

# SuperServer 1028UX-LL3-B8 (Complete System Only)



**Integrated Board**



**X10DRU-XLL**

**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 (including but not limited to CPU, memory, and HDDs). At least one low-latency NIC from this [list](#) must be selected and installed into the system.

▶ [Drivers & Utilities](#) ▶ [BIOS](#) ▶ [IPMI](#) ▶ [Tested Memory](#) ▶ [NVMe Options](#) ▶ [Manuals](#) ▶ [OS Certification Matrix](#) ▶ [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.

**Qualified low latency NICs [here](#)**

## Key Features

### Support **Hyper-Speed**

1. Dual Intel® Xeon® processor E5-2689 v4 (Broadwell)
2. 8x 8GB DDR4-2400MHz (Default), up to DDR4- **2400**<sup>†</sup>MHz ; 16 DIMM slots
3. Expansion slots via riser card:  
2 PCI-E 3.0 x16, Full-height, 10.5" Length  
1 PCI-E 3.0 x8, Low-profile  
1 PCI-E 3.0 x8 SAS3 integrated
4. 4 Gigabit Ethernet LAN ports
5. Integrated IPMI 2.0 with KVM and Dedicated LAN
6. 10 Hot-swap 2.5" Drive Bays:  
8 SAS3 (Broadcom 3108), 2 SATA3, 2 NVMe ports support via optional AOC-URN2-I2XT (with 2x 10GBase-T ports)
7. 8 heavy duty fans w/ optimal fan speed control
8. 750W Redundant Power Supplies **Platinum Level (94%+)**

# Specifications

## Product SKUs

<b>SYS-1028UX-LL3-B8</b>	<ul style="list-style-type: none"> <li>SuperServer 1028UX-LL3-B8 (Black)</li> </ul>
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## Motherboard

### Super X10DRU-XLL

## Processor/Cache

<b>CPU</b>	<ul style="list-style-type: none"> <li>Intel® Xeon® processor E5-2689 v4 (Included) *</li> <li>Dual Socket R3 (LGA 2011)</li> </ul>
<b>Cores / Cache</b>	<ul style="list-style-type: none"> <li>Up to 10 Cores / Up to 25MB Cache</li> </ul>
<b>System Bus</b>	<ul style="list-style-type: none"> <li>QPI up to 9.6 GT/s</li> </ul>
<b>Note</b>	† BIOS version 2.0 or above is required
<b>Note</b>	* Please contact Supermicro Technical Support for additional information about frequency optimized CPUs and specialized system optimization.

## System Memory

<b>Memory Capacity</b>	<ul style="list-style-type: none"> <li>8x 8GB DDR4-2400MHz (Default)</li> <li>16x 288-pin DDR4 DIMM slots</li> <li>Up to 2TB† ECC 3DS LRDIMM, 768GB ECC RDIMM</li> </ul>
<b>Memory Type</b>	<ul style="list-style-type: none"> <li>2400†/2133/1866/1600MHz ECC DDR4 SDRAM 72-bit</li> </ul>
<b>DIMM Sizes</b>	<ul style="list-style-type: none"> <li>RDIMM: 64GB, 32GB, 16GB, 8GB, 4GB</li> <li>LRDIMM: 64GB, 32GB</li> <li>3DS LRDIMM: 128GB</li> </ul>
<b>Memory Voltage</b>	<ul style="list-style-type: none"> <li>1.2 V</li> </ul>
<b>Error Detection</b>	<ul style="list-style-type: none"> <li>Corrects single-bit errors</li> </ul>

## On-Board Devices

<b>Chipset</b>	<ul style="list-style-type: none"> <li>Intel® C612 chipset</li> </ul>
<b>SAS</b>	<ul style="list-style-type: none"> <li>Broadcom 3108 SAS3 (12Gbps) controllers; RAID 0, 1, 5, 6, 10, 50 support</li> </ul>
<b>SATA</b>	<ul style="list-style-type: none"> <li>SATA3 (6Gbps) with RAID 0, 1, 5, 10</li> </ul>
<b>IPMI</b>	<ul style="list-style-type: none"> <li>Support for Intelligent Platform Management Interface v.2.0</li> <li>IPMI 2.0 with virtual media over LAN and KVM-over-LAN support</li> <li>ASPEED AST2400 BMC</li> </ul>
<b>Graphics</b>	<ul style="list-style-type: none"> <li>ASPEED AST2400 BMC</li> </ul>

