

SuperServer 6028U-TNR4T+ (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.

Key Features

• Flexible Connectivity Options

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. 6x PCI-E 3.0 x8 slots (4x FH, 10.5" L, 1x LP, 1x Internal LP)
4. 4x 10GBase-T ports
5. 12x Hot-swap 3.5" Drive Bays: Default 8x SATA3 ports, 4x NVMe ports; Optional 12x SAS3 ports via AOC
6. 4x heavy duty fans w/ optimal fan speed control
7. 1000W High efficiency (96%) Redundant PSU; **Titanium Level**

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

Specifications

Product SKUs

- SYS-6028U-TNR4T+** ■ SuperServer 6028U-TNR4T+ (**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.

Chassis

- Form Factor** ■ 2U Rackmount
Model ■ **CSE-829UAC-R1K02**

Dimensions and Weight

- Width** ■ 17.2" (437mm)
Height ■ 3.5" (89mm)
Depth ■ 28.46" (723mm)
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
■ 2x Network activity LEDs
■ System information (overheat/UID) LED

System Memory

Memory Capacity	<ul style="list-style-type: none">24x 288-pin DDR4 DIMM slotsUp to 3TB[†] 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">64GB, 32GB, 16GB, 8GB, 4GB
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
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
Network Connectivity	<ul style="list-style-type: none">4x 10GBase-T ports via AOC-2URN4-i4XTIntel® X540 10GBase-T1x Realtek RTL8211E PHY (dedicated IPMI)
Graphics	<ul style="list-style-type: none">ASPEED AST2400 BMC

Input / Output

SATA	<ul style="list-style-type: none">8x SATA3 (6Gbps) ports
SAS	<ul style="list-style-type: none">12x SAS3 ports support via optional Add-on Card
NVMe	<ul style="list-style-type: none">4x NVMe ports
LAN	<ul style="list-style-type: none">4x RJ45 10GBase-T LAN ports1x RJ45 Dedicated IPMI LAN port
USB	<ul style="list-style-type: none">5x USB 3.0 ports (2 rear, 2 onboard header, 1 Type A)
Video	<ul style="list-style-type: none">1x VGA Connector
Serial Port / Header	<ul style="list-style-type: none">1x Serial header
DOM	<ul style="list-style-type: none">2x SuperDOM (Disk on Module) ports

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

Management

Software	<ul style="list-style-type: none">SuperDoctor® 5Intel® Node Manager 3.0Watch DogNMISUM and SSMOptional IPMI 1.5 / 2.0
Power Configurations	<ul style="list-style-type: none">ACPI Power ManagementPower-on mode for AC power recovery

Expansion Slots

	<ul style="list-style-type: none">6x PCI-E 3.0 x8 slots (4x FH, 10.5" L, 1x LP, 1x Internal LP)
PCI-Express	(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

	<ul style="list-style-type: none">12x 3.5" Hot-swap drive baysDefault 8x SATA3 ports, 4x NVMe portsOptional 12x SAS3 ports via AOC
Hot-swap	Note: optional storage card is required to support more than 10 drives.

System Cooling

Fans	<ul style="list-style-type: none">4x 8cm heavy duty PWM fans
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Power Supply

	1000W Redundant Power Supplies with PMBus
Total Output Power	<ul style="list-style-type: none">800W/1000W
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 / 9.8 - 7A / 50-60Hz200-240Vac / 7 - 5A / 50-60Hz
+12V	<ul style="list-style-type: none">Max: 66.7A / Min: 0A (100-127Vac)Max: 83A / Min: 0A (200-240Vac)
12Vsb	<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	  UL/cUL/CE/BSMI/CCC Titanium Level [Test Report]
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PC Health Monitoring

Voltage	<ul style="list-style-type: none">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	<ul style="list-style-type: none">8x 4-pin fan headersStatus monitor for speed controlPulse Width Modulated (PWM) fan connectors
Temperature	<ul style="list-style-type: none">Support to monitor Supermicro AOC temperatures from IPMI or SD 5Monitoring for CPU and chassis environmentCPU thermal trip supportThermal Control for 8x Fan ConnectorsThermal Monitor 2 (TM2) supportPECI
LED	<ul style="list-style-type: none">Memory DIMM ECC error LEDsCPU / System Overheat LEDSuspend static indicator LEDUID/Remote UID
Other Features	<ul style="list-style-type: none">4x 8-pin GPU power connectorsChassis intrusion detectionChassis intrusion headerSDDC 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 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-X10DRU-i+	1	Super X10DRU-i+ Motherboard
	CSE-829UAC-R1K02	1	2U Chassis
Add-on Card / Module	AOC-2URN4-I4XT	1	2U Ultra Riser based on Intel X540 controller with 4 10Gbase-T ports, 4 NVMe ports, and 1 internal PCI-E x8 3.0 slot
Air Shroud	MCP-310-82912-0N	1	
Backplane	BPN-SAS3-826A-N4	1	2U Backplane for 3.5
Cable 1	CBL-SAST-0657	1	Internal RA side exit (right) miniSAS to miniSAS HD 55cm w/ SB, 30AWG,RoHS/REACH
Cable 2	CBL-SAST-0658	4	Internal Mini-SAS HD cable for PCIe SSD NVMe, 12Gb/s, 60cm,30AWG,RoHS/REACH
Cable 3	CBL-PWEX-0652	1	8 pin female to 2x RA(Right Angle) big 4 pin female power, 60/65CM, 18AWG,RoHS/REACH
Cable 4	CBL-PWEX-0673	1	8 pin female to 2x big 4 pin female power, 65/70CM, 18AWG,RoHS/REACH
Cable 5	CBL-SAST-0655	1	Internal RA side exit (right) miniSAS to miniSAS HD 47cm w/ SB, 30AWG,RoHS/REACH
Drive Tray(s)	MCP-220-00116-0B	4	Black gen-5 3.5-to-2.5 NVMe drive tray, Orange tab (for hotswap NVMe drive),RoHS/REACH
Label	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
Manual	MNL-1641-QRG	1	SYS-6028U-TR(4/4T/TP)+, QRG,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-P0058PSU	2	2U Passive CPU Heat Sink for X10 2U 24-DIMM Ultra Series Servers,RoHS/REACH
Power Supply	PWS-1K02A-1R	2	1U 1000W Redundant Power Supply 73.5mm width Titanium Level,RoHS/REACH
Mounting Rails	MCP-290-00053-0N	1	Inner/outer rail set, quick-release type, 26.5" to 36.4"
	MCP-290-00060-0N	1	Threaded rail adapter default for round hole rack

Optional Parts List			
	Part Number	Qty	Description
Mounting Rails	MCP-290-00053-0N	-	Inner/outer rail set, quick-release type, 26.5" to 36.4"
	MCP-290-00060-0N	-	Threaded rail adapter default for round hole rack
Storage Control Card and Cable(s)	AOC-S3008L-L8e & 2x CBL-SAST-0593	-	Std LP, 8 internal ports, 12Gb/s per port- Gen3, 122HDD, HBA; Internal Mini-SAS HD to Mini-SAS HD 60cm,30AWG,12Gb/s
	AOC-S3008L-L8i & 2x CBL-SAST-0593	-	Std LP, 8 internal ports, 12Gb/s per port- Gen3, 63HDD, RAID 0,1,1E; Internal Mini-SAS HD to Mini-SAS HD 60cm,30AWG,12Gb/s
	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; Internal Mini-SAS HD to Mini-SAS HD 60cm,30AWG,12Gb/s
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 LSI 3108 with Supercap mounting for 2U Ultra
	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-OOB-LIC	1	OOB Management Package (per node license)
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)