

TECHNICAL DATASHEET

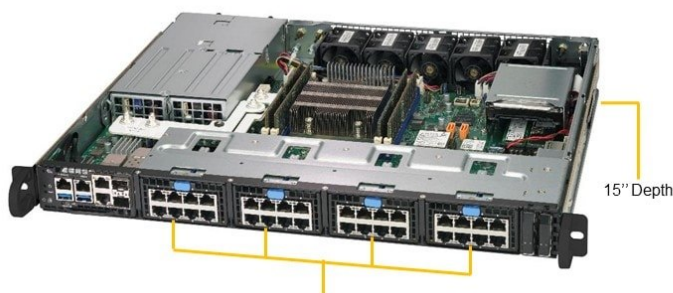
SUPERMICRO · RACKMOUNT SERVERS

Supermicro Server SYS-1019D-16C-FRN5TP

SKU SYS-1019D-16C-FRN5TP

1U

Supermicro

SuperServer SYS-1019D-16C-FRN5TP*(Angled View – System)*

Optional AIOM
AIOM is sold separately, it is not included
in this standard/ barebone system



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FORM FACTOR

1U

MAX POWER (BASE)

306 W

HEAT OUTPUT

1,044 BTU/h

PRICE

On request

REQUEST A QUOTATION ONLINE

[serverinvest.com/product/
sys-1019d-16c-frn5tp](https://serverinvest.com/product/sys-1019d-16c-frn5tp)



01 Product overview

The Supermicro SYS-1019D-16C-FRN5TP is a server built on Intel Xeon D with up to 512 GB of memory in 4 DIMM slots.

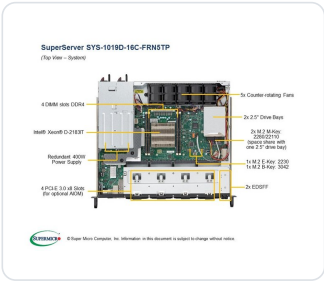
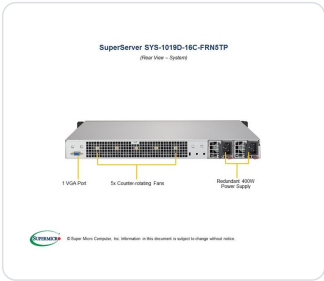
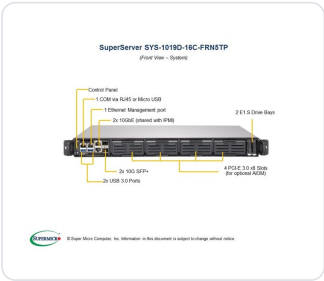
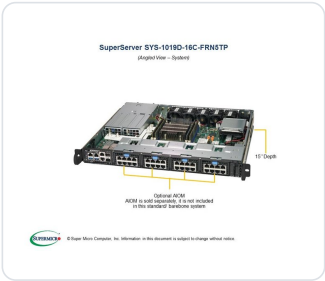
ServerInvest configures every SYS-1019D-16C-FRN5TP to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

HIGHLIGHTS

- Intel Xeon D
- Up to 512 GB memory · 4 DIMM slots
- 2x 2.5" drive bays (one drive space shares with M.2)
- Networking: Dual 10G SFP+ via SoC

KEY SPECIFICATIONS

Form factor	1U
Processor	Intel Xeon D
Memory	4 DIMM slots, up to 512 GB
Drive bays	2
Typical power draw	450 W
Networking	Dual 10G SFP+ via SoC
Dimensions (W×H×D)	437 × 44 mm



