

# SuperServer 7048R-C1RT



**Integrated Board**



**Super X10DRH-CT**

**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 **2TB<sup>†</sup>** ECC 3DS LRDIMM , up to DDR4- **2400<sup>†</sup>**MHz ; 16x DIMM slots
3. 1x PCI-E 3.0 x16, 6x PCI-E 3.0 x8 slot
4. Intel® X540 Dual port 10GBase-T
5. I/O ports: 2x SuperDOM, 1x VGA, 2x COM, 2x USB 3.0, 4x USB 2.0
6. 8x 3.5" Hot-swap SATA3 HDD Bays; 8x 2.5" Hot-swap SAS3 drives in mobile rack; 1x 5.25" drive bay
7. 920W Redundant Power Supplies **Platinum Level (94%)**
8. Tower or Rackmount

# Specifications

## Product SKUs

- SYS-7048R-C1RT** ■ SuperServer 7048R-C1RT (Black)

## Motherboard

### Super X10DRH-CT

## Processor/Cache

- CPU** ■ Intel® Xeon® processor E5-2600 v4<sup>†</sup>/ v3 family (up to 145W TDP) \*  
■ Dual Socket R3 (LGA 2011)

- Cores / Cache** ■ Up to **22 Cores**<sup>†</sup> / Up to **55MB**<sup>†</sup> Cache

- System Bus** ■ QPI up to 9.6 GT/s

- Note** <sup>†</sup> 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** ■ 16x 288-pin DDR4 DIMM slots  
■ Up to 2TB<sup>†</sup> ECC 3DS LRDIMM, 512 ECC RDIMM

- Memory Type** ■ **2400**<sup>†</sup>/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® X540 10GBase-T  
■ Virtual Machine Device Queues reduce I/O overhead  
■ Supports 10GBASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output  
■ 1x Realtek RTL8201N PHY (dedicated IPMI)

- Video** ■ ASPEED AST2400 BMC

## Input / Output

- SATA** ■ 8x SATA3 (6Gbps) ports

- SAS** ■ 8x SAS3 (12Gbps) ports

## Chassis

- Form Factor** ■ 4U Rackmountable / Tower  
■ Optional Rackmount Kit

- Model** ■ **CSE-745TQ-R920B**

## Dimensions and Weight

- Height** ■ 17.2" (437mm)

- Width** ■ 7.0" (178mm)

- Depth** ■ 25.5" (648mm)

- Package** ■ 24" (H) x 14" (W) x 26.5" (D)

- Weight** ■ Net Weight: 56.5 lbs (25.6 kg)  
■ Gross Weight: 74 lbs (33.57 kg)

- Available Colors** ■ 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  
■ Power Fail LED

- Ports** ■ 2x USB Ports

## Drive Bays

- Hot-swap** ■ 8x 3.5" Hot-swap SATA3 drive trays  
■ 8x 2.5" Hot-swap SAS3 drives in mobile rack

- Peripheral Bay** ■ 1x 5.25" drive bay (optional devices)

## SAS / SATA Backplane

- SAS via backplane (BPN-SAS3-I28A) in Mobile rack
- SATA via chassis HDD Backplane CSE-SAS-743TQ-O-P

## System Cooling

- Fans** ■ 3x 8cm Hot-swap redundant PWM Cooling Fans  
■ 2x 8cm Hot-swap Rear Exhaust PWM Fans & air shroud

## 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

<b>LAN</b>	<ul style="list-style-type: none"> <li>2x RJ45 10GBase-T ports</li> <li>1x RJ45 Dedicated IPMI LAN port</li> </ul>
<b>USB</b>	<ul style="list-style-type: none"> <li>2x USB 3.0 ports (2 rear)</li> <li>4x USB 2.0 ports (2 rear, 2 front)</li> <li>1x USB Type A</li> </ul>
<b>Video</b>	<ul style="list-style-type: none"> <li>1x VGA port</li> </ul>
<b>Serial Port / Header</b>	<ul style="list-style-type: none"> <li>1x COM/Serial</li> </ul>
<b>DOM</b>	<ul style="list-style-type: none"> <li>2x SuperDOM (Disk on Module) ports</li> </ul>

#### Expansion Slots

<b>PCI-Express</b>	<ul style="list-style-type: none"> <li>1x PCI-E 3.0 x16 (Full-height, Full-length)</li> <li>6x PCI-E 3.0 x8 (Full-height, Full-length)</li> </ul>
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#### 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>DMI 2.2</li> <li>ACPI 1.0 / 2.0</li> <li>USB Keyboard support</li> <li>SMBIOS 2.3</li> <li>UEFI</li> </ul>

