

# Ultra SuperServer SYS-220U-TNR

2U Ultra with 24 NVMe/SAS/SATA bays, 8 PCIe slots



More details here

## Key Applications

Virtualization, HPC, Cloud Computing, High End Enterprise Server, Software Defined Storage, Application Tier Service Provider, 5G/Telco,

## Key Features

- Dual Socket P+ (LGA-4189) 3rd Gen Intel® Xeon® Scalable Processors;
- Intel® C621A Chipset;
- 32 DIMM Slots; Up to 8TB DRAM; Up to 8TB Intel® Optane™ Persistent Memory (up to 12TB with DRAM); 3200/2933/2666 ECC DDR4 LRDIMM; RDIMM; Intel® Optane™ Persistent Memory 200 series;
- 1 PCIe 4.0 x16 (LP)  
1 PCIe 4.0 x16 (FH, 10.5"L)  
5 PCIe 4.0 x8 (FH, 10.5"L)  
1 internal PCIe 4.0 x8 (in x16 slot, LP);
- Flexible networking options;
- 22x 2.5" hot-swap hybrid NVMe/SATA/SAS drive bays + 2x 2.5" hot-swap SATA/SAS drive bays;
- 4 heavy duty fans with optimal fan speed control;
- 1600W redundant Titanium level power supplies;



### Form Factor

2U Rackmount  
Enclosure: 437 x 89 x 717.2mm (17.2" x 3.5" x 28.2")  
Package: 625 x 253 x 1154mm (24.6" x 9.96" x 45.43")

### Processor

Dual Socket P+ (LGA-4189)  
3rd Gen Intel® Xeon® Scalable processors  
Up to 40C/80T; Up to 60MB Cache per CPU

### GPU

Max GPU Count: Up to 4 double-width or 6 single-width GPU(s)  
Supported GPU: NVIDIA PCIe: T4, RTX A6000, RTX A5000, A40, A30, A16, A2, A100, A10

### System Memory

Slot Count: 32 DIMM slots  
Max Memory (2DPC): Up to 8TB 3200MT/s ECC DDR4 RDIMM/LRDIMM  
Supports Intel® Optane™ persistent memory 200 series

### Drive Bays Configuration

Default: Total 24 bay(s)  

- 22 front hot-swap 2.5" NVMe/SAS\*/SATA drive bay(s)
- 2 front hot-swap 2.5" SAS\*/SATA drive bay(s)

 (\*SAS support may require additional storage controller and/or cables, please see the optional parts list for details)

### Expansion Slots

Default  

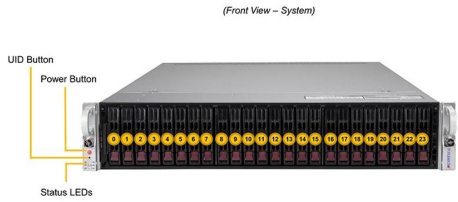
- 1 PCIe 4.0 x16 FH/10.5"L slot(s)
- 5 PCIe 4.0 x8 FH/10.5"L slot(s)
- 1 PCIe 4.0 x8 LP slot(s)
- 1 PCIe 4.0 x16 LP slot(s)

### On-Board Devices

SATA: SATA (6Gbps) ; RAID 0/1/5/10 support  
 NVMe: NVMe; RAID 0/1/5/10 support  
 Chipset: Intel® C621A  
 Network Connectivity: 2 RJ45 10GBASE-T with Intel® X710-AT2 (optional)  
 2 RJ45 10GBASE-T with Intel® X710-TM4 (optional)  
 2 SFP+ 10GbE with Intel® X710-TM4 (optional)  
 No NIC option supported

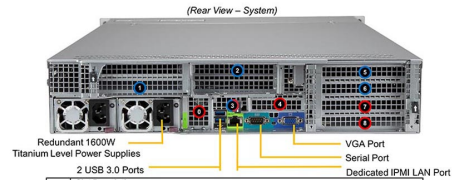
### Input / Output

LAN: 1 RJ45 1 GbE Dedicated BMC LAN port(s)  
 USB: 2 USB 3.0 port(s) (rear)  
 Video: 1 VGA port(s)  
 DOM: 2 SuperDOM (Disk on Module) port(s)



Slot	Description
1 – 11	2.5" Hot-swap SAS3/SATA3 Drive Bays
12 – 18	2.5" Hot-swap NVMe/SAS3/SATA3 Drive Bays (NVMe from CPU1)**
19 – 24	2.5" Hot-swap NVMe/SAS3/SATA3 Drive Bays (NVMe from CPU2)**

\*SAS3 support requires additional parts in optional parts list  
 \*\*NVMe support requires additional parts in optional parts list



Slot Description
1 Ultra Riser Networking Slot
2 PCI-E 4.0 x16 Slot (FH, 10.5L)
3 PCI-E 4.0 x8 (m x16) Slot (FH, 10.5L); (PCI-E 4.0 x16 Slot with AOC-2UR68G4)
4 PCI-E 4.0 x8 (m x16) Slot (Internal LP) from CPU2; (from CPU1 with AOC-2UR68G4)
5 PCI-E 4.0 x16 Slot (LP)
6 PCI-E 4.0 x8 Slot (FH, 10.5L) <sup>1</sup>
7 PCI-E 4.0 x8 Slot (FH, 10.5L) <sup>1</sup>
8 PCI-E 4.0 x8 Slot (FH, 10.5L) <sup>1</sup>
9 PCI-E 4.0 x8 Slot (FH, 10.5L) <sup>1</sup>
10 PCI-E 4.0 x8 Slot (FH, 10.5L) <sup>1</sup>

1. Optional RSC-W2-68G4 enables PCIe x16 in slots 5, 7. Slots 6,8 will be disabled.

System Cooling	Fans: 4x 8cm heavy duty fans with optimal fan speed control Air Shroud: 2 Air Shroud(s)
Power Supply	1x 1600W Redundant Titanium Level (96%) Hot-plug power supply
System BIOS	BIOS Type: AMI 32MB SPI Flash EEPROM
Management	SuperCloud Composer; 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: Monitors for CPU Cores, Chipset Voltages, Memory 7 +1 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	Weight: Gross Weight: 63 lbs (28.6 kg) Net Weight: 37 lbs (16.8 kg) Available Color: Black Front & Silver Body
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	<a href="#">Super X12DPU-6</a>
Chassis	CSE-219U3TS-R1K62P-T