

# SuperServer 2028R-C1R4+



**Integrated Board**



**X10DRC-LN4+**

**Available Colors:**

Black



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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<sup>†</sup>/ v3 family; QPI up to 9.6GT/s
2. Up to **3TB<sup>†</sup>** ECC 3DS LRDIMM , up to DDR4- **2400<sup>†</sup>**MHz ; 24 DIMM slots
3. 2 PCI-E 3.0 x16, 3 PCI-E 3.0 x8, and 1 PCI-E 2.0 x4 (in x8) slot
4. 8x 2.5" SAS3 and 8x 2.5" SATA3 Hot-swap Drive Bays
5. Quad GbE ports w/ Intel i350
6. I/O ports: 2 SuperDOM, 1 VGA, 2 COM, 2 USB 3.0 (rear), 4 USB 2.0 (2 rear, 2 front), 1 Type A
7. 3 high-performance 8cm PWM fans
8. 920W Redundant Power Supplies **Platinum Level** (94%)

# Specifications

## Product SKUs

- **SYS-2028R-C1R4+** SuperServer 2028R-C1R4+ (Black)

## Motherboard

### Super X10DRC-LN4+

## 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.

## System Memory

- **Memory Capacity** 24x 288-pin DDR4 DIMM slots  
■ Up to 3TB† ECC 3DS LRDIMM, 768GB ECC RDIMM
- **Memory Type** 2400†/2133/1866/1600MHz ECC DDR4 SDRAM 72-bit
- **DIMM Sizes** RDIMM: 32GB, 16GB, 8GB, 4GB  
■ LRDIMM: 64GB, 32GB  
■ 3DS LRDIMM: 128GB
- **Memory Voltage** 1.2 V
- **Error Detection** Corrects single-bit errors

## On-Board Devices

- **Chipset** Intel® C612 chipset
- **SATA** SATA3 (6Gbps); RAID 0, 1, 5, 10
- **SAS** Broadcom 3108 SAS3 (12Gbps) controller;  
HW RAID 0, 1, 5, 6, 10, 50, 60
- **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 Controllers** Intel® i350 Gigabit Ethernet  
■ Virtual Machine Device Queues reduce I/O overhead  
■ Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output
- **Graphics** ASPEED AST2400 BMC

## Input / Output

- **SATA** 10 SATA3 (6Gbps) ports
- **SAS** 8 SAS3 (12Gbps) ports  
■ SuperCap option support
- **LAN** 4 RJ45 Gigabit Ethernet LAN ports  
■ 1 RJ45 Dedicated IPMI LAN port

## Chassis

- **Form Factor** 2U Rackmount
- **Model** **CSE-213AC-R920LPB**

## Dimensions and Weight

- **Height** 3.5" (89mm)
- **Width** 17.2" (437mm)
- **Depth** 24.8" (630mm)
- **Package** 10.5" (H) x 26.5" (W) x 38" (D)
- **Weight** Net Weight: 38.5 lbs (17.5 kg)  
Gross Weight: 63.5 lbs (28.8 kg)
- **Available Color** Black

## Front Panel

- **Buttons** Power On/Off button  
System Reset button
- **LEDs** Power LED  
Hard drive activity LED  
2 Network activity LEDs  
System Overheat LED / Fan fail LED / UID LED

## Expansion Slots

- **PCI-Express** 2 PCI-E 3.0 x16  
3 PCI-E 3.0 x8  
1 PCI-E 2.0 x4 (in x8)

## Drive Bays

- **Hot-swap** 8x 2.5" and 8x 2.5" Hot-swap drive bays

## System Cooling

- **Fans** 3 heavy duty 8cm fans with optimal fan speed control

## Power Supply with Power Distributor

920W high-efficiency (94%+) AC-DC Redundant power supplies with PMBus and I2C

- **AC Input** 100-240 V, 50-60 Hz, 11-4.5 Amp
- **DC Output** 4 Amp @ +5V standby  
75 Amp @ +12V

## Certification



Platinum Certified  
[ Test Report ]

## PC Health Monitoring

- **CPU** Monitors for CPU Cores, +1.5V, +3.3V, +5V, +12V, +5 Stdby, +3.3 Stdby, VBAT, Memory Voltages.  
■ CPU Core 6-Phase-switching voltage regulator

