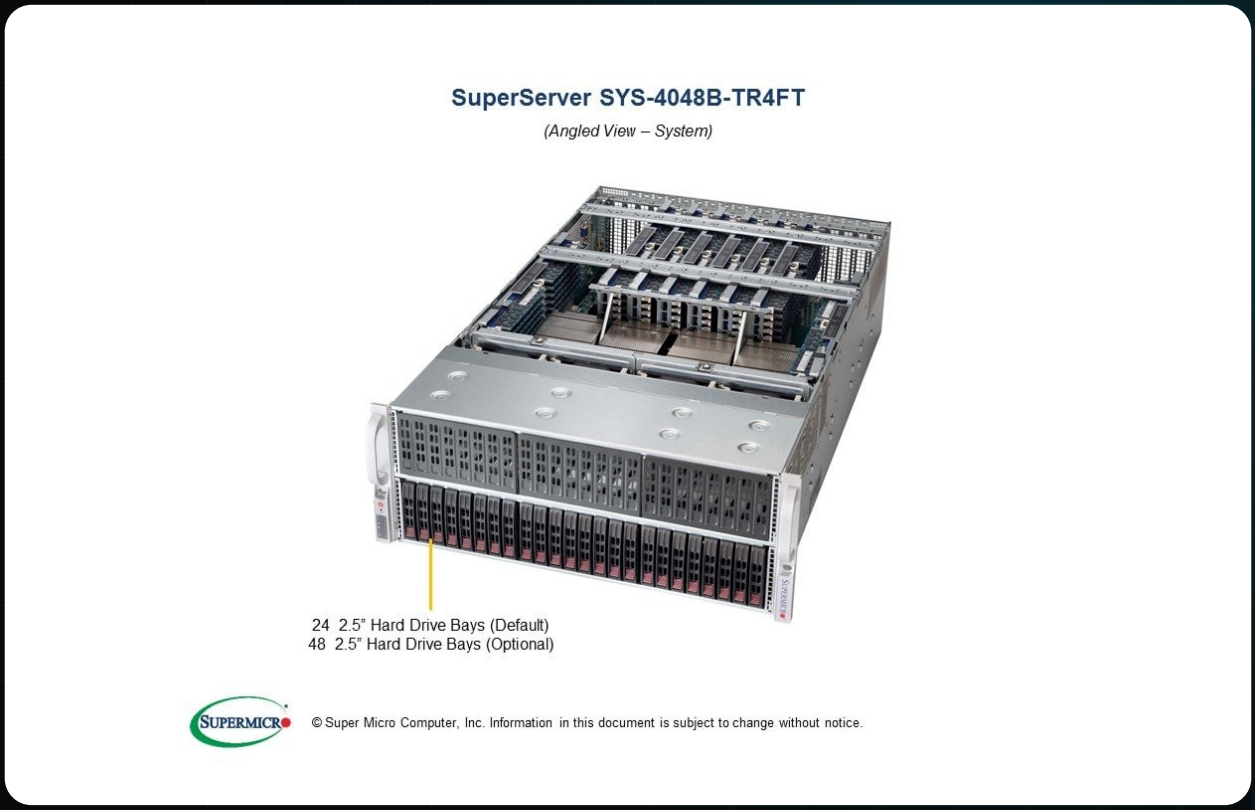
TECHNICAL DATASHEET

SUPERMICRO · RACKMOUNT SERVERS

Supermicro Server SYS-4048B-TR4FT

SKU SYS-4048B-TR4FT | 4U | Supermicro



FORM FACTOR	MAX POWER (BASE)	HEAT OUTPUT	PRICE
4U	1,034 W	3,528 BTU/h	On request

ISO 9001 · ISO 14001 · ISO 27001 · cisco · tp-link · Omada by tp-link

REQUEST A QUOTATION ONLINE

serverinvest.com/product/sys-4048b-tr4ft

01 Product overview

The Supermicro SYS-4048B-TR4FT is a server built on dual Intel Core processors with up to 12 TB of memory in 4 DIMM slots.

