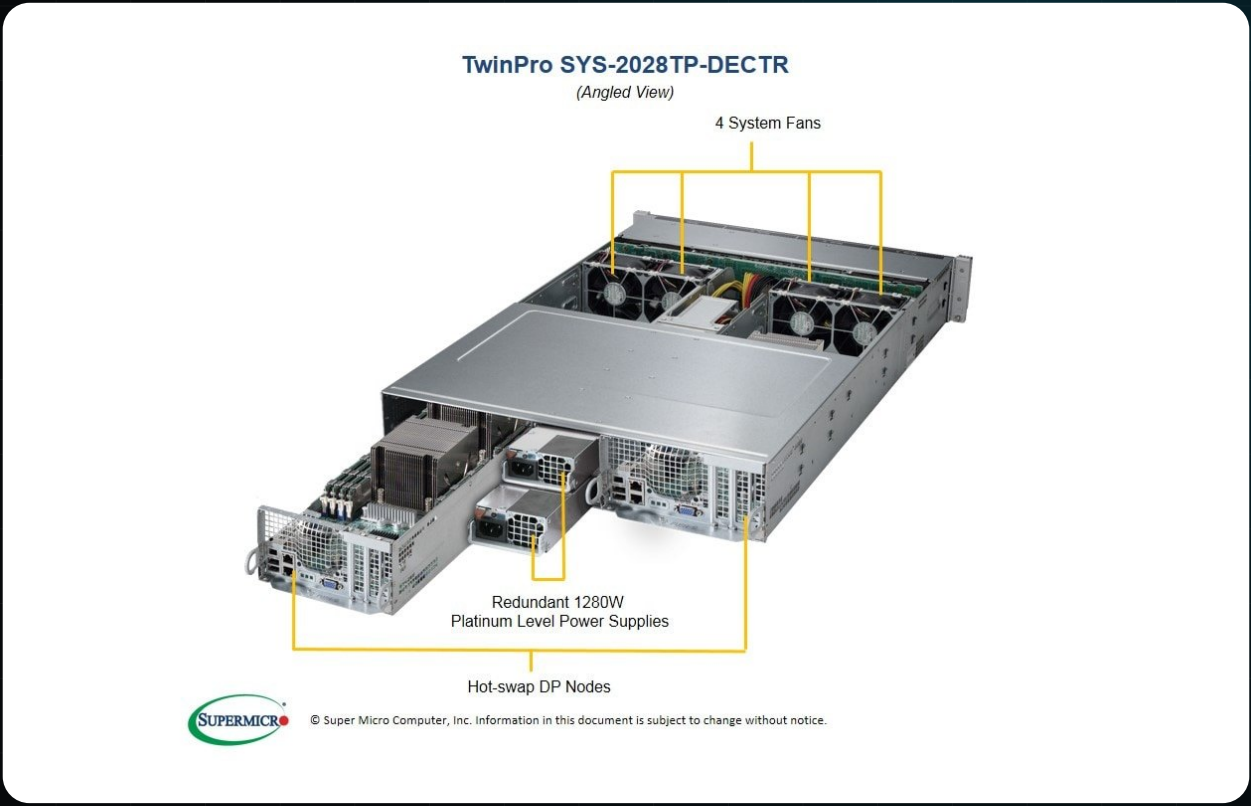
TECHNICAL DATASHEET

SUPERMICRO · RACKMOUNT SERVERS

Supermicro Server SYS-2028TP-DECTR

SKU SYS-2028TP-DECTR | 2U | Supermicro



FORM FACTOR	MAX POWER (BASE)	HEAT OUTPUT	PRICE
2U	549 W	1,873 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-2028tp-dectr

01 Product overview

The Supermicro SYS-2028TP-DECTR 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.

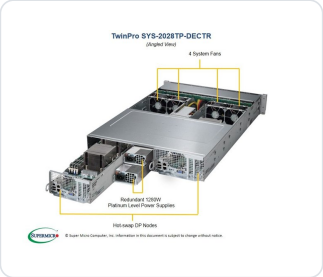
ServerInvest configures every SYS-2028TP-DECTR to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

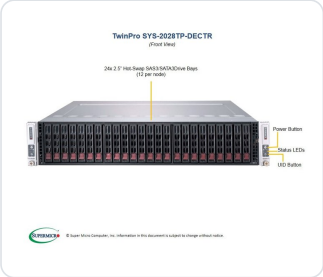
HIGHLIGHTS

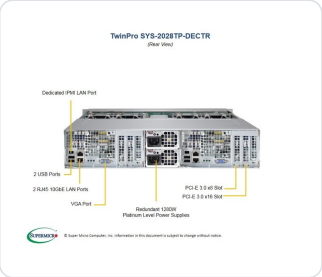
- Dual Intel Xeon processor E5-2600 v4 † / v3 family (up to 145W TD
- Up to 2 TB memory · 4 DIMM slots
- 12 Hot-swap 2.5" HDD Bays
- Power: 1000W Output @ 100-140V, 8-12A, 50-60Hz
- Networking: Intel X540 Dual port 10GBase-T

