

## SuperServer 4048B-TRFT (Complete System Only)



**Integrated Board**



**Super X10QBi**

**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 (with minimum 4 CPUs, 32 DIMMs, 1 HDD installed).

96/64/32 DIMMs are the recommended memory population configurations for the best performance.

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

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

### Key Features

1. Quad socket R1 (LGA 2011) supports Intel® Xeon® processor E7-8800 v4/v3, E7-4800 v4/v3 family (up to 24-Core)
2. Up to 6TB DDR3 1600MHz ECC RDIMMs and LRDIMMs; 96x DIMM slots
3. Up to 11x PCI-E 3.0 slots (4 x16, 7 x8)
4. I/O ports via Add-on Card:  
2x 10Gb LAN, 1x Dedicated LAN for IPMI Remote Management, 1x VGA
5. 24x 2.5" Hot-swap SAS3/SATA3 HDD or SSD (selected RAID/HBA cards);  
48x 2.5" Hot-swap HDD/SSD optional
6. 4x 9cm + 3x 8cm Heavy-duty Fans
7. 1620W Redundant (N+1) Power Supplies, **Platinum Level (94%)**

# Specifications

## Product SKUs

**SYS-4048B-TRFT** ■ SuperServer 4048B-TRFT (**Black**)

## Motherboard

**Super X10QBi**

## Processor/Cache

**CPU** ■ Intel® Xeon® processor E7-8800 v4/v3, E7-4800 v4/v3 family (up to 24 Cores and 165W TDP)  
■ Quad Socket R1 (LGA 2011)

**Cache** ■ Up to 60 MB

**System Bus** ■ QPI up to 9.6 GT/s

**Note:** ■ E7-8800/4800 v2 (using MB-X10QBI-MEM1 Rev 1.01 or above)  
■ E7-8800/4800 v4/v3 (using MB-X10QBI-MEM1 Rev 2.0 or above)

## System Memory

**Memory Capacity** ■ 96x 240-pin DDR3 DIMM slots  
■ Supports up to 6TB DDR3 ECC Registered memory (RDIMM) and LRDIMM in 96 DIMM slots

**Memory Type** ■ 1600/1333/1066/800MHz ECC DDR3 SDRAM 72-bit, 240-pin gold-plated DIMMs

**DIMM Sizes** ■ 64GB, 32GB, 16GB, 8GB, 4GB

**Memory Voltage** ■ 1.5 V, 1.35 V

**Error Detection** ■ Corrects single-bit errors  
■ Detects double-bit errors (using ECC memory)

## On-Board Devices

**Chipset** ■ Intel® C602J chipset

**AHCI SATA** ■ SATA3 (6Gbps) with RAID 0, 1  
■ SATA2 (3Gbps) with RAID 0, 1, 5, 10

**Network Controllers (via AOM)** ■ Intel® X540 Dual 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)

**IPMI (via AOM)** ■ Support for Intelligent Platform Management Interface v.2.0  
■ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support  
■ ASPEED 2400

**Graphics** ■ ASPEED 2400

## Input / Output

**AHCI SATA** ■ 2x SATA3 (6Gbps) ports  
■ 4x SATA2 (3Gbps) ports

**LAN** ■ 2x RJ45 10GBase-T ports on AOM  
■ 1x dedicated LAN port for IPMI on AOM

**USB** ■ 2x USB 2.0 ports

## Chassis

**Form Factor** ■ 4U Rackmountable  
■ Rackmount Kit: Comes with the system

**Model** ■ CSE-418XA-R3240B

## Dimensions and Weight

**Height** ■ 7.0" (178mm)

**Width** ■ 17.2" (437mm)

**Depth** ■ 31.3" (795mm)

**Weight** ■ Net Weight: 74.5 lbs (33.79 kg)  
■ Gross Weight: 115 lbs (52.16 kg)

**Available Colors** ■ Black

## Drive Bays

**Hot-swap** ■ 24x 2.5" Hard drive bays (default)\*  
■ 48x 2.5" Hard drive bays (optional)  
\* BPN-SAS3-216A direct attached backplane, system supports up to 24 HDDs by using selected RAID/HBA card and default HDD connection is onboard C602J chipset 2 SATA3 + 4 SATA2

## Expansion Slots

**PCI-Express** ■ 11x PCI-E 3.0 slots w/ 48 memory slots  
(4x PCI-E 3.0 x16 and 7x PCI-E 3.0 x8)  
■ 8x PCI-E 3.0 slots w/ 96 memory slots  
(4x PCI-E 3.0 x16 and 4x PCI-E 3.0 x8)

## Backplane

SAS/SATA HDD Backplane

## System Cooling

**Fans** ■ 4x 92mm RPM Hot-Swappable Cooling Fans  
■ 3x 80mm RPM Hot-Swappable Rear Exhaust Fan  
■ 2x 80mm Rear Exhaust Fans (optional)

