

TECHNICAL DATASHEET

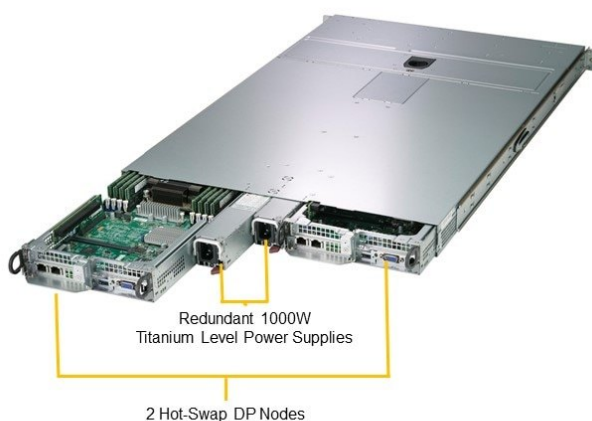
SUPERMICRO · RACKMOUNT SERVERS

Supermicro Server SYS-1029TP-DC0R

SKU SYS-1029TP-DC0R

1U

Supermicro

SuperServer SYS-1029TP-DC0R*(Angled View – System)*

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FORM FACTOR

1U

MAX POWER (BASE)

522 W

HEAT OUTPUT

1,781 BTU/h

PRICE

On request**REQUEST A QUOTATION ONLINE**serverinvest.com/product/sys-1029tp-dc0r

01 Product overview

The Supermicro SYS-1029TP-DC0R is a server built on dual Dual Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Process processors with up to 4 TB of memory in 16 DIMM slots.

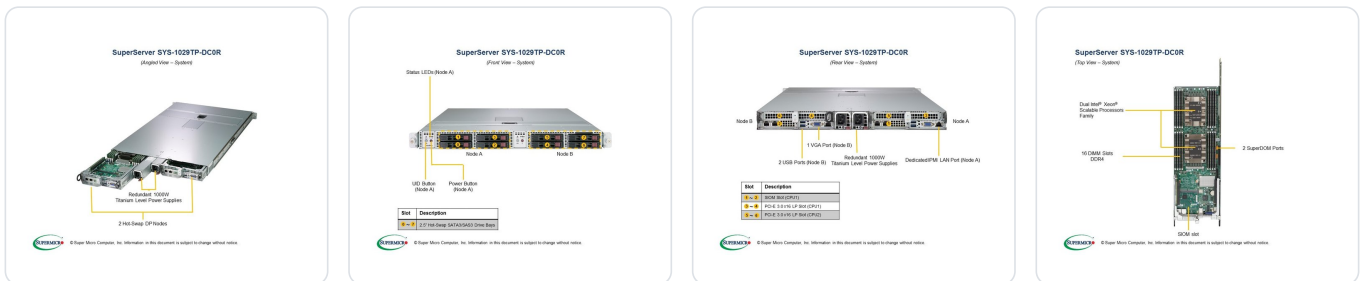
ServerInvest configures every SYS-1029TP-DC0R to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

HIGHLIGHTS

- Dual Dual Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Process
- Up to 4 TB memory · 16 DIMM slots
- 4 Hot-swap 2.5" SAS3/SATA3 drive bays
- Power: 800W: 100 – 127Vac
- Networking: Barebones and Complete System must have at least one

KEY SPECIFICATIONS

Form factor	1U
Processor	2× Dual Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Process
Memory	16 DIMM slots, up to 4 TB
Drive bays	4
Power supply	1× 800 W
Typical power draw	750 W
Networking	Barebones and Complete System must have at least one
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

