

TECHNICAL DATASHEET

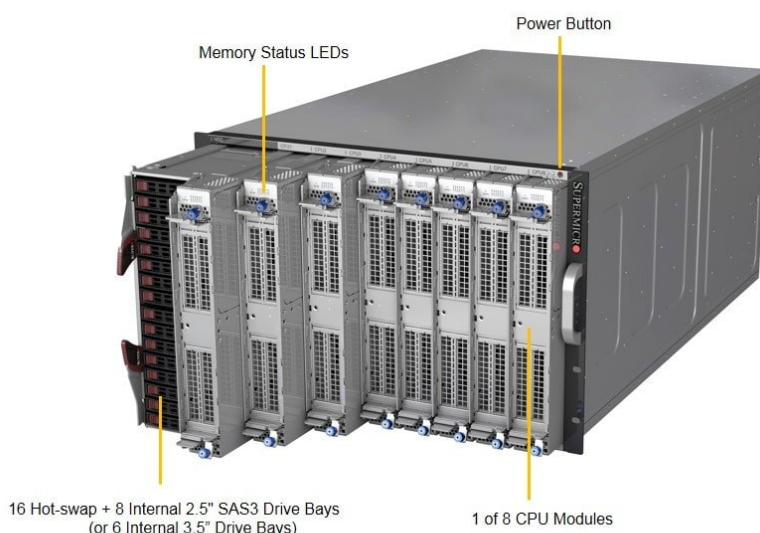
SUPERMICRO · RACKMOUNT SERVERS

Supermicro Server SYS-7089P-TR4T

SKU SYS-7089P-TR4T

7U

Supermicro

SuperServer SYS-7089P-TR4T*(Angled View – System)*

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FORM FACTOR

7U

MAX POWER (BASE)

2,004 W

HEAT OUTPUT

6,838 BTU/h

PRICE

On request**REQUEST A QUOTATION ONLINE**
serverinvest.com/product/sys-7089p-tr4t

01 Product overview

The Supermicro SYS-7089P-TR4T is a server built on dual Octa Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Process processors with up to 24 TB of memory in 96 DIMM slots.

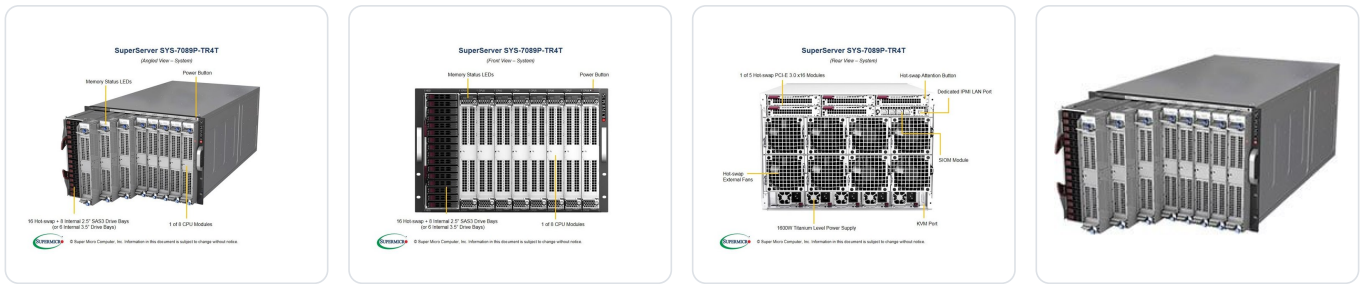
ServerInvest configures every SYS-7089P-TR4T to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

HIGHLIGHTS

- Dual Octa Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Process
- Up to 24 TB memory · 96 DIMM slots
- 16 Hot-swap 2.5" SAS3 drive bays (w/ RAID cards)
- Power: 1600W/1000W
- Networking: 4-port 10GBase-T Ethernet S10M (Intel X550 controller)

KEY SPECIFICATIONS

Form factor	7U
Processor	8× Octa Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Process
Memory	96 DIMM slots, up to 24 TB
Drive bays	24
Power supply	1× 1600 W
Typical power draw	2550 W
Networking	4-port 10GBase-T Ethernet S10M (Intel X550 controller)
Dimensions (W×H×D)	437 × 311 mm



02 Power & thermal

Calculated for the base configuration

IDLE	TYPICAL	MAXIMUM	HEAT (MAX)	COOLING	PSU LOAD
388 W	1215 W	2004 W	6,838 BTU/h	2 kW	125%

Typical 1215 W · max 2004 W · single PSU rating 1600 W

Annual IT energy (24/7)	8,470 kWh
Annual facility energy (PUE 1.5)	12,705 kWh
Annual energy cost	€1,694 IT · €2,541 incl. cooling (at 0.20 €/kWh)
CO ₂ emissions / year	3.30 t (grid factor 0.26 kg/kWh)
Power supplies	1× 1600 W

