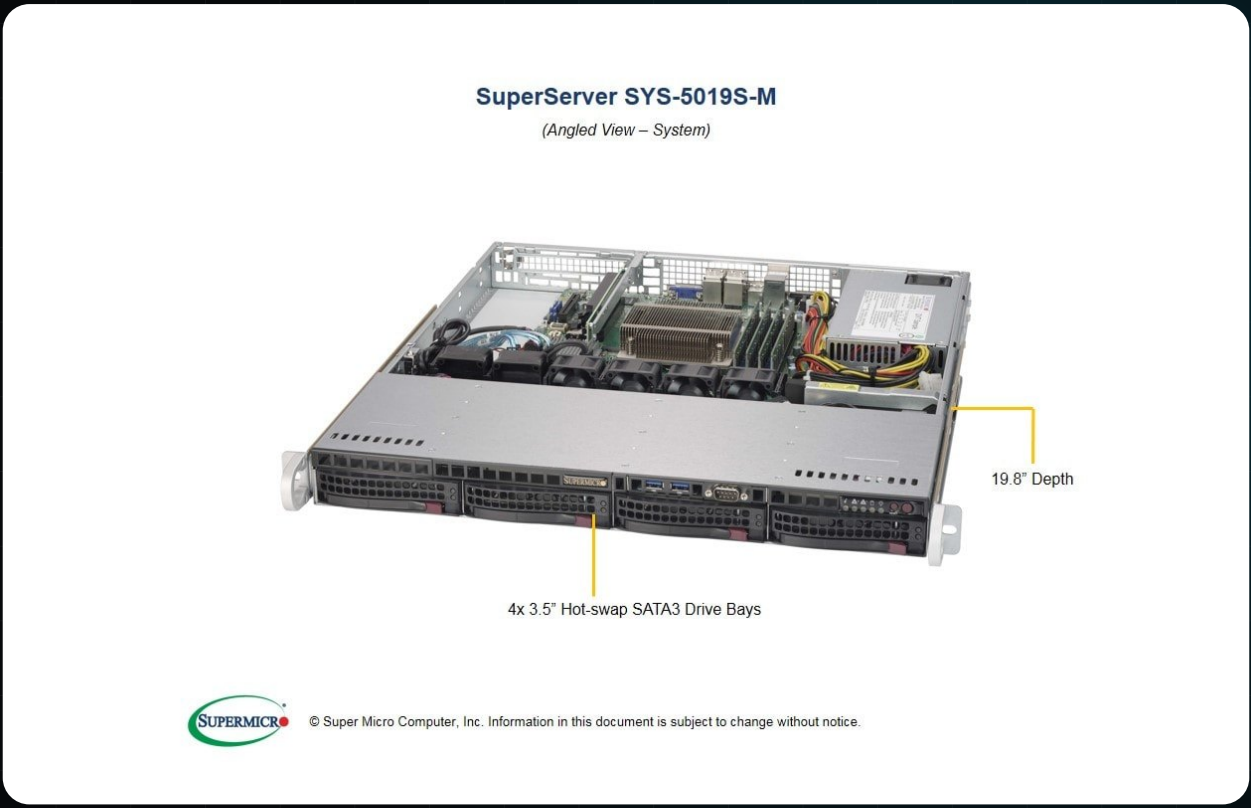
TECHNICAL DATASHEET

SUPERMICRO · RACKMOUNT SERVERS

# Supermicro Server SYS-5019S-M

SKU SYS-5019S-M | 1U | Supermicro




| FORM FACTOR | MAX POWER (BASE) | HEAT OUTPUT | PRICE |
|---|---|---|---|
| 1U | 306 W | 1,044 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-5019s-m

## 01 Product overview

The Supermicro SYS-5019S-M is a server built on Intel Core with up to 64 GB of memory in 4 DIMM slots.

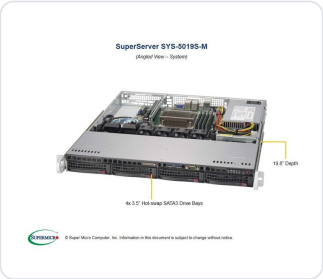
ServerInvest configures every SYS-5019S-M to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

