

SuperServer 7089P-TR4T (Complete System Only)



Due to the complexity of integration, this product is sold as completely assembled systems only (including but not limited to CPUs, memory, and HDDs). Please contact your Supermicro sales rep for special requirements.

96/48 DIMMs are the recommended memory population configurations for the best performance.

[▶ Drivers & Utilities](#) [▶ BIOS](#) [▶ IPMI](#) [▶ Tested Memory](#) [▶ OS Certification Matrix](#) [▶ Drive Options](#)

Key Features

- 8-Way MP, 224 Cores
- Virtualization, ERP, CRM
- In-Memory Database

Application

- Research Lab/National Lab
- Scale-up HPC

1. Octa socket P (LGA 3647) supports Intel® Xeon® Scalable processors, UPI up to 10.4 GT/s
2. Up to 12TB in 96 DDR4 DIMM slots
3. 23 or 39 (OEM) PCI-E 3.0 slots include: 8 FH x16 PCI-E cards or 8 GPUs or 16 U.2 NVMe + 8 FHFL x16 PCI-E cards or 16 U.2 NVMe + 8 FHFL x16 PCI-E cards or 16 U.2 NVMe + 2 LP x8 (in x16) PCI-E internal cards (storage module) + 5 FHHL x16 PCI-E cards (rear)(Up to 39 PCI-E 3.0 slots for OEM)
4. 4 10Gb LAN (SIOM), 1 dedicated LAN for IPMI Remote Management, 1 VGA, 2 USB 2.0, 1 COM via KVM
5. 16 Hot-swap 2.5" SAS3 drive bays (w/ RAID cards); 8x 2.5" or 6x 3.5" internal drive bays (w/ RAID cards)
6. 8x 9cm Hot-swap counter-rotating rear fans
7. 5x 1600W (N+2) Redundant Power Supplies, Titanium Level (96%)

Note: Image above may show a varied configuration or optional parts. Please refer to parts list for standard parts included.

Specifications

Product SKUs

| | |
|----------------|----------------------------------|
| SYS-7089P-TR4T | ■ SuperServer 7089P-TR4T (Black) |
|----------------|----------------------------------|

Motherboard

Super X110Pi

Processor/Cache

| | |
|-------|--|
| CPU | <ul style="list-style-type: none"> ■ Octa Socket P (LGA 3647) ■ Intel® Xeon® Scalable Processors, 8S-3 UPI up to 10.4GT/s ■ Support CPU TDP 70-205W |
| Cores | ■ Up to 28 Cores with Intel® HT Technology |

Chassis

| | |
|-------------|--|
| Form Factor | ■ 7U Rackmountable |
| Model | ■ Rackmount Kit: Comes with the system |
| | ■ CSE-718SAC-R4800 |

Dimensions and Weight

| | |
|------------------|--|
| Height | ■ 12.2" (310mm) |
| Width | ■ 17.63" (448mm) |
| Depth | ■ 28.87" (733mm) |
| Package | ■ 38.5" (H) x 29.9" (W) x 47.2" (D) |
| Weight | <ul style="list-style-type: none"> ■ Gross Weight: 208 lbs (94.35 kg) ■ Net Weight: 180 lbs (81.65 kg) |
| Available Colors | ■ Black |

| System Memory | |
|-----------------|---|
| Memory Capacity | <ul style="list-style-type: none"> 96x 288-pin DDR4 DIMM slots Supports up to 12TB DDR4 ECC 3DS LRDIMM in 96 DIMM slots |
| Memory Type | <ul style="list-style-type: none"> 2666/2400/2133MHz ECC DDR4 SDRAM |
| DIMM Sizes | <ul style="list-style-type: none"> 128GB, 64GB, 32GB, 16GB, 8GB |
| Memory Voltage | <ul style="list-style-type: none"> 1.2 V |
| Error Detection | <ul style="list-style-type: none"> Corrects single-bit errors Detects double-bit errors (using ECC memory) |

