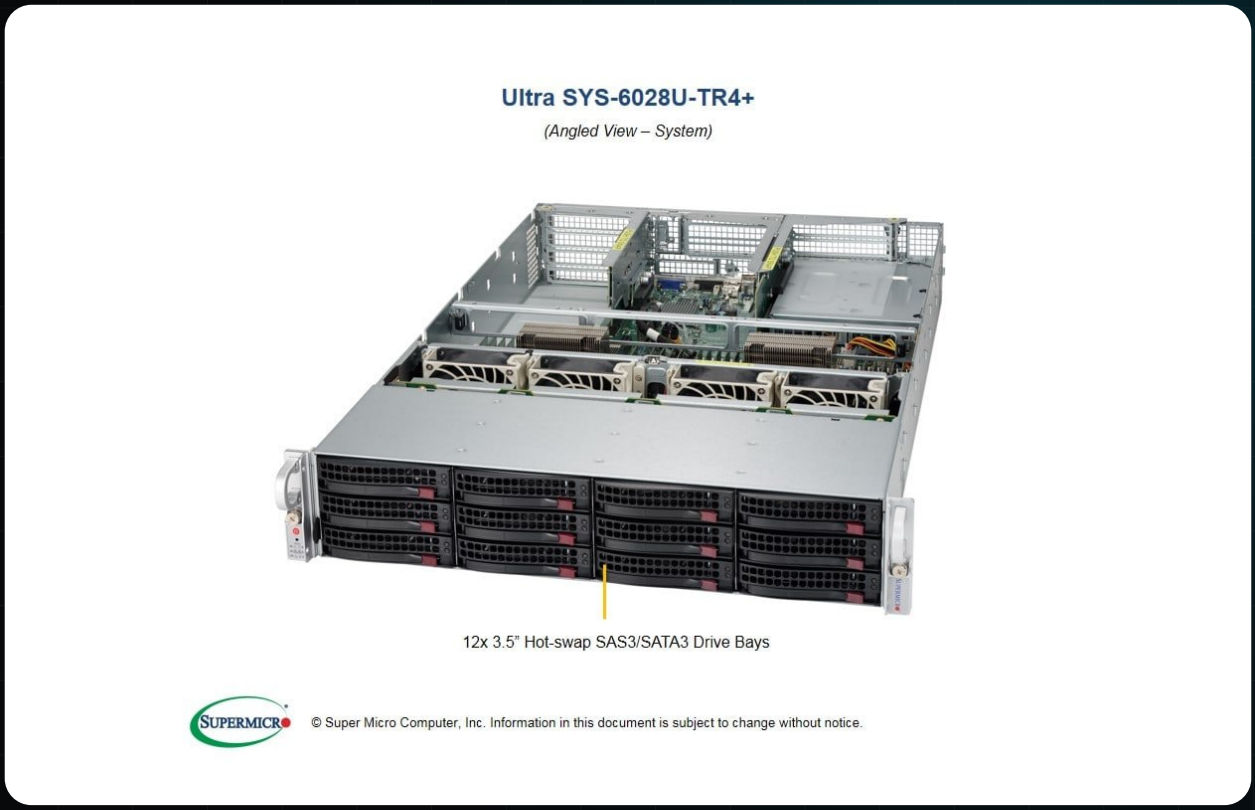
TECHNICAL DATASHEET

SUPERMICRO · RACKMOUNT SERVERS

# Supermicro Server SYS-6028U-TR4

SKU SYS-6028U-TR4 | 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-6028u-tr4

## 01 Product overview

The Supermicro SYS-6028U-TR4 is a server built on dual Intel Xeon processor E5-2600 v4 † / v3 family (up to 160W TD processors with up to 3 TB of memory in 4 DIMM slots.

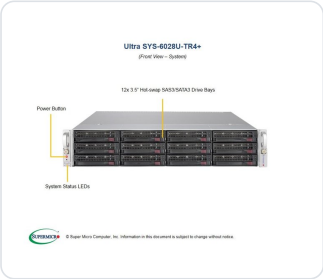
ServerInvest configures every SYS-6028U-TR4 to order, updates BIOS and BMC firmware, installs your operating system on request and runs a 48-hour burn-in test before delivery. Every system includes a 3-year warranty.

