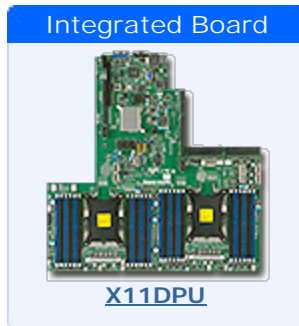


# SuperServer 1029U-TN10RT (Complete System Only)



## Key Features

- Virtualization
- Cloud Computing
- High End Enterprise Server

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. 2 PCI-E 3.0 x16 (FH, 10.5"L)
4. 2x 10GBase-T LAN ports
5. 10 Hot-swap 2.5" Drive Bays; 10 NVMe (4 hybrid ports - optional SAS3 via AOC); 2 internal M.2 (1 SATA3, 1 NVMe)
6. 8 Heavy duty fans w/ optimal fan speed control
7. 1000W Redundant Power Supplies Titanium Level (96%)

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

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

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

## Specifications

Product SKUs	
SYS-1029U-TN10RT	▪ SuperServer 1029U-TN10RT (Black)
Motherboard	
<u>Super X11DPU</u>	
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 ECC 3DS LRDIMM, 3TB ECC RDIMM, DDR4 up to 2666MHz
Memory Type	▪ 2666/2400/2133MHz ECC DDR4 SDRAM

Chassis	
Form Factor	▪ 1U Rackmount
Model	▪ CSE-119UAC10-R1K02P-N10T
Dimensions and Weight	
Height	▪ 1.7" (43mm)
Width	▪ 17.2" (437mm)
Depth	▪ 27.82" (707mm)
Gross Weight	▪ 48 lbs (21.8 kg)
Available Color	▪ Black
Front Panel	
Buttons	▪ Power On/Off button ▪ System UID button
LEDs	▪ Power LED ▪ Hard drive activity LED ▪ Network activity LEDs ▪ UID LED

## On-Board Devices

Chipset	<ul style="list-style-type: none"> <li>Intel® C621 chipset</li> </ul>
SATA	<ul style="list-style-type: none"> <li>SATA3 (6Gbps); RAID 0, 1, 5, 10</li> </ul>
Network Connectivity	<ul style="list-style-type: none"> <li>2 10GBase-T ports via <a href="#">AOC-URN6-i2XT</a></li> <li>Intel® X540 Dual Port 10GBase-T</li> <li>Virtual Machine Device Queues reduce I/O overhead</li> <li>Supports 10GBASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output</li> </ul>
IPMI	<ul style="list-style-type: none"> <li>Support for Intelligent Platform Management Interface v.2.0</li> <li>IPMI 2.0 with virtual media over LAN and KVM-over-LAN support</li> </ul>
Graphics	<ul style="list-style-type: none"> <li>ASPEED AST2500 BMC</li> </ul>

## Input / Output

NVMe	<ul style="list-style-type: none"> <li>6 NVMe ports (NVMe from CPU 1)</li> <li>4 NVMe Hybrid ports with optional SAS3 (NVMe from CPU 2)</li> </ul>
LAN	<ul style="list-style-type: none"> <li>2 RJ45 10GBase-T ports</li> <li>1 RJ45 Dedicated IPMI LAN port</li> </ul>
USB	<ul style="list-style-type: none"> <li>5 USB 3.0 ports (2 rear, 2 front, 1 Type A)</li> </ul>
Video	<ul style="list-style-type: none"> <li>2 VGA ports (1 rear, 1 onboard)</li> </ul>
Serial Port	<ul style="list-style-type: none"> <li>1 Serial header</li> </ul>
DOM	<ul style="list-style-type: none"> <li>2 SuperDOM (Disk on Module) ports</li> </ul>

## System BIOS

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

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

## PC Health Monitoring

CPU	<ul style="list-style-type: none"> <li>Monitors for CPU Cores, Chipset Voltages, Memory.</li> <li>4+1 Phase-switching voltage regulator</li> </ul>
FAN	<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>
Temperature	<ul style="list-style-type: none"> <li>Monitoring for CPU and chassis environment</li> <li>Thermal Control for 8x fan connectors</li> </ul>

## Expansion Slots

	<ul style="list-style-type: none"> <li>2 PCI-E 3.0 x16 slots (Full-height, 10.5"L)</li> </ul>
PCI-Express	<p>(Both CPUs need to be installed for full access to PCI-E slots and onboard controllers. See manual block diagram and <a href="#">AOC Support</a> for details.)</p>


## Drive Bays / Storage

Hot-swap	<ul style="list-style-type: none"> <li>10 Hot-swap 2.5" drive bays</li> <li>10 NVMe (4 hybrid ports for optional SAS3 via AOC)</li> </ul>
M.2	<ul style="list-style-type: none"> <li>1 M.2 NVMe (2242/2260/2280*/22110*)</li> <li>1 M.2 SATA (2242/2260/2280*/22110*) via optional SATA cable</li> </ul> <p>Not supported if installing both NVMe &amp; SATA M.2</p>

## System Cooling

Fans	<ul style="list-style-type: none"> <li>8 Heavy duty fans with optimal fan speed control</li> </ul>
Air Shroud	<ul style="list-style-type: none"> <li>1 Air Shroud</li> </ul>

