

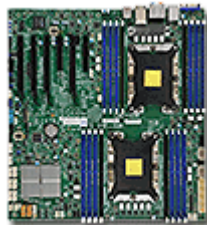
SuperWorkstation 7049A-T



Key Features

1. Dual Socket P (LGA 3647) support
2nd Gen. Intel® Xeon® Scalable
processors (Cascade Lake/Skylake)[‡]
2. 16 DIMMs; up to 4TB 3DS ECC
DDR4-2933MHz RDIMM/LRDIMM,
Supports Intel® Optane™ DCPMM^{††}
3. 4 PCI-E 3.0 x16, 2 PCI-E 3.0 x8 slots,
M.2 Interface: PCI-E 3.0 x4
M.2 Form Factor: 2260, 2280, 22110
M.2 Key: M-Key, 2 PCI-E 3.0 NVMe
x4 Internal Port(s)
4. 2x 1GbE LAN ports
5. 7.1 HD Audio
6. 8 Hot-swap 3.5" SAS3/SATA3 drive bays
(SATA3 default), 1 M.2 slot, 2 NVMe
support with opt. cables
7. 1200W High-efficiency Power Supply
Platinum Level Certified

Integrated Board



Super X11DAi-N

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

▶ [Drivers & Utilities](#) ▶ [BIOS](#) ▶ [IPMI](#) ▶ [Tested Memory](#) ▶ [Tested M.2 List](#) ▶ [NVMe Options](#) ▶ [Manuals](#) ▶ [OS Certification Matrix](#)
▶ [Compatible GPU List](#) ▶ [Quick-References Guide](#) ▶ [Drive Options](#) ▶ [Network Card \(AOC\) Matrix](#)

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-7049A-T (Black)

Motherboard

Super X11DAi-N

Processor/Cache

CPU	■ Dual Socket P (LGA 3647) ■ 2nd Gen. Intel® Xeon® Scalable Processors (Cascade Lake/Skylake)[‡], Dual UPI up to 10.4GT/s ■ Support CPU TDP 70-205W
Cores	■ Up to 28 Cores
Note	[‡] BIOS version 3.0a or above is required to support 2nd Gen. Intel® Xeon® Scalable processors
GPU Support	■ Please refer to: Compatible GPU list

System Memory

Memory Capacity	■ 16 DIMM slots ■ Up to 4TB 3DS ECC DDR4-2933MHz RDIMM/LRDIMM ■ Supports Intel® Optane™ DCPMM^{††}
Memory Type	■ 2933/2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM
DIMM Sizes	■ RDIMM: 64GB ■ LRDIMM: 64GB ■ 3DS LRDIMM: 128GB
Memory Voltage	■ 1.2V
Error Detection	■ Corrects single-bit errors ■ Detects double-bit errors (using ECC memory)
Note	^{††} Cascade Lake only. Contact your Supermicro sales rep for more info.

On-Board Devices

Chipset	■ Intel® C621 chipset
SATA	■ SATA3 (6Gbps); RAID 0, 1, 5, 10
Network Controllers	■ Dual LAN with GbE from C621
IPMI	■ ASPEED AST2500
Audio	■ RealTek ALC888 7.1 High Definition Audio with S/PDIF header

Input / Output

SATA	■ 10 SATA3 (6Gbps) ports
NVMe	■ 2 NVMe support with optional cables
LAN	■ 2 RJ45 Gigabit Ethernet LAN ports
USB	■ 6 USB 3.0 ports (4 rear, 2 front) ■ 2 USB 3.1 ports (rear)
Audio	■ 7.1 HD Audio with optical S/PDIF
Video	■ 1 VGA port

Chassis

Form Factor	■ 4U Rackmountable / Tower ■ Optional Rackmount Kit
Model	■ CSE-743TS-1200BP-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 ■ Network activity LEDs ■ System Overheat / Fan Fail LED
Ports	■ 2 front USB 3.0 Ports

Expansion Slots

PCI-Express	■ 4 PCI-E 3.0 x16 slots ■ 2 PCI-E 3.0 x8 slots
M.2	■ M.2 Interface: PCI-E 3.0 x4 ■ Form Factor: 2260, 2280, 22110 ■ Key: M-Key

Drive Bays

Hot-swap	■ 8 Hot-swap 3.5" SAS3/SATA3 drive bays (SATA3 default)
Peripheral Bay(s) [90° Rotatable]	■ 3x 5.25" drive bays

Backplane

Supports 8 SATA3 or 8 SAS3 HDD

System Cooling

Fans	■ 2 Super quiet PWM chassis fans (support up to 4 fans) ■ 1 Super quiet rear fan with optimal fan speed control
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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

