SuperServer 1029U-E1CR4 (Complete System Only)

Integrated Board

X11DPU

Views: | **Angled View** | **Top View** |
| **Front View** | **Rear View** |

Key Applications

Virtualization
Cloud Computing
High End Enterprise Server

Key Features

1. Dual Socket P (LGA 3647) support
   2nd Gen Intel® Xeon® Scalable
   processors (Cascade Lake/Skylake)‡

2. 24 DIMMs; up to 6TB 3DS ECC
   DDR4-2933MHz† RDIMM/LRDIMM,
   Supports Intel® Optane™ DCPMM††

3. 2 PCI-E 3.0 x16 slots (FH, 10.5" L),
   2 PCI-E 3.0 x8 slots (1 LP, 1 internal LP)

4. 4 Gigabit Ethernet LAN ports

5. 10 Hot-swap 2.5" drive bays:
   10 SAS3/SATA3 ports via
   Expander and AOC;
   Optional M.2 NVMe and SATA3 ports

6. 8 heavy duty fans w/ optimal
   fan speed control

7. 750W Redundant Power Supplies
   Platinum Level (94%+)

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 a storage add-on-card).

▶ **Drivers & Utilities** ▶ **BIOS** ▶ **IPMI** ▶ **Tested Memory** ▶ **Tested M.2 List** ▶ **Manuals** ▶ **OS Certification Matrix** ▶ **Compatible GPU List** ▶ **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.

Specifications

Product SKUs

SYS-1029U-E1CR4	▪ SuperServer 1029U-E1CR4 (**Black**)

Motherboard

Super X11DPU

Processor

CPU	▪ Dual Socket P (LGA 3647) ▪ 2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors‡, Dual UPI up to 10.4GT/s ▪ Support CPU TDP 70-205W
Cores	▪ Up to 28 Cores
Note	‡ BIOS version 3.2 or above is required to support 2nd Gen Intel® Xeon® Scalable processors (codenamed Cascade Lake-R). Extended thermal solutions may be required to support CPUs higher than 165W TDP, please contact Supermicro Technical Support for additional information.

System Memory

Memory Capacity	▪ 24 DIMM slots ▪ Up to 6TB 3DS ECC DDR4-2933MHz† RDIMM/LRDIMM ▪ Supports Intel® Optane™ DCPMM††
Memory Type	▪ 2933†/2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM ▪ 2666 ECC DDR4 NVDIMM
Note	† 2933MHz in two DIMMs per channel can be achieved by using memory purchased from Supermicro †† Cascade Lake only. Contact your Supermicro sales rep for more info.

On-Board Devices

Chipset	▪ Intel® C621 chipset
SATA	▪ SATA3 (6Gbps); RAID 0, 1, 5, 10
Network Connectivity	▪ 4 Gigabit Ethernet LAN ports via AOC-UR-i4G (Intel® i350)
IPMI	▪ Support for Intelligent Platform Management Interface v.2.0 ▪ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Graphics	▪ ASPEED AST2500 BMC

Input / Output

SAS	▪ 10 SAS3 ports support via expander and storage Add-on Cards
LAN	▪ 4 RJ45 GbE LAN 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-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 ▪ Network activity LEDs ▪ System Overheat LED / Fan fail LED / UID LED

Expansion Slots

PCI-Express	▪ 2 PCI-E 3.0 x16 (Full-height, 10.5" L) ▪ 2 PCI-E 3.0 x8 (1 LP, 1 internal LP) **(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 / Storage

Hot-swap	▪ 10 Hot-swap 2.5" drives supported via expander
M.2	▪ 1 M.2 PCI-E 3.0 x4 M-Key NVMe or 1 M.2 M-Key SATA3 (2240/2260/2280/22110) via optional riser card (see optional parts list) ▪ 2 M.2 PCI-E 3.0 x4 M-Key NVMe (2260/2280/22110) via optional add-on card AOC-SLG3-2M2

System Cooling

Fans	▪ 8 Heavy duty fans with optimal fan speed control
Air Shroud	▪ 1 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)

Video	■ 2 VGA ports (1 rear, 1 onboard)
Serial Port	■ 1 Serial header

System BIOS

BIOS Type	■ AMI 32Mb SPI Flash ROM

Management

Software	■ Intel® Node Manager ■ Redfish API ■ IPMI 2.0 ■ KVM with dedicated LAN ■ NMI ■ SSM, SPM, SUM ■ SuperDoctor® 5
Power Configurations	■ ACPI Power Management

