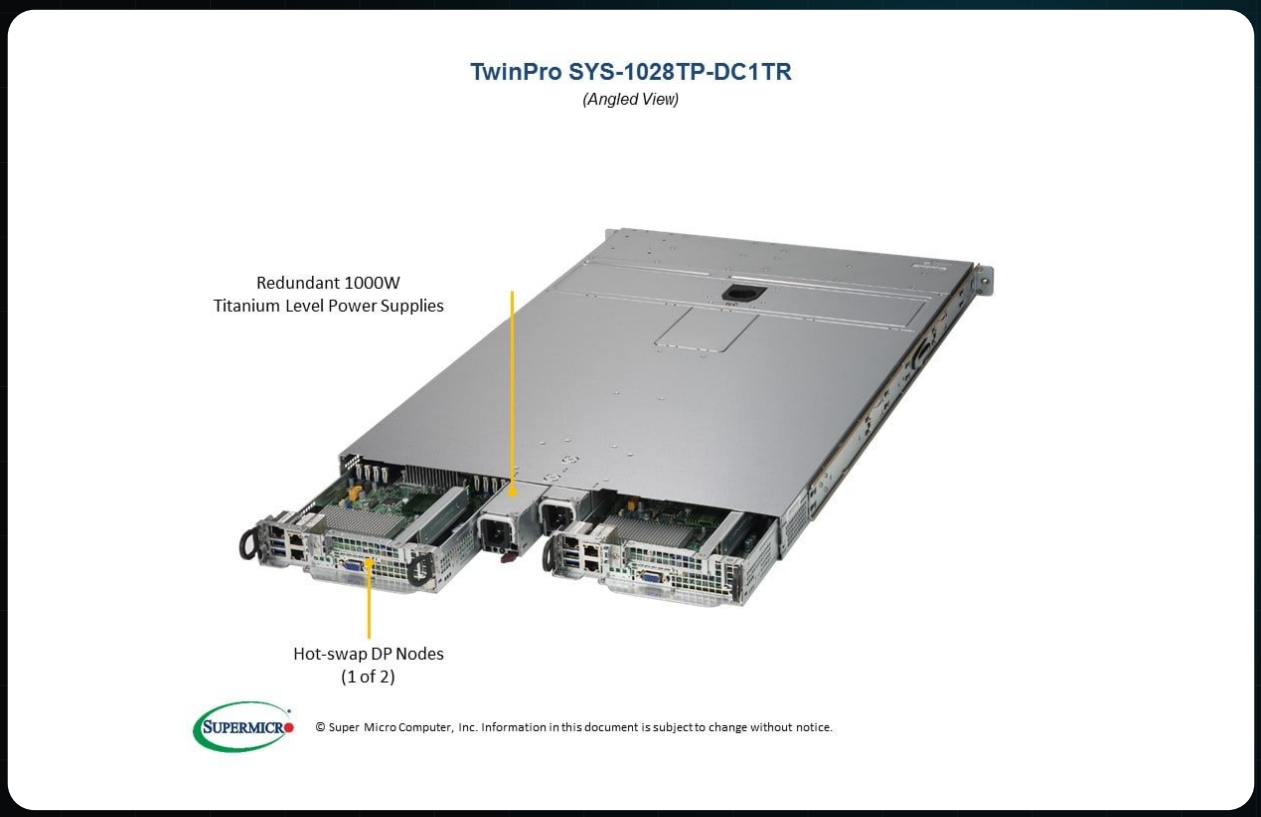
TECHNICAL DATASHEET

SUPERMICRO · RACKMOUNT SERVERS

Supermicro Server SYS-1028TP-DC1TR

SKU SYS-1028TP-DC1TR | 1U | Supermicro



FORM FACTOR	MAX POWER (BASE)	HEAT OUTPUT	PRICE
1U	522 W	1,781 BTU/h	On request

REQUEST A QUOTATION ONLINE

serverinvest.com/product/sys-1028tp-dc1tr

01 Product overview

The Supermicro SYS-1028TP-DC1TR is a server built on dual Intel Xeon processor E5-2600 v4 † / v3 family (up to 145W TD processors with up to 2 TB of memory in 4 DIMM slots.

