

# SuperServer 1029U-TRTP2 (Complete System Only)



## Integrated Board



## **X11DPU**

Views: | [Angled View](#) | [Top View](#) |  
| [Front View](#) | [Rear View](#) |

**Complete System Only:** To maintain quality and integrity, this product is sold only as a completely-assembled system (with minimum 2 CPUs and 4 DIMMs).

▶ [Drivers & Utilities](#) ▶ [BIOS](#) ▶ [IPMI](#) ▶ [Tested Memory](#) ▶ [Tested M.2 List](#) ▶ [NVMe Options](#) ▶ [Manuals](#) ▶ [OS Certification Matrix](#) ▶ [Compatible GPU List](#) ▶ [Quick-References Guide](#) ▶ [Drive Options](#) ▶ [Network Card \(AOC\) Matrix](#)

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

## Key Features

**Virtualization**  
**Cloud Computing**  
**High End Enterprise Server**

1. Dual Socket P (LGA 3647) support 2nd Gen Intel® Xeon® Scalable processors (Cascade Lake/Skylake)‡
2. 24 DIMMs; up to 6TB 3DS ECC DDR4-2933MHz† RDIMM/LRDIMM, Supports Intel® Optane™ DCPMM††
3. 2 PCI-E 3.0 x16 slots (FH, 10.5" L), 2 PCI-E 3.0 x8 slots (1 LP, 1 internal LP)
4. 2 10G SFP+ and 2 1GbE ports
5. 10 Hot-swap 2.5" Drive Bays; 10 SATA3 (2 hybrid ports - 2 NVMe opt.); Optional M.2 NVMe and SATA3 ports
6. 8 heavy duty fans w/ optimal fan speed control
7. 750W Redundant Power Supplies **Platinum Level (94%+)**

# Specifications

## Product SKUs

- **SYS-1029U-TRTP2** SuperServer 1029U-TRTP2 (**Black**)

## Motherboard

### Super X11DPU

## Processor

- **CPU**
  - Dual Socket P (LGA 3647)
  - 2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors<sup>‡</sup>, Dual UPI up to 10.4GT/s
  - Support CPU TDP 70-205W

- **Cores** Up to 28 Cores

- **Note** <sup>‡</sup> BIOS version 3.2 or above is required to support 2nd Gen Intel® Xeon® Scalable processors (codenamed Cascade Lake-R).

Extended thermal solutions may be required to support CPUs higher than 165W TDP, please contact Supermicro Technical Support for additional information.

## System Memory

- **Memory Capacity**
  - 24 DIMM slots
  - Up to 6TB 3DS ECC DDR4-2933MHz<sup>†</sup> RDIMM/LRDIMM
  - Supports Intel® Optane™ DCPMM<sup>††</sup>

- **Memory Type**
  - 2933<sup>†</sup>/2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM
  - 2666 ECC DDR4 NVDIMM

- **Note**
  - <sup>†</sup> 2933MHz in two DIMMs per channel can be achieved by using memory purchased from Supermicro
  - <sup>††</sup> Cascade Lake only. Contact your Supermicro sales rep for more info.

## On-Board Devices

- **Chipset** Intel® C621 chipset
- **SATA** SATA3 (6Gbps); RAID 0, 1, 5, 10
- **Network Connectivity**
  - 2 10G SFP+ ports and 2 1GbE ports via AOC-URN2-I4GXS-O (Intel X710 and Intel i350-AM2)
- **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** 10 SATA3 (6Gbps) ports
- **SAS** 8 SAS3 ports support via optional Add-on Card

## 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**
  - Net Weight: 26 lbs (11.8 kg)
  - Gross Weight: 41 lbs (18.6 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 (Full-height, 10.5" L)
  - 2 PCI-E 3.0 x8 (1 LP, 1 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 / Storage

- **Hot-swap** 10 Hot-swap 2.5" drive bays; 10 SATA3 (2 hybrid ports - 2 NVMe opt.)
- **M.2**
  - 1 M.2 PCI-E 3.0 x4 M-Key NVMe or 1 M.2 M-Key SATA3 (2240/2260/2280/22110) via optional riser card (see optional parts list)
  - 2 M.2 PCI-E 3.0 x4 M-Key NVMe (2260/2280/22110) via optional add-on card AOC-SLG3-2M2

