

SuperServer 7048R-C1RT4+



Integrated Board



Super X10DRC-T4+

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, 3x PCI-E 3.0 x8, and 1x PCI-E 2.0 x4 (in x8) slot
4. Quad LAN w/ Intel® X540 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. 1000W Redundant Power Supplies **Titanium Level (96%)**
8. Tower or Rackmount

Available Colors: Black 

- ▶ [Drivers & Utilities](#) ▶ [BIOS](#) ▶ [IPMI](#) ▶ [Tested Memory](#) ▶ [Manuals](#)
▶ [OS Certification Matrix](#) ▶ [Quick-References Guide](#) ▶ [Drive Options](#)

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

Specifications

Product SKUs

SYS-7048R-C1RT4+	■ SuperServer 7048R-C1RT4+ (Black)
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Motherboard

Super X10DRC-T4+

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, 768 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® X540 Quad Port 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	■ 10x SATA3 (6Gbps) ports
SAS	■ 8x SAS3 (12Gbps) ports ■ SuperCap option support

Chassis

Form Factor	■ 4U Rackmountable / Tower ■ Optional Rackmount Kit
Model	■ CSE-745TQ-R1K03B

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: 57 lbs (25.9 kg) ■ Gross Weight: 74.5 lbs (33.8 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
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Power Supply (76mm Width)

1000W Redundant Power Supplies with PMBus

Total Output Power	■ 800W/1000W
Dimension (W x H x L)	■ 76 x 40 x 336 mm
Input	■ 100-127Vac / 12-9A / 50-60Hz ■ 200-240Vac / 7.2-6A / 50-60Hz ■ 200-240Vdc / 7.2-6A (for CCC only)
+12V	■ Max: 66.7A / Min. 0A (100-127Vac) ■ Max: 83A / Min. 0A (200-240Vac) ■ Max: 83A / Min. 0A (200-240Vdc)
5Vsb	■ Max: 4A / Min: 0A
Output Type	■ 19 Pairs Gold Finger Connector

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

Expansion Slots

PCI-Express	<ul style="list-style-type: none"> ■ 2x PCI-E 3.0 x16 (Full-height, Full-length) ■ 3x PCI-E 3.0 x8 (Full-height, Full-length) ■ 1x PCI-E 2.0 x4 (in x8)
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System BIOS

BIOS Type	<ul style="list-style-type: none"> ■ 128Mb SPI Flash EEPROM with UEFI BIOS
BIOS Features	<ul style="list-style-type: none"> ■ Plug and Play (PnP) ■ APM 1.2 ■ DMI 2.2 ■ ACPI 1.0 / 2.0 ■ USB Keyboard support ■ SMBIOS 2.3 ■ UEFI

Certification



Titanium Level
[[Test Report](#)]

PC Health Monitoring

CPU	<ul style="list-style-type: none"> ■ Monitors for CPU Cores, +1.8V, +3.3V, +5V, +12V, +3.3V Standby, +5V Standby, VBAT, Memory, Chipset Voltages. ■ 6-Phase-switching voltage regulator
FAN	<ul style="list-style-type: none"> ■ Total of five fan headers supporting up to 5 fans ■ 5x fans with tachometer status monitoring ■ Status monitor for speed control ■ Pulse Width Modulated (PWM) fan connectors
Temperature	<ul style="list-style-type: none"> ■ Monitoring for CPU and chassis environment ■ CPU thermal trip support ■ Thermal Control for 5x fan connectors ■ Thermal Monitor 2 (TM2) support ■ PECI
LED	<ul style="list-style-type: none"> ■ System info. LED: UID indicator, fan fail/System Overheat ■ Suspend static indicator LED ■ UID/Remote LED
Other Features	<ul style="list-style-type: none"> ■ Chassis intrusion detection ■ Chassis intrusion header

Operating Environment / Compliance

RoHS	<ul style="list-style-type: none"> ■ RoHS Compliant
Environmental Spec.	<ul style="list-style-type: none"> ■ Operating Temperature: 10°C to 35°C (50°F to 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)

Список деталей

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X10DRC-T4+	1	Super X10DRC-T4+ Motherboard
	CSE-745TQ-R1K03B	1	4U Chassis
Air Shroud	MCP-310-74501-0B	1	SC745 Air Shroud For System with 10G,HF,RoHS/REACH
Backplane	CSE-SAS-743TQ	1	743 SAS BACKPLANE W/AMI MG9072
Backplane	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
Cable 1	CBL-CDAT-0661	2	CBL,SGPIO,2X4F TO 2X4F,P2.54,ROUND CABLE,40CM,28AWG
Cable 2	CBL-0099	1	Power extension cable; one HDD to two HDD and two FDD. 35/25/12cm. 22AWG
Cable 3	CBL-0483L	8	SATA,INT,ROUND,ST-ST,29CM,30AWG
Cable 4	CBL-SAST-0532	2	MINI SAS HD,12G,INT,50CM,30AWG
Label	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
Manual	MNL-1593-QRG	1	SYS-7048R-C1RT4+/SYS-7048R-C1R4+, QRG,HF,RoHS/REACH,PBF
Parts	MCP-260-00042-0N	1	STD I/O shield for X9 socket R server MB with Gasket.
Heatsink / Retention	SNK-P0048P	2	2U Passive CPU Heat Sink for X9, X10 Generation Systems Equipped w/ a Square ILM MB
Power Supply	PWS-920P-1R	2	1U REDUNDANT 920W PMBus 94% EFFICIENCY
Mobile Rack	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
Storage Controller Card(s) & Cables(s)	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
Mounting Rails	CSE-PT26L-B	1	4U Chassis Rail Kits SC743,745 (w/ 2pcs Black Chassis Ears)
HDD Tray Converter	MCP-220-00080-0B	-	Adaptor HDD carrier to install 2.5" HDD in 3.5" HDD tray
Cable 1	CBL-0080L	-	big 4 pin to SATA POWER ADAPTER CABLE 6
Cable 2	CBL-0178L	-	SATA,INT,FLAT,48CM,26AWG
Peripheral Drive 1	DVM-LITE-DVDRW24-HBT1	-	BLACK LITE-ON 5.25" HH 24X DVD-RW SATA DRIVE PBF
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)