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

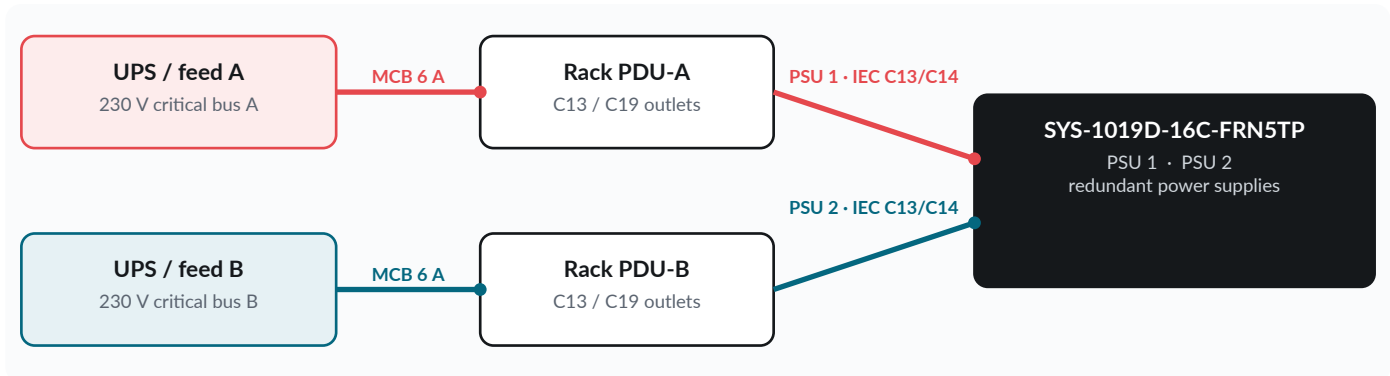
Annual IT energy (24/7)	1,357 kWh
Annual facility energy (PUE 1.5)	2,036 kWh
Annual energy cost	€271 IT · €407 incl. cooling (at 0.20 €/kWh)
CO ₂ emissions / year	0.53 t (grid factor 0.26 kg/kWh)
Power supplies	Redundant hot-swap PSUs — rating depends on the final configuration

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

CPU	Intel Xeon processor D-2183IT , CPU TDP support 100W
Cores / Cache	16 Cores,32 Threads

SYSTEM MEMORY

Memory Capacity	Up to 512GB DDR4 ECC LRDIMM Up to 256GB DDR4 ECC RDIMM 4 DIMM slots
Memory Type	2666/2400/2133MHz ECC DDR4 L/RDIMM Operating speed up to 2400MHz
DIMM Sizes	128GB, 64GB, 32GB, 16GB
Memory Voltage	1.2 V

ON-BOARD DEVICES

Chipset	System on Chip (SoC)
SATA	SATA3 (6Gbps) ports via SoC controller
Network Controllers	Dual 10G SFP+ via SoC Dual 10GBase-T (share with IPMI)
IPMI	Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Video	VGA via BMC (option)

INPUT / OUTPUT

SATA	2 SATA3 (6Gbps) ports
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LAN	2 RJ45 10GbE LAN ports (shared with IPMI) 2 10G SFP+ LAN ports 1 Ethernet Management port
USB	2 USB 3.0 ports (front)
Video	1 VGA port
Serial Port / Header	1 COM via RJ45 or Micro USB

SYSTEM BIOS

BIOS Type	128Mb SPI Flash with AMI BIOS
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MANAGEMENT

Software	Intel Node Manager IPMI 2.0 NMI SUM Watch Dog SuperDoctor 5
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CHASSIS

Form Factor	1U Rackmount
Model	CSE-103-R407B

DIMENSIONS AND WEIGHT

Height	1.7" (43mm)
Width	17.2" (437mm)
Depth	15" (381mm)
Package	8" (H) x 25" (W) x 27" (D)
Weight	Gross Weight: 26.9 lbs (12.2 kg) Net Weight: 15.9 lbs (7.21 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 Information LED

EXPANSION SLOTS

PCI-Express	4 PCI-E 3.0 x8 slots for AIOM (AIOM is sold separately, it is not included in this standard/barebone system)
M.2	2 M-Keys 2242/80/110 (PCI-E 3.0 x4/SATA) (space share with one 2.5" drive bay) 1 B-Key 3042 (PCI-E 3.0 x4/SATA) 1 E-Key 2230 (PCI-E 3.0 x2)

DRIVE BAYS

Internal	2x 2.5" drive bays (one drive space shares with M.2)
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Others	2 E1.S (40°C ambient temperature only)
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SYSTEM COOLING

Fans	5x 40x40x56 mm 13K-11K RPM Counter-rotating Fans
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AC/DC240V INPUT REDUNDANT POWER SUPPLIES

Total Output Power	400W
Dimension (W x H x L)	54.5 x 40 x 220 mm
Input	100 - 240Vac / 6.0 - 3.0A / 50-60Hz 200 - 240Vdc / 3.4 - 3.2A (CCC Only)
+12V	Max: 33A / Min: 0.5A
+5V sb	Max: 3A / Min: 0A
Output Type	Gold Finger Connector Mating with Molex 45984-4343
Certification	Platinum Level Certified [Test Report]

OPERATING ENVIRONMENT / COMPLIANCE

RoHS	RoHS Compliant
Environmental Spec.	Operating Temperature: 0°C to 45°C (32°F to 113°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.



Interested in this solution?

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