PC Health Monitoring

CPU	■ Monitors for CPU Cores, Chipset Voltages, Memory. ■ 4+1 Phase-switching voltage regulator
FAN	■ Fans with tachometer monitoring ■ Status monitor for speed control ■ Pulse Width Modulated (PWM) fan connectors
Temperature	■ Monitoring for CPU and chassis environment ■ Thermal Control for fan connectors

12V SB	■ Max: 2.1A ■ Min: 0A
Certification	**Platinum Level** **[Test Report]**

Operating Environment

RoHS	■ RoHS Compliant

Environmental Spec.	■ Operating Temperature:
	   10°C ~ 35°C (50°F ~ 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-X11DPU	1	Super X11DPU 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
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	4	40x56,4 Pin PWM,Primary for SC809,111, Sec.for SC816,819,808
Air Shroud	MCP-310-81910-0N	1	Plastic air shroud for SC819U, 119U (X11 24DIMM, left side)
Air Shroud	MCP-310-81911-0N	1	Plastic air shroud for SC819U, 119U (X11 24DIMM, right side)
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-P0067PS	2	1U Passive CPU Heat Sink for X11 Purley Platform Equipped with a Narrow Retention Mechanism
* Power Supply	PWS-751P-1R	2	1U 750W Redundant Platinum Single Output Power Supply w/Pmbus W73.5xH40xL203mm,RoHS/REACH

Notes:
1. Parts with * are inside the chassis
2. Excessive parts might not be shipped, including but not limited to excessive drive trays, fans, riser brackets, air shrouds, IO shields, cables.....etc.

Optional Parts List

	Part Number	Qty	Description
Add-on card for internal M.2 NVMe	AOC-SLG3-2M2	1	Low Profile PCI-E x8 add-on card supports 2 PCI-E 3.0 x4 M-Key M.2 NVMe Modules
Internal Drive Tray for Two 2.5" Drives	MCP-120-82916-0N	1	Internal drive plate Supports Two 2.5" Drive, PCI slots
	CBL-PWEX-0650	1	Power cable for Two internal 2.5" drives
	CBL-0080L	2	
	CBL-0484L Or	2	SATA3 S-S Cable
	CBL-SAST-0654 Or	1	miniSAS(iPass) to 4 SATA Cable
	CBL-SAST-0948	1	miniSAS HD to 4 SATA Cable
2 Internal M.2 slots (1 SATA, 1 NVMe)	RSC-UMR-8 & CBL-SAST-0538	1	1U Ultra RHS Riser Card with 1 PCIE/SATA Hybrid M.2 &1 PCIE X8
Storage Control Card and Cable(s)	AOC-S3008L-L8e	1	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-STGF-i2S	-	Standard LP, 2x 10GbE SFP+, PCI-E x8, Intel XL710-BM2
	AOC-STG-i4S	-	Standard LP, 4x 10GbE SFP+, PCI-E x8, Intel XL710
	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-STGS-i1/2T	-	Standard LP, 1/2x 10GbE RJ45, PCI-E x8, Intel X550
	AOC-STG-i4T	-	Standard LP, 4x 10GbE RJ45, PCI-E x8, Intel XL710
	AOC-STG-i2	-	Standard LP, 2x 10GbE CX4, PCI-E x8, Intel 82598EB
	AOC-S25G-m2S	-	Standard LP, 2x 25GbE SFP28, Mellanox ConnectX-4 LX EN
	AOC-S40G-i2Q	-	Standard LP 2-port 40GbE controller, 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
TPM security module	AOM-TPM-9670H-S	1	TCG 2.0 compliant trusted platform module (TPM), Horizontal FF
	AOM-TPM-9671H-S	1	TCG 1.2 compliant trusted platform module (TPM), Horizontal FF
Intel VROC RAID Key	AOC-VROCINTMOD	1	Intel VROC, RAID 0, 1, 5, 10 (Intel SSD Only)
	AOC-VROCSTNMOD	1	Intel VROC Standard, RAID 0, 1, 10
	AOC-VROCPREMOD	1	Intel VROC Premium, RAID 0, 1, 5, 10
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)