

## Twin SuperServer SYS-120TP-DTTR

COMING SOON



### Key Applications

- High Performance Computing
- Hyper-Converged Infrastructure
- Big Data / Big Science

### Key Features

**Two hot-pluggable systems (nodes) in a 1U form factor. Each node supports the following:**

1. Dual Socket P+ (LGA-4189) 3rd Generation Intel® Xeon® Scalable Processors
2. Intel® C621A chipset
3. 16 DIMMs, Up to 4TB 3DS ECC DDR4-3200 LRDIMM/RDIMM
4. 2 PCI-E 4.0 x16 (LP), 1 PCI-E 4.0 x8 (with M.2 adapter installed for support 2 NVME up to 22x80 mm)
5. Intel® X710 Dual port 10GBase-T LAN onboard
6. 4x 2.5" hot-swap SATA drive bays
7. 6 counter-rotating 4cm PWM fans with optimal fan speed control (Per System)
8. Two 1000W redundant power supplies with PMBus
9. ASPEED AST2600 BMC, 2 USB, VGA, RoT, 2 SATADOM ports  
SATA (6Gbps); 4 slots per node; RAID 0, 1, 5, 10 support.

# Specifications

## Product SKUs

<b>SYS-120TP-DTTR</b>	▪ SuperServer SYS-120TP-DTTR (Black front & sliver body)
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## Motherboard

<b>Super X12DPT-PT6</b>
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## Processor (per Node)

<b>CPU</b>	▪ Dual Socket P+ (LGA 4189) ▪ 3rd Gen Intel® Xeon® Scalable processors ▪ Support CPU TDP 185W *
<b>Cores</b>	▪ Up to 32C/64T; Up to 48MB Cache
<b>Note</b>	▪ *Please contact Supermicro Technical Support for supporting conditions of high power (TDP 150W and above) or high base frequency (3.0 GHz and above) processors.

## System Memory (per Node)

<b>Memory</b>	▪ Memory Capacity: 16 DIMM slots ▪ Up to 4TB: 16x 256 GB DRAM ▪ Memory Type: 3200/2933/2666MHz ECC DDR4 RDIMM
<b>Memory Voltage</b>	▪ 1.2 V
<b>Error Detection</b>	▪ ECC

## On-Board Devices (per Node)

<b>SATA</b>	▪ SATA3 (6Gbps) via Intel C621A; RAID 0, 1, 5, 10 support
<b>Chipset</b>	▪ Intel® C621A
<b>Network Connectivity</b>	▪ 2x 10GbE BaseT with Intel® X710-AT2
<b>IPMI</b>	▪ Support for Intelligent Platform Management Interface v.2.0 ▪ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support

## Input / Output (per Node)

<b>LAN</b>	▪ 1 RJ45 Dedicated IPMI LAN port
<b>USB</b>	▪ 2 USB 3.0 port(s) (2 rear)
<b>Video</b>	▪ 1 VGA port(s)
<b>DOM</b>	▪ 2 SuperDOM (Disk on Module) port
<b>Others</b>	▪ M.2 2 NVME M.2 (up to 22x80 mm) support via installed SCC-P2N2M2-P2 and M.2 for OS boot only.

## Chassis

<b>Form Factor</b>	▪ 1U Rackmount
<b>Model</b>	▪ CSE-809H-R1K05P3

## Dimensions and Weight

<b>Height</b>	▪ 1.7" (43mm)
<b>Width</b>	▪ 17.25" (438mm)
<b>Depth</b>	▪ 28.25" (718mm)
<b>Package</b>	▪ 8" (H) x 29.6" (W) x 38.4" (D)
<b>Weight</b>	▪ Net Weight: 33.5 lbs (15.2 kg) ▪ Gross Weight: 48.1 lbs (21.9 kg)
<b>Available Color</b>	▪ Black front & sliver body

## Front Panel

<b>Buttons</b>	▪ Power On/Off button ▪ UID button
<b>LEDs</b>	▪ Network activity LED ▪ Power status LED ▪ System information (overheat/UID) LED

## Expansion Slots (per Node)

<b>PCI-Express (PCI-E)</b>	▪ Slot 1: PCI-E 4.0 x16 LP ▪ Slot 2: PCI-E 4.0 x16 LP ▪ Internal Slot: M.2
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## Drive Bays / Storage (per Node)

<b>Hot-swap</b>	▪ 4x 2.5" hot-swap SATA drive bays
<b>M.2</b>	▪ 2 M.2 NVMe

## System Cooling

<b>Fans</b>	▪ 6x 4cm heavy duty fans with optimal fan speed control
<b>Air Shroud</b>	▪ 2 Air Shroud(s)

