

# 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

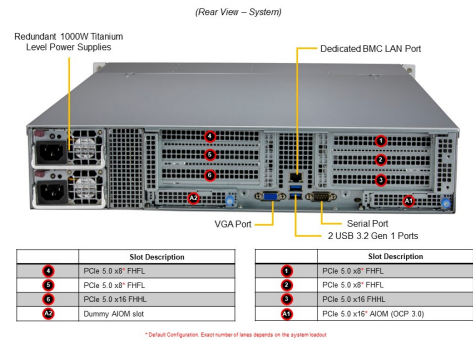
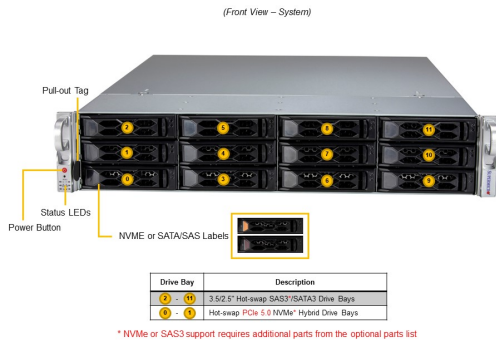
Cloud Computing, Data Center Optimized, Network Appliance, AI inferencing, ML training, Database/Storage,

## 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;
- 12x front hot-swap 3.5" SATA3 drive bays (Optional 2 hybrid Gen5 NVMe), SAS3 with additional SAS controller card;
- Redundant Titanium 1200W Power Supplies;



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| <b>Form Factor</b>              | 2U Rackmount<br>Enclosure: 437 x 89 x 648mm (17.2" x 3.5" x 25.5")<br>Package: 678 x 290 x 876mm (26.7" x 11.4" x 34.5")                                                                                                                                                                                                                                                                           |
| <b>Processor</b>                | Single Socket E (LGA-4677)<br>5th Gen Intel® Xeon® / 4th Gen Intel® Xeon® Scalable processors<br>Up to 64C/128T; Up to 320MB Cache                                                                                                                                                                                                                                                                 |
| <b>GPU</b>                      | Max GPU Count: Up to 2 double-width or 4 single-width GPU(s)<br>Supported GPU: NVIDIA PCIe: H100, L40, T1000, RTX A6000, RTX A4000, RTX A2000, L40S, L4, A40, A30, A16, A2<br>CPU-GPU Interconnect: PCIe 5.0 x16 CPU-to-GPU Interconnect                                                                                                                                                           |
| <b>System Memory</b>            | Slot Count: 16 DIMM slots/8 Channels<br>Max Memory (1DPC): Up to 2TB 5600MT/s ECC DDR5 RDIMM<br>Max Memory (2DPC): Up to 4TB 4400MT/s ECC DDR5 RDIMM                                                                                                                                                                                                                                               |
| <b>Drive Bays Configuration</b> | Default: Total 12 bay(s) <ul style="list-style-type: none"> <li>• 10 front hot-swap 3.5" SAS*/SATA drive bay(s)</li> <li>• 2 front hot-swap 3.5" PCIe 5.0 NVMe*/SAS*/SATA drive bay(s)</li> </ul> (*NVMe/SAS support may require additional storage controller and/or cables, please see the optional parts list for details)<br>M.2: 2 M.2 PCIe 3.0 x2 NVMe/SATA slot(s) (M-key 2280/22110)       |
| <b>Expansion Slots</b>          | Default <ul style="list-style-type: none"> <li>• 4 PCIe 5.0 x8 FHFL slot(s)</li> <li>• 2 PCIe 5.0 x16 FHHL slot(s)</li> <li>• 1 PCIe 5.0 x16 AIOM slot(s) (OCP 3.0 compatible)</li> </ul> Option A <ul style="list-style-type: none"> <li>• 2 PCIe 5.0 x16 FHFL double-width slot(s)</li> <li>• 2 PCIe 5.0 x16 FHHL slot(s)</li> <li>• 1 PCIe 5.0 x16 AIOM slot(s) (OCP 3.0 compatible)</li> </ul> |
| <b>On-Board Devices</b>         | SATA: SATA (6Gbps) ; RAID 0/1/5/10 support<br>NVMe: NVMe; RAID 0/1/5/10 support(Intel® VROC RAID key required)<br>Chipset: Intel® C741<br>Network Connectivity: Via AIOM<br>IPMI: Support for Intelligent Platform Management Interface v.2.0<br>IPMI 2.0 with virtual media over LAN and KVM-over-LAN support                                                                                     |
| <b>Input / Output</b>           | LAN: 1 RJ45 1 GbE Dedicated BMC LAN port(s)<br>USB: 2 USB 2.0 port(s) (header)<br>2 USB 3.2 Gen1 Type-A port(s) (rear)<br>Video: 1 VGA port(s)<br>Serial: 1 COM port(s) (Rear)<br>TPM: 1 TPM header                                                                                                                                                                                                |



|                       |                                                                                                                                                                                                                                                                                                                         |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| System Cooling        | Fans: 3 heavy duty PWM 80x80x38mm Fan(s)                                                                                                                                                                                                                                                                                |
| Power Supply          | 2x 1200W Redundant (1 + 1) Titanium Level power supplies                                                                                                                                                                                                                                                                |
| System BIOS           | BIOS Type: AMI 32MB SPI Flash EEPROM                                                                                                                                                                                                                                                                                    |
| Management            | Redfish API; Supermicro Server Manager (SSM); Supermicro Power Manager (SPM); Supermicro Update Manager (SUM); SuperDoctor® 5; Super Diagnostics Offline ; KVM with dedicated LAN ; IPMI 2.0                                                                                                                            |
| PC Health Monitoring  | CPU: Monitors for CPU Cores, Chipset Voltages, Memory<br>8 Phase-switching voltage regulator<br>FAN: Fans with tachometer monitoring<br>Status monitor for speed control<br>Pulse Width Modulated (PWM) fan connectors<br>Temperature: Monitoring for CPU and chassis environment<br>Thermal Control for fan connectors |
| Dimensions and Weight | Weight: Gross Weight: 59 lbs (26.76 kg)<br>Net Weight: 33 lbs (15 kg)<br>Available Color: Black front & silver body                                                                                                                                                                                                     |
| Operating Environment | Operating Temperature: 10°C ~ 35°C (50°F ~ 95°F)<br>Non-operating Temperature: -30°C to 60°C (-22°F to 140°F)<br>Operating Relative Humidity: 8% to 80% (non-condensing)<br>Non-operating Relative Humidity: 8% to 90% (non-condensing)                                                                                 |
| Motherboard           | <a href="#">Super X13SEDW-F</a>                                                                                                                                                                                                                                                                                         |
| Chassis               | <a href="#">CSE-LA26TS-RIK23AWP1</a>                                                                                                                                                                                                                                                                                    |