## Input / Output

<b>SAS</b>	<ul style="list-style-type: none"> <li>8 SAS3 (12Gbps) ports</li> </ul>
<b>SATA</b>	<ul style="list-style-type: none"> <li>2 SATA3 (6Gbps) ports</li> </ul>
<b>NVMe</b>	<ul style="list-style-type: none"> <li>2 NVMe ports support via optional Ultra Riser card (AOC-URN2-i2XT)</li> </ul>
<b>LAN</b>	<ul style="list-style-type: none"> <li>4 RJ45 Gigabit Ethernet ports</li> <li>1 RJ45 Dedicated IPMI LAN port</li> </ul>
<b>USB</b>	<ul style="list-style-type: none"> <li>5 USB 3.0 ports (2 rear, 2 via header, 1 Type A)</li> </ul>

## Chassis

<b>Form Factor</b>	<ul style="list-style-type: none"> <li>1U Rackmount</li> </ul>
<b>Model</b>	<ul style="list-style-type: none"> <li>CSE-119UTS-R751P-T</li> </ul>

## Dimensions and Weight

<b>Height</b>	<ul style="list-style-type: none"> <li>1.7" (43mm)</li> </ul>
<b>Width</b>	<ul style="list-style-type: none"> <li>17.2" (437mm)</li> </ul>
<b>Depth</b>	<ul style="list-style-type: none"> <li>28.5" (724mm)</li> </ul>
<b>Gross Weight</b>	<ul style="list-style-type: none"> <li>48 lbs (21.8 kg)</li> </ul>
<b>Available Color</b>	<ul style="list-style-type: none"> <li>Black</li> </ul>

## Front Panel

<b>Buttons</b>	<ul style="list-style-type: none"> <li>Power On/Off button</li> <li>System Reset button</li> </ul>
<b>LEDs</b>	<ul style="list-style-type: none"> <li>Power LED</li> <li>Hard drive activity LED</li> <li>2 Network activity LEDs</li> <li>System Overheat LED / Fan fail LED / UID LED</li> </ul>

## Expansion Slots

<b>PCI-Express</b>	<b>Expansion slots via riser card:</b> <ul style="list-style-type: none"> <li>2 PCI-E 3.0 x16, Full-height, 10.5" Length</li> <li>1 PCI-E 3.0 x8, Low-profile</li> <li>1 PCI-E 3.0 x8 SAS3 integrated</li> </ul>
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## Drive Bays

<b>Hot-swap</b>	<ul style="list-style-type: none"> <li>8 Hot-swap 2.5" SAS3 drive bays</li> <li>2 Hot-swap 2.5" SATA3 drive bays</li> <li>Optional NVMe support: 2 NVMe via AOC-URN2-i2XT (w/ 2x 10GBase-T ports)</li> </ul>
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## System Cooling

<b>Fans</b>	<ul style="list-style-type: none"> <li>8 heavy duty fans with optimal fan speed control</li> </ul>
<b>Air Shroud</b>	<ul style="list-style-type: none"> <li>2 Air Shroud</li> </ul>

## Power Supply

750W Redundant Power Supplies with PMBus

<b>Total Output Power</b>	<ul style="list-style-type: none"> <li>750W: 100 – 127Vac</li> <li>750W: 200 – 240Vac</li> </ul>
<b>Dimension (W x H x L)</b>	<ul style="list-style-type: none"> <li>73.5 x 40 x 203 mm</li> </ul>
<b>Input</b>	<ul style="list-style-type: none"> <li>100-127Vac / 9.5A Max / 50-60Hz</li> <li>200-240Vac / 4.5A Max / 50-60Hz</li> </ul>
<b>+12V</b>	<ul style="list-style-type: none"> <li>Max: 62.5A / Min: 0A</li> </ul>
<b>12V SB</b>	<ul style="list-style-type: none"> <li>Max: 2.1A / Min: 0A</li> </ul>
<b>Output Type</b>	<ul style="list-style-type: none"> <li>25 Pairs Gold Finger Connector</li> </ul>

## Certification



Platinum Level

[ [Test Report](#) ]

<b>Video</b>	<ul style="list-style-type: none"> <li>1 VGA Connector</li> </ul>
<b>Serial Port / Header</b>	<ul style="list-style-type: none"> <li>1 Fast UART 16550 serial</li> <li>1 COM port (rear)</li> </ul>

#### System BIOS

<b>BIOS Type</b>	<ul style="list-style-type: none"> <li>128Mb SPI Flash EEPROM with AMI BIOS</li> </ul>
<b>BIOS Features</b>	<ul style="list-style-type: none"> <li>Plug and Play (PnP)</li> <li>APM 1.2</li> <li>PCI 2.3</li> <li>ACPI 1.0 / 2.0 / 3.0 / 4.0</li> <li>USB Keyboard support</li> <li>SMBIOS 2.7.1</li> <li>UEFI 2.3.1</li> </ul>