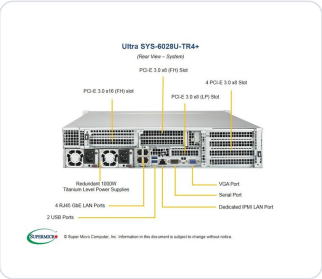
### HIGHLIGHTS

- Dual Intel Xeon processor E5-2600 v4 † / v3 family (up to 160W TD
- Up to 3 TB memory · 4 DIMM slots
- Power: 800W: 100 – 127Vac
- Networking: 4x GbE ports via AOC-2UR68-i4G

### KEY SPECIFICATIONS

| | |
|---|---|
| Form factor | **2U** |
| Processor | **2× Intel Xeon processor E5-2600 v4 † / v3 family (up to 160W TD** |
| Memory | **4 DIMM slots, up to 3 TB** |
| Drive bays | **12** |
| Power supply | **1× 800 W** |
| Typical power draw | **750 W** |
| Networking | **4x GbE ports via AOC-2UR68-i4G** |
| 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** | **69%** |

Typical 337 W · max 549 W · single PSU rating 800 W

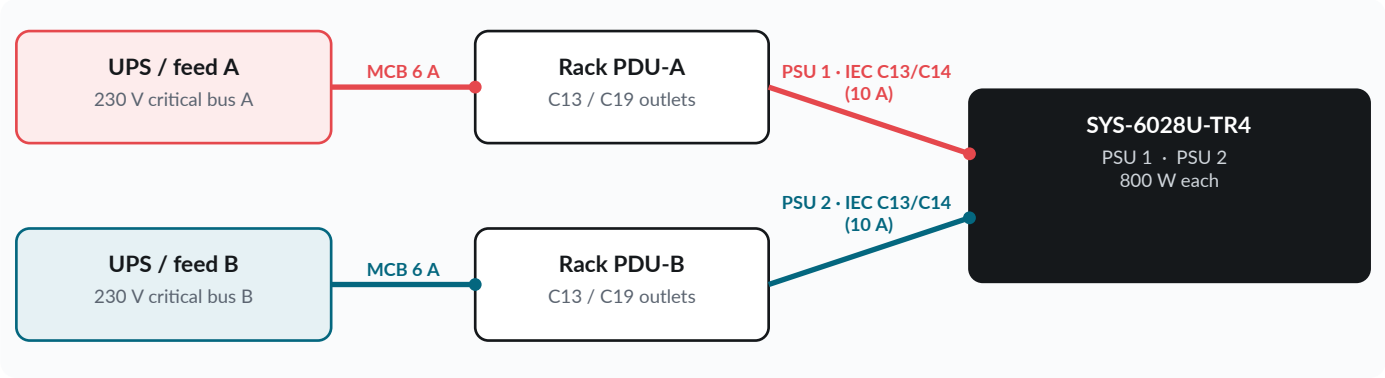
| | |
|---|---|
| Annual IT energy (24/7) | 2,379 kWh |
| Annual facility energy (PUE 1.5) | 3,569 kWh |
| Annual energy cost | €476 IT · €714 incl. cooling (at 0.20 €/kWh) |
| $CO_2$ emissions / year | 0.93 t (grid factor 0.26 kg/kWh) |
| Power supplies | 1× 800 W |

| 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 | |
|---|---|
| CPU | Intel Xeon processor E5-2600<br>v4 † /<br>v3 family<br>(up to 160W TDP)<br>*<br>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 | |
|---|---|
| Memory Capacity | 24x 288-pin DDR4 DIMM slots<br>Up to 3TB † ECC 3DS LRDIMM, 1.5TB ECC RDIMM/LRDIMM |
| Memory Type | 2400 † /2133/1866/1600MHz ECC DDR4 SDRAM 72-bit<br>2666/2400 ECC DDR4 NVDIMM |
| DIMM Sizes | RDIMM:<br>64GB, 32GB, 16GB, 8GB, 4GB<br>LRDIMM: 64GB, 32GB<br>3DS LRDIMM: 128GB<br>NVDIMM: 16GB |
| Memory Voltage | 1.2 V |
| Error Detection | Corrects single-bit errors |

| ON-BOARD DEVICES | |
|---|---|
| Chipset | Intel C612 chipset |

| | |
|---|---|
| SATA | SATA3 (6Gbps) with RAID 0, 1, 5, 10 |
| 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 Connectivity | 4x GbE ports via AOC-2UR68-i4G<br>Intel i350 Gigabit Ethernet Controller<br>1x Realtek RTL8211E PHY (dedicated IPMI) |
| Graphics | ASPEED AST2400 BMC |

## INPUT / OUTPUT

| | |
|---|---|
| SATA | 10x SATA3 (6Gbps) ports |
| SAS | 12x SAS3 ports support via optional Add-on Card |
| LAN | 4x RJ45 Gigabit Ethernet LAN ports<br>1x RJ45 Dedicated IPMI LAN port |
| USB | 5x USB 3.0 ports<br>(2 rear, 2 onboard header, 1 Type A) |
| Video | 1x VGA Connector |
| Serial Port / Header | 1x Serial header |
| DOM | 2x Super DOM (Disk on Module) ports |

