GPU A+ Server AS -8125GS-TNMR2

DP AMD 8U System with AMD Instinct™ MI300X 8-GPU
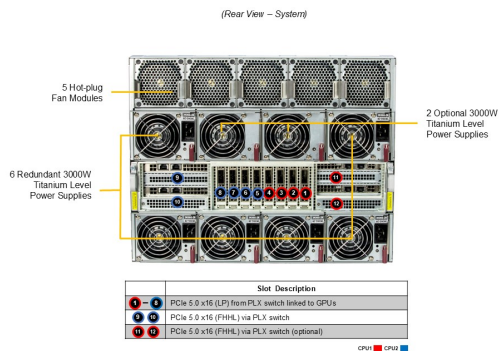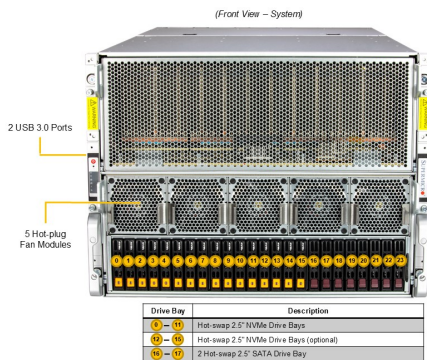
Key Applications

High Performance Computing, AI/Deep Learning Training, Industrial Automation, Climate and Weather Modeling,

Key Features

- 8x NIC for GPU direct RDMA (1:1 GPU Ratio)
  High density 8U system with AMD Instinct MI300X 8-GPU;
- Supports up to 24 DIMMs Slots; 6000 MT/s 6TB DDR5 memory
  (Please check System Memory Section for detail);
- 8x PCIe 5.0 x16 LP + up to 4 PCIe 5.0 X16 FHFL slots;
- Flexible networking options;
- Total of 2 Hot-swap 2.5" SATA drive bays
  Single M.2 NVMe for boot drive only
  Up to 16 hot-swap 2.5" NVMe drive bays (12 default + 4 optional);
- 10 heavy duty fans with optimal fan speed control;
- Total of 6x (3+3) 3000W Redundant Titanium Level Power Supplies
  (Power supply full redundancy based on configuration and application load);

Form Factor	8U Rackmount Enclosure: 437 x 355.6 x 843.28mm (17.2" x 14" x 33.2") Package: 698 x 750 x 1300mm (27.5" x 29.5" x 51.2")
Processor	Dual processor(s) AMD EPYC™ 9004/9005 Series Processors (* AMD EPYC™ 9005 Series drop-in support requires board revision 2.x)
GPU	Max GPU Count: 8 onboard GPUs Supported GPU: AMD: Instinct™ MI300X Accelerators CPU-GPU Interconnect: PCIe 5.0 x16 CPU-to-GPU Interconnect GPU-GPU Interconnect: AMD Infinity Fabric™ Link
System Memory	Slot Count: 24 DIMM slots Max Memory (1DPC): Up to 6TB 4800MT/s ECC DDR5 RDIMM (AMD EPYC™ 9004 Series Processor) Max Memory (1DPC): Up to 6TB 6000MT/s ECC DDR5 RDIMM (AMD EPYC™ 9005 Series Processor)

Drive Bays Configuration	Default: Total 18 bays
	  • 12 front hot-swap 2.5" NVMe drive bays
	  • 2 front hot-swap 2.5" SATA drive bays
	  • 4 front hot-swap 2.5" NVMe* drive bays
	(*NVMe support may require additional storage controller and/or cables)
	M.2: 2 M.2 NVMe slots (M-key)

Expansion Slots	Default
	  • 8 PCIe 5.0 x16 LP slots
	  • 2 PCIe 5.0 x16 FHFL slots
	Option A
	  • 8 PCIe 5.0 x16 LP slots
	  • 4 PCIe 5.0 x16 FHFL slots

On-Board Devices	AMD SP5
Input / Output	1 VGA port

(Front View – System)

2 USB 3.0 Ports

5 Hot-plug Fan Modules

Drive Bay	Description
0 — 11	Hot-swap 2.5" NVMe Drive Bays
12 — 15	Hot-swap 2.5" NVMe Drive Bays (optional)
16 — 17	2 Hot-swap 2.5" SATA Drive Bay

(Rear View – System)

5 Hot-plug Fan Modules

6 Redundant 3000W Titanium Level Power Supplies

2 Optional 3000W Titanium Level Power Supplies

Slot	Description
1 — 8	PCIe 5.0 x16 (LP) from PLX switch linked to GPUs
9 — 10	PCIe 5.0 x16 (FHHL) via PLX switch
11 — 12	PCIe 5.0 x16 (FHHL) via PLX switch (optional)

CPU1 CPU2

System Cooling

Fans: N/A

Power Supply

6x 3000W Redundant (3 + 3) Titanium Level (96%) power supplies

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System BIOS

BIOS Type: AMI 32MB SPI Flash EEPROM

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
    7 +1 Phase-switching voltage regulator
FAN: Fans with tachometer monitoring
    Status monitor for speed control
Temperature: Monitoring for CPU and chassis environment
    Thermal Control for fan connectors

Dimensions and Weight

Weight: Gross Weight: 225 lbs (102.1 kg)
    Net Weight: 166 lbs (75.3 kg)
Available Color: Black front & silver body

Operating Environment

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 H13DSG-OM

Chassis

CSE-GP801TS