

TECHNICAL DATASHEET

SUPERMICRO · RACKMOUNT SERVERS

Supermicro Server SYS-1029UX-LL2-S16

SKU SYS-1029UX-LL2-S16

1U

Supermicro

SuperServer SYS-1029UX-LL2-S16*(Angled View – System)*

8x 2.5" Hot-swap SAS3/SATA3 Drive Bays and
2x 2.5" Hot-swap SATA3 Drive Bays (optionally 2x NVMe support)



© Super Micro Computer, Inc. Information in this document is subject to change without notice.

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-1029ux-ll2-s16

01 Product overview

The Supermicro SYS-1029UX-LL2-S16 is a server built on dual Dual Socket P (LGA 3647) Intel Xeon Gold 6146 included processors with up to 2 TB of memory in 16 DIMM slots.

ServerInvest configures every SYS-1029UX-LL2-S16 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) Intel Xeon Gold 6146 included
- Up to 2 TB memory · 16 DIMM slots
- 8 Hot-swap 2.5" SAS3 drive bays
- Power: 100-127Vac, 50-60Hz
- Networking: 4 Gigabit Ethernet ports via AOC-UR-i4G (Intel i350AM4)

KEY SPECIFICATIONS

Form factor	1U
Processor	2× Dual Socket P (LGA 3647) Intel Xeon Gold 6146 included
Memory	16 DIMM slots, up to 2 TB
Drive bays	8 (8 NVMe)
Typical power draw	750 W
Networking	4 Gigabit Ethernet ports via AOC-UR-i4G (Intel i350AM4)
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	—



Typical 318 W · max 522 W

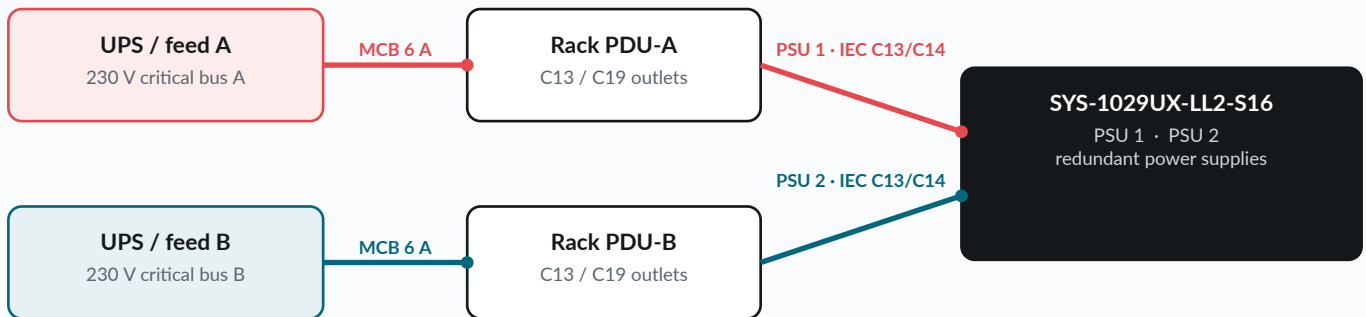
Annual IT energy (24/7)	2,229 kWh
Annual facility energy (PUE 1.5)	3,344 kWh
Annual energy cost	€446 IT · €669 incl. cooling (at 0.20 €/kWh)
CO ₂ emissions / year	0.87 t (grid factor 0.26 kg/kWh)
Power supplies	Redundant hot-swap PSUs — rating depends on the final configuration

POWER BY COMPONENT	IDLE	TYPICAL	MAX
Chassis, motherboard, fans, BMC	38 W	59 W	85 W
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 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

CPU	Dual Socket P (LGA 3647) Intel Xeon Gold 6146 included
Cores	Up to 12 Cores

SYSTEM MEMORY

Memory Capacity	16 DIMM slots Up to 2TB 3DS ECC L/RDIMM, up to DDR4-2666MHz 12x 16GB DDR4-2666MHz included
Memory Type	2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM

ON-BOARD DEVICES

Chipset	Intel C621 chipset
SATA	SATA3 (disabled)
SAS	Broadcom 3108 controller for 8 SAS3 ports
Network Connectivity	4 Gigabit Ethernet ports via AOC-UR-i4G (Intel i350AM4)
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

SAS	8 SAS3 ports support via integrated 3108 Add-on Card
LAN	4 RJ45 Gigabit Ethernet ports 1 RJ45 Dedicated IPMI LAN port
USB	5 USB 3.0 ports (2 rear, 2 via header, 1 Type A)

Video	1 VGA port
Serial Port	1 COM Port (1 rear)

SYSTEM BIOS

BIOS Type	AMI UEFI
-----------	----------

MANAGEMENT

Software	IPMI 2.0 KVM with dedicated LAN NMI SSM , SPM , SUM SuperDoctor 5 Watchdog
----------	---

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-119UTS-R751P-T

DIMENSIONS AND WEIGHT

Height	1.7" (43mm)
Width	17.2" (437mm)
Depth	28.5" (724mm)
Weight	Gross Weight: 48 lbs (21.77 kg)
Available Color	Black

FRONT PANEL

Buttons	Power On/Off button System Reset button
LEDs	Power LED Hard drive activity LED Network activity LEDs System Overheat LED / Fan fail LED / UID LED

EXPANSION SLOTS

PCI-Express	2 PCI-E 3.0 x16 (1 Full-height, 10.5" L; 1 Full-height, 10") 1 PCI-E 3.0 x8 (Low Profile) 1 PCI-E 3.0 x8 (Internal SAS3 integrated 3108) (See manual block diagram and AOC Support for details.)
-------------	---

DRIVE BAYS

Hot-swap	8 Hot-swap 2.5" SAS3 drive bays 2 Hot-swap 2.5" NVMe
----------	---

SYSTEM COOLING

Fans	8 heavy duty fans with optimal fan speed control
------	--

POWER SUPPLY

AC Input	100-127Vac, 50-60Hz 200-240Vac, 50-60Hz
+12V	Max: 62.5A & Min: 0A (100Vac-127Vac) Max: 62.5A & Min: 0A (200Vac-240Vac)
12V SB	Max: 2.1A Min: 0A
Certification	Platinum 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

