GPU SuperServer ARS-111GL-DSHR-LCC

1U 2-Node NVIDIA GH200 Grace Hopper Superchip system with liquid-cooling supporting NVIDIA BlueField-3 or NVIDIA ConnectX-7

Key Applications

High Performance Computing, AI/Deep Learning Training and Inference, Large Language Model (LLM) and Generative AI,

Key Features

- Two nodes in a 1U form factor. Each node supports the following:;
- Two nodes in a 1U Form Factor. This system currently supports up to eight E1.S drives with NVIDIA's BlueField®-3 in Storage Configuration Mode. Please consult with your Supermicro Salesperson for details;
- High density 1U 2-node GPU system with Integrated NVIDIA® H100 GPU;
- NVIDIA Grace Hopper™ Superchip (Grace CPU and H100 GPU), up to 72 cores per node (Liquid-Cooled);
- NVLink® Chip-2-Chip (C2C) high-bandwidth, low-latency interconnect between CPU and GPU at 900GB/s;
- Up to 576GB of coherent memory per node including 480GB LPDDR5X (CPU) and 96GB of HBM3 (GPU) for LLM applications;
- 2 PCIe 5.0 x16 slots per node (1 PCIe FHFL slot dedicated to BlueField-3 and 1 PCIe LP);
- Supports up to eight hot-swap E1.S drives bays (four per node).;
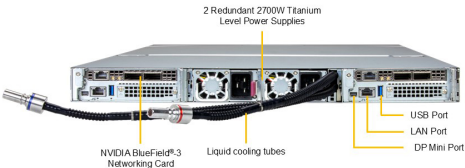- 7 Hot-Swap Heavy Duty Fans with Optimal Fan Speed Control;
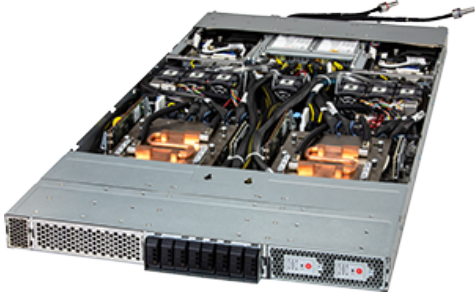
Form Factor	1U Rackmount Enclosure: 438.4 x 43.6 x 900mm (17.26" x 1.7" x 35.4") Package: 695 x 230 x 1170mm (27.36" x 9.05" x 46.06")
Processor	NVIDIA 72-core NVIDIA Grace CPU on GH200 Grace Hopper™ Superchip
GPU	Max GPU Count: Up to 1 onboard GPU Supported GPU: NVIDIA: H100 Tensor Core GPU on GH200 Grace Hopper™ Superchip GPU-GPU Interconnect: PCIe
System Memory	Slot Count: Onboard Memory Max Memory: Up to 480GB ECC LPDDR5X Additional GPU Memory: Up to 96GB ECC HBM3
Drive Bays Configuration	Default: Total 4 bays • 4 front hot-swap E1.S NVMe drive bays M.2: 2 M.2 NVMe slots (M-key)
Expansion Slots	Default • 1 PCIe 5.0 x16 FHFL slot • 1 PCIe 5.0 x16 LP slot
On-Board Devices	System on Chip
Input / Output	LAN: 1 RJ45 1 GbE Dedicated BMC LAN port USB: 1 port(Rear) Video: 1 mini-DP port

(Front View – System) *(Rear View – System)*

2 Redundant 2700W Titanium
Level Power Supplies

USB Port
LAN Port
DP Mini Port

NVIDIA BlueField®-3
Networking Card

Liquid cooling tubes

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

System Cooling	Fans: Up to 7 Removable heavy-duty 4cm Fan(s) Liquid Cooling: Direct to Chip (D2C) Cold Plate (optional)
Power Supply	2x 2700W Redundant Titanium Level (96%) power supplies
System BIOS	BIOS Type: AMI 64MB SPI Flash EEPROM
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: 49.21 lbs (22.32 kg) 　　　Net Weight: 33.64 lbs (15.26 kg) Available Color: Silver
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-G**
Chassis	**CSE-MG102TS-R000NDFP-2N**