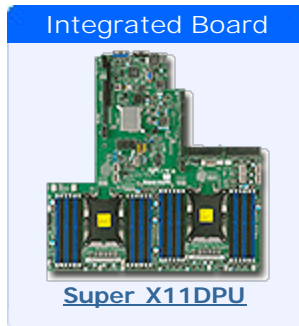


SuperServer 2029U-TRTP (Complete System Only)



Due to the complexity of integration, this product is sold as completely assembled systems only (with minimum 2 CPU and 4 DIMM). Please contact your Supermicro sales rep for special requirements.

[▶ Drivers & Utilities](#) ▶ [BIOS](#) ▶ [IPMI](#) ▶ [Tested Memory](#) ▶ [NVMe Options](#) ▶ [OS Certification Matrix](#) ▶ [Drive Options](#)

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

Key Features

- Flexible Networking Options

1. Dual socket P (LGA 3647) supports Intel® Xeon® Scalable Processors, Dual UPI up to 10.4GT/s
2. Up to 3TB ECC 3DS LRDIMM or RDIMM, up to DDR4-2666MHz; 24 DIMM slots
3. 1 PCI-E 3.0 x16 slot (FH, 10.5" L), 5 PCI-E 3.0 x8 slots (FH, 10.5" L), 1 PCI-E 3.0 x8 slot (LP), 1 PCI-E 3.0 x8 slot (internal LP)
4. 2 10G SFP+ Ethernet ports
5. 24 Hot-swap 2.5" drive bays; 14 SATA3 (optional 20 SAS3 + 4 NVMe/SAS3)
6. 4 Heavy duty 8cm PWM fans
7. 1000W Redundant Power Supplies Titanium Level (96%)

Specifications

Product SKUs

SYS-2029U-TRTP ■ SuperServer 2029U-TRTP (Black)

Motherboard

[Super X11DPU](#)

Processor/Cache

CPU ■ Dual Socket P (LGA 3647)
 ■ Intel® Xeon® Scalable Processors, Dual UPI up to 10.4GT/s
 ■ Support CPU TDP 70-205W

Cores ■ Up to 28 Cores with Intel® HT Technology

System Memory

Memory Capacity ■ 24 DIMM slots
 ■ Up to 3TB 3DS ECC LRDIMM, 3TB ECC RDIMM, DDR4 up to 2666MHz

Memory Type ■ 2666/2400/2133MHz ECC DDR4 RDIMM, LRDIMM

Chassis

Form Factor ■ 2U Rackmount

Model ■ CSE-219U2AC4-R1K02-T

Dimensions and Weight

Width ■ 17.2" (437mm)

Height ■ 3.5" (89mm)

Depth ■ 27.76" (705.3mm)

Weight ■ Net Weight: 36 lbs (16.4 kg)
 ■ Gross Weight: 72 lbs (32.7 kg)

Available Colors ■ Black

Front Panel

Buttons ■ Power On/Off button
 ■ System Reset button

LEDs ■ Power status LED
 ■ HDD activity LED
 ■ Network activity LEDs
 ■ System information (overheat/UID) LED

| On-Board Devices | |
|----------------------|--|
| Chipset | ▪ Intel® C621 chipset |
| SATA | ▪ SATA3 (6Gbps); RAID 0, 1, 5, 10 |
| Network Connectivity | ▪ 2 10G SFP+ ports via AOC-2UR68-i2XS (Intel® 82599ES) |
| 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 | |
|----------------|--|
| SATA | ▪ 14 SATA3 (6Gbps) ports |
| LAN | ▪ 2 10G SFP+ ports ▪ 1 RJ45 Dedicated IPMI LAN port |
| USB | ▪ 5 USB 3.0 ports (2 rear, 2 onboard header, 1 Type A) |
| Video | ▪ 1 VGA Connector |
| Serial Header | ▪ 1 Serial header |
| DOM | ▪ 2 SuperDOM (Disk on Module) ports |