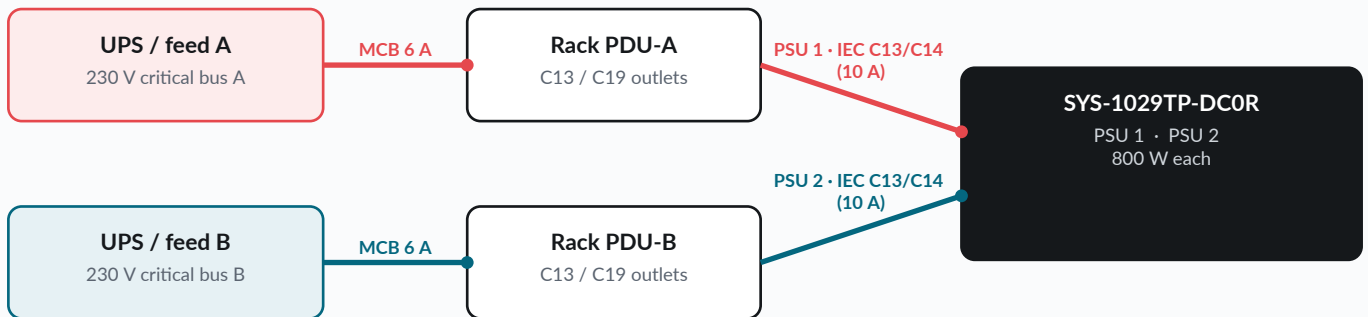
Annual IT energy (24/7)	2,229 kWh
Annual facility energy (PUE 1.5)	3,344 kWh
Annual energy cost	€446 IT · €669 incl. cooling (at 0.20 €/kWh)
CO ₂ emissions / year	0.87 t (grid factor 0.26 kg/kWh)
Power supplies	1× 800 W

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 (PER NODE)

CPU	Dual Socket P (LGA 3647) 2nd Gen Intel Xeon Scalable Processors and Intel Xeon Scalable Processors ‡ , Dual UPI up to 10.4GT/s Support CPU TDP 70-145W (Consult with SYS PM for higher CPU TDP Supports)
Cores	Up to 28 Cores
Note	* Processors ending N or S are optimized for networking and storage applications. Customer need POC their application and observe any thermal throttling before large deployment.
Note	‡ BIOS version 3.2 or above is required to support 2nd Gen Intel Xeon Scalable processors (codenamed Cascade Lake-R)

SYSTEM MEMORY (PER NODE)

Memory Capacity	16 DIMM slots Up to 4TB 3DS ECC DDR4-2933MHz † RDIMM/LRDIMM
Memory Type	2933 † /2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM
Note	† 2933MHz in two DIMMs per channel can be achieved by using memory purchased from Supermicro

ON-BOARD DEVICES (PER NODE)

Chipset	Intel C621 chipset
SAS	Broadcom 3008 SAS3 (12Gbps) controller; SW RAID 0, 1, 10 support
Network Controllers	Barebones and Complete System must have at least one SIOM card installed per node

IPMI	Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Graphics	ASPEED AST2500 BMC

INPUT / OUTPUT (PER NODE)

SAS	4 SAS3 (12Gbps) ports
LAN	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	2 SuperDOM support on the motherboard 1 NVMe or 2 SATA M.2 (22x80/60/42 mm) support with option part: AOC-SMG3-2H8M2 M.2 and SuperDOM are for OS boot and they cannot coexist

SYSTEM BIOS

BIOS Type	AMI 32MB SPI Flash ROM
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MANAGEMENT

Software	Intel Node Manager IPMI 2.0 KVM with dedicated LAN NMI SSM , SPM , SUM SuperDoctor 5 Watchdog
Power Configurations	ACPI Power Management

PC HEALTH MONITORING

CPU	Monitors for CPU Cores, Chipset Voltages, Memory. 4+1 Phase-switching voltage regulator
FAN	Fans with tachometer monitoring Status monitor for speed control Pulse Width Modulated (PWM) fan connectors
Temperature	Monitoring for CPU and chassis environment Thermal Control for fan connectors

CHASSIS

Form Factor	1U Rackmount
Model	CSE-809H-R1K05P3

DIMENSIONS AND WEIGHT

Width	17.2" (437mm)
Height	1.7" (43mm)
Depth	28.25" (718mm)
Package	29.6" (W) x 8" (H) x 38.4" (L)
Weight	Gross Weight: 48.1 lbs (21.9 kg) Net Weight: 33.5 lbs (15.2 kg)

FRONT PANEL

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

EXPANSION SLOTS (PER NODE)

PCI-Express	2 PCI-E 3.0 x16 Low-profile slots 1 SIOM card support Note: Barebones and Complete System must bundle with SIOM (With only one CPU installed, SXB2 M.2 and SXB4 riser card slots not function)
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DRIVE BAYS (PER NODE)

Hot-swap	4 Hot-swap 2.5" SAS3/SATA3 drive bays
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SYSTEM COOLING

Fans	3 Heavy duty counter rotating fans with air shroud and optimal fan speed control
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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]

OPERATING ENVIRONMENT

RoHS	RoHS Compliant
Environmental Spec.	Operating Temperature: 10°C ~ 35°C (50°F ~ 95°F) Non-operating Temperature: -40°C to 60°C (-40°F to 140°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.



Interested in this solution?

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