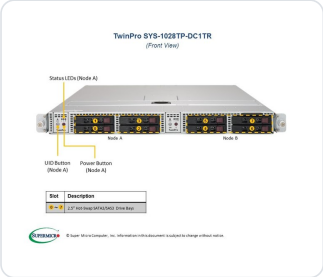
ServerInvest configures every SYS-1028TP-DC1TR to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

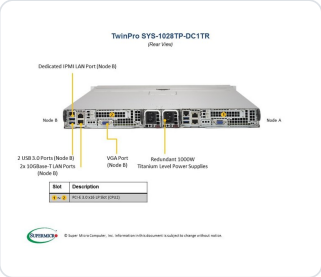
HIGHLIGHTS

- Dual Intel Xeon processor E5-2600 v4 † / v3 family (up to 145W TD
- Up to 2 TB memory · 4 DIMM slots
- 4x 2.5" Hot-swap SAS3 drive bays
- Power: 800W: 100 – 127Vac
- Networking: Intel X540 Dual port 10GBase-T

KEY SPECIFICATIONS

Form factor	**1U**
Processor	**2× Intel Xeon processor E5-2600 v4 † / v3 family (up to 145W TD**
Memory	**4 DIMM slots, up to 2 TB**
Drive bays	**4**
Power supply	**1× 800 W**
Typical power draw	**750 W**
Networking	**Intel X540 Dual port 10GBase-T**
Dimensions (W×H×D)	**437 × 44 mm**





02 Power & thermal

Calculated for the base configuration

IDLE	TYPICAL	MAXIMUM	HEAT (MAX)	COOLING	PSU LOAD
106 W	**318 W**	**522 W**	**1,781 BTU/h**	**0.5 kW**	**65%**

Typical 318 W · max 522 W · single PSU rating 800 W

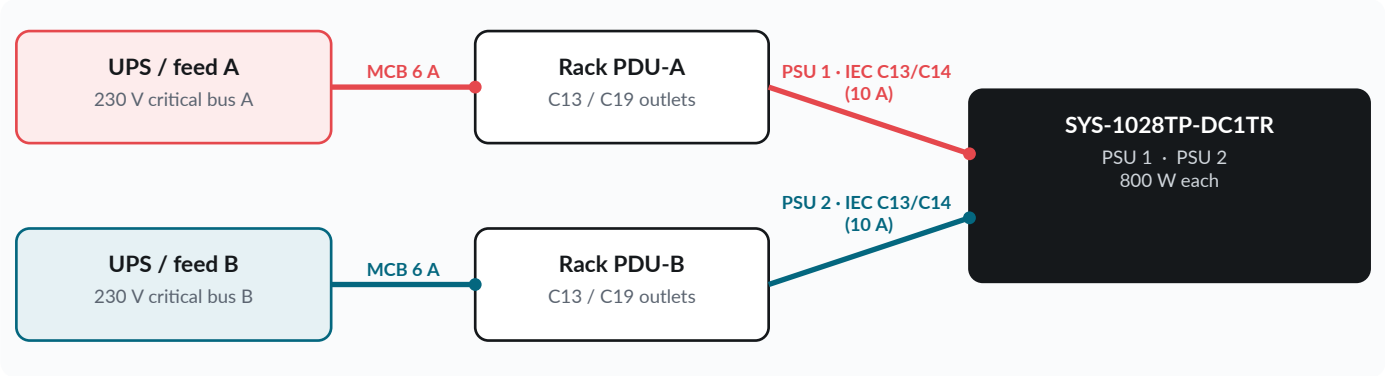
Annual IT energy (24/7)	2,229 kWh
Annual facility energy (PUE 1.5)	3,344 kWh
Annual energy cost	€446 IT · €669 incl. cooling (at 0.20 €/kWh)
CO_2 emissions / year	0.87 t (grid factor 0.26 kg/kWh)
Power supplies	1× 800 W

POWER BY COMPONENT	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	38 W	59 W	**85 W**
2× CPU (base configuration)	50 W	220 W	**370 W**
4× Memory (base configuration)	12 W	20 W	**36 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: 2.4 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: 522 W = 1,781 BTU/h (0.5 kW).