## Power Supply

1U 1000W Redundant, Titanium, 38(W) X 40(H) X 360(L) mm	
<b>Dimension (W x H x L)</b>	▪ 38 x 40 x 360 mm
<b>AC Input</b>	▪ 800W: 100-127Vac / 50-60Hz ▪ 1000W: 200-240Vac / 50-60Hz
<b>+12V</b>	▪ Max: 66.7A / Min: 0A (100Vac-127Vac) ▪ Max: 83A / Min: 0A (200Vac-240Vac)
<b>5V SB</b>	▪ Max: 4A / Min: 0A

## System BIOS

- BIOS Type
  - AMI 32MB SPI Flash EEPROM

## Management

- Software
  - Supermicro Out of Band (OOB) Software License Key (Included per Node)
  - Redfish API
  - IPMI 2.0
  - SSM
  - Intel® Node Manager
  - SPM
  - KVM with dedicated LAN
  - SUM
  - NMI
  - Watch Dog
  - SuperDoctor® 5

- Power Configurations
  - ACPI/APM Power Management
  - ACPI Power Management
  - Power-on mode for AC power recovery

## PC Health Monitoring

- CPU
  - 5 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

- Output Type
  - Gold Finger Connector

- Certification
  - Titanium Level



[ Test Report ]

## Operating Environment

- Environmental Spec.
  - 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)

# Parts List

## Parts List - (Items Included)

	Part Number	Qty	Description
<b>Motherboard / Chassis</b>	MBD-X12DPT-PT6	2	Super X12DPT-PT6 Motherboard
	CSE-809H-R1K05P3	1	1U Chassis
<b>Backplane</b>	BPN-ADP-6SATA3P	2	Backplan adapter card; 6SATA ports,RoHS/REACH,PBF
<b>Backplane</b>	BPN-SAS3-809H3	1	1U 8-Port 2-Node 12Gbps Backplane for 4x2.5" SAS3/SATA3 HDD/
<b>Cable 1</b>	CBL-PWCD-0900	2	PWCD,US/EU/Canada/China/Australia,IEC60320 C14 TO C13,4FT,17
<b>Air Shroud</b>	MCP-310-21732-0B	2	TwinPro 2U4N plastic air shroud for X12DPT-PT6(2pcs)
<b>Riser Card</b>	RSC-P-6G4	2	1U LHS TwinPro Riser card with one PCI-E 4.0x16lotH,RoHS
<b>Riser Card</b>	RSC-PR-6-X2	2	1U RHS TwinPro Riser card with one PCI-E 4.0 x16 slot,HF,RoH
<b>Storage Controller Card</b>	SCC-P2N2M2-P2	2	2x NVMe M.2 carrier up to 2280 for X12 Twinpro
<b>Software</b>	SFT-OOB-LIC	2	License key for enabling OOB BIOS management
<b>Heatsink / Retention</b>	SNK-P0077PM	2	X12 ICX/CPX 1U Passive CPU Heatsink (78x113x24.7mm), w/ Center Air channel
<b>Heatsink / Retention</b>	SNK-P0077V	2	X12 ICX/CPX CPU Heatsink (78x113x25.5mm), VC Base, Cu Fin
<b>*Power Supply</b>	PWS-1K05A-1R	2	1U 1000W Redundant Power Supply Titanium, 38X40X360mm length

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

	Part Number	Qty	Description
<b>SATA-DOM</b>	SSD-DM128-SMCMVN1	2	SMC SATADOM, 128GB, SATA 6Gb/s, MLC, uSSD, 15nm,HF,RoHS/REACH
	SSD-DM064-SMCMVN1	2	SMC SATADOM,64GB,SATA 6Gb/s,MLC,uSSD,15nm,HF,RoHS
	SSD-DM032-SMCMVN1	2	SMC SATADOM,32GB,SATA 6Gb/s,MLC,uSSD,15nm,HF,RoHS
	SSD-DM016-SMCMVN1	2	SMC SATADOM,16GB,SATA 6Gb/s,MLC,uSSD,15nm,HF,RoHS
<b>TPM security module (optional, not included)</b>	<u>AOM-TPM-9671H-S</u>	1	SPI capable TPM 1.2 with Infineon 9670 controller with Horizontal form factor
	<u>AOM-TPM-9670H-S</u>	1	SPI capable TPM 2.0 with Infineon 9670 controller with Horizontal form factor