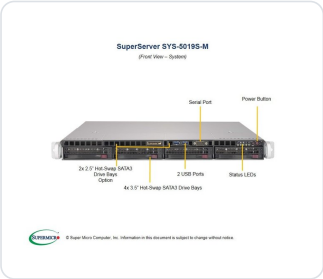
### HIGHLIGHTS

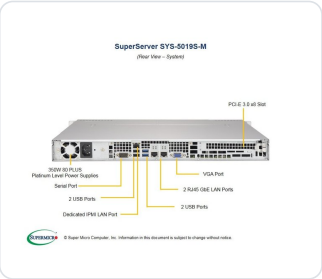
- Intel Core
- Up to 64 GB memory · 4 DIMM slots
- 4 Hot-swap 3.5" SATA3 drive bays
- Power: 100-240 V, 50-60 Hz, 5.0-2.5 Amp
- Networking: Dual Intel I210-AT Gigabit Ethernet LAN ports

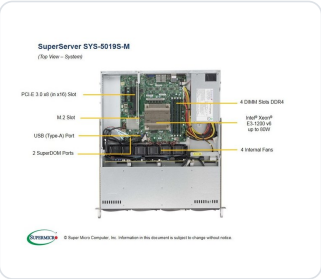
### KEY SPECIFICATIONS

| | |
|---|---|
| Form factor | **1U** |
| Processor | **Intel Core** |
| Memory | **4 DIMM slots, up to 64 GB** |
| Drive bays | **4** |
| Typical power draw | **450 W** |
| Networking | **Dual Intel I210-AT Gigabit Ethernet LAN ports** |
| 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

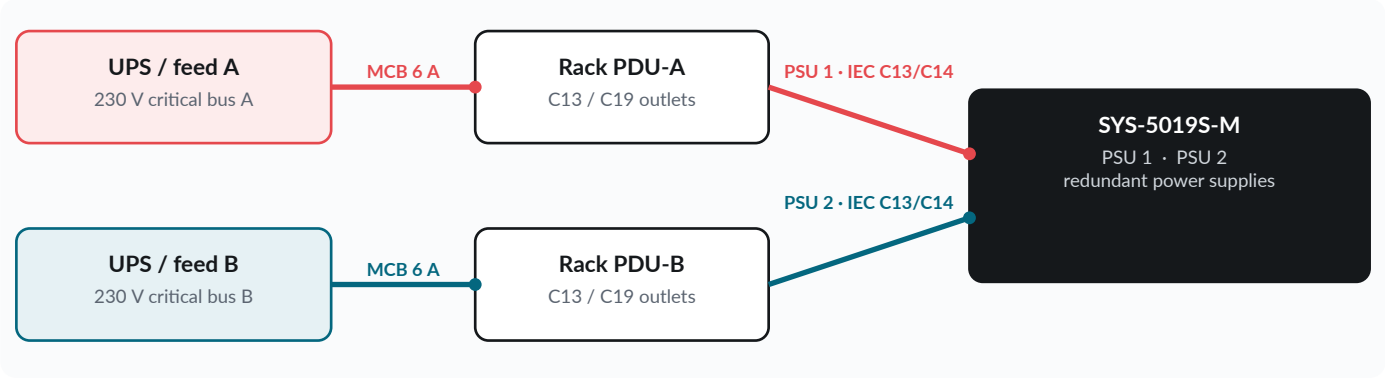
| | |
|---|---|
| Annual IT energy (24/7) | 1,357 kWh |
| Annual facility energy (PUE 1.5) | 2,036 kWh |
| Annual energy cost | €271 IT · €407 incl. cooling (at 0.20 €/kWh) |
| $CO_2$ emissions / year | 0.53 t (grid factor 0.26 kg/kWh) |
| Power supplies | Redundant hot-swap PSUs — rating depends on 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 | Single Socket H4 (LGA 1151) supports:<br>Intel Xeon processor E3-1200 v6/v5, Intel 7th/6th Gen Core i3<br>CPU TDP up to 80W |
| Note | BIOS version 2.0 or above is required to support Intel Xeon Processor E3-1200 v6 series or 7th Generation Intel Core Processors |

| SYSTEM MEMORY | |
|---|---|
| Memory Capacity | 4x 288-pin DDR4 DIMM slots<br>Up to 64GB DDR4<br>ECC UDIMM |
| Memory Type | 2400/2133/1866/1600MHz<br>ECC DDR4 SDRAM 72-bit,<br>288-pin<br>(UDIMM) gold-plated DIMMs |
| DIMM Sizes | 16GB, 8GB, 4GB |
| Memory Voltage | 1.2 V |
| Error Detection | Corrects single-bit errors<br>Detects double-bit errors (using ECC memory) |

| ON-BOARD DEVICES | |
|---|---|
| Chipset | Intel C236 chipset |
| SATA | SATA3 (6Gbps) via C236 controller<br>RAID 0, 1, 5, 10 support |
| IPMI | Support for Intelligent Platform Management Interface v.2.0<br>IPMI 2.0 with virtual media over LAN and KVM-over-LAN support<br>ASPEED AST2400 BMC |

| | |
|---|---|
| Network Controllers | Dual Intel I210-AT Gigabit Ethernet LAN ports<br>Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output |
| Video | ASPEED AST2400 BMC |

