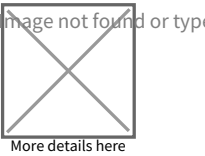# GPU A+ Server AS -4124GS-TNR+

DP AMD, Dual-Root System with 8 GPUs
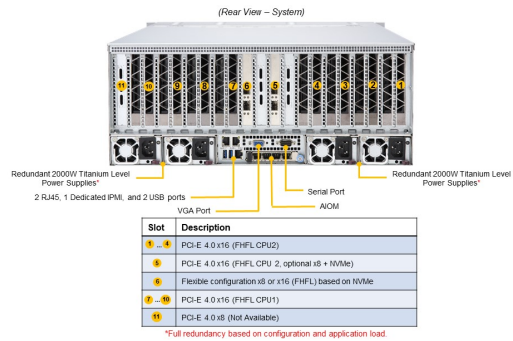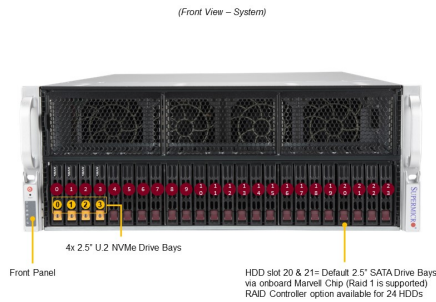
Key Applications

HPC, AI / Deep Learning, Cloud Gaming, Molecular Dynamics Simulation,

Key Features

- Supports up to 8 double-width GPUs Direct connect for maximum performance;
- Dual AMD EPYC™ 7003/7002 Series Processors;
- 8TB Registered ECC DDR4 3200MHz SDRAM in 32 DIMMs;
- 9 PCIe 4.0 x16 (option: 10 PCIe 4.0 x16 slots without NVMe devices);
- Up to 24 hot-swap 2.5" drive bays
  Dual 2.5" SATA in RAID 1 via onboard Marvell 9230
  Quad 2.5" PCIe4.0 NVMe (depends on PCIe quantity based on #4) RAID controller, option available for 24 HDDs;

Form Factor	4U Enclosure: 437 x 178 x 737mm (17.2" x 7" x 29") Package: 685 x 675 x 1041mm (27" x 26.57" x 41")
Processor	Dual Socket SP3 AMD EPYC™ 7002/7003 Series Processors
GPU	Max GPU Count: Up to 8 double-width or 8 single-width GPUs Supported GPU: NVIDIA PCIe: H100, A100, A2, A16, A30, A40, L40S, A10, RTX 6000, RTX 6000 Ada Generation, RTX A4500, RTX A6000, T4, V100, L40, RTX 4000 AMD PCIe: Instinct™ MI150 CPU-GPU Interconnect: PCIe 4.0 x16 CPU-to-GPU Interconnect GPU-GPU Interconnect: NVIDIA® NVLink™ with NVSwitch™
System Memory	Slot Count: 32 DIMM slots Max Memory (2DPC): Up to 8TB 3200MT/s ECC DDR4 RDIMM/LRDIMM

Drive Bays Configuration	Default: Total 24 bays
	  • 20 front hot-swap 2.5" SATA drive bays
	  • 4 front hot-swap 2.5" NVMe drive bays
	Option A: Total 24 bays
	  • 24 front hot-swap 2.5" SATA drive bays

Expansion Slots	Default
	  • 9 PCIe 4.0 x16 FHFL slots
	Option A
	  • 10 PCIe 4.0 x16 FHFL slots

On-Board Devices	Chipset: System on Chip Network Connectivity: 2 RJ45 1GbE
Input / Output	LAN: 1 RJ45 1 GbE Dedicated BMC LAN port 2 RJ45 1 GbE LAN ports USB: 2 USB 3.0 ports(front) Video: 1 VGA port

(Front View – System)

4x 2.5" U.2 NVMe Drive Bays

Front Panel

HDD slot 20 & 21= Default 2.5" SATA Drive Bays
via onboard Marvell Chip (Raid 1 is supported)
RAID Controller option available for 24 HDDs

(Rear View – System)

Redundant 2000W Titanium Level Power Supplies*
2 RJ45, 1 Dedicated IPMI, and 2 USB ports
VGA Port
Serial Port
AIOM
Redundant 2000W Titanium Level Power Supplies*

Slot	Description
1 ... 4	PCI-E 4.0 x16 (FHFL CPU2)
5	PCI-E 4.0 x16 (FHFL CPU 2, optional x8 + NVMe)
6	Flexible configuration x8 or x16 (FHFL) based on NVMe
7 ...10	PCI-E 4.0 x16 (FHFL CPU1)
11	PCI-E 4.0 x8 (Not Available)

*Full redundancy based on configuration and application load.

System Cooling	Fans: Up to 8x 11.5K RPM 92mm Fan(s)
Power Supply	4x 2000W Redundant (2 + 2) Titanium Level (96%) power supplies
System BIOS	BIOS Type: AMI 32MB SPI FLASH ROM
Management	SuperCloud Composer®; Supermicro Server Manager (SSM); Supermicro Update Manager (SUM); Supermicro SuperDoctor® 5 (SD5); Super Diagnostics Offline (SDO); Supermicro Thin-Agent Service (TAS); SuperServer Automation Assistant (SAA) New!

PC Health Monitoring	CPU: Monitors for CPU Cores, Chipset Voltages, Memory
	        4+1 Phase-switching voltage regulator
	FAN: Fans with tachometer monitoring
	        Status monitor for speed control
	        Pulse Width Modulated (PWM) fan connectors
	Temperature: Monitoring for CPU and chassis environment
	                Thermal Control for fan connectors

Dimensions and Weight	Weight: Gross Weight: 100 lbs (45.3 kg) Net Weight: 65.5 lbs (29.7 kg) Available Color: Black
Operating Environment	RoHS Compliant Operating Temperature: 10°C to 35°C (50°F to 95°F) Non-operating Temperature: -40°C to 60°C (-40°F to 140°F) Operating Relative Humidity: 8% to 90% (Non-Condensing) Non-operating Relative Humidity: 5% to 95% (Non-Condensing)
Motherboard	**Super H12DSG-O-CPU**
Chassis	**CSE-418GTS-R4016BP**