Serial Port / Header	■ 1 COM port (header)
DOM	■ 2 SuperDOM (Disk on Module) ports
TPM	■ 1 TPM 2.0 Header

System BIOS

BIOS Type	■ UEFI 128M
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Management

Software	■ Intel® Node Manager ■ <u>IPMI 2.0</u> ■ <u>SSM, SPM, SUM</u> ■ <u>SuperDoctor® 5</u> ■ Watchdog
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PC Health Monitoring

CPU	■ Monitors for CPU Cores, Chipset Voltages, Memory. ■ 4+1 Phase-switching voltage regulator
FAN	■ Fans with tachometer monitoring ■ Status monitor for speed control ■ Pulse Width Modulated (PWM) fan connectors
Temperature	■ Monitoring for CPU and chassis environment ■ Thermal Control for fan connectors

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



Platinum Certified

Operating Environment

RoHS	■ RoHS Compliant
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Environmental Spec.	■ Operating Temperature: 10°C ~ 35°C (50°F ~ 95°F) ■ Non-operating Temperature: -40°C to 60°C (-40°F to 140°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
Motherboard / Chassis	MBD-X11DAi-N	1	Super X11DAi-N Motherboard
	CSE-743TS-1200BP-SQ	1	4U Chassis
Backplane	BPN-SAS3-743A-N4	1	8-port 4U/Tow er (SC743/745) 3.5-inch SAS3/SAS2/SATA3 12Gbps backplane, 4 of 8 ports support NVMe devices
Cable 1	CBL-SAST-0631	2	MINI SAS HD-4 SATA,6G,INT,RF,Cross Over,55CM,55CM SB,30AWG
Parts	MCP-260-00115-0N	1	Standard I/O Shield for X11DAi with EMI Gasket
Manual	MNL-1997-QRG	1	7049A-T Quick Reference Guide
Heatsink / Retention	SNK-P0070APS4	2	4U Active CPU Heat Sink Supporting Narrow Bolster Plate Mounting Mechanism for X11 Purley Platform
Power Supply	PWS-1K25P-PQ	1	PS2 1200W Multi Output High Efficiency P
FAN 1	FAN-0103L4	1	92x25 4Pin PWM Fan assembly for SC743 Super Quiet rear fan
FAN 2	FAN-0104L4	2	80x25,4 Pin PWM fan assem. for SC743 Super Quiet chassis fan

Optional Parts List

	Part Number	Qty	Description
NVMe support kit	MCP-220-00080-0B	-	Black hot-sw ap 3.5" to 2.5" HDD tray - Add QTY 1 per drive
	CBL-SAST-0818		OCuLink v.91,INT,PCle NVMe SSD, 55CM - Add QTY 1 per drive
	2x FAN-0074L4		80x38MM 4-PIN PWM (middle) FAN W/HUS FOR SC743
Fan	FAN-0104L4	-	80x25,4 Pin PWM fan assem. for SC743 Super Quiet chassis fan
Fan	FAN-0074L4	-	80x38MM 4-PIN PWM (MIDDLE) FAN W/HUS FOR SC743 - add QTY 2 when using 160W+ CPU, 180W+ GPU, or M.2
Mounting Rails	CSE-PT26L-B	-	Chassis Mounting Rails (Black)
Hot-swap 3.5" to 2.5" Hard Disk Drive Tray	MCP-220-00080-0B	-	Black hot-sw ap 3.5" to 2.5" HDD tray - Add QTY 1 per drive
Storage Control Card and Cable(s)	AOC-S3008L-L8e	-	Std LP, 8 WIO L ports, 12Gb/s per port-gen3, 122HDD, HBA
	2x CBL-SAST-0593		Internal Mini-SAS HD to Mini-SAS HD 60cm, 30AWG, 12Gb/s
	AOC-S3008L-L8i		Std LP, 8 WIO L ports, 12Gb/s per port-gen3, 63HDD, RAID 0,1,1E
	2x CBL-SAST-0593		Internal Mini-SAS HD to Mini-SAS HD 60cm, 30AWG, 12Gb/s
DVD-RW	AOC-S3108L-H8iR	-	Std LP, 8 WIO L ports, 12Gb/s per port-gen3, 240HDD, RAID 0,1,5,6,10,50,60
	2x CBL-SAST-0593		Internal Mini-SAS HD to Mini-SAS HD 60cm, 30AWG, 12Gb/s
DVD-RW	DVM-LITE-DVDRW24-HBT	-	BLACK LITE-ON 5.25" HH 24X DVD-RW SATA DRIVE PBF
	1x CBL-SAST-0624		SATA,INT,ROUND,ST-ST,70CM,30AWG
	1x CBL-0082L		Y split, big 4 pin to two RA SATA power extension 15cm, 18AWG