**Shrouds** ■ 1x Air Shroud (MCP-310-41804-0B)

## Power Supply

1620W high-efficiency redundant power supply w/ PMBus

**AC Input** ■ 1000W Output @ 100-120V, 12-10A, 50-60Hz  
■ 1200W Output @ 120-140V, 12-10A, 50-60Hz  
■ 1620W Output @ 180-240V, 10.5-8A, 50-60Hz

**DC Output** ■ 1000W: +12V/84A; +5Vsb/4A  
■ 1200W: +12V/100A; +5Vsb/4A  
■ 1620W: +12V/150A; +5Vsb/4A

<b>Serial Port / Header</b>	<ul style="list-style-type: none"> <li>2x Fast UART 16550 ports: 1 rear and 1 header</li> </ul>
<b>DOM</b>	<ul style="list-style-type: none"> <li>1 DOM (Disk on Module) power connector</li> </ul>

#### System BIOS

<b>BIOS Type</b>	<ul style="list-style-type: none"> <li>16MB 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>PCI 2.2</li> <li>ACPI up to 3.0</li> <li>USB Keyboard support</li> </ul>

<b>Certification</b>	 	<b>Platinum Certified</b> [ <a href="#">Test Report</a> ]
----------------------	---	--

#### PC Health Monitoring

<b>CPU</b>	<ul style="list-style-type: none"> <li>Monitors for CPU Cores, +1.2V, 1.5V, +3.3V, +12V, (+3V, 1.0V, 1.2V, 1.8V, 1.1V) Standby, VBAT, Memory, Chipset Voltages.</li> <li>4-Phase-switching voltage regulator with auto-sense from 0.6V-1.35V</li> </ul>
<b>FAN</b>	<ul style="list-style-type: none"> <li>4-pin fan headers with tachometer status monitoring</li> <li>Low noise fan speed control mode</li> </ul>
<b>Temperature</b>	<ul style="list-style-type: none"> <li>Monitoring for CPU and system environment</li> <li>Thermal Control for 9x fan connectors</li> </ul>
<b>Other Features</b>	<ul style="list-style-type: none"> <li>Chassis intrusion detection</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>

## Parts List

### Parts List - (Items Included)

	Part Number	Qty	Description
<b>Chassis</b>	CSE-418XA-R3240B	1	CSE-418XA-R3240B 4U Chassis with 48x HDD trays
<b>Motherboard</b>	X10QBi	1	Super X10QBi Motherboard
<b>Memory Module</b>	X10QBi-MEM1	8	Supports 12x DIMMs / module (up to 64GB DDR3 ECC RDIMM / slot)
<b>Add-on Module (Proprietary)</b>	AOM-X10QBi-A	1	Add-on Module support VGA, dual 10GBase-T ports, and Dedicated IPMI 2.0 LAN port
<b>Air Shroud</b>	MCP-310-41804-0B	1	Mylar CPU air shroud for SC418X (X10QBi),PBF
<b>Backplane</b>	BPN-SAS3-216A	1	24-port 2U SAS3 12Gbps direct-attached backplane, support up to 24x 2.5-inch SAS3/SATA3 HDD/SSD
<b>Cable 1</b>	CBL-SAST-0591	2	MINI SAS HD-4 SATA,6G,INT,RF,Cross Over,75CM,75CM SB,30AWG
<b>Label</b>	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
<b>Heatsink / Retention</b>	SNK-P0048PS	4	2U Passive CPU Heat Sink for X9, X10 Generation Systems Equipped w/ a Narrow ILM MB
<b>Power Supply</b>	PWS-1K62P-1R	4	1620W REDUNDANT POWER MODULE

### Optional Parts List

	Part Number	Qty	Description
<b>2.5" HDD Tray</b>	MCP-220-00047-0B	-	Black gen 3rd hot-swap 2.5" HDD tray
<b>Drive Option 1</b>	AOC-S2208L-H8IR (2208) x1 + CBL-SAST-0507-01 x2		For 8 SAS2 (Broadcom 2208) HDD
<b>Drive Option 2</b>	AOC-S3108L-H8IR (3108) x1 + CBL-SAST-0531 x2		For 8 SAS3 (Broadcom 3108) HDD
<b>Drive Option 3</b>	AOC-72405-ADP x1 + CBL-SAST-0531 x6		For 24 SAS2 (Adaptec 72405) HDD
<b>Drive Option 4</b>	AOC-S3008L-L8I (3008, 2 ports) x1 + CBL-SAST-0531 x2		For 8 SAS3 (Broadcom 3008) HDD
<b>Drive Option 5</b>	AOC-S2308L-L8I (2308, 2 ports) x1 + CBL-SAST-0507-01 x2		For 8 SAS2 (Broadcom 2308) HDD
<b>Air Shroud</b>	MCP-310-41805-0B	-	Air shroud for 4 memory module configuration (to utilize all PCI-E slots)
<b>Rear Fan Kit</b>	MCP-320-00046-0N-KIT	-	Rear fan kit (8.2K RPM fan) when use GPU card
<b>GPU Power Cable</b>	CBL-PWEX-0581	-	1 GPU Power Cable for 1 GPU (Recommend to pre-install GPU power cable in Supermicro)
<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)