

# SuperWorkstation 7048A-T



**Integrated Board**



**Super X10DAi**

**Views: | [Angled View](#) | [Side View](#) |  
| [Front View](#) | [Rear View](#) |**

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## Key Features

### □ **Whisper Quiet Workstation**

1. Dual socket R3 (LGA 2011) supports Intel® Xeon® processor E5-2600 v4†/v3 family; QPI up to 9.6GT/s
2. Up to **2TB†** ECC 3DS LRDIMM , up to DDR4- **2400†**MHz ; 16x DIMM slots
3. 3 PCI-E 3.0 x16, 2 PCI-E 3.0 x8, and 1 PCI-E 2.0 x4 (in x8) slot supports Thunderbolt 2.0 AIC
4. Intel® i210 Dual port GbE LAN
5. 7.1 HD Audio
6. 8x 3.5" Hot-swap SATA HDD Bays
7. 1200W High Efficiency Power Supply **Platinum Level (94%)**
8. Tower or Rackmount

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

# Specifications

## Product SKUs

**SuperWorkstation** ■ SYS-7048A-T (Black)

## Motherboard

### Super X10DAi

## Processor/Cache

**CPU** ■ Intel® Xeon® processor E5-2600 v4<sup>†</sup>/ v3 family (up to 160W 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, 512GB 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

**Network Controllers** ■ Intel® i210 Dual Port Gigabit Ethernet  
■ Virtual Machine Device Queues reduce I/O overhead  
■ Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output

**Audio** ■ RealTek ALC888 7.1 High Definition Audio with S/PDIF header

## Input / Output

**SATA** ■ 10 SATA3 (6Gbps) ports

**LAN** ■ 2 RJ45 Gigabit Ethernet LAN ports

**USB** ■ 6 USB 3.0 ports (4 rear + 2 via header)  
■ 5 USB 2.0 ports (2 rear + 2 via header + 1 Type A)

**Audio** ■ 7.1 HD Audio with optical S/PDIF

**DOM** ■ 2 DOM (Disk on Module) power connectors

**TPM** ■ 1 TPM 1.2 20-pin Header

## Chassis

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

**Model** ■ **CSE-743TQ-1200B-SQ**

## Dimensions and Weight

**Height** ■ 17.8" (452mm)

**Width** ■ 7.0" (178mm)

**Depth** ■ 25.5" (648mm)

**Gross Weight** ■ 71 lbs (32.2 kg)

**Available Colors** ■ Black

## Front Panel

**Buttons** ■ Power On/Off button  
■ System Reset button

**LEDs** ■ Power LED  
■ Hard drive activity LED  
■ 2 Network activity LEDs  
■ System Overheat / Fan Fail LED

**Ports** ■ 2 front USB 3.0 Ports

## Drive Bays

**Hot-swap** ■ 8x 3.5" Hot-swap SAS/SATA Drive Trays

**Peripheral Bay(s) [90° Rotatable]** ■ 3x 5.25" Drive Bays

## SAS / SATA Backplane

SAS / SATA Hard Drive Backplane w/AMI MG9072

## System Cooling

**Fans** ■ 2x 2800 RPM Fans  
■ 1x 2700 RPM Fan

## Power Supply

1200W high-efficiency power supply w/ PMBus

**AC Input** ■ 1000W: 100-114.9 V, 50-60 Hz, 12 Amp  
■ 1200W: 114.9-240 V, 50-60 Hz, 12-8 Amp

**DC Output** ■ +3.3V / +5V / +12V / -12V / +5VSB  
**1000W max** ■ 20A / 20A / 83A / 0.3A / 3A  
**1200W max** ■ 20A / 20A / 99A / 0.3A / 3A

**Note:** ■ Max. continuous combined load on +3.3V and +5V output shall not exceed 120W.

**Certification**



**Platinum Certified**

## PC Health Monitoring

## Expansion Slots

- PCI-Express**
- 3 PCI-E 3.0 x16 slots
  - 2 PCI-E 3.0 x8 slots
  - 1 PCI-E 2.0 x4 (in x8) slot supports Thunderbolt 2.0 AIC
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## System BIOS

- BIOS Type**
- 128Mb SPI Flash EEPROM with AMI® BIOS
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- BIOS Features**
- Plug and Play (PnP)
  - APM 1.2
  - PCI 2.3
  - ACPI 1.0 / 2.0 / 3.0 / 4.0
  - USB Keyboard support
  - SMBIOS 2.7.1
  - UEFI 2.3.1
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## CPU

- Monitors for CPU Cores, +1.8V, +3.3V, +5V, +12V, +3.3V Standby, +5V Standby, VBAT, Memory, Chipset Voltages.
  - 6-Phase-switching voltage regulator
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## FAN

- Total of three fan headers supporting up to 8 fans
  - Three 4-pin fan headers
  - 3 fans with tachometer status monitoring
  - Support 3-pin fans (w/o speed control)
  - Low noise fan speed control (4-pin fan only)
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## Temperature

- Monitoring for CPU and chassis environment
  - Thermal Control for 8x fan connectors
  - PECI
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## Other

### Features

- Chassis intrusion detection
  - Chassis intrusion header
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## Operating Environment / Compliance

### RoHS

- RoHS Compliant
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### Environmental Spec.

- 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)
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# Parts List

## Parts List - (Items Included)

	Part Number	Qty	Description
<b>Motherboard / Chassis</b>	MBD-X10DAi	1	Super X10DAi Motherboard
	CSE-743TQ-1200B-SQ	1	4U Chassis
<b>Backplane</b>	CSE-SAS-743TQ	1	743 SAS BACKPLANE W/AMI MG9072
<b>Cable 1</b>	CBL-CDAT-0661	2	CBL,SGPIO,2X4F TO 2X4F,P2.54,ROUND CABLE,40CM,28AWG
<b>Cable 2</b>	CBL-0484L	8	SATA,INT,ROUND,ST-ST,55CM,30AWG
<b>Manual</b>	MNL-1615-QRG	1	SYS-7048A-T, QRG,HF,RoHS/REACH
<b>Parts</b>	MCP-260-00045-1N	1	STD size I/O Shield for X10DAi w ith EMI Gasket and front metal,RoHS/REACH
<b>Heatsink / Retention</b>	SNK-P0050AP4	2	4U Active CPU Heat Sink for X9, X10 Workstations
<b>Power Supply</b>	PWS-1K25P-PQ	1	PS2 1200W Multi Output High Efficiency P

## Optional Parts List

	Part Number	Qty	Description
<b>Mounting Rails</b>	CSE-PT26L-B	-	Chassis Mounting Rails (Black)
<b>Fan</b>	FAN-0074L4	-	80x38MM 4-PIN PWM (MIDDLE) FAN W/HUS FOR SC743
<b>Hot-swap 3.5" to 2.5" Hard Disk Drive Tray</b>	MCP-220-00080-0B	-	Black hot-sw ap 3.5" to 2.5" HDD tray
<b>Add-on Card</b>	AOC-TBT-DSL5320	1	Thunderbolt 2,W/Display and GPIO cable,HF,RoHS/REACH