## SYSTEM BIOS

| | |
|---|---|
| BIOS Type | 128Mb SPI Flash EEPROM with AMI BIOS |
| BIOS Features | Plug and Play (PnP)<br>APM 1.2<br>PCI 2.3<br>ACPI 1.0 / 2.0 / 3.0 / 4.0<br>USB Keyboard support<br>SMBIOS 2.7.1<br>UEFI 2.3.1 |

## MANAGEMENT

| | |
|---|---|
| Software | SuperDoctor 5<br>Intel Node Manager 3.0<br>Watch Dog<br>NMI<br>SUM and SSM<br>Optional IPMI 1.5 / 2.0 |
| Power Configurations | ACPI Power Management<br>Power-on mode for AC power recovery |

## CHASSIS

| | |
|---|---|
| Form Factor | 2U Rackmount |
| Model | CSE-829UAC-R1K02 |

## DIMENSIONS AND WEIGHT

| | |
|---|---|
| Width | 17.2" (437mm) |
| Height | 3.5" (89mm) |
| Depth | 28.46" (723mm) |

| | |
|---|---|
| Weight | Net Weight: 36 lbs (16.4 kg)<br>Gross Weight: 72 lbs (32.7 kg) |
| Available Colors | Black |

## FRONT PANEL

| | |
|---|---|
| Buttons | Power On/Off button<br>System Reset button |
| LEDs | Power status LED<br>HDD activity LED<br>2x Network activity LEDs<br>System information (overheat/UID) LED |

## EXPANSION SLOTS

| | |
|---|---|
| PCI-Express | 1x PCI-E 3.0 x16 slot (FH, 10.5" L)<br>7x PCI-E 3.0 x8 slots<br>(5x FH, 10.5" L, 1x LP, 1x Internal LP)<br>(Both CPUs need to be installed for full access to PCI-E slots and onboard controllers. See manual block diagram and AOC Support for details.) |

## DRIVE BAYS

| | |
|---|---|
| Hot-swap | 12x Hot-swap 3.5" Drive Bays:<br>10x SATA3 ports by default<br>Optional drive support: 12x SAS3<br>Note: optional storage card is required to support more than 10 drives. |

## SYSTEM COOLING

| | |
|---|---|
| Fans | 4x 8cm heavy duty PWM fans |

## POWER SUPPLY

| | |
|---|---|
| Total Output Power | 800W: 100 – 127Vac<br>1000W: 200 – 240Vac<br>1000W: 200 – 240Vdc (for CCC only) |
| Dimension (W x H x L) | 73.5 x 40 x 203 mm |
| Input | 100-127Vac / 9.8 - 7A / 50-60Hz<br>200-240Vac / 7 - 5A / 50-60Hz<br>200-240Vdc / 7 - 5A (for CCC only) |
| +12V | Max: 66.7A / Min: 0A (100-127Vac)<br>Max: 83A / Min: 0A (200-240Vac)<br>Max: 83A / Min: 0A (200-240Vdc) |
| 12Vsb | Max: 2.1A / Min: 0A |
| Output Type | 25 Pairs Gold Finger Connector |
| Certification | Titanium Level<br>[ Test Report ] |

## PC HEALTH MONITORING

| | |
|---|---|
| Voltage | Monitors for CPU Cores, +1.8V, +3.3V, +5V, +12V, +3.3V Standby, +5V Standby, VBAT, Memory Voltages.<br>5+1 Phase-switching voltage regulator |

| | |
|---|---|
| FAN | 8x 4-pin fan headers<br>Status monitor for speed control<br>Pulse Width Modulated (PWM) fan connectors |
| Temperature | Support to monitor Supermicro AOC temperatures from IPMI or SD 5<br>Monitoring for CPU and chassis environment<br>CPU thermal trip support<br>Thermal Control for 8x Fan Connectors<br>Thermal Monitor 2 (TM2) support<br>PECI |
| LED | Memory DIMM ECC error LEDs<br>CPU / System Overheat LED<br>Suspend static indicator LED<br>UID/Remote UID |
| Other Features | 4x 8-pin GPU power connectors<br>Chassis intrusion detection<br>Chassis intrusion header<br>SDDC Support<br>RoHS |

## OPERATING ENVIRONMENT / COMPLIANCE

| | |
|---|---|
| RoHS | RoHS Compliant |
| Environmental Spec. | Operating Temperature:<br>5°C to 40°C (41°F to 104°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.

NATCERT ISO 9001 · NATCERT ISO 14001 · NATCERT 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.
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