## System Cooling

- **Fans** 8 heavy duty fans with optimal fan speed control
- **Air Shroud** 1 Air Shroud

## Power Supply

750W Redundant Power Supplies with PMBus

- **Total Output Power**
  - 750W: 100 – 127Vac
  - 750W: 200 – 240Vac
- **Dimension (W x H x L)** 73.5 x 40 x 203 mm
- **Input**
  - 100-127Vac / 9.5A Max / 50-60Hz
  - 200-240Vac / 4.5A Max / 50-60Hz

<b>LAN</b>	<ul style="list-style-type: none"> <li>2 10G SFP+ ports</li> <li>2 RJ45 Gigabit Ethernet ports</li> <li>1 RJ45 Dedicated IPMI LAN port</li> </ul>
<b>USB</b>	<ul style="list-style-type: none"> <li>5 USB 3.0 ports (2 rear, 2 front, 1 Type A)</li> </ul>
<b>Video</b>	<ul style="list-style-type: none"> <li>2 VGA ports (1 rear, 1 onboard)</li> </ul>
<b>Serial Port</b>	<ul style="list-style-type: none"> <li>1 Serial header</li> </ul>

**System BIOS**


<b>BIOS Type</b>	<ul style="list-style-type: none"> <li>AMI 32Mb SPI Flash ROM</li> </ul>
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**Management**

<b>Software</b>	<ul style="list-style-type: none"> <li>Intel® Node Manager</li> <li><u>IPMI 2.0</u></li> <li>KVM with dedicated LAN</li> <li>NMI</li> <li><u>SSM, SPM, SUM</u></li> <li><u>SuperDoctor® 5</u></li> </ul>
<b>Power Configurations</b>	<ul style="list-style-type: none"> <li>ACPI Power Management</li> </ul>

**PC Health Monitoring**

<b>CPU</b>	<ul style="list-style-type: none"> <li>Monitors for CPU Cores, Chipset Voltages, Memory.</li> <li>4+1 Phase-switching voltage regulator</li> </ul>
<b>FAN</b>	<ul style="list-style-type: none"> <li>Fans with tachometer monitoring</li> <li>Status monitor for speed control</li> <li>Pulse Width Modulated (PWM) fan connectors</li> </ul>
<b>Temperature</b>	<ul style="list-style-type: none"> <li>Monitoring for CPU and chassis environment</li> <li>Thermal Control for fan connectors</li> </ul>

<b>+12V</b>	<ul style="list-style-type: none"> <li>Max: 62.5A / Min: 0A</li> </ul>
<b>12V SB</b>	<ul style="list-style-type: none"> <li>Max: 2.1A / Min: 0A</li> </ul>
<b>Output Type</b>	<ul style="list-style-type: none"> <li>25 Pairs Gold Finger Connector</li> </ul>
<b>Certification</b>	 <b>Platinum Level</b> <b>[ Test Report ]</b>

**Operating Environment**

<b>RoHS</b>	<ul style="list-style-type: none"> <li>RoHS Compliant</li> </ul>
<b>Environmental Spec.</b>	<ul style="list-style-type: none"> <li>Operating Temperature: 10°C ~ 35°C (50°F ~ 95°F)</li> <li>Non-operating Temperature: -40°C to 70°C (-40°F to 158°F)</li> <li>Operating Relative Humidity: 8% to 90% (non-condensing)</li> <li>Non-operating Relative Humidity: 5% to 95% (non-condensing)</li> </ul>

