

SuperServer 1028U-TN10RT+ (Complete System Only)



Integrated Board



X10DRU-i+

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, 4 DIMMs and 4 U.2 NVMe).

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

1. Dual socket R3 (LGA 2011) supports Intel® Xeon® processor E5-2600 v4[†]/ v3 family; QPI up to 9.6GT/s
2. Up to **3TB[†]** ECC 3DS LRDIMM , up to DDR4- **2400[†]**MHz ; 24x DIMM slots
3. 3 PCI-E 3.0 x8 slots (2 FH 10.5" L, 1 LP)
4. 2x 10GBase-T ports
5. 10 2.5" Hot-swap Drive Bays:
6 NVMe ports (NVMe from CPU 1);
4 NVMe/SAS3 hybrid ports for optional SAS3/SATA3** (NVMe from CPU 2)
6. 8 heavy duty fans w/ optimal fan speed control
7. 1000W Redundant Power Supplies
Titanium Level (96%)



Specifications

Product SKUs - Discontinued SKU (EOL). Please contact sales-rep for alternative options.

SYS-1028U-TN10RT+

SuperServer 1028U-TN10RT+ (Black)

Motherboard

Super X10DRU-i+

Processor/Cache

CPU	- Intel® Xeon® processor E5-2600 v4[†]/ v3 family (up to 160W TDP) * - Dual Socket R3 (LGA 2011)
Cores / Cache	Up to 22 Cores[†] / Up to 55MB[†] Cache
System Bus	QPI up to 9.6 GT/s
Note	[†] BIOS version 2.0 or above is required
Note	* Please contact Supermicro Technical Support for additional information about frequency optimized CPUs and specialized system optimization.

System Memory

Memory Capacity	24x 288-pin DDR4 DIMM slots - Up to 3TB[†] ECC 3DS LRDIMM, 768GB ECC RDIMM
Memory Type	2400[†]/2133/1866/1600MHz ECC DDR4 SDRAM 72-bit 2666/2400 ECC DDR4 NVDIMM
DIMM Sizes	64GB, 32GB, 16GB, 8GB, 4GB - NVDIMM: 16GB
Memory Voltage	1.2 V
Error Detection	Corrects single-bit errors

On-Board Devices

Chipset	Intel® C612 chipset
SATA	SATA3 (6Gbps) with RAID 0, 1, 5, 10
IPMI	- Support for Intelligent Platform Management Interface v.2.0 - IPMI 2.0 with virtual media over LAN and KVM-over-LAN support - ASPEED AST2400 BMC
Network Connectivity	2 10GBase-T ports via AOC-URN6-i2XT - Intel® X540 10GBase-T 1 Realtek RTL8211E PHY (dedicated IPMI)
Graphics	ASPEED AST2400 BMC

Input / Output

NVMe/SAS	6 NVMe ports (NVMe from CPU 1) 4 NVMe/SAS3** Hybrid ports (NVMe from CPU 2)
LAN	2 RJ45 10GBase-T ports 1 RJ45 Dedicated IPMI LAN port
USB	5 USB 3.0 ports (2 rear, 2 front, 1 Type A)

Chassis

Form Factor	1U Rackmount
Model	CSE-119UAC2-R1K02

Dimensions and Weight

Height	1.7" (43mm)
Width	17.2" (437mm)
Depth	28.5" (724mm)
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 2x Network activity LEDs - UID LED

Expansion Slots

PCI-Express	3 PCI-E 3.0 x8 slots (2 Full-height 10.5" L; 1 Low-profile) (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.)
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Drive Bays

Hot-swap	10x 2.5" Hot-swap drive bays 6 NVMe ports (NVMe from CPU 1) 4 NVMe/SAS3 hybrid ports for optional SAS3/SATA3** (NVMe from CPU 2) ** Note: SAS3/SATA3 support requires additional parts in optional parts list
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System Cooling

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

Power Supply

1000W Redundant Power Supplies with PMBus	
Total Output Power	800W: 100 – 127Vac 1000W: 200 – 240Vac 1000W: 200 – 240Vdc (for CCC only)
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 200-240Vdc / 7 - 5A (for CCC only)
+12V	- Max: 66.7A / Min: 0A (100-127Vac) - Max: 83A / Min: 0A (200-240Vac) - Max: 83A / Min: 0A (200-240Vdc)

Video	■ 1 VGA Connector
Serial Port	■ 1 Serial header
DOM	■ 2 SuperDOM (Disk on Module) ports

System BIOS

BIOS Type	■ 128Mb SPI Flash EEPROM with AMI BIOS
BIOS Features	■ Plug and Play (PnP) ■ APM 1.2 ■ PCI 2.3 ■ ACPI 1.0 / 2.0 / 3.0 / 4.0 ■ USB Keyboard support ■ SMBIOS 2.7.1 ■ UEFI 2.3.1