| On-Board Devices | |
|-------------------------------|--|
| Chipset | <ul style="list-style-type: none"> Intel® C621 chipset |
| Storage | <ul style="list-style-type: none"> Intel C621 including 2 SATA3 (SATA DOM), 2 M.2 (SATA3/PCIe), 8 HDD (SATA3), 1 TPM header |
| Network Controllers (via AOM) | <ul style="list-style-type: none"> 4-port 10GBase-T Ethernet SIOM (Intel® X550 controller) |
| IPMI (via AOM) | <ul style="list-style-type: none"> Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support |
| Graphics | <ul style="list-style-type: none"> ASPEED AST2500 BMC |

| Input / Output | |
|----------------------|---|
| Storage | <ul style="list-style-type: none"> 2 SATA DOM (SATA3) ports 2 M.2 (SATA3/PCI3) ports 8 HDD (SATA3) ports |
| LAN | <ul style="list-style-type: none"> 4 10GBase-T ports via SIOM 1 dedicated LAN port for IPMI |
| USB | <ul style="list-style-type: none"> 2 USB 2.0 ports via KVM port |
| Serial Port / Header | <ul style="list-style-type: none"> 1 Fast UART 16550 ports: 1 front via KVM port |

| System BIOS | |
|---------------|--|
| BIOS Type | <ul style="list-style-type: none"> 16MB SPI Flash EEPROM with AMI® BIOS |
| BIOS Features | <ul style="list-style-type: none"> Plug and Play (PnP) PCI 2.2 ACPI up to 3.0 USB Keyboard support |

| PC Health Monitoring | |
|----------------------|---|
| CPU | <ul style="list-style-type: none"> Monitors for CPU Cores, Chipset Voltages, Memory. 4+1 Phase-switching voltage regulator |
| FAN | <ul style="list-style-type: none"> Fans with tachometer monitoring Status monitor for speed control Pulse Width Modulated (PWM) fan connectors |
| Temperature | <ul style="list-style-type: none"> Monitoring for CPU and chassis environment Thermal Control for fan connectors |

| Drive Bays | |
|------------|--|
| Hot-swap | <ul style="list-style-type: none"> 16 Hot-swap 2.5" SAS3 drive bays (w/ RAID cards) 8x 2.5" or 6x 3.5" internal drive bays (w/ RAID cards) |

| Expansion Slots | |
|-----------------|---|
| PCI-Express | <ul style="list-style-type: none"> 23 PCI-E 3.0 slots total including: 8 FH x16 PCI-E cards or 8 GPUs or 16 U.2 NVMe + 8 FHFL x16 PCI-E cards or 16 U.2 NVMe + 2 LP x8 (in x16 slot) PCI-E internal cards (storage module) + 5 FHHL x16 PCI-E cards (rear) Up to 39 PCI-E 3.0 slots for OEM |

| Backplane | |
|---|--|
| 2x 6-port 12G backplane supports 6x 2.5" SAS3/SATA3 HDD/SSD | |

| System Cooling | |
|----------------|--|
| Fans | <ul style="list-style-type: none"> 8x 9cm 10.5K-10.8K RPM Hot-Swap Counter-rotating Rear Fans |

| Power Supply | |
|---|---|
| 1600W Redundant Power Supplies with PMBus | |
| Total Output Power | <ul style="list-style-type: none"> 1000W/1600W |
| Dimension (W x H x L) | <ul style="list-style-type: none"> 73.5 x 40 x 203 mm |
| Input | <ul style="list-style-type: none"> 100-127Vac / 13 - 9A / 50-60Hz 200-240Vac / 10 - 8A / 50-60Hz |
| +12V | <ul style="list-style-type: none"> Max: 83.3A / Min: 0A (100-127Vac) Max: 133A / Min: 0A (200-240Vac) |
| 12Vsb | <ul style="list-style-type: none"> Max: 2.1A / Min: 0A |
| Output Type | <ul style="list-style-type: none"> 25 Pairs Gold Finger Connector |

