UP SuperServer SYS-521C-NR

2U UP CloudDC with 12 hot-swap 3.5" SAS/SATA (2 NVMe hybrid) bays and 6 PCIe 5.0 slots + 1 PCIe 5.0 AIOM slot

More details here

Key Applications

Cloud Computing, Data Center Optimized, Network Appliance, Database/Storage, AI Inference, ML Training,

Key Features

- Single Socket E (LGA-4677) 4th/5th Gen Intel® Xeon® Scalable processors. Up to 350W TDP;
- Intel® C741 Chipset;
- 16 DIMMs; Supports 3DS DDR5 RDIMM. Up to 5600 MHz;
- Single AIOM with NCSI (OCP 3.0) for networking, 1 dedicated IPMI LAN;
- 12 Front hot-swap 3.5" SATA3 drive bays (Optional 2 hybrid Gen5 NVMe), SAS3 with additional SAS controller card;
- Redundant Titanium 1200W Power Supplies;

Form Factor	2U Rackmount Enclosure: 437 x 89 x 648mm (17.2" x 3.5" x 25.5") Package: 679 x 296 x 876mm (26.7" x 11.4" x 34.5")
Processor	Single Socket E (LGA-4677) 5th Gen Intel® Xeon®4th Gen Intel® Xeon® Scalable processors Up to 64C/128T; Up to 320MB Cache
GPU	Max GPU Count: Up to 2 double-width or 4 single-width GPUs Supported GPU: NVIDIA PCIe: A1000, A16, L4, L40S, NVIDIA RTX PRO 2000 Blackwell, NVIDIA RTX PRO™ 4000 Blackwell, NVIDIA RTX PRO™ 4500 Blackwell, NVIDIA RTX PRO™ 4500 Blackwell Server Edition, NVIDIA RTX PRO™ 5000 Blackwell, NVIDIA RTX PRO™ 6000 Blackwell Max-Q Workstation Edition, RTX 2000 Ada, RTX 4000 Ada Generation, RTX 4000 SFF Ada Generation, RTX 4500 Ada NVIDIA: RTX A400 CPU-GPU Interconnect: PCIe 5.0 x16 CPU-to-GPU Interconnect
System Memory	Slot Count: 16 DIMM slots/8 Channels Max Memory (1DPC): Up to 2TB 5600MT/s ECC DDR5 RDIMM Max Memory (2DPC): Up to 4TB 4400MT/s ECC DDR5 RDIMM
Drive Bays Configuration	Default: Total 12 bays • 12 front hot-swap 3.5" SAS*/SATA drive bays Option A: Total 12 bays • 2 front hot-swap 3.5" PCIe 5.0 x4 NVMe*/SAS*/SATA drive bays • 10 front hot-swap 3.5" SAS*/SATA drive bays (*NVMe/SAS support may require additional storage controller and/or cables, please see the optional parts list for details) M.2: 2 M.2 PCIe 3.0 x2 NVMe slots (M-key 2280/22110)
Expansion Slots	Default • 4 PCIe 5.0 x8 FHFL slots • 2 PCIe 5.0 x16 FHHL slots • 1 PCIe 5.0 x16 AIOM slot (OCP 3.0 compatible) Option A • 4 PCIe 5.0 x8 FHFL slots • 2 PCIe 5.0 x16 FHHL slots • 1 PCIe 5.0 x8 AIOM slot (OCP 3.0 compatible) Option B

- 2 PCIe 5.0 x16 FHFL double-width slots
- 2 PCIe 5.0 x16 FHHL slots
- 1 PCIe 5.0 x8 AIOM slot (OCP 3.0 compatible)

On-Board Devices	SATA: SATA (6Gbps) ; RAID 0/1/5/10 support NVMe: NVMe; RAID 0/1 support(Intel® VROC RAID key required) Chipset: Intel® C741 Network Connectivity: Via AIOM
Input / Output	LAN: 1 RJ45 1 GbE Dedicated BMC LAN port USB: 2 USB 2.0 ports (header) 2 USB 3.2 Gen1 Type-A ports (rear) Video: 1 VGA port Serial: 1 COM port (rear) TPM: 1 TPM header

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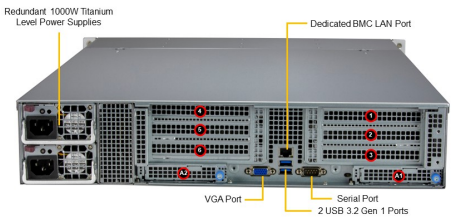
(Front View – System)

Drive Bay	Description
2 - 11	3.5/2.5" Hot-swap SAS3*/SATA3 Drive Bays
0 - 1	Hot-swap PCIe 5.0 NVMe* Hybrid Drive Bays

* NVMe or SAS3 support requires additional parts from the optional parts list

(Rear View – System)



Slot	Description
4	PCIe 5.0 x8* FHFL
5	PCIe 5.0 x8* FHFL
6	PCIe 5.0 x16 FHHL
A2	Dummy AIOM slot

Slot	Description
1	PCIe 5.0 x8* FHFL
2	PCIe 5.0 x8* FHFL
3	PCIe 5.0 x16 FHHL
A1	PCIe 5.0 x16* AIOM (OCP 3.0)

* Default Configuration. Exact number of lanes depends on the system loadout

System Cooling	Fans: Up to 3 heavy duty PWM 80x80x38mm Fan(s) Air Shroud: 1 Air Shroud
Power Supply	2x 1200W Redundant (1 + 1) Titanium Level (96%) power supplies
System BIOS	BIOS Type: AMI 32MB SPI Flash EEPROM
Management	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!
PC Health Monitoring	CPU: 8 Phase-switching voltage regulator 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
Dimensions and Weight	Weight: Gross Weight: 59 lbs (26.76 kg) Net Weight: 33 lbs (15 kg) Available Color: Black front & sliver body
Operating Environment	Operating Temperature: 10°C to 35°C (50°F to 95°F) Non-operating Temperature: -30°C to 60°C (-22°F to 140°F) Operating Relative Humidity: 8% to 80% (non-condensing) Non-operating Relative Humidity: 8% to 90% (non-condensing)
Motherboard	**Super X13SEDW-F**
Chassis	**CSE-LA26TS-R1K23AWP1**

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