SuperServer 1028U-E1CR4+ (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. 4x Gigabit Ethernet 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. 5x heavy duty fans w/ optimal fan speed control
7. 750W Redundant Power Supplies **Platinum Level (94%+)**

Specifications

Product SKUs

SYS-1028U-E1CR4+	SuperServer 1028U-E1CR4+ (**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, 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	4x GbE ports via AOC-UR-i4G Intel® i350 Gigabit Ethernet Controller 1x Realtek RTL8211E 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.)**

Drive Bays

Hot-swap	10x 2.5" Hot-swap drives supported via expander

System Cooling

Fans	5x heavy duty fans with optimal fan speed control 3x 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-S3108-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	▪ 4x RJ45 GbE LAN 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	▪ SuperDoctor® 5 ▪ Intel® Node Manager 3.0 ▪ Watch Dog ▪ NMI ▪ SUM and SSM ▪ 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-UR-I4G	1	1U Ultra Riser based on Intel i350AM4 controller with 4 GbE RJ45 ports and 1 internal PCI-E x8 3.0 slot
Air Shroud	MCP-310-81906-0N	2	
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
Label	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
Manual	MNL-1678-QRG	1	SYS-1028U-TR(4/4T/T/TP)+, QRG,HF,RoHS/REACH
Parts	MCP-150-00009-0B	1	Internal AOC rubber support for SC819U, 119U
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
Fan	FAN-0101L4	5	40x56,4 Pin PWM,Primary for SC809,111, Sec.for SC816,819,808

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
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
1U Cable Management Arm	MCP-290-00152-0N	1	1U Supermicro Cable Management Arm 2nd Gen
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 • eStore	1	OOB Management Package (per node license)
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)