

GPU SuperServer ARS-511GD-NB-LCC

Super AI Station with NVIDIA GB300 Grace Blackwell Ultra Desktop Superchip



Key Applications

Research Lab/National Lab, AI Inference / Training, AI Development, Data Science, Agentic AI,

Key Features

- NVIDIA Grace™ CPU Superchip, 72 Core;
 - NVIDIA Blackwell Ultra (B300) GPU (Onboard);
 - 748GB of coherent memory;
 - NVIDIA ConnectX®-8 SuperNIC™;
 - Up to 20 PFLOPS of AI Performance
- Closed-loop liquid cooling
 Supports rackmount deployment via optional kit (Note: Rackmount will require 6U space, 1U below system for PSU venting)
 Pre-Installed OS: Ubuntu with NVIDIA AI Developer Tools;



Form Factor	Tower or 5U Enclosure: 454.7 x 218.4 x 701mm (17.9" x 8.6" x 27.6") Package: 388 x 655 x 956mm (15.3" x 25.8" x 37.6")
Processor	Single processor(s) NVIDIA 72-core NVIDIA Grace CPU on NVIDIA GB300 Grace Blackwell Ultra Superchip 72C/72T
GPU	Max GPU Count: 1 double-width GPU, and 1 onboard GPU Supported GPU: NVIDIA PCIe: NVIDIA RTX PRO 2000 Blackwell, NVIDIA RTX PRO 4000 Blackwell SFF Edition, NVIDIA RTX PRO™ 6000 Blackwell Max-Q Workstation Edition, NVIDIA RTX PRO™ 6000 Blackwell Workstation Edition NVIDIA: B300 GPU on NVIDIA GB300 Grace Blackwell Ultra Superchip CPU-GPU Interconnect: NVIDIA NVLink®-C2C
System Memory	Onboard Memory 496GB ECC LPDDR5X Additional GPU Memory: 252GB ECC HBM3e
Drive Bays Configuration	2 M.2 PCIe 5.0 x4 NVMe slots (M-key 2280) 2 M.2 PCIe 6.0 x4 NVMe slots (M-key 2280)
Expansion Slots	PCI-Express (PCIe) Configuration: Default • 1 PCIe 5.0 x16 FHFL double-width slot • 2 PCIe 5.0 x8 (in x16) FHHL slots M.2: 1 M.2 PCIe 2.0 x1 slot (E-key 2230; Optional WiFi/Bluetooth® module)
On-Board Devices	Network Connectivity: 2 QSFP 400GbE with NVIDIA ConnectX®-8 SuperNIC 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 1 RJ45 10 GbE LAN port 2 QSFP 400 GbE LAN ports (NVIDIA ConnectX®-8 SuperNIC™) USB: 2 USB 3.0 Type-A ports (Front) 4 USB 3.0 Gen2 Type-A ports (Rear) Video: 1 mini-DP port Audio: Rear Audio



System Cooling	Fans: 2x 140mm Fan(s) 2x 80mm Fan(s) 1x 60mm Fan(s) Liquid Cooling: Direct to Chip (D2C) Cold Plate
Power Supply	1x 1600W Titanium Level (94%) power supply
System BIOS	BIOS Type: AMI 64MB SPI Flash EEPROM
Management	Redfish API; IPMI (Intelligent Platform Management Interface) v2.0 with KVM support
PC Health Monitoring	CPU: Monitors for CPU Cores, Chipset Voltages, Memory Fan: Fans with tachometer monitoring Other Features: Chassis Intrusion Detection Temperature: Monitoring for CPU and chassis environment Thermal Control for fan connectors
Dimensions and Weight	Weight: Gross Weight: 112.4 lbs (51 kg) Net Weight: 88 lbs (40 kg) Available Color: Black Front & Black Body
Operating Environment	Operating Temperature: 15°C to 32°C (59°F to 90°F) Non-operating Temperature: 5°C to 45°C (41°F to 113°F) Operating Relative Humidity: 20% to 80% (non-condensing) Non-operating Relative Humidity: 5% to 80% (non-condensing)
Motherboard	Super GPU-NVGB300-WSHPM
Chassis	CSE-759TS-R0CNBP