## Parts List

### Parts List - (Items Included)

	Part Number	Qty	Description
<b>Motherboard / Chassis</b>	MBD-X11DPU	1	Super X11DPU Motherboard
	CSE-119UTS-R751P-T	1	CSE-119UTS-R751P-T Chassis
<b>Add-on Card / Module</b>	AOC-URN2-I4GXS-P	1	1U Ultra Riser 2-port 10GbE SFP+ Intel X710, and 2-port GbE RJ45, Intel i350-AM2. 1 PCI-E 3.0 x8 (internal) 2 NVMe ports
<b>Backplane</b>	BPN-SAS3-116A-N2	1	10-port 1U SAS3 12Gbps Hybrid backplane, support up to 8x 2.5-inch SAS3/SATA3 HDD/SSD and 2x SAS3/SATA3/NVMe Storage Devices
<b>Cable 1</b>	CBL-PWEX-0650	1	8 pin female to 2x RA(Right Angle) big 4 pin female power, 47/62CM, 18AWG,RoHS/REACH
<b>Cable 2</b>	CBL-PWEX-0653	1	8 pin female to 4 pin female power, 37cm, 18AWG,RoHS/REACH
<b>Cable 3</b>	CBL-SAST-0655	1	MINI SAS HD(ST)-MINI SAS(RA-RS EXIT),6G,INT,47CM,SB,30AWG
<b>Cable 4</b>	CBL-SAST-0657	1	MINI SAS HD(ST)-MINI SAS(RA-RS EXIT),6G,INT,55CM,SB,30AWG
<b>Cable 5</b>	CBL-SAST-1015-1	1	MINI SAS-2 SATA (RA),6G,INT,52CM,62CM SB,30AWG,RoHS
<b>FAN 1</b>	FAN-0101L4	8	40x56,4 Pin PWM,Primary for SC809,111, Sec.for SC816,819,808
<b>Rear Window</b>	MCP-240-81911-0N	1	Rear window for SC819U, 119U tool-less chassis (i4GXS)
<b>Air Shroud</b>	MCP-310-81910-0N	1	Plastic air shroud for SC819U, 119U (X11 24DIMM, left side)
<b>Air Shroud</b>	MCP-310-81911-0N	1	Plastic air shroud for SC819U, 119U (X11 24DIMM, right side)
<b>Riser Card</b>	RSC-R1UW-2E16	1	1U LHS WIO Riser card with two PCI-E x16 slots
<b>Riser Card</b>	RSC-R1UW-E8R	1	1U RHS WIO Riser card with one PCI-E x8 slot
<b>Heatsink / Retention</b>	SNK-P0067PS	2	1U Passive CPU Heat Sink for X11 Purley Platform Equipped with a Narrow Retention Mechanism
<b>* Power Supply</b>	PWS-751P-1R	2	1U 750W Redundant Platinum Single Output Power Supply w/Pmbus W73.5xH40xL203mm,RoHS/REACH

#### Notes:

1. Parts with \* are inside the chassis
2. Excessive parts might not be shipped, including but not limited to excessive drive trays, fans, riser brackets, air shrouds, IO shields, cables.....etc.

### Optional Parts List

	Part Number	Qty	Description
<b>Add-on card for internal M.2 NVMe</b>	AOC-SLG3-2M2	1	Low Profile PCI-E x8 add-on card supports 2 PCI-E 3.0 x4 M-Key M.2 NVMe Modules
<b>Internal Drive Tray for Two 2.5" Drives</b>	MCP-120-82916-0N	1	Internal drive plate Supports Two 2.5" Drive, PCI slots
	CBL-PWEX-0650	1	Power cable for Two internal 2.5" drives
	CBL-0080L	2	
	CBL-0484L Or CBL-SAST-0654 Or CBL-SAST-0948	2 1 1	SATA3 S-S Cable miniSAS(iPass) to 4 SATA Cable miniSAS HD to 4 SATA Cable
<b>Cable for 2 NVMe Hybrid Drive Bays</b>	CBL-SAST-0929	2	OCuLink source to MiniSAS HD target V.91,INT,PCIe NVMe SSD, 57CM,34AWG
<b>2.5" NVMe Drive Trays</b>	MCP-220-00167-0B	1~2	Tool-less black hot-swap 2.5" NVMe drive tray (Orange tab, w/ key lock, clip design)
	MCP-220-00127-0B		Black hot-swap 2.5" NVMe drive tray (Orange tab, w/ key lock)
<b>2 Internal M.2 slots (1 SATA, 1 NVMe)</b>	RSC-UMR-8 & CBL-SAST-0538	1	1U Ultra RHS Riser Card with 1 PCIE/SATA Hybrid M.2 & 1 PCIE X8