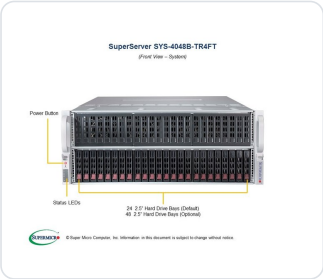
ServerInvest configures every SYS-4048B-TR4FT to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

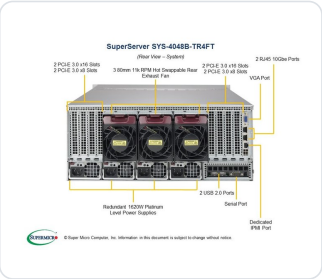
HIGHLIGHTS

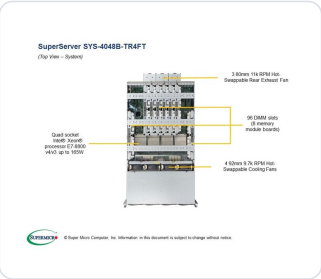
- Dual Intel Core
- Up to 12 TB memory · 4 DIMM slots
- 24x 2.5" Hard drive bays (default)*
- Power: 1000W Output @ 100-120V, 12-10A, 50-60Hz
- Networking: Intel X540 Dual Port 10GBase-T

KEY SPECIFICATIONS

Form factor	4U
Processor	4× Intel Core
Memory	4 DIMM slots, up to 12 TB
Drive bays	72
Power supply	1× 1000 W
Typical power draw	1350 W
Networking	Intel X540 Dual Port 10GBase-T
Dimensions (W×H×D)	437 × 178 mm







02 Power & thermal

Calculated for the base configuration

IDLE	TYPICAL	MAXIMUM	HEAT (MAX)	COOLING	PSU LOAD
209 W	630 W	1034 W	3,528 BTU/h	1 kW	103%

Typical 630 W · max 1034 W · single PSU rating 1000 W

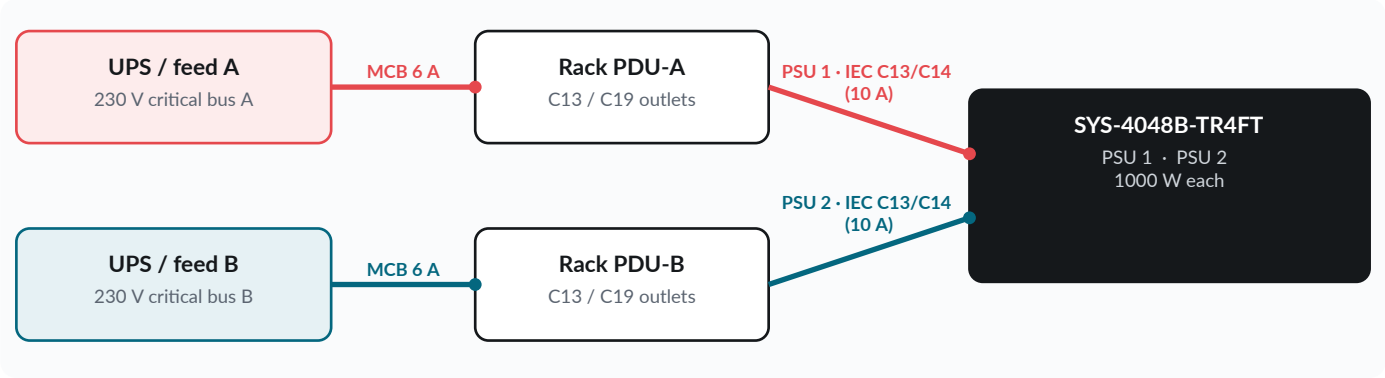
Annual IT energy (24/7)	4,412 kWh
Annual facility energy (PUE 1.5)	6,618 kWh
Annual energy cost	€882 IT · €1,324 incl. cooling (at 0.20 €/kWh)
CO_2 emissions / year	1.72 t (grid factor 0.26 kg/kWh)
Power supplies	1× 1000 W

POWER BY COMPONENT	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	72 W	112 W	**160 W**
4× CPU (base configuration)	100 W	440 W	**740 W**
8× Memory (base configuration)	24 W	40 W	**72 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: 4.7 A at 230 V — each feed must be able to carry the full load if the other fails.
- Recommended protection per PDU circuit: MCB 6 A, curve C; RCD according to local regulations.
- Heat to remove at full load: 1034 W = 3,528 BTU/h (1 kW).

