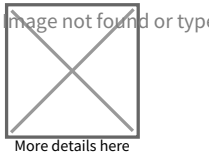# Storage SuperServer ARS-121L-NE316R

1U NVIDIA Grace CPU Superchip system supporting NVIDIA BlueField®-3 or NVIDIA Connect®X-7

Key Applications

Software-defined Storage, In-Memory Computing, Data Intensive HPC, Private
& Hybrid Cloud, NVMe Over Fabrics Solution,

Key Features

- Single NVIDIA Grace™ CPU Superchip, up to 144 Arm v9 cores, TDP 600W;
- Up to 960GB LPDDR onboard memory;
- 2 PCIe 5.0 x16 FHHL slots & 1 AIOM connector (OCP 3.0 SFF Compliant);
- 16 Front Hot-Swap E3.S (7.5mm) NVMe drive bays;
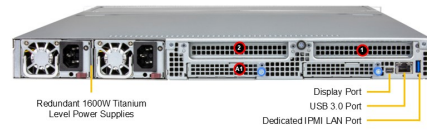- Reduntant Titanium 1600W Power Supplies;

Form Factor	1U Rackmount Enclosure: 438.4 x 43.6 x 772.15mm (17.2" x 1.7" x 30.4") Package: 672 x 224 x 1100mm (26.46" x 8.82" x 43.31")
Processor	Single processor(s) NVIDIA Dual 72-core CPUs on a Grace™ CPU Superchip
System Memory	Slot Count: Onboard Memory Max Memory: Up to 960GB ECC LPDDR5X
Drive Bays Configuration	Default: Total 16 bays • 16 front hot-swap E3.S 1T NVMe drive bays M.2: 2 M.2 NVMe slots (M-key)

Expansion Slots	Default*
	  • 2 PCIe 5.0 x16 (in x16) FHHL slots
	Option A
	  • 1 PCIe 5.0 x16 (in x16) AIOM slot (OCP 3.0 compatible)
	(*Requires additional parts, please see the optional parts list for details. For more details on PCIe slot configuration options, please refer to the system callout images above.)

On-Board Devices	System on Chip
Input / Output	LAN: 1 RJ45 1 GbE Dedicated BMC LAN port USB: 1 USB 3.0 Type-A port(Rear) Video: 1 mini-DP port

(Front View – System)

(Rear View – System)

Drive Bay	Description
0 ~ 15	16 Hot-swap E3.S (7.5mm) NVMe Drive Bays

Slot Description		
1 2	PCIe 5.0 x16 FHFL	
A1	PCIe 5.0 x16 AIOM	

System Cooling	Fans: 8 Removable heavy-duty 4cm Fan(s)
Power Supply	2x 1600W Redundant (1 + 1) 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: 66.8 lbs (30.3 kg) Net Weight: 43.6 lbs (19.8 kg) Available Color: Silver
Operating Environment	Operating Temperature: 10°C ~ 35°C (50°F ~ 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 G1SMP**
Chassis	**CSE-SG101E3-R000NDP**