

SuperServer 1028UX-LL2-B8 (Complete System Only)



Integrated Board



[X10DRU-XLL](#)

Due to the complexity of integration, this product is sold as completely assembled systems only (including but not limited to CPUs, memory, and HDDs). At least one low-latency NIC from this [list](#) must be selected and installed into the system. Please contact your Supermicro sales rep for special requirements.

[▶ Drivers & Utilities](#)
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[▶ Tested Memory](#)
[▶ Low latency/jitter optimization guide](#)
[▶ NVMe Options](#)
[▶ Manuals](#)
[▶ OS Certification Matrix](#)
[▶ Quick-References Guide](#)
[▶ Drive Options](#)

- Qualified low latency NICs [here](#)

Key Features

- Support [Hyper-Speed](#)

1. Dual Intel® Xeon® processor E5-2687W v4
2. 8x 8GB DDR4-2400MHz (Default), up to DDR4- 2400[†]MHz ; 16x DIMM slots
3. Expansion slots via riser card:
2x PCI-E 3.0 x16, Full-height Full-length
1x PCI-E 3.0 x8, Low-profile
1x PCI-E 3.0 x8 SAS3 integrated
4. 4x Gigabit Ethernet LAN ports
5. Integrated IPMI 2.0 with KVM and Dedicated LAN
6. 10x 2.5" Hot-swap Drive Bays:
8x SAS3 (LSI 3108), 2x SATA3,
2x NVMe ports support via optional AOC-URN2-I2XT (with 2x 10GBase-T ports)
7. 8x heavy duty fans w/ optimal fan speed control
8. 750W Redundant Power Supplies Platinum Level (94%+)

Note: Image above may show a varied configuration or optional parts. Please refer to parts list for standard parts included.

Specifications

Product SKUs

SYS-1028UX-LL2-B8 ■ SuperServer 1028UX-LL2-B8 (Black)

Motherboard

[Super X10DRU-XLL](#)

Processor/Cache

CPU ■ Intel® Xeon® processor E5-2687W v4 (Included) *
■ Dual Socket R3 (LGA 2011)

Cores / Cache ■ Up to 12 Cores / Up to 30MB Cache

System Bus ■ QPI up to 9.6 GT/s

Note † BIOS version 2.0 or above is required

* Please contact Supermicro Technical Support for additional information about

Chassis

Form Factor ■ 1U Rackmount

Model ■ CSE-119UTS-R751P-T

Dimensions and Weight

Height ■ 1.7" (43mm)

Width ■ 17.2" (437mm)

Depth ■ 27.8" (706mm)

Gross Weight ■ 48 lbs (21.8 kg)

Available Color ■ Black

Front Panel

Buttons ■ Power On/Off button
■ System Reset button

■ Power LED
■ Hard drive activity LED

Note **frequency optimized CPUs and specialized system optimization.**

System Memory

| | |
|-----------------|---|
| Memory Capacity | <ul style="list-style-type: none">8x 8GB DDR4-2400MHz (Default)16x 288-pin DDR4 DIMM slotsUp to 2TB[†] ECC 3DS LRDIMM, 768GB ECC RDIMM |
| Memory Type | <ul style="list-style-type: none">2400[†]/2133/1866/1600MHz ECC DDR4 SDRAM 72-bit |
| DIMM Sizes | <ul style="list-style-type: none">RDIMM: 64GB, 32GB, 16GB, 8GB, 4GBLRDIMM: 64GB, 32GB3DS LRDIMM: 128GB |
| Memory Voltage | <ul style="list-style-type: none">1.2 V |
| Error Detection | <ul style="list-style-type: none">Corrects single-bit errors |

On-Board Devices

| | |
|----------|--|
| Chipset | <ul style="list-style-type: none">Intel® C612 chipset |
| SAS | <ul style="list-style-type: none">LSI 3108 SAS3 (12Gbps) controllers; RAID 0, 1, 5, 6, 10, 50 support |
| SATA | <ul style="list-style-type: none">SATA3 (6Gbps) with RAID 0, 1, 5, 10 |
| IPMI | <ul style="list-style-type: none">Support for Intelligent Platform Management Interface v.2.0IPMI 2.0 with virtual media over LAN and KVM-over-LAN supportASPEED AST2400 BMC |
| Graphics | <ul style="list-style-type: none">ASPEED AST2400 BMC |

Input / Output

| | |
|----------------------|--|
| SAS | <ul style="list-style-type: none">8x SAS3 (12Gbps) ports |
| SATA | <ul style="list-style-type: none">2x SATA3 (6Gbps) ports |
| NVMe | <ul style="list-style-type: none">2x NVMe ports support via optional Ultra Riser card (AOC-URN2-i2XT) |
| LAN | <ul style="list-style-type: none">4x RJ45 Gigabit Ethernet ports1x RJ45 Dedicated IPMI LAN port |
| USB | <ul style="list-style-type: none">5x USB 3.0 ports (2 rear, 2 via header, 1 Type A) |
| Video | <ul style="list-style-type: none">1x VGA Connector |
| Serial Port / Header | <ul style="list-style-type: none">1x Fast UART 16550 serial1x COM port (rear) |

System BIOS

| | |
|---------------|---|
| BIOS Type | <ul style="list-style-type: none">128Mb SPI Flash EEPROM with AMI BIOS |
| BIOS Features | <ul style="list-style-type: none">Plug and Play (PnP)APM 1.2PCI 2.3ACPI 1.0 / 2.0 / 3.0 / 4.0USB Keyboard supportSMBIOS 2.7.1UEFI 2.3.1 |