<b>USB</b>	<ul style="list-style-type: none"> <li>■ 2 USB 3.0 ports (rear)</li> <li>■ 4 USB 2.0 ports (2 rear, 2 front)</li> <li>■ 1 Type A</li> </ul>
<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>■ 2 Fast UART 16550 serial</li> <li>■ 2 COM Ports (1 rear, 1 front)</li> </ul>
<b>System BIOS</b>	
<b>BIOS Type</b>	<ul style="list-style-type: none"> <li>■ 128Mb SPI Flash EEPROM with UEFI 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>■ DMI 2.3</li> <li>■ PCI 2.2</li> <li>■ ACPI 1.0 / 2.0</li> <li>■ USB Keyboard support</li> <li>■ Hardware BIOS Virus protection</li> <li>■ SMBIOS 2.3</li> <li>■ UEFI</li> <li>■ RTC (Real Time Clock) Wakeup</li> </ul>

<b>FAN</b>	<ul style="list-style-type: none"> <li>■ Total of five 4-pin PWM fans</li> <li>■ 5x 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 10x 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 35°C (50°F to 95°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>

## Список деталей

### Parts List - (Items Included)

	Part Number	Qty	Description
<b>Motherboard / Chassis</b>	MBD-X10DRC-LN4+	1	Super X10DRC-LN4+ Motherboard
	CSE-213AC-R920LPB	1	2U Black SC218G Chassis
<b>Backplane</b>	BPN-SAS3-213A	1	16-port 2U SAS3 12Gbps direct-attached backplane, support up to 16x 2.5-inch SAS3/SATA3 HDD/SSD
<b>Label</b>	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
<b>Manual</b>	MNL-1595-QRG	1	SYS-2028R-C1RT4+/SYS-2028R-C1R4+, QRG,HF,RoHS/REACH,PBF
<b>Parts</b>	MCP-260-00042-0N	1	STD I/O shield for X9 socket R server MB with Gasket.
<b>Heatsink / Retention</b>	SNK-P0048P	2	2U Passive CPU Heat Sink for X9, X10 Generation Systems Equipped w/ a Square ILM MB
<b>Drive Tray(s)</b>	MCP-220-00007-01	1	Black USB/COM port tray for SC825, 836
<b>Power Supply</b>	PWS-920P-1R	2	1U REDUNDANT 920W PMBus 94% EFFICIENCY
<b>Cable 1</b>	CBL-SAST-0631 or CBL-SAST-0591	2 2	cross-over mini SAS HD to 4 SATA w/SB, S. 55cm. 30AWG,RoHS/REACH  cross-over mini SAS HD to 4 SATA w/SB, S. 75cm. 30AWG,HF,RoHS/REACH,PBF
	CBL-SAST-0568 or CBL-SAST-0614	2 2	Internal Mini-SAS HD to Mini-SAS HD 35cm,30AWG,12Gb/s,HF,RoHS/REACH,PBF  RA to S mini SAS HD 12Gb/s, 40cm, 30AWG,HF,RoHS/REACH,PBF

### Optional Parts List

	Part Number	Qty	Description
<b>Storage Controller Card(s) &amp; Cables(s)</b>	AOC-S3008L-L8i & 2x CBL-SAST-0531-01	-	Standard LP, 8 internal ports (12Gb/s) Gen-3, 63HDD; RAID 0, 1, 10
	AOC-S3008L-L8e & 2x CBL-SAST-0531-01	-	Standard LP, 8 internal ports (12Gb/s) Gen-3, 122HDD; HBA
	AOC-S3108L-H8IR & 2x CBL-SAST-0531-01	-	Standard LP, 8 internal ports (12Gb/s) 8x Gen3; RAID 0, 1, 5, 6, 10, 50, 60
	AOC-S3108L-H8IR- 16DD & 2x CBL-SAST-0531-01	-	Standard LP, 8 internal ports (12Gb/s) Gen-3, 16HDD; RAID 0, 1, 5, 6, 10, 50, 60
<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-OOB-LIC</u> • eStore	1	OOB Management Package (per node license)
<b>Software</b>	<u>SFT-DCMS-Single</u>	1	DataCenter Management Package (per node license)