04 Full specifications

PROCESSOR/CACHE	
CPU	Intel Xeon processor E7-8800 v4/v3, E7-4800 v4/v3 family (up to 24 Cores and 165W TDP) Quad Socket R1 (LGA 2011)
Cache	Up to 60 MB
System Bus	QPI up to 9.6 GT/s

SYSTEM MEMORY	
Memory Capacity	96x 288-pin DDR4 DIMM slots Supports up to 12TB DDR4 ECC 3DS LRDIMM in 96 DIMM slots
Memory Type	1866/1600/1333/1066/800MHz ECC DDR4 SDRAM 72-bit, 288-pin gold-plated DIMMs
DIMM Sizes	128GB, 64GB, 32GB, 16GB, 8GB, 4GB
Memory Voltage	1.2 V
Error Detection	Corrects single-bit errors Detects double-bit errors (using ECC memory)

ON-BOARD DEVICES	
Chipset	Intel C602J chipset
AHCI SATA	SATA3 (6Gbps) with RAID 0, 1 SATA2 (3Gbps) with RAID 0, 1, 5, 10
Network Controllers (via AOM)	Intel X540 Dual Port 10GBase-T Virtual Machine Device Queues reduce I/O overhead Supports 10GBase-T , 100BASE-TX, and 1000BASE-T, RJ45 output 1x Realtek RTL8201N PHY (dedicated IPMI)

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 ASPEED 2400
Graphics	ASPEED 2400

INPUT / OUTPUT

AHCI SATA	2x SATA3 (6Gbps) ports 4x SATA2 (3Gbps) ports
LAN	2x RJ45 10GBase-T ports on AOM 1x dedicated LAN port for IPMI on AOM
USB	2x USB 2.0 ports
Serial Port / Header	2x Fast UART 16550 ports: 1 rear and 1 header
DOM	1x DOM (Disk on Module) power connector

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

CHASSIS

Form Factor	4U Rackmountable Rackmount Kit: Comes with the system
Model	CSE-418XA-R3240B

DIMENSIONS AND WEIGHT

Height	7.0" (178mm)
Width	17.2" (437mm)
Depth	31.3" (795mm)
Weight	Net Weight: 74.5 lbs (33.79 kg) Gross Weight: 115 lbs (52.16 kg)
Available Colors	Black

DRIVE BAYS

Hot-swap	24x 2.5" Hard drive bays (default)* 48x 2.5" Hard drive bays (optional) * BPN-SAS3-216A direct attached backplane, system supports up to 24 HDDs by using selected RAID/HBA card and default HDD connection is onboard C602J chipset 2 SATA3 + 4 SATA2

EXPANSION SLOTS

PCI-Express	11x PCI-E 3.0 slots w/ 48 memory slots (4x PCI-E 3.0 x16 and 7x PCI-E 3.0 x8) 8x PCI-E 3.0 slots w/ 96 memory slots (4x PCI-E 3.0 x16 and 4x PCI-E 3.0 x8)

SYSTEM COOLING

Fans	4x 92mm RPM Hot-Swappable Cooling Fans 3x 80mm RPM Hot-Swappable Rear Exhaust Fan 2x 80mm Rear Exhaust Fans (optional)
Shrouds	1x Air Shroud (MCP-310-41804-0B)

POWER SUPPLY

AC Input	1000W Output @ 100-120V, 12-10A, 50-60Hz 1200W Output @ 120-140V, 12-10A, 50-60Hz 1620W Output @ 180-240V, 10.5-8A, 50-60Hz
DC Output	1000W: +12V/84A; +5Vsb/4A 1200W: +12V/100A; +5Vsb/4A 1620W: +12V/150A; +5Vsb/4A
Certification	Platinum Certified [Test Report]

PC HEALTH MONITORING

CPU	Monitors for CPU Cores, +1.2V, 1.5V, +3.3V, +12V, (+3V, 1.0V, 1.2V, 1.8V, 1.1V) Standby, VBAT, Memory, Chipset Voltages. 4-Phase-switching voltage regulator with auto-sense from 0.6V-1.35V
FAN	4-pin fan headers with tachometer status monitoring Low noise fan speed control mode
Temperature	Monitoring for CPU and system environment Thermal Control for 9x fan connectors
Other Features	Chassis intrusion detection

OPERATING ENVIRONMENT / COMPLIANCE

RoHS	RoHS Compliant
Environmental Spec.	Operating Temperature: 10°C to 35°C (50°F to 95°F) Non-operating Temperature: -40°C to 70°C (-40°F to 158°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.

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Interested in this solution?
Request a quotation online or talk to a solutions engineer — we reply within one business day.
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