#### PC Health Monitoring

<b>CPU</b>	<ul style="list-style-type: none"> <li>Monitors for CPU Cores,+1.5V, +3.3V, +5V, +12V, +5 Stdby, +3.3 Stdby, VBAT, Memory Voltages.</li> <li>CPU Core 6-Phase-switching voltage regulator</li> </ul>
<b>FAN</b>	<ul style="list-style-type: none"> <li>Total of eight 4-pin PWM fans</li> <li>8x fans with tachometer monitoring</li> <li>Status monitor for speed control</li> <li>Status monitor for on/off control</li> <li>Low noise fan speed control</li> </ul>
<b>Temperature</b>	<ul style="list-style-type: none"> <li>Monitoring for CPU and chassis environment</li> <li>CPU thermal trip support</li> <li>Thermal Control for 8x Fan Connectors</li> <li>PSU I<sup>2</sup>C temperature sensing logic</li> <li>Thermal Monitor 2 (TM2) support</li> <li>PECI</li> </ul>
<b>LED</b>	<ul style="list-style-type: none"> <li>Power Fail / Overheat LED</li> <li>Suspend-state Indicator LED</li> <li>UID LED</li> </ul>
<b>Other Features</b>	<ul style="list-style-type: none"> <li>SDDC Support</li> </ul>

#### Operating Environment / Compliance

<b>RoHS</b>	<ul style="list-style-type: none"> <li>RoHS Compliant</li> </ul>
<b>Environmental Spec.</b>	<ul style="list-style-type: none"> <li>Operating Temperature: 10°C to 20°C (50°F to 68°F)</li> <li>Non-operating Temperature: -40°C to 70°C (-40°F to 158°F)</li> <li>Operating Relative Humidity: 8% to 90% (non-condensing)</li> <li>Non-operating Relative Humidity: 5% to 95% (non-condensing)</li> </ul>

## Parts List

### Parts List - (Items Included)

	Part Number	Qty	Description
<b>Motherboard / Chassis</b>	MBD-X10DRU-XLL	1	Super X10DRU-XLL Motherboard
	CSE-119UTS-R751P-T	1	CSE-119UTS-R751P-T Chassis
<b>Fan</b>	FAN-0141L4	8	40x40x56 mm 20.5K RPM / 17.6K RPM Counter-rotating Fan
<b>Air Shroud</b>	MCP-310-81907-0N	2	SC819UT PLASTIC AIR SHROUD 16 DIMM
<b>Add-on Card</b>	AOC-S3108L-H8IR-16DD	1	SAS-3, GEN-3 RAID card. Supports 12Gb and R0,1,5,6,10,50 and 60. Includes 2GB memory
<b>Add-on Card</b>	AOC-UR-I4G-O-P	1	1U Ultra Riser based on Intel i350AM4 controller with 4 GbE RJ45 ports and 1 internal PCI-E x8 3.0 slot
<b>CPU</b>	P4X-DP2689V4L3	2	BDW-EP E5-2689 v4 3.1G 9.6GT 165W R3 2011 M0
<b>Memory</b>	MEM-DR480L-SL02-ER24	8	8GB DDR4-2400 1Rx4 LP ECC REG DIMM
<b>Software</b>	SFT-OOB-LIC	1	License key for enabling OOB BIOS management
<b>Power Supply</b>	PWS-751P-1R	2	1U 750W Redundant Platinum Single Output Power Supply w/Pmbus W73.5xH40xL203mm,RoHS/REACH

### Optional Parts List

	Part Number	Qty	Description
<b>CacheVault(s)</b>	BTR-CV3108-1U1	-	CacheVault for Broadcom 3108 with Supercap mounting in 1U
	BTR-TFM8G-LSICVM02	-	40x56 fan tray
	& BKT-BBU-BRACKET-05	-	CacheVault for Broadcom 3108; Supercap mounting bracket for PCI-E location
	BTR-TFM8G-LSICVM02 & MCP-240-00127-0N	-	CacheVault for Broadcom 3108; Supercap mounting bracket for 2.5" HDD location
<b>Global Services &amp; Support</b>	<u>OS4HR3/2/1</u>	-	3/2/1-year onsite 24x7x4 service
	<u>OSNBD3/2/1</u>	-	3/2/1-year onsite NBD service
<b>Software</b>	<u>SFT-DCMS-Single</u>	1	DataCenter Management Package (per node license)