## INPUT / OUTPUT

| | |
|---|---|
| SATA | 8 SATA3 (6Gbps) ports |
| LAN | 2 RJ45 Gigabit Ethernet LAN ports<br>1 RJ45 Dedicated IPMI LAN port |
| USB | 5 USB 3.0 ports (2 rear + 2 headers + 1 Type A)<br>6 USB 2.0 ports (2 rear + 4 headers) |
| Video | 1 VGA port |
| Serial Port / Header | 2 COM ports (1 rear, 1 front) |
| SuperDOM | 2 SuperDOM (Disk on Module) ports with built-in power |

## PC HEALTH MONITORING

| | |
|---|---|
| Voltage | Monitors for CPU Cores, +3.3V, +5V, +12V, +5V Standby, VBAT, HT, Memory, Chipset Voltages. |
| FAN | Total of 5 fan headers supporting up to 5 fans<br>4 fans with tachometer status monitoring<br>Status monitor for speed control<br>Status monitor for on/off control<br>Low noise fan speed control<br>Pulse Width Modulated (PWM) fan connectors |
| Temperature | Monitoring for CPU and chassis environment<br>CPU thermal trip support<br>I 2 C temperature sensing logic<br>Thermal Monitor 2 (TM2) support<br>PECI |
| LED | System Information LED<br>Suspend static indicator LED<br>UID/Remote UID |
| Other Features | Chassis intrusion detection<br>Chassis intrusion header<br>RoHS, Halogen Free |

## CHASSIS

| | |
|---|---|
| Form Factor | 1U Rackmount |
| Model | CSE-813MFTQC-350CB |

## DIMENSIONS AND WEIGHT

| | |
|---|---|
| Height | 1.7" (43mm) |
| Width | 17.2" (437mm) |
| Depth | 19.85" (503mm) |
| Package | 8.5" (H) x 24" (W) x 29.5" (D) |
| Weight | Gross Weight: 30.4 lbs (13.8 kg)<br>Net Weight: 17.6 lbs (8 kg) |
| Available Colors | Black |

## FRONT PANEL

| | |
|---|---|
| Buttons | Power On/Off button<br>System Reset button |
| LEDs | Power LED<br>Hard drive activity LED<br>2 Network activity LEDs<br>System Information LED |

## EXPANSION SLOTS

| | |
|---|---|
| PCI-Express | 1 PCI-E 3.0 x8 (in x16) AOC slot |
| M.2 | 1x M.2 Interface: PCI-E 3.0 x2<br>Form Factor: 2280<br>Key: M-Key<br>Double Height Connector |

## DRIVE BAYS

| | |
|---|---|
| Hot-swap | 4 Hot-swap 3.5" SATA3 drive bays |

## PERIPHERAL DRIVES

| | |
|---|---|
| Optional | 2 Fixed 2.5" internal drives |

## SYSTEM COOLING

| | |
|---|---|
| Fans | 4x 40x28mm 4-pin PWM Cooling Fans<br>Optional 1x 40x28mm PWM fan |

## POWER SUPPLY

| | |
|---|---|
| AC Voltage | 100-240 V, 50-60 Hz, 5.0-2.5 Amp |
| +5V | Max.: 15 Amp<br>Min.: 0.2 Amp |
| +5V standby | Max.: 3 Amp<br>Min.: 0 Amp |
| +12V | Max.: 29 Amp<br>Min.: 0.5 Amp |
| -12V | Max.: 0.2 Amp<br>Min.: 0 Amp |
| +3.3V | Max.: 12 Amp<br>Min.: 0.2 Amp |
| Certification | Platinum Level Certified<br>[ Test Report ] |

## SYSTEM BIOS

| | |
|---|---|
| BIOS Type | 8MB SPI Flash EEPROM with AMI BIOS |

## OPERATING ENVIRONMENT / COMPLIANCE

| | |
|---|---|
| RoHS | RoHS Compliant |

| | |
|---|---|
| Environmental Spec. | Operating Temperature:<br>10°C to 35°C (50°F to 95°F)<br>Non-operating Temperature:<br>-40°C to 70°C (-40°F to 158°F)<br>Operating Relative Humidity:<br>8% to 90% (non-condensing)<br>Non-operating Relative Humidity:<br>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