| System BIOS | |
|-------------|--------------------------|
| BIOS Type | ▪ AMI 32Mb SPI Flash ROM |

| Management | |
|----------------------|--|
| Software | ▪ Intel® Node Manager ▪ Redfish API ▪ IPMI 2.0 ▪ KVM with dedicated LAN ▪ NMI ▪ SSM , SPM , SUM ▪ SuperDoctor® 5 |
| Power Configurations | ▪ ACPI Power Management |

| 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 |

| Expansion Slots | |
|--|--|
| PCI-Express | ▪ 1 PCI-E 3.0 x16 (FH, 10.5" L) ▪ 5 PCI-E 3.0 x8 (FH, 10.5" L) ▪ 1 PCI-E 3.0 x8 (LP) ▪ 1 PCI-E 3.0 x8 (internal LP) |
| (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 | ▪ 24 Hot-swap 2.5" drive bays; 14 SATA3 (optional 20 SAS3 + 4 NVMe/SAS3) |

| Backplane | |
|-----------------------|--|
| 2U SAS/SATA backplane | |

| System Cooling | |
|----------------|-----------------------------|
| Fans | ▪ 4 Heavy duty 8cm PWM fans |

| Power Supply | |
|---|--|
| 1000W Redundant Power Supplies with PMBus | |
| Total Output Power | ▪ 800W/1000W |
| Dimension (W x H x L) | ▪ 73.5 x 40 x 203 mm |
| Input | ▪ 100-127Vac / 9.8 - 7A / 50-60Hz ▪ 200-240Vac / 7 - 5A / 50-60Hz |
| +12V | ▪ Max: 66.7A / Min: 0A (100-127Vac) ▪ Max: 83A / Min: 0A (200-240Vac) |
| 12Vsb | ▪ Max: 2.1A / Min: 0A |
| Output Type | ▪ 25 Pairs Gold Finger Connector |

| | |
|---------------|---|
| Certification |   UL/cUL/CB/BSMI/CE/CCC Titanium 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) |

Parts List

| Parts List - (Items Included) | | | |
|-------------------------------|----------------------|-----|--|
| | Part Number | Qty | Description |
| Motherboard / Chassis | MBD-X11DPU | 1 | Super X11DPU Motherboard |
| | CSE-219U2AC4-R1K02-T | 1 | 2U Chassis |
| Add-on Card / Module | AOC-2UR68-i2XS | 1 | 2U Ultra Riser based on Intel 82599ES controller with 2 10Gb SFP+ ports, 1 internal PCI-E x8 3.0 slot, 1 PCI-E x16 3.0, and 1 PCI-E x8 3.0 (in x16 slot) |
| | | | 24-port 2U SAS3 12Gbps hybrid backplane, support up to 20x 2.5- |

| | | | |
|----------------------|------------------|---|---|
| Backplane | BPN-SAS3-216A-N4 | 1 | inch SAS3/SATA3 HDD/SSD and 4x SAS3/SATA3/NVMe Storage Devices |
| Cable 1 | CBL-PWEX-0673 | 3 | 8 pin female to 2x big 4 pin female power, 65/70CM, 18AWG,RoHS/REACH |
| Cable 2 | CBL-SAST-0591 | 1 | cross-over mini SAS HD to 4 SATA w/SB, S. 75cm. 30AWG,HF,RoHS/REACH,PBF |
| Cable 3 | CBL-SAST-0655 | 1 | Internal RA side exit (right) miniSAS to miniSAS HD 47cm w/ SB, 30AWG,RoHS/REACH |
| Cable 4 | CBL-SAST-0656 | 1 | Internal RA side exit (right) miniSAS to miniSAS HD 39cm w/ SB, 30AWG,RoHS/REACH |
| Cable 5 | CBL-SAST-0657 | 1 | Internal RA side exit (right) miniSAS to miniSAS HD 55cm w/ SB, 30AWG,RoHS/REACH |
| Parts | MCP-240-82910-0N | 1 | Ultra I/O bracket for SC829U, 219U (i2XS),HF,RoHS/REACH |
| Riser Card | RSC-R1UW-E8R | 1 | RSC-R1UW-E8R-O-P |
| Riser Card | RSC-R2UW-4E8 | 1 | RSC-R2UW-4E8-O-P |
| Heatsink / Retention | SNK-P0068PS | 2 | 2U Passive CPU Heat Sink for X11 Purley Platform Equipped with a Narrow Retention Mechanism |
| Power Supply | PWS-1K02A-1R | 2 | 1U 1000W Redundant Power Supply 73.5mm width Titanium Level,RoHS/REACH |
| FAN 1 | FAN-0118L4 | 4 | 80 x 80 x 38 mm, 9.5K RPM, 4-pin PWM Fan, Hot |