## Power Supply

1000W Redundant Power Supplies with PMBus	
Total Output Power	<ul style="list-style-type: none"> <li>800W/1000W</li> </ul>
Dimension (W x H x L)	<ul style="list-style-type: none"> <li>73.5 x 40 x 203 mm</li> </ul>
Input	<ul style="list-style-type: none"> <li>100-127Vac / 9.8 - 7A / 50-60Hz</li> <li>200-240Vac / 7 - 5A / 50-60Hz</li> </ul>
+12V	<ul style="list-style-type: none"> <li>Max: 66.7A / Min: 0A (100-127Vac)</li> <li>Max: 83A / Min: 0A (200-240Vac)</li> </ul>
12Vsb	<ul style="list-style-type: none"> <li>Max: 2.1A / Min: 0A</li> </ul>
Output Type	<ul style="list-style-type: none"> <li>25 Pairs Gold Finger Connector</li> </ul>
Certification	 <ul style="list-style-type: none"> <li>UL/cUL/CB/BSMI/CE/CCC Titanium Level</li> <li><a href="#">[ Test Report ]</a></li> </ul>

## Operating Environment

RoHS	<ul style="list-style-type: none"> <li>RoHS Compliant</li> </ul>
Environmental Spec.	<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 60°C (-40°F to 140°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
Motherboard / Chassis	MBD-X11DPU	1	Super X11DPU Motherboard
	CSE-119UAC10-R1K02P-N10T	1	CSE-119UAC10-R1K02P-N10T
Add-on Card / Module	AOC-SLG3-2E4R-P	1	NVMe AOC by 8,HF,RoHS/REACH
Add-on Card / Module	AOC-URN6-I2XT-P	1	AOC-URN6-I2XT

Backplane	BPN-SAS3-116A-N10	1	10-port 1U SAS3 12Gbps Hybrid backplane, support up to 10x 2.5-inch NVMe storage devices, 4 of them are SAS3/SATA3 drives compatible.
Cable 1	CBL-CDAT-0728	1	4 Pin to 4 Pin I2C cable, 65cm, 26AWG, 4 wires, pinout 1-1, for vpp header(jnvi2c1),RoHS/REACH
Cable 2	CBL-PWEX-0780	1	PWYCB,2X4F/GPU-White to TWO 2X2F,P4.2, (5,12V),40/40CM,18AWG,RoHS
Cable 3	CBL-PWEX-0781	1	PWYCB,2X4F/GPU-White to TWO 2X2F,P4.2, (5,12V),65/65CM,18AWG,RoHS
Cable 4	CBL-SAST-0820	2	OCuLink v. 1.0,INT,PCIe NVMe SSD, 85CM,34AWG,RoHS/REACH
Cable 5	CBL-SAST-0849	2	OCuLink to MiniSAS HD V. 1,INT,PCIe NVMe SSD, 57CM,15D15F27D
Cable 6	CBL-SAST-0964	1	Oculink v1.0 6x cable bundle 549/574/425/444/571/603mm 34AWG
Parts	MCP-130-81901-0N	1	Oculink cable connection plastic holder for AOC-URN6-i2XT
Air Shroud	MCP-310-81910-0N	1	Plastic air shroud for SC819U, 119U (X11 24DIMM, left side)
Riser Card	RSC-R1UW-2E16	1	RSC-R1UW-2E16-O-P
Riser Card	RSC-UMR-8	1	1U Ultra RHS Riser Card with 1 PCIE/SATA Hybrid M.2 & 1 PCIE X8,,HF,RoHS
Heatsink / Retention	SNK-P0067PS	2	1U 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-0101L4	8	40x56,4 Pin PWM,Primary for SC809,111, Sec.for SC816,819,808
Rear Window	MCP-240-81909-0N	1	Ultra I/O Rear Window for SC819U, 119U-T tool-less chassis(i2XT)

#### Optional Parts List

	Part Number	Qty	Description
Cable for 4x Hybrid NVMe/SATA Drive Bays	CBL-SAST-0880	1	MINI SAS(RA-RS EXIT)-4 SATA,INT,55/55/55/55CM,55CM SB,30AWG for optional 4x SATA3
Storage Control Card and Cable for 4x Hybrid NVMe/SAS Drive Bays	AOC-S3008L-L8e & 1 CBL-SAST-0948	1	Std LP, 8 internal ports, 12Gb/s per port- Gen3, 122HDD, HBA
	AOC-S3008L-L8i & 1 CBL-SAST-0948	1	Std LP, 8 internal ports, 12Gb/s per port- Gen3, 63HDD, RAID 0,1,1E
	AOC-S3108L-H8iR & 1 CBL-SAST-0948	1	Std LP, 8 internal ports, 12Gb/s per port- Gen3, 240HDD, RAID 0, 1, 5, 6, 10, 50, 60
Cable for internal M.2 SATA	CBL-SAST-0538	1	29cm 30AWG SATA S-RA cable
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-CV3108-1U1	-	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	<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
Software	SFT-OOB-LIC	1	OOB Management Package (per node license)
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)