KEY SPECIFICATIONS

Form factor	**2U**
Processor	**2× Intel Xeon processor E5-2600 v4 † / v3 family (up to 145W TD**
Memory	**4 DIMM slots, up to 2 TB**
Drive bays	**12**
Power supply	**1× 1000 W**
Typical power draw	**750 W**
Networking	**Intel X540 Dual port 10GBase-T**
Dimensions (W×H×D)	**437 × 89 mm**







02 Power & thermal

Calculated for the base configuration

IDLE	TYPICAL	MAXIMUM	HEAT (MAX)	COOLING	PSU LOAD
119 W	**337 W**	**549 W**	**1,873 BTU/h**	**0.5 kW**	**55%**

Typical 337 W · max 549 W · single PSU rating 1000 W

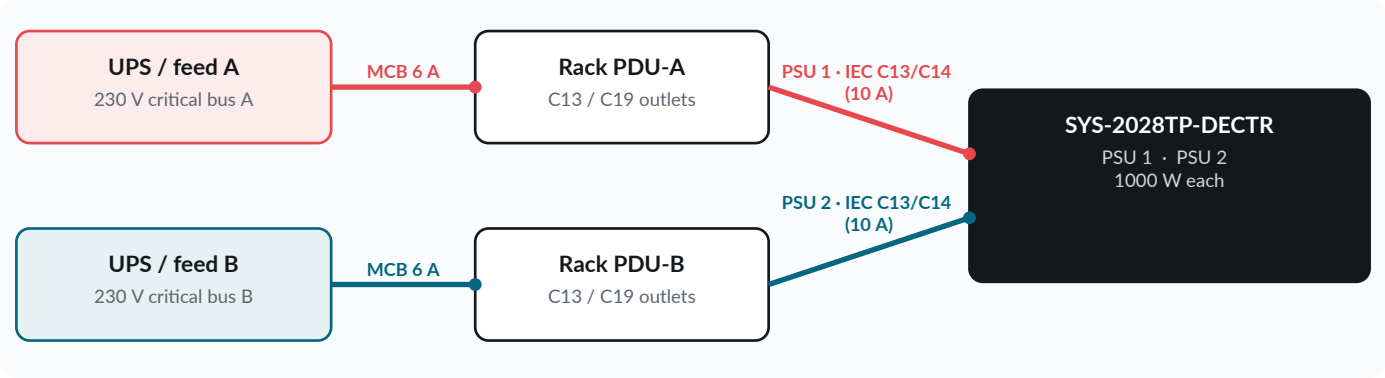
Annual IT energy (24/7)	2,379 kWh
Annual facility energy (PUE 1.5)	3,569 kWh
Annual energy cost	€476 IT · €714 incl. cooling (at 0.20 €/kWh)
CO_2 emissions / year	0.93 t (grid factor 0.26 kg/kWh)
Power supplies	1× 1000 W

POWER BY COMPONENT	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	50 W	77 W	**110 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: 2.5 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: 549 W = 1,873 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: 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 3008 SAS3 (12Gbps) via SAS3 Expander

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 1 Realtek RTL8201N PHY (dedicated IPMI)
Graphics	ASPEED AST2400 BMC

INPUT / OUTPUT (PER NODE)

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

CHASSIS

Form Factor	2U Rackmount
Model	CSE-217HD+-R1K28B

DIMENSIONS AND WEIGHT

Width	17.25" (438mm)
Height	3.47" (88mm)
Depth	28.75" (730mm)
Weight	Gross Weight: 85 lbs (38.6kg) Net Weight: 66 lbs (29.9 kg)
Available Colors	Black

FRONT PANEL

Buttons	Power On/Off button UID button
LEDs	Power status LED HDD activity LED 2 Network activity LEDs Universal Information (UID) LED

EXPANSION SLOTS (PER NODE)

PCI-Express	1 PCI-E 3.0 x16 Low-profile slot 1 PCI-E 3.0 x8 slot 1 "0 Slot" card (Both CPUs need to be installed for full access to PCI-E slots)

DRIVE BAYS (PER NODE)

Hot-swap	12 Hot-swap 2.5" HDD Bays

SYSTEM COOLING

Fans	4 heavy duty 8cm PWM fans with optimal fan speed control

POWER SUPPLY

AC Input	1000W Output @ 100-140V, 8-12A, 50-60Hz 1280W Output @ 180-240V, 6-8A, 50-60Hz
DC Output	1000W: +12V/83A; +5Vsb/4A 1280W: +12V/106.7A, +5Vsb/4A
Certification	Platinum Certified [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.

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