- LEDs
 - 2x Network activity LEDs
 - System Overheat LED / Fan fail LED / UID LED

Expansion Slots

| | |
|-------------|--|
| PCI-Express | <p>Expansion slots via riser card:</p> <ul style="list-style-type: none">2x PCI-E 3.0 x16, Full-height Full-length, up to 10.5"1x PCI-E 3.0 x8, Low-profile1x PCI-E 3.0 x8 SAS3 integrated |
|-------------|--|



Drive Bays

| | |
|----------|---|
| Hot-swap | <ul style="list-style-type: none">8x 2.5" Hot-swap SAS3 drive bays2x 2.5" Hot-swap SATA3 drive baysOptional NVMe support: 2x NVMe via AOC-URN2-I2XT (w/ 2x 10GBase-T ports) |
|----------|---|

System Cooling

| | |
|------------|---|
| Fans | <ul style="list-style-type: none">8x heavy duty fans with optimal fan speed control |
| Air Shroud | <ul style="list-style-type: none">2x Air Shroud |

Power Supply

| | |
|--|---|
| 750W Redundant Power Supplies with PMBus | |
| Total Output Power | <ul style="list-style-type: none">750W |
| Dimension (W x H x L) | <ul style="list-style-type: none">73.5 x 40 x 203 mm |
| Input | <ul style="list-style-type: none">100-127Vac / 9.5A Max / 47-63Hz200-240Vac / 4.5A Max / 47-63Hz |
| +12V | <ul style="list-style-type: none">Max: 62.5A / Min: 0A |
| 12V SB | <ul style="list-style-type: none">Max: 2.1A / Min: 0A |
| Output Type | <ul style="list-style-type: none">25 Pairs Gold Finger Connector |
| Certification |   Platinum Level [Test Report] |

PC Health Monitoring

| | |
|----------------|---|
| CPU | <ul style="list-style-type: none">Monitors for CPU Cores, +1.5V, +3.3V, +5V, +12V, +5 Stdby, +3.3 Stdby, VBAT, Memory Voltages.CPU Core 6-Phase-switching voltage regulator |
| FAN | <ul style="list-style-type: none">Total of eight 4-pin PWM fans8x fans with tachometer monitoringStatus monitor for speed controlStatus monitor for on/off controlLow noise fan speed control |
| Temperature | <ul style="list-style-type: none">Monitoring for CPU and chassis environmentCPU thermal trip supportThermal Control for 8x Fan ConnectorsPSU I²C temperature sensing logicThermal Monitor 2 (TM2) supportPECI |
| LED | <ul style="list-style-type: none">Power Fail / Overheat LEDSuspend-state Indicator LEDUID LED |
| Other Features | <ul style="list-style-type: none">SDDC Support |

Operating Environment / Compliance

| | |
|------|--|
| RoHS | <ul style="list-style-type: none">RoHS Compliant |
| | <ul style="list-style-type: none">Operating Temperature: 10°C to 30°C (50°F to 86°F) |

Environmental Spec.

- 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)

Parts List

Parts List - (Items Included)

| | Part Number | Qty | Description |
|-----------------------|---------------------------------------|-----|---|
| Motherboard / Chassis | MBD-X10DRU-XLL | 1 | Super X10DRU-XLL Motherboard |
| | CSE-119UTS-R751P-T | 1 | CSE-119UTS-R751P-T Chassis |
| Fan | FAN-0101L4 | 8 | 40x56,4 Pin PWM,Primary for SC809,111, Sec.for SC816,819,808 |
| Air Shroud | MCP-310-81907-0N | 2 | SC819UT PLASTIC AIR SHROUD 16 DIMM |
| Add-on Card | AOC-S3108L-H8IR-16DD | 1 | SAS-3, GEN-3 RAID card. Supports 12Gb and R0,1,5,6,10,50 and 60. Includes 2GB memory |
| Add-on Card | AOC-UR-I4G-O-P | 1 | 1U Ultra Riser based on Intel i350AM4 controller with 4 GbE RJ45 ports and 1 internal PCI-E x8 3.0 slot |
| CPU | P4X-DPE52687WV4-SR2NA | 2 | BDW-EP 12C/24T E5-2687W v4 3G 30M 9.6GT 160W R3 2011 M0 |
| Memory | MEM-DR480L-SL01-ER24 | 8 | 8GB DDR4-2400 1Rx4 LP ECC REG DIMM |
| Software | SFT-OOB-LIC | 1 | License key for enabling OOB BIOS management |

Optional Parts List

| | Part Number | Qty | Description |
|---------------------------|---|-----|--|
| CacheVault(s) | BTR-CV3108-1U1 | - | CacheVault for LSI 3108 with Supercap mounting in 1U 40x56 fan tray |
| | BTR-TFM8G-LSICVM02 & BKT-BBU-BRACKET-05 | - | CacheVault for LSI 3108; Supercap mounting bracket for PCI-E location |
| | BTR-TFM8G-LSICVM02 & MCP-240-00127-0N | - | CacheVault for LSI 3108; Supercap mounting bracket for 2.5" HDD location |
| Global Services & Support | OS4HR3/2/1 | - | 3/2/1-year onsite 24x7x4 service |
| | OSNBD3/2/1 | - | 3/2/1-year onsite NBD service |
| Software | SFT-DCMS-Single | 1 | DataCenter Management Package (per node license) |