Optional Parts List

| | Part Number | Qty | Description |
|--|--|-----|--|
| Cable for 4 NVMe Hybrid Drive Bays | 2 CBL-SAST-0929 & 2 CBL-SAST-0972 | 1 | OCuLink source to MiniSAS HD target V.91,INT,PCIe NVMe SSD, 57CM,34AWG |
| 2.5" NVMe Drive Tray | MCP-220-00120-0B | 4 | Tool-less Black gen-3 2.5-inch NVMe drive tray (Orange tab. PUSH button with key lock) |
| 2 Internal M.2 slots (1 SATA, 1 NVMe) | RSC-UMR-8 & CBL-SAST-0538 & MCP-120-82924-0N | 1 | 1U Ultra RHS Riser Card with 1 PCIe/SATA Hybrid M.2 & 1 PCIe X8 |
| 2 Rear 2.5" Hot-swap SATA Drive Bays | MCP-240-82922-0N-OEM | 1 | Rear 2x 2.5" HDDs riser bracket kit for SC829U/219U, tool-less |
| Storage Control Card for SAS3 Drive Bays | AOC-S3008L-L8e | 1 | Std LP, 8 internal ports, 12Gb/s per port- Gen3, 122HDD, HBA |
| | AOC-S3008L-L8i | | Std LP, 8 internal ports, 12Gb/s per port- Gen3, 63HDD, RAID 0,1,1E |
| | AOC-S3108L-H8iR | | Std LP, 8 internal ports, 12Gb/s per port- Gen3, 240HDD, RAID 0, 1, 5, 6, 10, 50, 60 |
| Network Card(s) | AOC-S40G-i2Q | - | Standard LP 2-port 40GbE controller, based on Intel Fortville XL710 |
| | AOC-SGP-i2 | - | Standard LP, 2x GbE RJ45, PCI-E x4, Intel i350AM2 |
| | AOC-SGP-i4 | - | Standard LP, 4x GbE RJ45, PCI-E x4, Intel i350 |
| | AOC-STG-b4S | - | Standard LP, 4x 10GbE SFP+, PCI-E x8, Broadcom BCM57840S |
| | AOC-STGN-i2S | - | Standard LP, 2x 10GbE SFP+, PCI-E x8, Intel 82599ES |
| | AOC-STGN-i1S | - | Standard LP, 1x 10GbE SFP+, PCI-E x8, Intel 82599EN |
| | AOC-STG-i2T | - | Standard LP, 2x 10GbE RJ45, PCI-E x8, Intel X540 |
| | AOC-STG-i2 | - | Standard LP, 2x 10GbE CX4, PCI-E x8, Intel 82598EB |
| CachVault(s) | BTR-CV3108-U1 | - | CacheVault for Broadcom 3108 with Supercap mounting in 1U 40x56 fan tray |
| | BTR-TFM8G-LSICVM02 & BKT-BBU-BRACKET-05 | - | CacheVault for Broadcom 3108; Supercap mounting bracket for PCI-E location |
| | BTR-TFM8G-LSICVM02 & MCP-240-00127-0N | - | CacheVault for Broadcom 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-OOB-LIC | 1 | OOB Management Package (per node license) |
| Software | SFT-DCMS-Single | 1 | DataCenter Management Package (per node license) |