04 Full specifications

PROCESSOR/CACHE (PER NODE)	
CPU	Intel Xeon processor E5-2600 v4 † / v3 family (up to 145W TDP) * Dual Socket R3 (LGA 2011)
Cores / Cache	Up to 22 Cores † / Up to 55MB † Cache
System Bus	QPI up to 9.6 GT/s
Note	† BIOS version 2.0 or above is required
Note	* Please contact Supermicro Technical Support for additional information about frequency optimized CPUs and specialized system optimization.

SYSTEM MEMORY (PER NODE)	
Memory Capacity	16x 288-pin DDR4 DIMM slots Up to 2TB † ECC 3DS LRDIMM, 512GB ECC RDIMM
Memory Type	2400 † /2133/1866/1600MHz ECC DDR4 SDRAM 72-bit
DIMM Sizes	RDIMM: 64GB, 32GB, 16GB, 8GB, 4GB LRDIMM: 64GB, 32GB 3DS LRDIMM: 128GB
Memory Voltage	1.2 V
Error Detection	Corrects single-bit errors

ON-BOARD DEVICES (PER NODE)	
Chipset	Intel C612 chipset
SAS	Broadcom 3108 SAS3 (12Gbps) controller; RAID 0, 1, 10, 5, 6 support

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 RTL8201N PHY (dedicated IPMI)
Graphics	ASPEED AST2400 BMC

INPUT / OUTPUT (PER NODE)

SAS	4x SAS3 (12Gbps) ports
LAN	2x RJ45 10GBase-T ports 1x RJ45 Dedicated IPMI LAN port
USB	2x USB 3.0 ports (rear)
VGA	1x VGA port
Serial Port / Header	1x Fast UART 16550 port / 1 Header (internal)
Others	1x SATADOM support on the motherboard

CHASSIS

Form Factor	1U Rackmount
Model	CSE-809H-R1K05

DIMENSIONS AND WEIGHT

Width	17.2" (437mm)
Height	1.7" (43mm)
Depth	28.25" (718mm)
Weight	Gross Weight: 48.1 lbs (21.9 kg) Net Weight: 33.5 lbs (15.2 kg)
Package (HxWxD)	8" (203mm) x 29.6" (752mm) x 38.4" (975mm)
Available Colors	Black

FRONT PANEL

Buttons	Power On/Off button UID button/LED
LEDs	Power status LED Network activity LED Universal Information (UID) LED

EXPANSION SLOTS (PER NODE)

PCI-Express	1x PCI-E 3.0 x16 Low-profile slot

DRIVE BAYS (PER NODE)

Hot-swap	4x 2.5" Hot-swap SAS3 drive bays

SYSTEM COOLING (PER NODE)

Fans	3x heavy duty counter rotating fans with air shroud and optimal fan speed control

POWERSTICK POWER SUPPLY

Total Output Power	800W: 100 – 127Vac 1000W: 200 – 240Vac
Dimension (W x H x L)	38 x 40 x 360 mm
Input	100-127Vac / 9-7.5A / 50-60Hz 200-240Vac / 6-5A / 50-60Hz
+12V	Max: 66.7A / Min: 0A (100-127Vac) Max: 83A / Min: 0A (200-240Vac)
+5Vsb	Max: 4A / Min: 0A
Output Type	Gold Finger Connector (16 Power Pin, 14 Signal Pin)
Certification	Titanium Level [Test Report]

SYSTEM BIOS

BIOS Type	128Mb SPI Flash EEPROM with AMI BIOS
BIOS Features	Plug and Play (PnP) APM 1.2 PCI 2.2 ACPI 1.0 / 2.0 USB Keyboard support SMBIOS 2.3 UEFI

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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