<b>Storage Control Card and Cable(s)</b>	AOC-S3008L-L8e & 2x CBL-SAST-0593	1	Std LP, 8 internal ports, 12Gb/s per port- Gen3, 122HDD, HBA; MINI SAS HD SATA, 12G,INT,60CM,60CM SB,30AWG
	AOC-S3008L-L8i & 2x CBL-SAST-0593		Std LP, 8 internal ports, 12Gb/s per port- Gen3, 63HDD, RAID 0,1,1E; MINI SAS HD,12G,INT,60CM,30AWG
	AOC-S3108L-H8iR & 2x CBL-SAST-0593		Std LP, 8 internal ports, 12Gb/s per port- Gen3, 240HDD, RAID 0, 1, 5, 6, 10, 50, 60; MINI SAS HD,12G,INT,60CM,30AWG
	AOC-S3108L-H8iR-16DD & 2x CBL-SAST-0593		Std LP, 8 internal ports, 12Gb/s per port- Gen3, 16HDD, RAID 0, 1, 5, 6, 10, 50, 60; MINI SAS HD,12G,INT,60CM,30AWG
<b>Compatible Networking Cables and Transceivers for System default Networking (AOC-URN2-i4GXS)</b>	-	1~2	<a href="#">Networking Cables and Transceivers Compatibility Matrix</a>
<b>Network Card(s)</b>	AOC-SGP-i2/4	-	Standard LP, 2/4x GbE RJ45, PCI-E x4, Intel i350
	AOC-STGN-i1S/i2S	-	Standard LP, 1/2x 10GbE SFP+, PCI-E x8, Intel 82599EN
	AOC-STGF-i2S	-	Standard LP, 2x 10GbE SFP+, PCI-E x8, Intel XL710-BM2
	AOC-STG-i4S	-	Standard LP, 4x 10GbE SFP+, PCI-E x8, Intel XL710
	AOC-STG-b4S	-	Standard LP, 4x 10GbE SFP+, PCI-E x8, Broadcom BCM57840S
	AOC-STG-i2T	-	Standard LP, 2x 10GbE RJ45, PCI-E x8, Intel X540
	AOC-STGS-i1/2T	-	Standard LP, 1/2x 10GbE RJ45, PCI-E x8, Intel X550
	AOC-STG-i4T	-	Standard LP, 4x 10GbE RJ45, PCI-E x8, Intel XL710
	AOC-STG-i2	-	Standard LP, 2x 10GbE CX4, PCI-E x8, Intel 82598EB
	AOC-S25G-m2S	-	Standard LP, 2x 25GbE SFP28, Mellanox ConnectX-4 LX EN
	AOC-S40G-i2Q	-	Standard LP 2-port 40GbE controller, Intel Fortville XL710
	More	-	<a href="#">AOC Compatibility Matrix</a>
	<b>CacheVault(s)</b>	BTR-CV3108-1U1	-
BTR-TFM8G-LSICVM02 & BKT-BBU-BRACKET-05		-	40x56 fan tray CacheVault for Broadcom 3108; Supercap mounting bracket for PCI-E location
<b>1U Cable Management Arm</b>	MCP-290-00152-0N	1	1U Supermicro Cable Management Arm 2nd Gen
<b>TPM security module</b>	AOM-TPM-9670H-S	1	TCG 2.0 compliant trusted platform module (TPM), Horizontal FF
	AOM-TPM-9671H-S	1	TCG 1.2 compliant trusted platform module (TPM), Horizontal FF
<b>Intel VROC RAID Key</b>	<a href="#">AOC-VROCINTMOD</a>	1	Intel VROC, RAID 0, 1, 5, 10 (Intel SSD Only)
	<a href="#">AOC-VROCSTNMOD</a>	1	Intel VROC Standard, RAID 0, 1, 10
	<a href="#">AOC-VROCPREMOD</a>	1	Intel VROC Premium, RAID 0, 1, 5, 10
<b>Global Services &amp; Support</b>	<a href="#">OS4HR3/2/1</a>	-	3/2/1-year onsite 24x7x4 service
	<a href="#">OSNBD3/2/1</a>	-	3/2/1-year onsite NBD service
<b>Software</b>	<a href="#">SFT-OOB-LIC</a> • <a href="#">eStore</a>	1	OOB Management Package (per node license)
<b>Software</b>	<a href="#">SFT-DCMS-Single</a>	1	DataCenter Management Package (per node license)