# GPU SuperServer ARS-121GL-NB2B-LCC

1U NVIDIA GB200 NVL4 system with quad 800G NVIDIA ConnectX®-8 or custom NICs, and up to 8 E1.S drives

## Key Applications

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

## Key Features

- NVIDIA GB200 with 4 NVIDIA NVLink® (GB200 NVL4);
- Dual Nvidia 72-core Grace CPUs with liquid cooling;
- Quad NVIDIA B200 GPUs with liquid cooling;
- 960GB Onboard Memory;
- Quad 800G ConnectX®-8 + 2 PCIe 5.0 x16 slots OR 4 PCIe 5.0 x16 slots;
- 4 to 8 front hot-swap E1.S NVMe drive bays;
- 48-52V DC Busbar;

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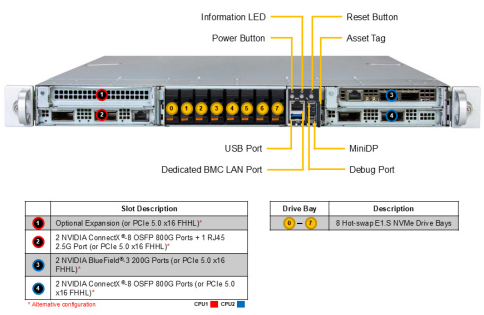
|---|---|
| Form Factor | 1U Rackmount<br>Enclosure: 438.4 x 43.6 x 766mm (17.26" x 1.7" x 30.15")<br>Package: 630 x 230 x 1150mm (24.8" x 9.05" x 45.27") |
| Processor | Dual processor(s)<br>NVIDIA Dual 72-core CPUs on a Grace™ CPU Superchip |
| GPU | Max GPU Count: 4 onboard GPUs<br>Supported GPU: NVIDIA: B200 GPU on GB200 Grace Blackwell Superchip<br>CPU-GPU Interconnect: NVIDIA NVLink®-C2C<br>GPU-GPU Interconnect: Fifth-Generation NVIDIA NVLink™ |
| System Memory | Onboard Memory<br>Up to 960GB ECC LPDDR5X |
| Drive Bays Configuration | Default: Total 8 bays<br>• 8 front hot-swap E1.S PCIe 5.0 x4 NVMe drive bays<br>Option A: Total 4 bays<br>• 4 front hot-swap E1.S PCIe 5.0 x4 NVMe drive bays<br>M.2: 1 M.2 PCIe 5.0 x4 NVMe slot (M-key 22110(default)) |
| Expansion Slots | Default<br>• 2 PCIe 5.0 x16 (in x16) FHFL slots<br>Option A<br>• 4 PCIe 5.0 x16 (in x16) FHFL slots |
| On-Board Devices | 1 RJ45 2.5GbE with Intel® I210-AT (optional)<br>4 OSFP 800Gb InfiniBand with NVIDIA ConnectX®-8 SuperNIC (optional)<br>2 QSFP-DD 200Gb InfiniBand with NVIDIA® BlueField®-3 (optional) |
| Input / Output | LAN: 1 RJ45 1 GbE Dedicated BMC LAN port (ASPEED AST2600)<br>USB: 1 Type-A port(Front)<br>Video: 1 Mini-DP port(Front)<br>TPM: 1 TPM Onboard TPM & TPM Header |

*(Front View – System)*



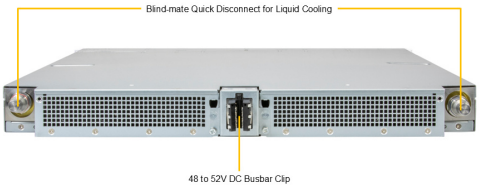

| | Slot Description |
|---|---|
| 1 | Optional Expansion (or PCIe 5.0 x16 FHHL)* |
| 2 | 2 NVIDIA ConnectX®-8 OSFP 800G Ports + 1 RJ45 2.5G Port (or PCIe 5.0 x16 FHHL)* |
| 3 | 2 NVIDIA BlueField®-3 200G Ports (or PCIe 5.0 x16 FHHL)* |
| 4 | 2 NVIDIA ConnectX®-8 OSFP 800G Ports (or PCIe 5.0 x16 FHHL)* |

* Alternative configuration

CPU1 CPU2

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

*(Rear View – System)*

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|---|---|
| System Cooling | Fans: 8x 4cm heavy duty fans with optimal fan speed control<br>Liquid Cooling: Direct to Chip (D2C) Cold Plate |
| Power Supply | 0: Power via Busbar (48-54V DC) |
| System BIOS | BIOS Type: AMI 64MB SPI Flash EEPROM |
| Management | SuperCloud Composer®; SuperServer Automation Assistant (SAA) New! |
| PC Health Monitoring | CPU: Monitors for CPU Cores, Chipset Voltages, Memory<br>FAN: Fans with tachometer monitoring<br>Pulse Width Modulated (PWM) fan connectors<br>Status monitor for speed control<br>Temperature: Monitoring for CPU and chassis environment<br>Thermal Control for fan connectors |
| Dimensions and Weight | Weight: Gross Weight: 79.36 lbs (36 kg)<br>Net Weight: 70.5 lbs (32 kg)<br>Available Color: Silver |
| Operating Environment | RoHS Compliant<br>Name: A2<br>Operating Temperature: 10°C to 35°C (50°F to 95°F)<br>Non-operating Temperature: -30°C to 60°C (-40°F to 140°F)<br>Operating Relative Humidity: 8% to 80% (max 21° DP; non-condensing)<br>Non-operating Relative Humidity: 8% to 90% (max 38° DP; non-condensing) |
| Motherboard | Super GPU-NVGB200-NVL4 |
| Chassis | **CSE-MG104TS-V01DP-NVL4** |