# SuperServer 7089P-TR4T (Complete System Only)



**Integrated Board**



**X11OPi–CPU**

**Views: | Angled View |
| Front View | Rear View |**

**Complete System Only**: To maintain quality and integrity, this product is sold only as a completely-assembled system (8 CPU with 96/48 DIMMs are the recommended configurations for the best performance.) Please contact your Supermicro sales rep for special 4 CPU with 48/24 DIMMs requirements with fees.

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

▶**Drivers & Utilities**   ▶**BIOS**   ▶**IPMI**   ▶**Tested Memory**   ▶**Manuals**
▶**OS Certification Matrix**   ▶**Drive Options**

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

## 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) support 2nd Gen Intel® Xeon® Scalable processors (Cascade Lake/Skylake)[‡]

2. 96 DIMMs; up to 24TB 3DS ECC DDR4-2933MHz[†] RDIMM/LRDIMM, Supports Intel® Optane™ DCPMM[††]

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%)**

# Specifications

## Product SKUs

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

## Motherboard

**Super X11OPi-CPU**

## Processor/Cache

| | |
|---|---|
| **CPU** | ▪ Octa Socket P (LGA 3647)<br>▪ 2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors‡,<br>8S-3 UPI up to 10.4GT/s<br>▪ Support CPU TDP 70-205W |
| **Cores** | ▪ Up to 28 Cores |
| **Note** | ‡ BIOS version 3.0 or above is required to support 2nd Gen Intel® Xeon® Scalable processors |

## System Memory

| | |
|---|---|
| **Memory Capacity** | ▪ 96 DIMM slots<br>▪ Up to 24TB 3DS ECC DDR4-2933MHz† RDIMM/LRDIMM<br>▪ Supports Intel® Optane™ DCPMM†† |
| **Memory Type** | ▪ 2933†/2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM |
| **Note** | † 2933MHz in two DIMMs per channel can be achieved by using memory purchased from Supermicro<br>†† Cascade Lake only. Contact your Supermicro sales rep for more info. |

## On-Board Devices

| | |
|---|---|
| **Chipset** | ▪ Intel® C621 chipset |
| **Storage** | ▪ Intel C621 including 2 SATA3 (SATA DOM), 2 M.2 (SATA3/PCIe), 8 HDD (SATA3), 1 TPM header |
| **Network Controllers (via AOM)** | ▪ 4-port 10GBase-T Ethernet SIOM (Intel® X550 controller) |
| **IPMI (via AOM)** | ▪ Support for Intelligent Platform Management Interface v.2.0<br>▪ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support |
| **Graphics** | ▪ ASPEED AST2500 BMC |

## Input / Output

| | |
|---|---|
| **Storage** | ▪ 2 SATA DOM (SATA3) ports<br>▪ 2 M.2 (SATA3/PCI3) ports<br>▪ 8 HDD (SATA3) ports |
| **LAN** | ▪ 4 10GBase-T ports via SIOM<br>▪ 1 dedicated LAN port for IPMI |
| **USB** | ▪ 2 USB 2.0 ports via KVM port |
| **Serial Port / Header** | ▪ 1 Fast UART 16550 ports: 1 front via KVM port |

## System BIOS

## Chassis

| | |
|---|---|
| **Form Factor** | ▪ 7U Rackmountable<br>▪ Rackmount Kit: Comes with the system |
| **Model** | ▪ 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** | ▪ Gross Weight: 208 lbs (94.35 kg)<br>▪ Net Weight: 180 lbs (81.65 kg) |
| **Available Colors** | ▪ Black |

## Drive Bays

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|---|---|
| **Hot-swap** | ▪ 16 Hot-swap 2.5" SAS3 drive bays (w/ RAID cards)<br>▪ 8x 2.5" or 6x 3.5" internal drive bays (w/ RAID cards) |

## Expansion Slots

| | |
|---|---|
| **PCI-Express** | ▪ 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)<br>▪ 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** | ▪ 8x 9cm 10.5K-10.8K RPM Hot-Swap Counter-rotating Rear Fans |

## Power Supply

1600W Redundant Power Supplies with PMBus

| | |
|---|---|
| **Total Output Power** | ▪ 1600W/1000W |
| **Dimension (W x H x L)** | ▪ 73.5 x 40 x 203 mm |
| **Input** | ▪ 100-127Vac / 13 - 9A / 50-60Hz<br>▪ 200-240Vac / 10 - 8A / 50-60Hz |
| **+12V** | ▪ Max: 83.3A / Min: 0A (100-127Vac)<br>▪ Max: 133A / Min: 0A (200-240Vac) |
| **12Vsb** | ▪ Max: 2.1A / Min: 0A |
| **Output Type** | ▪ 25 Pairs Gold Finger Connector |
| **Certification** | Titanium Level<br>[ **Test Report** ] |

| | |
|---|---|
| **BIOS Type** | - 16MB SPI Flash EEPROM with AMI® BIOS |
| **BIOS Features** | - Plug and Play (PnP)<br>- PCI 2.2<br>- ACPI up to 3.0<br>- USB Keyboard support |

**PC Health Monitoring**

| | |
|---|---|
| **CPU** | - Monitors for CPU Cores, Chipset Voltages, Memory.<br>- 4+1 Phase-switching voltage regulator |
| **FAN** | - Fans with tachometer monitoring<br>- Status monitor for speed control<br>- Pulse Width Modulated (PWM) fan connectors |
| **Temperature** | - Monitoring for CPU and chassis environment<br>- Thermal Control for fan connectors |

**Operating Environment**

| | |
|---|---|
| **RoHS** | - RoHS Compliant |
| **Environmental Spec.** | - Operating Temperature:<br>  10°C ~ 35°C (50°F ~ 95°F)<br>- Non-operating Temperature:<br>  -40°C to 60°C (-40°F to 140°F)<br>- Operating Relative Humidity:<br>  8% to 90% (non-condensing)<br>- Non-operating Relative Humidity:<br>  5% to 95% (non-condensing) |

# Список деталей

**Parts List - (Items Included)**

|  | Part Number | Qty | Description |
|---|---|---|---|
| **Chassis** | CSE-718SAC-R4800 | 1 | CSE-718SAC-R4800 7U Chassis |
| **Motherboard** | X11OPi-CPU | 8 | Super X11OPi-CPU Motherboard |
| **Add-on Card / Module** | AOC-MTG-I4TM-P | 1 | [NR]AOC-MTG-I4TM-P |
| **Add-on Card / Module** | AOM-X11OPI-HDD-P | 1 | Storage add-on module for X11OPI series MB |
| **Add-on Card / Module** | AOM-X11OPI-KVM-P | 1 | KVM board for X11OPI Eight Way system |
| **Add-on Card / Module** | AOM-X11OPi-LBG-P | 1 | PCH and BMC Add on Module for X11OPi 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-X11OPI | 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 | MINI SAS HD-MINI SAS,6G,INT,50CM,SB,30AWG |
| **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 X11OPI |
| **Riser Card** | RSC-X11OPI-PCIE | 5 | PCIE riser card for X11OPI 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 |
|---|---|---|---|
| **Storage Options** | See Details | - | SAS3 and NVMe Options |
| **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** | OS4HR3/2/1 | - | 3/2/1-year onsite 24x7x4 service |
|  | OSNBD3/2/1 | - | 3/2/1-year onsite NBD service |
| **Software** | SFT-OOB-LIC · eStore | 1 | OOB Management Package (per node license) |
| **Software** | SFT-DCMS-Single | 1 | DataCenter Management Package (per node license) |