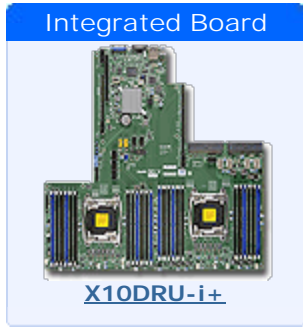


SuperServer 1028U-E1CR4+ (Complete System Only)



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

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%+)

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

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 145W 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	▪ 1U Rackmount
Model	▪ CSE-119UTS-R751P-T

Dimensions and Weight

Height	▪ 1.7" (43mm)
Width	▪ 17.2" (437mm)
Depth	▪ 27.8" (707mm)
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

System Memory	
Memory Capacity	<ul style="list-style-type: none"> 24x 288-pin DDR4 DIMM slots Up 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"> RDIMM: 64GB, 32GB, 16GB, 8GB, 4GB LRDIMM: 64GB, 32GB 3DS LRDIMM: 128GB
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.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support ASPEED AST2400 BMC
Network Connectivity	<ul style="list-style-type: none"> 4x 10GBase-T ports via AOC-UR-i4G Intel® i350 Gigabit Ethernet Controller 1x Realtek RTL8211E PHY (dedicated IPMI)
Graphics	<ul style="list-style-type: none"> ASPEED AST2400 BMC

Input / Output	
	<ul style="list-style-type: none"> 10x SAS3 ports support via expander and storage Add-on Cards One of the following storage Add-on cards required:
SAS	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	<ul style="list-style-type: none"> 4x RJ45 GbE LAN ports 1x RJ45 Dedicated IPMI LAN port
USB	<ul style="list-style-type: none"> 5x USB 3.0 ports (2 rear, 2 front, 1 Type A)
Video	<ul style="list-style-type: none"> 1x VGA Connector
Serial Port	<ul style="list-style-type: none"> 1x Serial header


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 1.2 PCI 2.3 ACPI 1.0 / 2.0 / 3.0 / 4.0 USB Keyboard support SMBIOS 2.7.1 UEFI 2.3.1

Management

Expansion Slots	
	<ul style="list-style-type: none"> 2x PCI-E 3.0 x16 slots (Full-height, 10.5" L) 2x PCI-E 3.0 x8 slots (Low-profile, 1 internal)
PCI-Express	<p>(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.)</p>

Drive Bays	
Hot-swap	<ul style="list-style-type: none"> 10x 2.5" Hot-swap drives supported via expander

System Cooling	
Fans	<ul style="list-style-type: none"> 5x heavy duty fans with optimal fan speed control 3x additional fans optional
Air Shroud	<ul style="list-style-type: none"> 1x Air Shroud

Power Supply	
750W Redundant AC-DC Power Supplies, +12V/+12Vsb output	
AC Input	<ul style="list-style-type: none"> 100-127Vac, 50-60Hz 200-240Vac, 50-60Hz
+12V	<ul style="list-style-type: none"> Max: 62.5A & Min: 0A (100Vac-127Vac) Max: 62.5A & Min: 0A (200Vac-240Vac)
12V SB	<ul style="list-style-type: none"> Max: 2.1A Min: 0A
Certification	 Platinum Level [Test Report]

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 headers Status monitor for speed control Pulse Width Modulated (PWM) fan connectors
Temperature	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Memory DIMM ECC error LEDs CPU / System Overheat LED Suspend static indicator LED UID/Remote UID
Other Features	<ul style="list-style-type: none"> 4x 8-pin GPU power connectors Chassis intrusion detection Chassis intrusion header SDDC Support RoHS

Operating Environment / Compliance	
RoHS	<ul style="list-style-type: none"> RoHS Compliant
	<ul style="list-style-type: none"> Operating Temperature: 10°C to 35°C (50°F to 95°F)

Software	<ul style="list-style-type: none"> ▪ SuperDoctor® 5 ▪ Intel® Node Manager 3.0 ▪ Watch Dog ▪ NMI ▪ SUM and SSM ▪ Optional IPMI 1.5 / 2.0
Power Configurations	<ul style="list-style-type: none"> ▪ ACPI Power Management ▪ Power-on mode for AC power recovery

Environmental Spec.	<ul style="list-style-type: none"> ▪ 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	1U 10-port 12Gbps single expander backplane, support 10x 2.5" SAS3/SATA3/SAS2 HDD/SDD
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	Internal Mini-SAS HD to Mini-SAS HD 50cm,30AWG,12Gb/s,HF,RoHS/REACH,PBF
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
Riser Card	RSC-R1UW-2E16	1	RSC-R1UW-2E16-O-P
Riser Card	RSC-R1UW-E8R	1	RSC-R1UW-E8R-O-P
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-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
	BTR-CV3108-1U1	-	CacheVault for LSI 3108 with Supercap mounting in 1U 40x56 fan tray
	BTR-TFM8G-LSICVM02	-	

CachVault(s)	& BKT-BBU-BRACKET-05 BTR-TFM8G-LSICVM02 & MCP-240-00127-0N	-	CacheVault for LSI 3108; Supercap mounting bracket for PCI-E location CacheVault for LSI 3108; Supercap mounting bracket for 2.5" HDD location
Hot-swap 3.5" to 2.5" Hard Disk Drive Tray	MCP-220-00043-0N	-	Black hot-swap 3.5" to 2.5" HDD tray
Onsite Service Program	OS4HR3/2/1	-	3/2/1-year onsite 24x7x4 service
Onsite Service Program	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)