| Certification | |
|--|--|
|   UL/cUL/CB/BSMI/CE/CCC Titanium Level [Test Report] | |

| Operating Environment | |
|-----------------------|---|
| RoHS | <ul style="list-style-type: none"> RoHS Compliant |
| Environmental Spec. | <ul style="list-style-type: none"> 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 |
|-------------|-----|-------------|
| | | |

| | | | |
|----------------------|------------------|---|---|
| Chassis | CSE-718SAC-R4800 | 1 | CSE-718SAC-R4800 7U Chassis |
| Motherboard | X110Pi -CPU | 8 | Super X110Pi -CPU Motherboard |
| Add-on Card / Module | AOC-MTG-I4TM-P | 1 | [NR]AOC-MTG-I4TM-P |
| Add-on Card / Module | AOM-X110Pi-HDD-P | 1 | Storage add-on module for X110Pi series MB |
| Add-on Card / Module | AOM-X110Pi-KVM-P | 1 | KVM board for X110Pi Eight Way system |
| Add-on Card / Module | AOM-X110Pi-LBG-P | 1 | PCH and BMC Add on Module for X110Pi series 7u 8-way system, |
| Backplane | BPN-SAS3-213A | 1 | 16-port 2U SAS3 12Gbps direct-attached backplane, support up to 16x 2.5-inch SAS3/SATA3 HDD/SSD |
| Backplane | BPN-X110Pi | 1 | Midplane for X11 8-way 7U server 7089P, support hot plug PCIE |
| Cable 1 | CBL-0218L | 1 | USB/KVM/SUVI,36 PIN TO 9 PIN/15 PIN/2 USB CH,11.5CM,30/28AWG |
| Cable 2 | CBL-0449L | 1 | HDD power extension for X8OBN, special 8 pin to 4 HDD. 45cm. 18AWG |
| Cable 3 | CBL-SAST-0508-02 | 2 | Internal Mini-SAS to Mini-SAS HD 50cm w/ SB, 30AWG [Amphenol],RoHS/REACH |
| Riser Card | RSC-BLG-E16R | 8 | RSC-BLG-E16R |
| Riser Card | RSC-S-6-OP | 8 | 1U LHS Riser Card with one PCI-E 3.0 x16 slot for the X110Pi |
| Riser Card | RSC-X110Pi-PCIE | 5 | PCIE riser card for X110Pi series 7U 8 way system,RoHS |
| Heatsink / Retention | SNK-P0067PS | 8 | 1U Passive CPU Heat Sink for X11 Purley Platform Equipped with a Narrow Retention Mechanism |
| Power Supply | PWS-1K62A-1R | 5 | AC-DC 1600W, Titanium Level, Redundancy, 1U, DC Output: +12V and +12Vs, 203 x 73.5 x 40 mm, AC Input: 90 - 264 VAC/47-63Hz, PMBus 1.2 with DSP controller,HF,RoHS/REACH |
| FAN 1 | FAN-0171L4 | 8 | 92x92x76 mm, 10.5K-10.8K RPM, Counter-rotating Exhaust Fan for SC718 X10 8-way Server |

Optional Parts List

| | Part Number | Qty | Description |
|---------------------------|----------------------------|-----|--|
| GPU Power Cable | CBL-PWEX-0665 | - | PCIe 8 pin female(black) to CPU 8 pin female(white), K80/M60/M40 GPU power cable, 30cm, 18AWG,RoHS/REACH |
| Global Services & Support | QS4HR3/2/1 | - | 3/2/1-year onsite 24x7x4 service |
| | QSNBD3/2/1 | - | 3/2/1-year onsite NBD service |
| Software | SFT-OOB-LIC | 1 | OOB Management Package (per node license) |
| Software | SFT-DCMS-Single | 1 | DataCenter Management Package (per node license) |