

TECHNICAL DATASHEET

SUPERMICRO · RACKMOUNT SERVERS

# Supermicro Server SYS-5019C-M4L

SKU SYS-5019C-M4L

1U

Supermicro

## SuperServer SYS-5019C-M4L

(Angled View – 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-5019c-m4l](https://serverinvest.com/product/sys-5019c-m4l)



01 Product overview

The Supermicro SYS-5019C-M4L is a server built on Intel Core with up to 128 GB of memory in 4 DIMM slots.

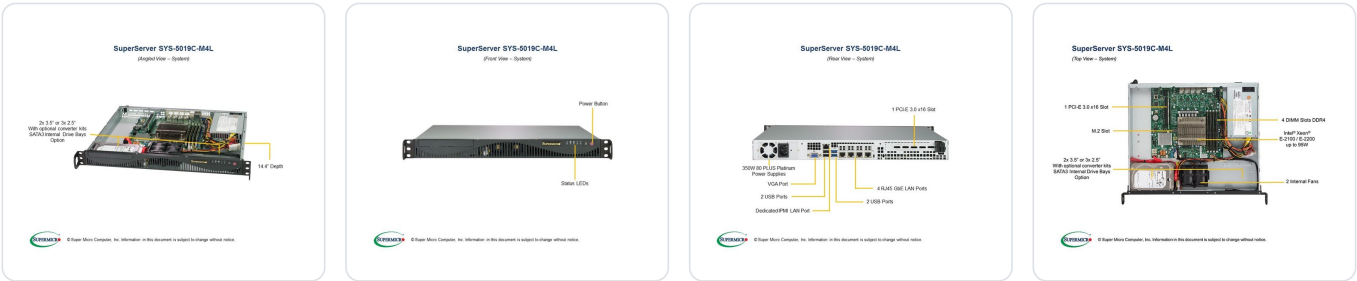
ServerInvest configures every SYS-5019C-M4L to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

HIGHLIGHTS

- Intel Core
- Up to 128 GB memory · 4 DIMM slots
- 2x 3.5" or 3x 2.5" drive bays with optional converter kits
- Power: 100-240 V, 50-60 Hz, 5.0-2.5 Amp
- Networking: Quad LAN with Intel I210-AT

KEY SPECIFICATIONS

|                    |                             |
|--------------------|-----------------------------|
| Form factor        | 1U                          |
| Processor          | Intel Core                  |
| Memory             | 4 DIMM slots, up to 128 GB  |
| Drive bays         | 2                           |
| Typical power draw | 450 W                       |
| Networking         | Quad LAN with Intel I210-AT |
| 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

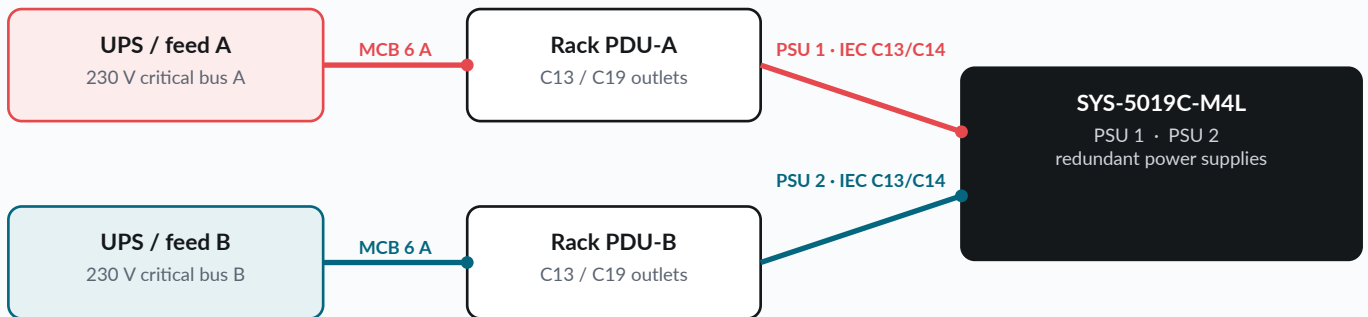
|                                  |                                                                     |
|----------------------------------|---------------------------------------------------------------------|
| Annual IT energy (24/7)          | 1,357 kWh                                                           |
| Annual facility energy (PUE 1.5) | 2,036 kWh                                                           |
| Annual energy cost               | €271 IT · €407 incl. cooling (at 0.20 €/kWh)                        |
| CO <sub>2</sub> 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),<br>CPU TDP support up to 95W<br>Support Intel Xeon processor E-2100 / E-2200 series, 8th/9th Gen. Intel Core i3 / Pentium / Celeron Processors |
| Cores | 8 cores, 16 threads                                                                                                                                                         |
| Note  | BIOS 1.0b or above is required to support Intel Xeon processor E-2200 series                                                                                                |

