

SuperServer 1028U-E1CRTP+ (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 and 4 DIMMs).

► [Drivers & Utilities](#) ► [BIOS](#) ► [IPMI](#) ► [Tested Memory](#) ► [Manuals](#)
► [OS Certification Matrix](#) ► [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. 2x PCI-E 3.0 x16 slots (FH, 10.5" L), 2x PCI-E 3.0 x8 slots (LP, 1 internal)
4. 2x 10G SFP+ and 2x GbE LAN ports
5. 10x Hot-swap 2.5" drive bays:
10x SAS3/SATA3 ports via Expander and AOC:
AOC-S3108L-H8iR-16DD,
AOC-S3108L-H8iR,
AOC-S3008L-L8e, AOC-S3008L-L8i
6. 6x heavy duty fans w/ optimal fan speed control
7. 750W Redundant Power Supplies
Platinum Level (94%+)

Specifications

Product SKUs

SYS-1028U-E1CRTP+	■ SuperServer 1028U-E1CRTP+ (Black)
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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, 1.5TB ECC RDIMM/LRDIMM
Memory Type	■ 2400 [†] /2133/1866/1600MHz ECC DDR4 SDRAM 72-bit ■ 2666/2400 ECC DDR4 NVDIMM
DIMM Sizes	■ RDIMM: 64GB, 32GB, 16GB, 8GB, 4GB ■ LRDIMM: 64GB, 32GB ■ 3DS LRDIMM: 128GB ■ 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	■ 2x GbE and 2x SFP+ ports via AOC-URN2-I4GXS ■ Intel® i350 Gigabit Ethernet Controller ■ Intel® X710 10G SFP+ ■ 1x Realtek RTL8201N PHY (dedicated IPMI)
Graphics	■ ASPEED AST2400 BMC

Input / Output

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 ■ 2x Network activity LEDs ■ System Overheat LED / Fan fail LED / UID LED

Expansion Slots

PCI-Express	■ 2x PCI-E 3.0 x16 slots (Full-height, 10.5" L) ■ 2x PCI-E 3.0 x8 slots (Low-profile, 1 internal) ■ (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 drives supported via expander
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System Cooling

Fans	■ 6x heavy duty fans with optimal fan speed control ■ 2x additional fans optional
Air Shroud	■ 1x Air Shroud

Power Supply

750W Redundant AC-DC Power Supplies, +12V/+12Vsb output	
AC Input	■ 100-127Vac, 50-60Hz ■ 200-240Vac, 50-60Hz
+12V	■ Max: 62.5A & Min: 0A (100Vac-127Vac) ■ Max: 62.5A & Min: 0A (200Vac-240Vac)
12V SB	■ Max: 2.1A ■ Min: 0A

SAS	10x SAS3 ports support via expander and storage Add-on Cards - One of the following storage Add-on cards required: - AOC-S3108L-H8iR-16DD (12Gbps SAS3/RAID 0, 1, 5, 6, 10, 50, 60, 2GB DDR3 cache, PCI-E Gen3 16 HDD) - AOC-S3108L-H8iR (12Gbps SAS3/RAID 0, 1, 5, 6, 10, 50, 60, 2GB DDR3 cache, PCI-E Gen3) - AOC-S3008L-L8i (12Gbps SAS3/RAID 0,1 and 10, PCI-E Gen3) - AOC-S3008L-L8e (12Gbps SAS3/HBA, PCI-E Gen3)
LAN	2x RJ45 GbE LAN ports 2x 10G SFP+ ports 1x RJ45 Dedicated IPMI LAN port
USB	5x USB 3.0 ports (2 rear, 2 front, 1 Type A)
Video	1x VGA Connector
Serial Port	1x Serial header

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>SSM</u> and <u>SSM</u> - Optional IPMI 1.5 / 2.0
Power Configurations	- ACPI Power Management - Power-on mode for AC power recovery

Certification



Platinum 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-119UTS-R751P-T	1	CSE-119UTS-R751P-T Chassis
Add-on Card / Module	AOC-URN2-i4GXS-P	1	1U Ultra Riser 2-port 10GbE SFP+ Intel X710-AM2, and 2-port GbE RJ45, Intel i350-AM2. 1 PCI-E 3.0 x8 (internal) 2 NVMe ports
Backplane	BPN-SAS3-116EL1	1	10-port 1U SAS3 12Gbps single-expander backplane, support up to 10x 2.5-inch SAS3/SATA3 HDD/SSD
Cable 1	CBL-PWEX-0650	1	8 pin female to 2x RA(Right Angle) big 4 pin female power, 47/62CM, 18AWG,RoHS/REACH
Cable 2	CBL-SAST-0532	2	MINI SAS HD,12G,INT,50CM,30AWG
FAN 1	FAN-0101L4	2	40x56,4 Pin PWM,Primary for SC809,111, Sec.for SC816,819,808
Parts	MCP-150-00009-0B	1	Internal AOC rubber support for SC819U, 119U
Rear Window	MCP-240-81911-0N	1	Rear window for SC819U, 119U tool-less chassis (i4GXS)
Manual	MNL-1678-QRG	1	SYS-1028U-TR(4/4T/T/TP)+, QRG,HF,RoHS/REACH
Riser Card	RSC-R1UW-2E16	1	1U LHS WIO Riser card with two PCI-E x16 slots
Riser Card	RSC-R1UW-E8R	1	1U RHS WIO Riser card with one PCI-E x8 slot
Heatsink / Retention	SNK-P0057PS	2	1U High Performance Passive CPU Heat Sink for X9, X10 Systems Equipped w/ a Narrow ILM MB
Power Supply	PWS-751P-1R	2	1U 750W Redundant Platinum Single Output Power Supply w/Pmbus W73.5xH40xL203mm,RoHS/REACH
Mounting Rails	MCP-290-00102-0N	1	Outer rail, quick-release type, 25.6" to 33.05"
	MCP-290-00120-0N	1	Inner rail, front, quick-release type (thumb screw applied)
	MCP-290-00112-0N	1	Inner rail, extension, long (quick) for 1U 17.2"W chassis

Optional Parts List

	Part Number	Qty	Description
Mounting Rails	MCP-290-00062-0N	-	Inner/outer rail set, quick-release type, 25.6" to 33.05"
	MCP-290-00064-0N	-	Thumb screw adapter of inner rail for 1U 17.2"
	MCP-290-00052-0N-BULK	-	Bulk outer rail, quick-release type, 25.6" to 33.05" (10 sets/pack)
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
	AOC-S3108L-H8iR-16DD		Std LP, 8 internal ports, 12Gb/s per port- Gen3, 16HDD, RAID 0, 1, 5, 6, 10, 50, 60
Compatible Networking Cables and Transceivers for System default Networking (AOC-URN2-i4GXS)	-	1~2	Networking Cables and Transceivers Compatibility Matrix
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
	BTR-TFM8G-LSICVM02 & BKT-BBU-BRACKET-05	-	40x56 fan tray CacheVault for Broadcom 3108; Supercap mounting bracket for PCI-E location
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
	OSNBD3/2/1	-	3/2/1-year onsite NBD service
Software	SFT-OOB-LIC • eStore	1	OOB Management Package (per node license)

Software	<u>SFT-DCMS-Single</u>	1	DataCenter Management Package (per node license)
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