Management

Software	■ <u>SuperDoctor® 5</u> ■ Intel® Node Manager 3.0 ■ Watch Dog ■ NMI ■ <u>SUM</u> and <u>SSM</u> ■ Optional IPMI 1.5 / 2.0
Power Configurations	■ ACPI Power Management ■ Power-on mode for AC power recovery

12Vsb	■ Max: 2.1A / Min: 0A
Output Type	■ 25 Pairs Gold Finger Connector
Certification	  Titanium Level [Test Report]

PC Health Monitoring

Voltage	■ Monitors for CPU Cores, +1.8V, +3.3V, +5V, +12V, +3.3V Standby, +5V Standby, VBAT, Memory Voltages. ■ 5+1 Phase-switching voltage regulator
FAN	■ 8x 4-pin fan headers ■ Status monitor for speed control ■ Pulse Width Modulated (PWM) fan connectors
Temperature	■ Support to monitor Supermicro AOC temperatures from IPMI or SD 5 ■ Monitoring for CPU and chassis environment ■ CPU thermal trip support ■ Thermal Control for 8x Fan Connectors ■ Thermal Monitor 2 (TM2) support ■ PECI
LED	■ Memory DIMM ECC error LEDs ■ CPU / System Overheat LED ■ Suspend static indicator LED ■ UID/Remote UID
Other Features	■ 4x 8-pin GPU power connectors ■ Chassis intrusion detection ■ Chassis intrusion header ■ SDDC Support ■ RoHS

Operating Environment / Compliance

RoHS	■ RoHS Compliant
Environmental Spec.	■ Operating Temperature: 10°C to 35°C (50°F to 95°F) ■ 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-i+	1	Super X10DRU-i+ Motherboard
	CSE-119UAC2-R750	1	CSE-119UAC2-R750 Chassis
Air Shroud	MCP-310-81903-0B	1	Mylar air shroud set for SC819U,119U (X10DRU+),HF
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-PWEX-0780	1	PWYCB,2X4F/GPU-White to TWO 2X2F,P4.2, (5,12V),40/40CM,18AWG,RoHS
Cable 2	CBL-PWEX-0781	1	PWYCB,2X4F/GPU-White to TWO 2X2F,P4.2, (5,12V),65/65CM,18AWG,RoHS
Cable 3	CBL-SAST-0818	5	OCuLink v. 1.0,INT,PCIe NVMe SSD, 55CM,34AWG
Cable 4	CBL-SAST-0819	3	OCuLink v 1.0,INT,PCIe NVMe SSD, 65CM,34AWG,RoHS/REACH
Cable 5	CBL-SAST-0820	2	OCuLink v. 1.0,INT,PCIe NVMe SSD, 85CM,34AWG,RoHS/REACH
Parts	MCP-130-81901-0N	1	Oculink cable connection plastic holder for AOC-URN6-i2XT
Parts	MCP-150-00009-0B	1	Internal AOC rubber support for SC819U, 119U
Manual	MNL-1812-QRG	1	QRG for SYS-1028U-TN10RT+
Riser Card	RSC-R1UW-E8R	1	1U RHS WIO Riser card with one PCI-E x8 slot
Riser Card	RSC-UN4-88	1	RSC-UN4-88
Heatsink / Retention	SNK-P0057PSU	2	1U Passive CPU Heat Sink for X10 1U 24-DIMM Ultra and Super Blade Series Servers,RoHS/REACH
Power Supply	PWS-1K02A-1R	2	1U 1000W Redundant Power Supply 73.5mm width Titanium Level,RoHS/REACH

Optional Parts List

	Part Number	Qty	Description
Cable	CBL-SAST-0880	-	MINI SAS(RA-RS EXIT)-4 SATA,INT,55/55/55/55CM,55CM SB,30AWG for optional 4x SATA3
Storage Control Card and Cable(s)	AOC-S3008L-L8e	-	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-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-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-STG-i2	-	Standard LP, 2x 10GbE CX4, PCI-E x8, Intel 82598EB
	AOC-S40G-i2Q	-	Standard LP 2-port 40GbE controller, based on Intel Fortville XL710
	More	-	AOC Compatibility Matrix
CacheVault(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
Drive Tray(s)	MCP-220-00047-0B	-	Black gen 3rd hot-swap 2.5" HDD tray
1U Cable Management Arm	MCP-290-00152-0N	1	1U Supermicro Cable Management Arm 2nd Gen
Global Services & Support	QS4HR3/2/1	-	3/2/1-year onsite 24x7x4 service
	QSNBD3/2/1	-	3/2/1-year onsite NBD service
Software	SFT-OOB-LIC • eStore	1	OOB Management Package (per node license)
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)

