

# UP SuperServer SYS-521C-NR



More details here

## Key Applications

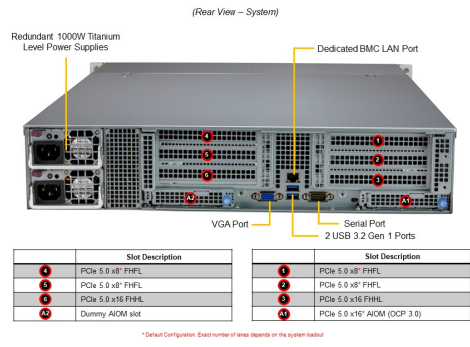
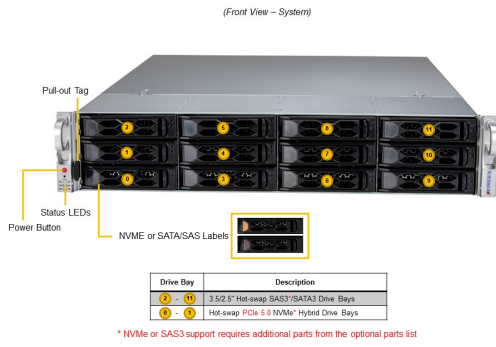
Cloud Computing, Data Center Optimized, Network Appliance, AI inferencing, ML training, Database/Storage,

## 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;
- 2 PCIe 5.0 x16 FHFL + 2 PCIe 5.0 x16 FHHL (OR) 4 PCIe 5.0 x8 FHFL and 2 PCIe 5.0 x16 FHHL; 1 PCIe 5.0 x16 AIOM NIC(OCP 3.0); 2 PCIe 3.0 x2 NVMe M.2;
- 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;



<b>Form Factor</b>	2U Rackmount Enclosure: 437 x 89 x 648mm (17.2" x 3.5" x 25.5") Package: 678 x 290 x 876mm (26.7" x 11.4" x 34.5")
<b>Processor</b>	Single Socket E (LGA-4677) 5th Gen Intel® Xeon®/4th Gen Intel® Xeon® Scalable processors 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) Supported GPU: NVIDIA PCIe: H100,L4,A40,A16,T1000,RTX A4000,A30,A2,L40,RTX A6000,L40S CPU-GPU Interconnect: PCIe 5.0 x16 CPU-to-GPU Interconnect GPU-GPU Interconnect: PCIe
<b>System Memory</b>	Slot Count: 16 DIMM slots/8 Channels Max Memory (1DPC): Up to 2TB 4800MT/s ECC DDR5 RDIMM Max Memory (2DPC): Up to 4TB 4400MT/s ECC DDR5 RDIMM
<b>Drive Bays</b>	12x 3.5" NVMe/SATA/SAS drive bays (2x 3.5" NVMe hybrid) 2x PCIe 3.0 x 2 M-key, 2280, 22110
<b>Expansion Slots</b>	4 PCIe 5.0 x8 FHFL slot(s) 2 PCIe 5.0 x16 FHHL slot(s) 1 PCIe 5.0 x16 OCP 3.0 AIOM NIC slot(s) Note: AIOM slot shares PCIe lanes with NVMe drives. Acronyms: (FH = Full Height, LP = Low Profile, FL = Full Length, HL = Half Length)
<b>On-Board Devices</b>	SATA: SATA3 (6Gbps); RAID 0/1/5/10 support NVMe: NVMe Chipset: Intel® C741 Network Connectivity: Via AIOM IPMI: Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
<b>Input / Output</b>	SATA: 12 SATA (6Gbps) port(s) LAN: 1 RJ45 Dedicated IPMI LAN port USB: 2 USB 3.2 Gen 1 port(s) (2 rear) 2 USB 2.0 port(s) (2 headers) Video: 1 VGA port(s) Serial Port: 1 COM Port(s) (1 rear)



