TECHNICAL DATASHEET

SUPERMICRO · RACKMOUNT SERVERS

Supermicro Server SYS-8048B-C0R3FT

SKU SYS-8048B-C0R3FT | 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-8048b-c0r3ft

01 Product overview

The Supermicro SYS-8048B-C0R3FT is a server built on dual Intel Core processors with up to 2 TB of memory in 3 DIMM slots.

ServerInvest configures every SYS-8048B-C0R3FT 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 2 TB memory · 3 DIMM slots
- 5x 3.5" Hot-swap Drive Bays
- Power: 100-240 V, 50-60 Hz, 15 Amp max
- Networking: Intel X540 Dual Port 10GBase-T

KEY SPECIFICATIONS

Form factor	**4U**
Processor	**4× Intel Core**
Memory	**3 DIMM slots, up to 2 TB**
Drive bays	**5**
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**	**—**

Typical 630 W · max 1034 W

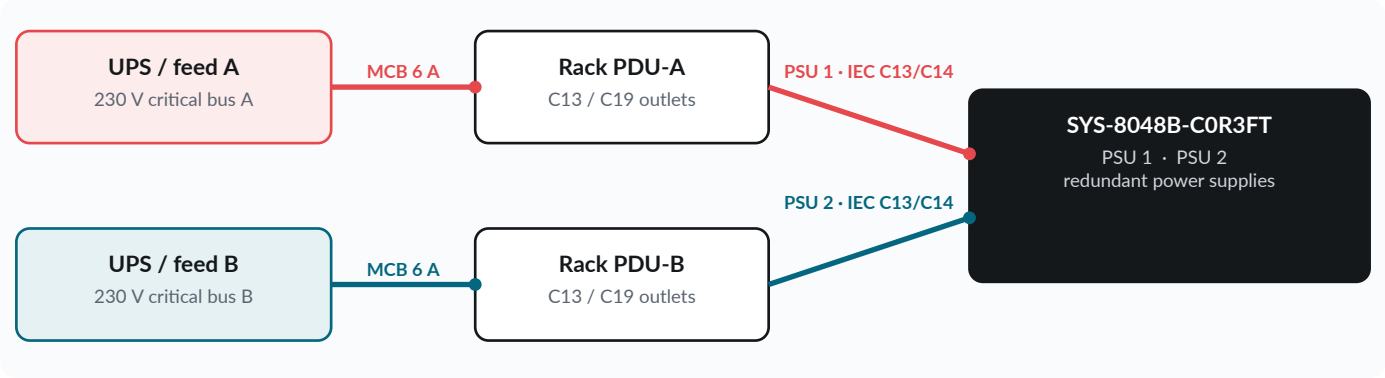
Annual IT energy (24/7)	4,412 kWh
Annual facility energy (PUE 1.5)	6,618 kWh
Annual energy cost	€882 IT · €1,324 incl. cooling (at 0.20 €/kWh)
CO_2 emissions / year	1.72 t (grid factor 0.26 kg/kWh)
Power supplies	Redundant hot-swap PSUs — rating depends on the final configuration

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 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
Note:	E7-48XX/88XX v4/v3 family or above requires Rev. 2.0x or above motherboard w/ Jordan Creek II

SYSTEM MEMORY	
Memory Capacity	32x 240-pin DDR3 DIMM slots Supports up to 2TB DDR3, ECC Registered memory (RDIMM/LRDIMM) in 32 DIMM slots
Memory Type	1600/1333/1066/800MHz ECC DDR3 SDRAM 72-bit, 240-pin gold-plated DIMMs
DIMM Sizes	64GB, 32GB, 16GB, 8GB, 4GB
Memory Voltage	1.5 V, 1.35 V
Error Detection	Corrects single-bit errors Detects double-bit errors (using ECC memory)

ON-BOARD DEVICES	
Chipset	Intel C602J chipset
SAS	SAS2 (6Gbps) via Broadcom 3008 controller
SATA	SATA2 (3Gbps) with RAID 0, 1, 5, 10 SATA3 (6Gbps) with RAID 0, 1

IPMI	Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support ASPEED AST2400 BMC
Network Controllers	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 RTL8201F PHY (dedicated IPMI)
Graphics	ASPEED 2400

INPUT / OUTPUT

SAS	8x SAS2 ports (6Gbps)
LAN	2x RJ45 10GBase-T ports 1x dedicated LAN port for IPMI on AOM
USB	3x USB 2.0 rear ports
Serial Port / Header	2x Fast UART 16550 ports: 1 rear and 1 header
DOM	2x DOM (Disk on Module) power connectors

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 Rackmount/Tower
Model	CSE-748TQ-R1K43B

DIMENSIONS AND WEIGHT

Height	18.2" (462mm)
Width	7.0" (178mm)
Depth	28.4" (721mm)
Weight	Net Weight: 65.5 lbs (29.7 kg) Gross Weight: 86.0 lbs (39.0 kg)
Available Colors	Black

DRIVE BAYS

Hot-swap	5x 3.5" Hot-swap Drive Bays

EXPANSION SLOTS

PCI-Express	2x PCI-E 3.0 x16 Full-heigh slot 2x PCI-E 3.0 x8 Full-heigh slot

SYSTEM COOLING

Fans	3x 9cm Heavy Duty fans with speed controlCooling Fans 3x 8cm Heavy Duty fans with speed controlCooling Fans
Shrouds	1x Air Shroud (MCP-310-74806-0B)

POWER SUPPLY

AC Voltage	100-240 V, 50-60 Hz, 15 Amp max
+12V	100 Amp/115 Vac 117 Amp/230 Vac
With Power Distributor	+5V: 30 Amp +3.3V: 25 Amp -12V: 0.6 Amp
Certification	Platinum Certified

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.

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

Interested in this solution?

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