

Twin SuperServer SYS-220TP-HTTR

NEW



Key Applications

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

Key Features

Four hot-pluggable systems (nodes) in a 2U 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. 6x 2.5" hot-swap SATA drive bays
7. 4 heavy duty 8cm PWM fans with optimal fan speed control (Per System)
8. Two 2200W redundant power supplies with PMBus
9. ASPEED AST2600 BMC, 2 USB, VGA, RoT, 2 SATADOM ports
SATA (6Gbps); 6 slots per node; RAID 0, 1, 5, 10 support.

Specifications

Product SKUs

SYS-220TP-HTTR	■ SuperServer SYS-220TP-HTTR (Black front & sliver body)
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Motherboard

Super X12DPT-PT6

Processor (per Node)

CPU	■ Dual Socket P+ (LGA 4189) ■ 3rd Gen Intel® Xeon® Scalable processors ■ Support CPU TDP 185W *
Cores	■ Up to 32C/64T; Up to 48MB Cache
Note	■ *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)

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

On-Board Devices (per Node)

SATA	■ SATA3 (6Gbps) via Intel C621A; RAID 0, 1, 5, 10 support
Chipset	■ Intel® C621A
Network Connectivity	■ 2x 10GbE BaseT with Intel® X710-AT2
IPMI	■ 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)

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

Chassis

Form Factor	■ 2U Rackmount
Model	■ CSV-217HQ+-R2K20BP4

Dimensions and Weight

Height	■ 3.47" (88mm)
Width	■ 17.25" (438mm)
Depth	■ 28.75" (730mm)
Package	■ 10" (H) x 24.5" (W) x 45" (D)
Weight	■ Net Weight: 72 lbs (32.7 kg) ■ Gross Weight: 90 lbs (40.9 kg)
Available Color	■ Black front & sliver body

Front Panel

Buttons	■ Power On/Off button ■ UID button
LEDs	■ Network activity LED ■ Power status LED ■ System information (overheat/UID) LED

Expansion Slots (per Node)

PCI-Express (PCI-E)	■ 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)

Hot-swap	■ 6x 2.5" hot-swap SATA drive bays
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System Cooling

Fans	■ 4x 8cm heavy duty fans with optimal fan speed control
Air Shroud	■ 4 Air Shroud(s)

Power Supply

1U 2200W Redundant, Titanium, 76(W) X 40(H) X 336(L) mm	
Dimension (W x H x L)	■ 76 x 40 x 336 mm
AC Input	■ 1200W: 100-127Vac / 50-60Hz ■ 2200W: 200-240Vac / 50-60Hz
DC Input	■ 2090W: 230-240Vdc for CCC only
+12V	■ Max: 100A / Min: 0A (100Vac-127Vac) ■ Max: 183.3A / Min: 0A (200Vac-240Vac)
5V SB	■ Max: 1A / Min: 0A

System BIOS	
BIOS Type	■ AMI 32MB SPI Flash EEPROM
Management	
Software	■ <u>Supersmicro Out of Band (OOB) Software License Key</u> (Included per Node) ■ Redfish API ■ <u>IPMI 2.0</u> ■ <u>SSM</u> ■ Intel® Node Manager ■ <u>SPM</u> ■ KVM with dedicated LAN ■ <u>SUM</u> ■ 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
Motherboard / Chassis	MBD-X12DPT-PT6	4	Super X12DPT-PT6 Motherboard
	CSV-217HQ+-R2K20BP4	1	2U Chassis
Backplane	BPN-ADP-6SATA3P	4	Backplan adapter card; 6SATA ports,RoHS/REACH,PBF
Backplane	BPN-SAS3-217HQ3	1	2U 4-Node TwinPro Backplane for 6x2.5â€? SAS3/SATA3 HDD/SDD
Cable 1	CBL-PWCD-0900	2	PWCD,US/EU/Canada/China/Australia,IEC60320 C14 TO C13,4FT,17
Air Shroud	MCP-310-21732-0B	4	TwinPro 2U4N plastic air shroud for X12DPT-PT6(2pcs)
Riser Card	RSC-P-6G4	4	1U LHS TwinPro Riser card with one PCI-E 4.0x16lotH,RoHS
Riser Card	RSC-PR-6-X2	4	1U RHS TwinPro Riser card with one PCI-E 4.0 x16 slot,HF,RoH
Storage Controller Card	SCC-P2N2M2-P2	4	2x NVMe M.2 carrier up to 2280 for X12 Twinpro
Software	SFT-OOB-LIC	4	License key for enabling OOB BIOS management
Heatsink / Retention	SNK-P0077PM	4	X12 ICX/CPX 1U Passive CPU Heatsink (78x113x24.7mm), w/ Center Air channel
Heatsink / Retention	SNK-P0077V	4	X12 ICX/CPX CPU Heatsink (78x113x25.5mm), VC Base, Cu Fin
*Power Supply	PWS-2K20A-1R	2	1U 2200W Redundant, Titanium, 76(W) X 40(H) X 336(L) mm
*Power Distributor	PDB-PT217-H2412	1	2U support redundancy input powers up to 2.6KW for Twin seri
*FAN 1	FAN-0183L4	4	80x80x38 mm, 16.5K RPM, Non-hot-swappable Middle Cooling Fan for X11 Twin Pro, X10 and X11 Big Twin Series Servers
*Drive Tray(s)	MCP-220-00047-0B	24	Black gen 3rd hot-swap 2.5inch HDD tray
*Rail Set	MCP-290-00053-0N	1	Rail set, quick/quick, default for 2,3U 17.2";W
*Fan Holder	MCP-320-21701-0N	2	Twin Pro fan holder (hold 2 80x38 fans),RoHS/REACH

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
SATA-DOM	SSD-DM016-SMCMVN1	2	SMC SATADOM,16GB,SATA 6Gb/s,MLC,uSSD,15nm,HF,RoHS
	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
TPM security module (optional, not included)	AOM-TPM-9670H-O	1	SPI capable TPM 2.0 with Infineon 9670 controller with Horizontal form factor
	AOM-TPM-9671H-O	1	SPI capable TPM 1.2 with Infineon 9670 controller with Horizontal form factor