System Cooling	Fans: 3 heavy duty PWM 80x80x38mm Fan(s)
Power Supply	2x 1200W Redundant 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 8 Phase-switching voltage regulator 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	Height: 3.5" (89 mm) Width: 17.2" (437 mm) Depth: 25.5" (648 mm) Gross Weight: 59 lbs (26.76 kg) Net Weight: 33 lbs (15 kg) Packaging: 11.4" (H) x 26.7" (W) x 34.5" (D) Available Color: Black front & silver body
Operating Environment	Operating Temperature: 10°C ~ 35°C (50°F ~ 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	<a href="#">Super X13SEDW-F</a>
Chassis	CSE-LA26TS-R1K23AWP1

## Parts List

### Standard Parts (Parts Included)

#### Motherboard / Chassis

Part Number	MBD-X13SEDW-F	CSE-LA26TS-R1K23AWP1
Qty	1	1
Description	Super X13SEDW-F Motherboard	2U Chassis

#### Backplane

Part Number	BPN-NVME5-LA26A-S12
Qty	1
Description	2U 12-Slot 3.5

#### Cable

Part Number	CBL-MCIO-1218M5-1	CBL-MCIO-1260M5Y	CBL-SAST-1274LP-100	CBL-SAST-1285LP-100	CBL-PWCD-0160-IS
Qty	1	4	1	1	2
Description	MCIO x8 (STR to STR),18CM,85OHM,RoHS	MCIO (x8 to 2 x4) STR,60CM,85OHM,RoHS	SlimlineLP x8 (LE) to 2x Slimline x4 (STR),68/76CM,100 O	SlimlineLP x4 (STR) to Slimline x4 (STR),57CM,100 OHM,Ro	PWCD,US,NEMA5-15P TO IEC60320 C13,6FT,16AWG,RoHS/REACH

#### Parts

Part Number	MCP-140-82603-0N
Qty	2
Description	MCIO cable wire saddle for X13SEDW in SCLA26-AW

#### Manual

Part Number	MNL-2494-QRG
Qty	1
Description	521C-NR Quick Reference Guide

#### Riser Card

Part Number	RSC-D2-666G5	RSC-D2R-666G5
Qty	1	1
Description	2U LHS DCO Riser card with three PCIe 5.0 X16 slots,HF,	2U RHS DCO Riser card with three PCIe 5.0 X16 slots,HF,

#### Software

Part Number	SFT-OOB-LIC
Qty	1
Description	License key for enabling OOB BIOS management

#### Heatsink / Retention

Part Number	SNK-P0088P
Qty	1
Description	2U Passive CPU HS for X13 Intel Eagle Stream Platform

#### \* Power Supply

Part Number	PWS-1K23A-1R
Qty	2
Description	AC-DC 1200W, Titanium Level, Redundancy, 1U, PMBUS 1.2, +12V/+5Vsb, 336x76x40 mm,HF,RoHS/REACH

#### \* Power Distributor

Part Number	PDB-PT826-S4824
Qty	1
Description	Based on PDB-PT826-8824 to add 2pcs 8pin for option support

#### \* Fan

Part Number	FAN-0206L4
Qty	3
Description	80x80x38 mm, 13.5K RPM, Middle Cooling Fan for 2U and above Servers

#### \* Drive Tray(s)

Part Number	MCP-220-00184-0B	MCP-290-82607-0N
Qty	12	1
Description	Black gen-9 tool-less cost-effective 3.5	826B/216B rear dummy cover for 2 X 2.5

#### \* Rear Window

Part Number	MCP-240-00170-0N
Qty	1
Description	2U X12 WIO rear window for SCLA26

#### \* Rail Set

Part Number	MCP-290-00053-0N
Qty	1
Description	Rail set, quick/quick, default for 2,3U 17.2"W

#### \* Air Shroud

Part Number	MCP-310-82619-0B
Qty	1
Description	Sponge air Block sets for CSE-826B and LA26-AW

#### Notes:

1. Parts with \* are inside the chassis
2. Excessive parts might not be shipped, including but not limited to excessive drive trays, fans, riser brackets, air shrouds, IO shields, cables.....etc.