<b>CPU</b>	<ul style="list-style-type: none"> <li>Monitors for CPU Cores, +1.8V, +3.3V, +5V, +12V, +3.3V Standby, +5V Standby, VBAT, Memory, Chipset Voltages.</li> <li>6-Phase-switching voltage regulator</li> </ul>
<b>FAN</b>	<ul style="list-style-type: none"> <li>Total of five fan headers supporting up to 5 fans</li> <li>5x fans with tachometer status monitoring</li> <li>Status monitor for speed control</li> <li>Pulse Width Modulated (PWM) fan connectors</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 5x fan connectors</li> <li>Thermal Monitor 2 (TM2) support</li> <li>PECI</li> </ul>
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<b>LED</b>	<ul style="list-style-type: none"> <li>System info. LED: UID indicator, fan fail/System Overheat</li> <li>Suspend static indicator LED</li> <li>UID/Remote LED</li> </ul>
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<b>Other Features</b>	<ul style="list-style-type: none"> <li>Chassis intrusion detection</li> <li>Chassis intrusion header</li> </ul>
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#### 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-X10DRH-CT	1	Super X10DRH-CT Motherboard
	CSE-745TQ-R920B	1	4U Chassis
<b>Air Shroud</b>	MCP-310-74501-0B	1	SC745 Air Shroud For System with 10G,HF,RoHS/REACH
<b>Backplane</b>	CSE-SAS-743TQ	1	743 SAS BACKPLANE W/AMI MG9072
<b>Backplane</b>	BPN-SAS3-I28A	1	8-port Mobile-Rack (CSE-M28SAC) SAS3 12Gbps hot swappable HDD backplane, support up to 8x 2.5-inch SAS3/SATA3 HDD/SSD
<b>Cable 1</b>	CBL-0099	1	Power extension cable; one HDD to two HDD and two FDD. 35/25/12cm. 22AWG
<b>Cable 2</b>	CBL-0476L	1	MINI SAS-4 SATA,INT,55/45/35/30CM,55CM SB,30AWG
<b>Cable 3</b>	CBL-0484L	4	SATA,INT,ROUND,ST-ST,55CM,30AWG
<b>Cable 4</b>	CBL-CDAT-0661	1	CBL,SGPIO,2X4F TO 2X4F,P2.54,ROUND CABLE,40CM,28AWG
<b>Cable 5</b>	CBL-SAST-0532	2	MINI SAS HD, 12G,INT,50CM,30AWG
<b>Label</b>	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
<b>Manual</b>	MNL-1639-QRG	1	QRG, 7048R-C1R & 7048R-C1RT,HF,RoHS/REACH
<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-P0048PS	2	2U Passive CPU Heat Sink for X9, X10 Generation Systems Equipped w/ a Narrow ILM MB
<b>Power Supply</b>	PWS-920P-1R	2	1U REDUNDANT 920W PMBus 94% EFFICIENCY
<b>Mobile Rack</b>	CSE-M28SACB-OEM	1	Black SAS3/SATA3 Mobile Rack for 8x 2.5" HDD w/o fan module,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-0699	-	Standard LP, 8 internal ports (12Gb/s) Gen-3, 63HDD; RAID 0, 1, 10
	AOC-S3008L-L8e & 2x CBL-SAST-0699	-	Standard LP, 8 internal ports (12Gb/s) Gen-3, 122HDD; HBA
	AOC-S3108L-H8IR & 2x CBL-SAST-0699	-	Standard LP, 8 internal ports (12Gb/s) 8x Gen3; RAID 0, 1, 5, 6, 10, 50, 60
	AOC-S3108L-H8IR-16DD & 2x CBL-SAST-0699	-	Standard LP, 8 internal ports (12Gb/s) Gen-3, 16HDD; RAID 0, 1, 5, 6, 10, 50, 60
<b>Mounting Rails</b>	CSE-PT26L-B	1	4U Chassis Rail Kits SC743,745 (w/ 2pcs Black Chassis Ears)
<b>HDD Tray Converter</b>	MCP-220-00080-0B	-	Adaptor HDD carrier to install 2.5" HDD in 3.5" HDD tray
<b>Cable 1</b>	CBL-0080L	-	big 4 pin to SATA POWER ADAPTER CABLE 6
<b>Cable 2</b>	CBL-0178L	-	SATA,INT,FLAT,48CM,26AWG
<b>Peripheral Drive 1</b>	DVM-LITE-DVDRW24-HBT1	-	BLACK LITE-ON 5.25" HH 24X DVD-RW SATA DRIVE PBF
<b>Global Services &amp; Support</b>	<a href="#">OS4HR3/2/1</a>	-	3/2/1-year onsite 24x7x4 service
	<a href="#">OSNBD3/2/1</a>	-	3/2/1-year onsite NBD service
<b>Software</b>	<a href="#">SFT-OOB-LIC</a> • <a href="#">eStore</a>	1	OOB Management Package (per node license)
<b>Software</b>	<a href="#">SFT-DCMS-Single</a>	1	DataCenter Management Package (per node license)

