GPU SuperServer ARS-221GL-SR

Dual NVIDIA Grace™ Superchip system with up to 4 L40S or 4 single non-bridged NVIDIA H100 NVL GPUs and NVIDIA BlueField®-3 Storage Mode support
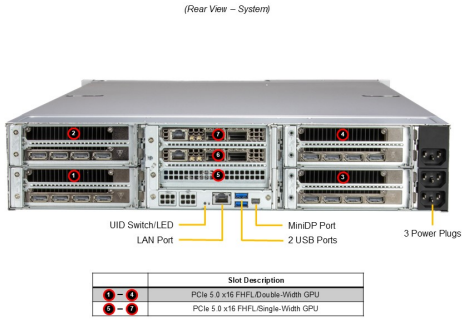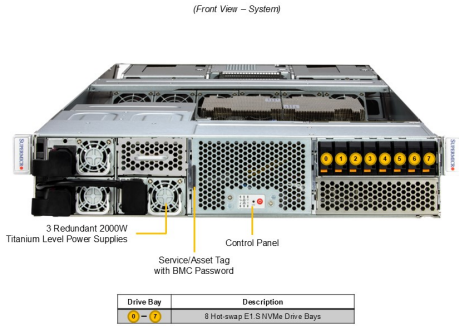
Key Applications

High Performance Computing, AI/Deep Learning Training, Large Language Model (LLM) Natural Language Processing, General purpose CPU workloads, including analytics, data science, simulation, HPC, application servers, and more,

Key Features

- NVIDIA Grace™ CPU Superchip up to total 144 cores;
- Up to 4 double-width PCIe GPU accelerator cards;
- Up to 960GB ECC LPDDR5X embedded on the NVIDIA Superchip DC-SCM Support;
- Up to 3 PCIe 5.0 x16 FHFL + 4 PCIe 5.0 x16 FHFL double-width slots;
- Up to 8 front hot-swap E1.S NVMe drive bays from up to 2 NVIDIA® BlueField®-3;
- 3 Redundant 2000W Titanium Level power supplies;
- 2U Rackmount chassis with 35.43" (900mm) depth;

Form Factor	2U Rackmount Enclosure: 438.4 x 88 x 900mm (17.25" x 3.46" x 35.43") Package: (22.5" x 11" x 45.5")
Processor	Dual processor(s) NVIDIA Dual 72-core CPUs on a Grace™ CPU Superchip
GPU	Max GPU Count: Up to 4 double-width GPUs Supported GPU: NVIDIA PCIe: L40S CPU-GPU Interconnect: PCIe 5.0 x16 CPU-to-GPU Interconnect GPU-GPU Interconnect: PCIe
System Memory	Slot Count: Onboard Memory Max Memory: Up to 960GB ECC LPDDR5X
Drive Bays Configuration	Default: Total 8 bays • 8 front hot-swap E1.S NVMe drive bays M.2: 2 M.2 PCIe 5.0 x4 NVMe slots (M-key 22110)

Expansion Slots	Default
	  • 3 PCIe 5.0 x16 FHFL slots
	  • 4 PCIe 5.0 x16 FHFL double-width slots

On-Board Devices	Chipset: NVIDIA C2 IPMI: Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Input / Output	LAN: 1 RJ45 1 GbE Dedicated BMC LAN port USB: 2 USB 3.0 Type-A ports(Rear) Video: 1 mini-DP port TPM: 1 TPM Onboard/port 80

(Front View – System)

(Rear View – System)

3 Redundant 2000W
Titanium Level Power Supplies

Service/Asset Tag
with BMC Password

Control Panel

UID Switch/LED
LAN Port

MiniDP Port
2 USB Ports

3 Power Plugs

Drive Bay	Description
0 – 7	8 Hot-swap E1.S NVMe Drive Bays

Slot Description		
1 – 4	PCIe 5.0 x16 FHFL/Double-Width GPU	
5 – 7	PCIe 5.0 x16 FHFL/Single-Width GPU	

System Cooling	Fans: 6 heavy duty fans with optimal fan speed control
Power Supply	3x 2000W Redundant Titanium Level (96%) power supplies
System BIOS	BIOS Type: AMI 64MB SPI Flash EEPROM
Management	Redfish API; Supermicro Update Manager (SUM); KVM with dedicated LAN ; IPMI 2.0; Watch Dog; OOB Management Package (SFT-OOB-LIC)

PC Health Monitoring	CPU: Monitors for CPU Cores, Chipset Voltages, Memory
	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: 86.5 lbs (39.2 kg) Net Weight: 67.5 lbs (30.6 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 G1SMH**
Chassis	**CSE-GP201TS-R000NP**