### Optional Parts List

#### CacheVault

Part Number	BTR-CVPM05 + MCP-240-21747-0N (For S3908/S3916)	BTR-CVPM05 + MCP-240-00203-0N (For S3908/S3916)
Qty	1	1
Description	SuperCap mounting bracket for AIOM location	SuperCap mounting bracket for PCIe location

#### Intel VROC RAID Key for NVMe

Part Number	<a href="https://store.supermicro.com/supermicro-vroc-premium-module.html">AOC-VROCPREMOD</a>	<a href="https://store.supermicro.com/supermicro-vroc-standard-module-1.html">AOC-VROCSTNMOD</a>
Qty	1	1

Description	Premium Upgrade module (Intel + 3rd party Vendor SSD); RAID 0/1/10/5	Standard Upgrade module (Intel + 3rd party Vendor SSD); RAID 0/1/10
<b>NVMe Cable</b>		
Part Number	CBL-MCIO-1240AM5-X • <a href="https://store.supermicro.com/mcio-x8-to-x8-str-40cm-lnrv-85ohm-rohs.html">eStore (https://store.supermicro.com/mcio-x8-to-x8-str-40cm-lnrv-85ohm-rohs.html)</a>	
Qty	1	
Description	MCIO (x8 to x8) STR,40CM,85OHM	
<b>Software</b>		
Part Number	SFT-DCMS-Single	
Qty	1	
Description	DataCenter Management Package (per node license)	
<b>Storage Control Card and Cable(s)</b>		
Part Number	AOC-S3908L-H8IR-16DD + 1x CBL-SAST-1276F-100 • <a href="https://store.supermicro.com/supermicro-slimline-x8-to-2x-slimline-x4-76cm-cable-cbl-sast-1276f-100.html">eStore (https://store.supermicro.com/supermicro-slimline-x8-to-2x-slimline-x4-76cm-cable-cbl-sast-1276f-100.html)</a>	AOC-S3916L-H16iR-32DD + 1x CBL-SAST-1265F-100 + 1x CBL-SAST-1276F-100 • <a href="https://store.supermicro.com/supermicro-slimline-x8-to-2x-slimline-x4-76cm-cable-cbl-sast-1276f-100.html">eStore (https://store.supermicro.com/supermicro-slimline-x8-to-2x-slimline-x4-76cm-cable-cbl-sast-1276f-100.html)</a>
Qty	1	1
Description	Standard LP, 8 internal ports (12Gb/s) PCIe 4.0 x8, 16HDD; RAID 0, 1, 5, 6, 10, 50, 60	Standard LP, 16 internal ports (12Gb/s) PCIe 4.0 x8, 32HDD; RAID 0, 1, 5, 6, 10, 50, 60
<b>Storage Control Card and Cable(s) (HBA)</b>		
Part Number	AOC-S3816L-L16iT + 1x CBL-SAST-1265F-100 + 1x CBL-SAST-1276F-100 • <a href="https://store.supermicro.com/supermicro-slimline-x8-to-2x-slimline-x4-76cm-cable-cbl-sast-1276f-100.html">eStore (https://store.supermicro.com/supermicro-slimline-x8-to-2x-slimline-x4-76cm-cable-cbl-sast-1276f-100.html)</a>	<a href="https://products/accessories/addon/AOC-S3816L-L16iT_S3808L-L8iT.php">AOC-S3808L-L8iT (https://products/accessories/addon/AOC-S3816L-L16iT_S3808L-L8iT.php)</a> + 1x CBL-SAST-1276F-100 • <a href="https://store.supermicro.com/supermicro-slimline-x8-to-2x-slimline-x4-76cm-cable-cbl-sast-1276f-100.html">eStore (https://store.supermicro.com/supermicro-slimline-x8-to-2x-slimline-x4-76cm-cable-cbl-sast-1276f-100.html)</a>
Qty	1	1
Description	Standard LP, 16 internal ports (12Gb/s) PCIe 4.0 x8, 122HDD; HBA	Standard LP, 8 internal ports (12Gb/s) PCIe 4.0 x8, 122HDD; HBA
<b>TPM</b>		
Part Number	AOM-TPM-9670V-S-O	
Qty	1	
Description	TPM 2.0, vertical form factor, provisioned for server	

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