

SuperWorkstation 5049A-T



Integrated Board



Super X11SPA-TF

Key Features

1. Single Socket P (LGA 3647) support
2nd Gen. Intel® Xeon® Scalable
processors (Cascade Lake/Skylake)‡
 2. 12 DIMMs; up to 3TB 3DS ECC
DDR4-2933MHz† RDIMM/LRDIMM,
Supports Intel® Optane™ DCPMM††
 3. 4 PCI-E 3.0 x16, 3 PCI-E 3.0 x8
(in x16) slots,
M.2 Interface: 4 PCI-E 3.0 x4
M.2 Form Factor: 2242/2260/2280/22110
M.2 Key: M-Key
 4. 1x 10GBase-T and 1x 1GbE LAN ports
 5. 7.1 HD Audio
 6. 8 Hot-swap 3.5" SAS3/SATA3 drive bays
with SGPIO
 7. 1000/1200W Multi-output Power Supply
Platinum Level Certified
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[▶ Drivers & Utilities](#) ▶ [BIOS](#) ▶ [IPMI](#) ▶ [Tested Memory](#) ▶ [Tested M.2 List](#) ▶ [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

SuperWorkstation ■ SYS-5049A-T (Black)

Motherboard

Super X11SPA-TF

Processor/Cache

CPU ■ Single Socket P (LGA 3647)
■ 2nd Gen. Intel® Xeon® Scalable Processors (Cascade Lake/Skylake)‡
■ Support CPU TDP up to 205W

Cores ■ Up to 28 Cores

Note ‡ BIOS version 3.0b or above is required to support 2nd Gen. Intel® Xeon® Scalable processors

System Memory

Memory Capacity ■ 12 DIMM slots
■ Up to 3TB 3DS ECC DDR4-2933MHz† RDIMM/LRDIMM
■ Supports Intel® Optane™ DCPMM††

Memory Type ■ 2933†/2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM

Note † 2933MHz in two DIMMs per channel can be achieved by using memory purchased from Supermicro
†† 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 ■ Single LAN with Intel® Ethernet Controller I210-AT
■ Single LAN with Aquantia® AQC107 10G Ethernet Controller
■ Single LAN with Realtek RTL8211E PHY (dedicated IPMI)

Audio ■ 7.1 channel HD Audio by Realtek ALC888S

Input / Output

SATA ■ 8 SATA3 (6Gbps) ports

LAN ■ 1 RJ45 Gigabit Ethernet LAN port
■ 1 RJ45 10GBase-T Ethernet LAN port
■ 1 RJ45 Dedicated IPMI LAN port

USB ■ 6 USB 3.1 Gen1 ports (4 rear, 2 headers)
■ 4 USB 3.1 Gen2 ports (1 rear Type A + 1 Rear Type C)
■ 2 USB 2.0 ports (2 headers, Type A)

Audio ■ 7.1 HD Audio with optical S/PDIF

Video ■ 1 VGA port

Serial Port / Header ■ 1 COM port (header)

DOM ■ 2 SuperDOM (Disk on Module) ports

TPM ■ 1 TPM 2.0 Header

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 (in x16 slot)

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

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

System BIOS

- BIOS Type** ■ UEFI 128M
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Management

- Software** ■ Intel® Node Manager
■ IPMI 2.0
■ SSM, SPM, SUM
■ SuperDoctor® 5
■ Watchdog
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PC Health Monitoring

- CPU** ■ Monitors for CPU Cores, Chipset Voltages, Memory.
■ 4+1 Phase-sw itching voltage regulator
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- FAN** ■ Fans with tachometer monitoring
■ Status monitor for speed control
■ Pulse Width Modulated (PWM) fan connectors
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- Temperature** ■ Monitoring for CPU and chassis environment
■ Thermal Control for fan connectors
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- 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-X11SPA-TF	1	Super X11SPA-TF Motherboard
	CSE-743TS-1200BP-SQ	1	4U Chassis
Backplane	BPN-SAS3-743A	1	8-port 4U/Tow er 3.5-inch SAS3/SAS2/SATA3 12Gbps backplane for SC743/SC745 chassis
Cable 1	CBL-SAST-0631	2	MINI SAS HD-4 SATA,6G,INT,RF,Cross Over,55CM,55CM SB,30AWG
Parts	MCP-260-00142-0N	1	STD I/O Shield for X11SPA-TF with EMI Gasket
Manual	MNL-2196-QRG	1	SYS-5049A-T Quick Reference Guide
* Power Supply	PWS-1K25P-PQ	1	PS2 1200W Multi Output High Efficiency P
* Cable 2	CBL-0084	1	Front control cable 16 pin split, 6
* Cable 3	CBL-0087	1	CBL,FRONT CNTL,16 TO 16 PIN,Ribbon,50CM
* Cable 4	CBL-0160L	1	NEMA5-15P to C13 US power cord 16AWG 6ft, PBF (default for high watt)
* Cable 5	CBL-0216L	4	4 PIN TO 4 PIN MIDDLE FAN POWER EXTENSION, 20cm. 24AWG(PWM)
* 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
* Drive Tray(s)	MCP-220-00092-0B	8	Black Hot-sw ap 3.5inch HDD Tray (w/o logo)
* Parts	MCP-110-00020-0N	2	#632*5L flat head screw (for hot-sw ap 3.5" HDD tray)
* Drive Tray(s)	MCP-220-00081-0N	1	3.5" dummy HDD (hollow -panned) for MCP-220-00075-0B,RoHS/REACH,PBF

Notes:

1. Parts with * are inside the chassis
2. Excessive parts might not be shipped, including but not limited to excessive drive trays, fans, riser brackets, air shrouds, IO shields, cables.....etc.

Optional Parts List

	Part Number	Qty	Description
Heat Sink	SNK-P0071APS4	-	4U Active CPU Heat Sink Supporting SYS-5049A-T Extreme X11 UP Workstation
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 2x CBL-SAST-0593	-	Std LP, 8 WIO L ports, 12Gb/s per port-gen3, 122HDD, HBA Internal Mini-SAS HD to Mini-SAS HD 60cm, 30AWG, 12Gb/s
	AOC-S3008L-L8i 2x CBL-SAST-0593		Std LP, 8 WIO L ports, 12Gb/s per port-gen3, 63HDD, RAID 0,1,1E Internal Mini-SAS HD to Mini-SAS HD 60cm, 30AWG, 12Gb/s
	AOC-S3108L-H8iR 2x CBL-SAST-0593		Std LP, 8 WIO L ports, 12Gb/s per port-gen3, 240HDD, RAID 0,1,5,6,10,50,60 Internal Mini-SAS HD to Mini-SAS HD 60cm, 30AWG, 12Gb/s
DVD-ROM	DVM-LITE-DVDRW24-HBT 1x CBL-SAST-0624 1x CBL-0082L	-	BLACK LITE-ON 5.25" HH 24X DVD-RW SATA DRIVE PBF SATA,INT,ROUND,ST-ST,70CM,30AWG Y split, big 4 pin to tw o RA SATA power extension 15cm, 18AWG