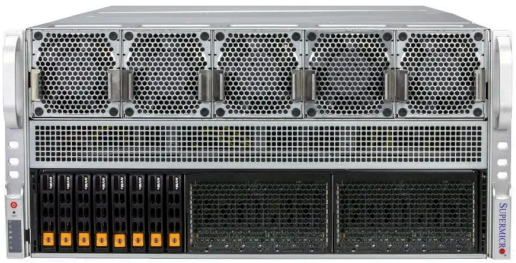
Arm-based (ARS) | 5U Rackmount | GPU Server

Supermicro ARS-522GP-NR

Arm-based (ARS) · 5U Rackmount · GPU Server Server

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Form Factor **5U Rackmount**	CPU **Arm AGI CPU Neoverse V3 with 64/128/136 cores**
GPU **Up to 8 double-width GPUs**	Memory **Max Memory (1DPC): 6TB 8400MT/s ECC DDR5 RDIMM**

Key Features

- 5U AI server supporting up to 8 double-width GPUs
- Dual Arm AGI CPU Neoverse V3 with 64, 128, or 136 cores and up to 300W each with air-cooling
- Up to 24 DIMMs supporting up to 6TB DDR5-8400 MT/s (1DPC)
- 8 PCIe 5.0 x16 DW-FHFL slots + 4 PCIe 5.0 x16 FHFL slots + 1 PCIe 6.0 x16 FHFL slot + 1 PCIe 5.0 x8 AIOM slot
- Flexible networking with OCP 3.0 compatible AIOM
- Up to 8 front hot-swap 2.5" NVMe drive bays
- Up to 6x N+N redundant 2700W AC hot-swappable power supplies (Titanium Level

Form Factor	5U Rackmount
Platform	Arm-based (ARS)
CPU	Dual processor(s) Arm AGI CPU Neoverse V3 with 64/128/136 cores
Max GPU Count	Up to 8 double-width GPUs
Memory	Slot Count: 24 DIMM slots Max Memory (1DPC): 6TB 8400MT/s ECC DDR5 RDIMM
Drive Bays	Default: Total 8 bays8 front hot-swap 2.5" NVMe drive bays
Fans	Up to 10 Heavy duty counter-rotating 8cm Fan(s)
Power Supply	6x 2700W Redundant (3 + 3) Titanium Level (96%) Hot-plug power supplies

Full Specifications — ARS-522GP-NR

Product SKUs

Part numbers	ARS-522GP-NR

Motherboard

Motherboard	Super AR3DPD-128C

Processor

CPU	Dual processor(s) Arm AGI CPU Neoverse V3 with 64/128/136 cores
Core Count	136C/136T; 128MB Cache per CPU
Note	Supports up to 300W TDP CPUs (Air Cooled)

GPU

Max GPU Count	Up to 8 double-width GPUs

System Memory

Memory	Slot Count: 24 DIMM slots Max Memory (1DPC): 6TB 8400MT/s ECC DDR5 RDIMM
Memory Voltage	1.1V

On-Board Devices

Network Connectivity	Via AIOM

Input / Output

LAN	2 RJ45 1 GbE Dedicated BMC LAN ports
USB	2 USB 3.0 ports (rear)
Video	1 VGA port (Rear)
Serial	1 COM port (rear)

System BIOS

BIOS Type	AMI 1024MB SPI Flash

Management

Software	SuperCloud Composer® (SCC) Supermicro Server Manager (SSM) Supermicro Update Manager (SUM) Supermicro SuperDoctor® 5 (SD5) Super Diagnostics Offline (SDO) Supermicro Thin-Agent Service (TAS) SuperServer Automation Assistant (SAA) New!
Power configurations	Power-on mode for AC power recovery ACPI Power Management

Security

Hardware	Trusted Platform Module (TPM) 2.0 Silicon Root of Trust (RoT) – NIST 800-193 Compliant
Features	Cryptographically Signed Firmware Secure Boot Secure Firmware Updates Automatic Firmware Recovery Supply Chain Security: Remote Attestation Runtime BMC Protections System Lockdown

PC Health Monitoring

CPU	Monitors for CPU Cores, Chipset Voltages, Memory
Fan	Fans with tachometer monitoring Pulse Width Modulated (PWM) fan connectors Status monitor for speed control
Temperature	Monitoring for CPU and chassis environment Thermal Control for fan connectors

Chassis

Form Factor	5U Rackmount
Model	CSE-538GTS-R000NDFP

Dimensions and Weight

Height	8.75" (222.5 mm)
Width	17.2" (438 mm)
Depth	33.16" (786.1 mm)
Package	17.32" (H) x 28.34" (W) x 42.51" (D)

Weight	Gross Weight: 100 lbs (45.3 kg) Net Weight: 65.5 lbs (29.7 kg)
Available Color	Black Front & Silver Body

Front Panel

Buttons	Power On/Off button System Reset button
LED	Hard drive activity LED Network activity LEDs Power status LED System Overheat & Power Fail LED

Expansion Slots

PCI-Express (PCIe) Configuration	Default8 PCIe 5.0 x16 (in x16) FHFL double-width slots 4 PCIe 5.0 x16 (in x16) FHFL slots 1 PCIe 6.0 x16 (in x16) FHFL slot 1 PCIe 5.0 x8 (in x8) AIOM slot (OCP 3.0 compatible)
M.2	1 M.2 PCIe 4.0 x1 NVMe slot (M-key 22110(default)/2280)

Drive Bays / Storage

Drive Bays Configuration	Default: Total 8 bays8 front hot-swap 2.5" NVMe drive bays
M.2	1 M.2 PCIe 4.0 x1 NVMe slot (M-key 2280(default)/22110)

System Cooling

Fans	Up to 10 Heavy duty counter-rotating 8cm Fan(s)
Air Shroud	2 Air Shrouds

Power Supply

6x 2700W Redundant (3 + 3) Titanium Level (96%) Hot-plug power supplies

Dimension (WxHxL)	73.5 x 40 x 203 mm
Input	2700W: 200-240Vac / 50-60Hz 2700W: 240-240Vdc / 50-60Hz (for CQC only)
+12V	Max: 225A / Min: 0A (200Vac-240Vac) Max: 225A / Min: 0A (240Vdc-240Vdc)
12V SB	Max: 4A / Min: 0A
Output Type	Backplanes (gold finger)

Operating Environment

RoHS	RoHS Compliant

Environmental Spec.	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)