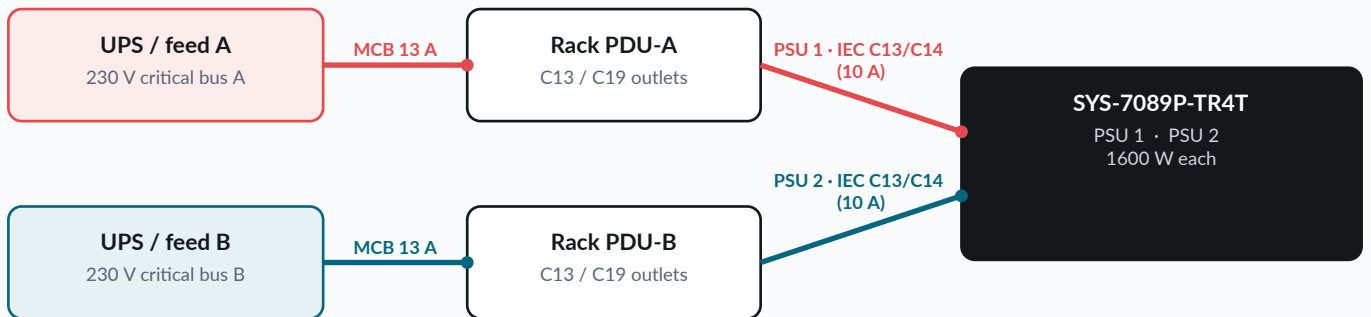
POWER BY COMPONENT

	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	117 W	182 W	260 W
8× CPU (base configuration)	200 W	880 W	1480 W
16× Memory (base configuration)	48 W	80 W	144 W

DC loads converted to wall power at 94% PSU efficiency; typical load assumed 70% of the time. Engineering estimates — confirm with the manufacturer's power calculator for critical designs.

03 Power connection diagram

Dual-feed (A/B) connection for redundant power supplies



- Connect PSU 1 to PDU-A and PSU 2 to PDU-B (independent feeds) using IEC C13/C14 (10 A) power cords.
- Maximum current per feed: 9.2 A at 230 V — each feed must be able to carry the full load if the other fails.
- Recommended protection per PDU circuit: MCB 13 A, curve C; RCD according to local regulations.
- Heat to remove at full load: 2004 W = 6,838 BTU/h (2 kW).

04 Full specifications

PROCESSOR/CACHE

CPU	Octa Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Processors and Intel Xeon Scalable Processors ‡ , 8S-3 UPI up to 10.4GT/s 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 Up to 24TB 3DS ECC DDR4-2933MHz † RDIMM/LRDIMM 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 †† 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 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 2 M.2 (SATA3/PCI3) ports 8 HDD (SATA3) ports
LAN	4 10GBase-T ports via SIOM 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

BIOS Type	16MB SPI Flash EEPROM with AMI BIOS
BIOS Features	Plug and Play (PnP) PCI 2.2 ACPI up to 3.0 USB Keyboard support

PC HEALTH MONITORING

CPU	Monitors for CPU Cores, Chipset Voltages, Memory. 4+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

CHASSIS

Form Factor	7U Rackmountable 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) Net Weight: 180 lbs (81.65 kg)
Available Colors	Black

DRIVE BAYS

Hot-swap	16 Hot-swap 2.5" SAS3 drive bays (w/ RAID cards) 8x 2.5" or 6x 3.5" internal drive bays (w/ RAID cards)
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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)
Up to 39 PCI-E 3.0 slots for OEM

SYSTEM COOLING

Fans

8x 9cm 10.5K-10.8K RPM Hot-Swap Counter-rotating Rear Fans

POWER SUPPLY

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 200-240Vac / 10 - 8A / 50-60Hz
+12V	Max: 83.3A / Min: 0A (100-127Vac) Max: 133A / Min: 0A (200-240Vac)
12Vsb	Max: 2.1A / Min: 0A
Output Type	25 Pairs Gold Finger Connector
Certification	Titanium Level [Test Report]

OPERATING ENVIRONMENT

RoHS	RoHS Compliant
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)

05 Built, tested & supported by ServerInvest

Engineered configuration

Every option validated for socket, memory channels, PCIe lanes, power and cooling.

48-hour burn-in

Assembled, firmware-updated and stress-tested before it leaves our workshop.

3-year warranty

Standard on every system, with on-site next-business-day upgrades available.

Rack-ready delivery

Rails, cable management and labelling included — delivered across Europe.



Interested in this solution?

Request a quotation online or talk to a solutions engineer — we reply within one business day.
office@serverinvest.com

