Intel S4520-3.5-inch hard disk box SSD-480GB-SATA-2.5"-6Gb/s-Read-write hybrid-Samsung PM897-2.5-inch hard disk box SSD-480GB-SATA-2.5"-6Gb/s-Read-write hybrid-Samsung PM897-3.5-inch hard disk box SSD-480GB-SATA-2.5"-6Gb/s-Intensive read type-Samsung PM893-3.5-inch hard disk box SSD-480GB-SATA-M.2-2280-6Gb/s-Intensive read type-Intel S4520 SSD-480GB-SATA-M.2-2280-6Gb/s-Intensive read type-Micron SSD-7.68TB-SATA-2.5"-6Gb/s-Intensive read type-Intel S4520-2.5-inch hard disk box SSD-7.68TB-SATA-2.5"-6Gb/s-Intensive read type-Intel S4520-3.5-inch hard disk box SSD-960GB-SATA-2.5"-6Gb/s-Read-write hybrid-Intel S4620-2.5-inch hard disk box SSD-960GB-SATA-2.5"-6Gb/s-Read-write hybrid-Intel S4620-3.5-inch hard disk box SSD-960GB-SATA-2.5"-6Gb/s-Intensive read type-Samsung PM893-3.5-inch hard disk box SSD-960GB-SATA-M.2-2280-6Gb/s-Intensive read type-Micron
NVME SSD	SSD-960GB/1.92TB/ 3.84TB / 7.68TB and 15.36TB/30.72TB/61.44TB-NVMe PCIe-2.5 -PCIe 4.0*4-Intensive read type SSD-1.6TB/3.2TB/6.4TB / 12.8 TB-NVMe PCIe-2.5 -PCIe 4.0*4-Read-write hybrid
Fibre Channel Card	PCIe FC HBA-LPE31002-2x16G SFP+ -PCIe3.0x8-with optical module PCIe FC HBA-LPe32002-2x32G SFP+ -PCIe3.0x8-with optical module
NIC card	Intel E810-2CQDA2 dual port upto 100G PCIe Ethernet Card PCIe NIC-I350-Intel-2x1G-RJ45-PCIe3.0x8 PCIe NIC-I350-Intel-4x1G-RJ45-PCIe3.0x8 PCIe NIC-MCX512A-ACAT-Mellanox CX5-2x25G SFP28-PCIe3.0x8-no optical module PCIe NIC-X710-Intel-2x10G-RJ45-PCIe3.0x8 PCIe NIC-NS312-Mellanox CX4-2x25G SFP28-PCIe3.0x8-no optical module PCIe NIC-MCX512A-ACUT-Mellanox CX5-2x25G SFP28-PCIe3.0x8-no optical module PCIe NIC-MCX623106AN-CDAT-Mellanox CX6-2x100G QSFP56-PCIe4.0x16-no optical module PCIe NIC-XXV710-Intel-2x25G SFP28-PCIe3.0x8-no optical module 1P/2P PCIe Mellanox InfiniBand/Ethernet PCIe Adapter 100G/200G/400G *Network Card Support Secure Firmware Boot
Certified or supported operating system & virtualization Software	Compatible with mainstream server operating systems: Microsoft Windows Sever - 2025 Datacenter Microsoft Windows Sever - 2025 Standard Microsoft Windows Sever - 2022 Datacenter Microsoft Windows Sever - 2022 Standard Microsoft Windows Sever - 2019 Datacenter Microsoft Windows Sever - 2019 Standard Microsoft-Hyper V

Technical details

	Red Hat Enterprise Linux 9.0 - 9.x
	Red Hat Enterprise Linux 8.6 - 8.x
	Red Hat Enterprise Linux 8.4 LTS, 8.5 and Late
	Red Hat Open stack 17.0 - 17.X
	Red Hat Openshift Virtualization
	Red Hat Openshift Kubernetes
	Open Source Linux KVM
	SUSE Linux Enterprise Server 15 SP3 and Later
	SUSE Linux Enterprise Server 15.5 Virtualization (KVM and XEM)
	Ubuntu Server 21.10 & 22.04 LTS and Later
	VMWare vSphere 9.0
	VMWare vSphere 8.0
	VMWare vSphere 7.0
	VM Essential
	Docker.

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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