#### SYSTEM MEMORY

|                 |                                                                                         |
|-----------------|-----------------------------------------------------------------------------------------|
| Memory Capacity | 4 DIMM slots<br>Up to 128GB Unbuffered ECC UDIMM<br>Up to DDR4-2666MHz                  |
| Memory Type     | 2666/2400/2133MHz ECC DDR4 SDRAM                                                        |
| DIMM Sizes      | 32GB, 16GB, 8GB, 4GB                                                                    |
| Note            | 128GB system memory capacity will be available in 2019 through a published BIOS update. |

#### ON-BOARD DEVICES

|                     |                                                                     |
|---------------------|---------------------------------------------------------------------|
| Chipset             | Intel C242 chipset                                                  |
| SATA                | SATA3 (6Gbps) via Intel C242 controller<br>RAID 0, 1, 5, 10 support |
| IPMI                | ASPEED AST2500                                                      |
| Network Controllers | Quad LAN with Intel I210-AT                                         |
| Video               | ASPEED AST2500 BMC                                                  |

#### INPUT / OUTPUT

|      |                                         |
|------|-----------------------------------------|
| SATA | 6 SATA3 (6Gbps) ports; RAID 0, 1, 5, 10 |
|------|-----------------------------------------|

|                      |                                                                     |
|----------------------|---------------------------------------------------------------------|
| LAN                  | 4 RJ45 Gigabit Ethernet LAN ports<br>1 RJ45 Dedicated IPMI LAN port |
| USB                  | 2 USB 3.1 ports (rear)<br>2 USB 2.0 ports (rear)                    |
| Video                | 1 VGA port                                                          |
| Serial Port / Header | 1 COM port (header)                                                 |
| TPM                  | 1 TPM 2.0 Header                                                    |

## SYSTEM BIOS

|               |                                                                                                                              |
|---------------|------------------------------------------------------------------------------------------------------------------------------|
| BIOS Type     | UEFI 256Mb                                                                                                                   |
| BIOS Features | ACPI 6.0<br>SMBIOS 2.7<br>Plug and Play (PnP)<br>RTC (Real Time Clock) Wakeup<br>UEFI 2.7<br>USB Keyboard support<br>PCI 3.0 |

## MANAGEMENT

|          |                                                                                        |
|----------|----------------------------------------------------------------------------------------|
| Software | Intel Node Manager<br>IPMI 2.0<br>NMI<br>SSM , SPM , SUM<br>Watch Dog<br>SuperDoctor 5 |
|----------|----------------------------------------------------------------------------------------|

## CHASSIS

|             |                |
|-------------|----------------|
| Form Factor | 1U Rackmount   |
| Model       | CSE-512F-350B1 |

## DIMENSIONS AND WEIGHT

|                  |                                                                |
|------------------|----------------------------------------------------------------|
| Height           | 1.7" (43mm)                                                    |
| Width            | 17.2" (437mm)                                                  |
| Depth            | 14.5" (368mm)                                                  |
| Package          | 6.3" (H) x 22" (W) x 20" (D)                                   |
| Weight           | Gross Weight: 17 lbs (7.71 kg)<br>Net Weight: 11 lbs (4.99 kg) |
| Available Colors | Black                                                          |

## FRONT PANEL

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

## EXPANSION SLOTS

|             |                                                                                |
|-------------|--------------------------------------------------------------------------------|
| PCI-Express | 1 PCI-E 3.0 x16 slot                                                           |
| M.2         | M.2 Interface: 1 PCI-E 3.0 x4<br>M.2 Form Factor: 2280/22110<br>M.2 Key: M-Key |

## DRIVE BAYS

|          |                                                            |
|----------|------------------------------------------------------------|
| Internal | 2x 3.5" or 3x 2.5" drive bays with optional converter kits |
|----------|------------------------------------------------------------|

## SYSTEM COOLING

|      |                                 |
|------|---------------------------------|
| Fans | 2x 4cm counter-rotating 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 ] |

## PC HEALTH MONITORING

|             |                                                                                                                                                                      |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU         | Monitors for CPU Cores, +3.3V, +5V, +12V, +5V Standby, VBAT, HT, Memory, Chipset Voltages.                                                                           |
| FAN         | 6x 4-pin fan headers (up to 6 fans), 6 fans with tachometer status monitoring, Fan speed control, Overheat LED indication, Thermal control tachometer fan connectors |
| Temperature | Monitoring for CPU and chassis environment, CPU thermal trip support, Thermal Monitor 2 (TM2) support, PECI                                                          |

## 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](mailto:office@serverinvest.com)

