

TECHNICAL DATASHEET

SUPERMICRO · TOWER SERVERS & WORKSTATIONS

Supermicro Server SYS-5028D-TN4T

SKU SYS-5028D-TN4T

Tower

Supermicro

SuperServer SYS-5028D-TN4T

(Angled View – System)



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FORM FACTOR

Tower

MAX POWER (BASE)

306 W

HEAT OUTPUT

1,044 BTU/h

PRICE

On request



REQUEST A QUOTATION ONLINE

serverinvest.com/product/sys-5028d-tn4t



01 Product overview

The Supermicro SYS-5028D-TN4T is a server built on Intel Xeon D with up to 128 GB of memory.

ServerInvest configures every SYS-5028D-TN4T 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

- Intel Xeon D
- Up to 128 GB memory
- 4x 3.5" Hot-swap drive bays
- Power: 100 - 240V, 50 - 60Hz
- Networking: Dual LAN via Intel i350-AM2 Gigabit Ethernet

KEY SPECIFICATIONS

Form factor	Tower
Processor	Intel Xeon D
Memory	up to 128 GB
Drive bays	6
Typical power draw	450 W
Networking	Dual LAN via Intel i350-AM2 Gigabit Ethernet



02 Power & thermal

Calculated for the base configuration

IDLE	TYPICAL	MAXIMUM	HEAT (MAX)	COOLING	PSU LOAD
73 W	190 W	306 W	1,044 BTU/h	0.3 kW	—



Typical 190 W · max 306 W

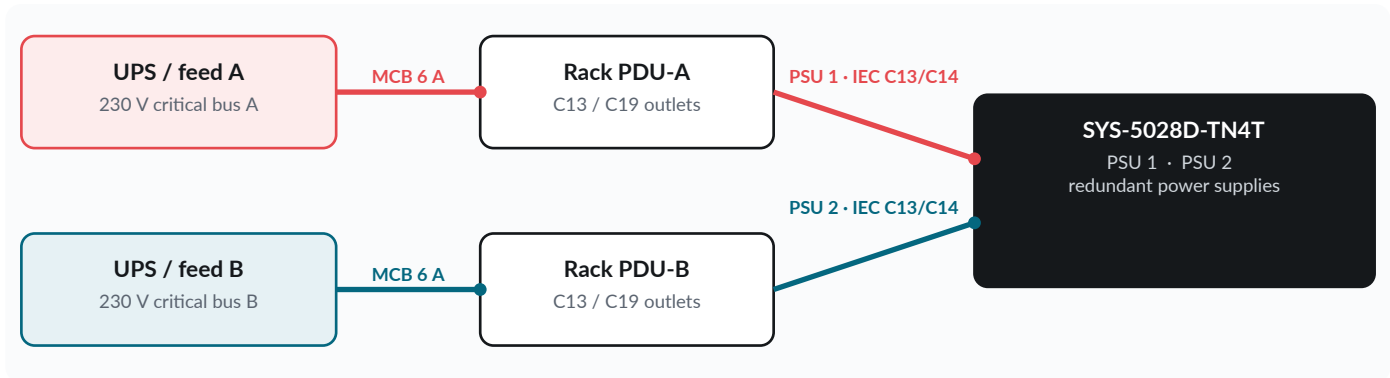
Annual IT energy (24/7)	1,357 kWh
Annual facility energy (PUE 1.5)	2,036 kWh
Annual energy cost	€271 IT · €407 incl. cooling (at 0.20 €/kWh)
CO ₂ emissions / year	0.53 t (grid factor 0.26 kg/kWh)
Power supplies	Redundant hot-swap PSUs — rating depends on the final configuration

POWER BY COMPONENT	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	38 W	59 W	85 W
CPU (base configuration)	25 W	110 W	185 W
2× Memory (base configuration)	6 W	10 W	18 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: 1.4 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: 306 W = 1,044 BTU/h (0.3 kW).

04 Full specifications

PROCESSOR/CACHE

CPU	Intel Xeon processor D-1541 FCBGA 1667 supported CPU TDP support 45W System-on-Chip
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SYSTEM MEMORY

Memory Capacity	4x DDR4 DIMM sockets Supports up to 128GB DDR4 ECC RDIMM Supports up to 64GB DDR4 ECC/non-ECC UDIMM
Memory Type	2400/2133/1600/1333MHz ECC DDR4 SDRAM
DIMM Sizes	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

SATA	SoC controller for SATA3 (6Gbps) ports
Network Controllers	Dual LAN via Intel i350-AM2 Gigabit Ethernet Dual LAN via SoC 10GBase-T Virtual Machine Device Queues reduce I/O overhead Supports 10GBASE-T, 100BASE-T, and 1000BASE-T, RJ45 output 1x Realtek RTL8201N PHY (dedicated IPMI)
IPMI	Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Graphics	BMC integrated ASPEED AST2400

INPUT / OUTPUT

SATA	6x SATA3 (6Gbps) ports
LAN	2x RJ45 Gigabit Ethernet LAN ports 2x RJ45 10GBase-T ports 1x RJ45 Dedicated IPMI LAN port
USB	2x USB 3.0 ports (rear) 2x USB 2.0 ports (front panel)
Serial Port	1x COM port (header)
DOM	1x SATA DOM (Disk on Module) power connector
VGA	1x VGA Port
Others	TPM 2.0 header

MANAGEMENT

Software	Intel Node Manager IPMI (Intelligent Platform Management Interface) 2.0 with KVM support SuperDoctor 5 Watch Dog NMI SUM
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CHASSIS

Form Factor	Mini Tower
Model	CSE-721TQ-250B

DIMENSIONS AND WEIGHT

Height	9.45" (240mm)
Width	8.27" (210mm)
Depth	11" (279mm)
Weight	Gross Weight: 15 lbs (6.8 kg)
Available Colors	Black

FRONT PANEL

Buttons	Power On/Off button System Reset button
LEDs	Power LED Hard drive activity LED Network activity LEDs System Overheat LED

EXPANSION SLOTS

PCI-E	1x PCI-E 3.0 x16 (Low Profile) slot 1x M.2 PCI-E 3.0 x4, M Key 2242/2280
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DRIVE BAYS

HDD	4x 3.5" Hot-swap drive bays 2x 2.5" internal drive bays
Peripheral	1x slim DVD-ROM drive bay (shared with 1x 2.5" internal drive bay)

POWER SUPPLY

AC Voltage	100 - 240V, 50 - 60Hz
+5V	Max:14 Amp; Min:0.5 Amp
+12V	Max:18 Amp; Min:1 Amp @100V-240V
-12V	Max: 0.3 Amp
+3.3V	Max: 12 Amp Min: 0.3Amp
5VSB	Max: 2.5 Amp
Certification	Bronze Certified

SYSTEM BIOS

BIOS Type	128Mb SPI Flash EEPROM with AMI UEFI BIOS
BIOS Features	Plug and Play (PnP) APM 1.2 DMI 2.3 PCI 2.3 ACPI 1.0 / 2.0 / 3.0 / 4.0 USB Keyboard support Hardware BIOS Virus protection SMBIOS 2.7.1 UEFI RTC (Real Time Clock) Wakeup

OPERATING ENVIRONMENT / COMPLIANCE

RoHS	RoHS Compliant
Environmental Spec.	Operating Temperature: 0°C to 40°C (32°F to 104°F) Non-operating Temperature: -20°C to 60°C (-4°F to 140°F) Operating Relative Humidity: 10% to 85% (non-condensing) Non-operating Relative Humidity: 10% 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.
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