

SuperWorkstation 7049A-T



Key Features

1. Dual socket P (LGA 3647) supports Intel® Xeon® Scalable Processors, Dual UPI up to 10.4GT/s
2. Up to 2TB ECC 3DS L/RDIMM, up to DDR4-2666MHz; 16 DIMM slots
3. 4 PCI-E 3.0 x16, 2 PCI-E 3.0 x8 slots
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

[▶ Drivers & Utilities](#) ▶ [BIOS](#) ▶ [IPMI](#) ▶ [Tested Memory](#)
[▶ Tested M.2 List](#) ▶ [Manuals](#) ▶ [QS Certification Matrix](#) ▶ [Quick-References Guide](#) ▶ [Drive Options](#)


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

Specifications

| Product SKUs | |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SuperWorkstation | ▪ SYS-7049A-T (Black) |
| Motherboard | |
| <u>Super X11DAI-N</u> | |
| Processor/Cache | |
| CPU | <ul style="list-style-type: none"> ▪ Dual Socket P (LGA 3647) ▪ Intel® Xeon® Scalable Processors, Dual UPI up to 10.4GT/s ▪ Support CPU TDP 70-205W |
| Cores | ▪ Up to 28 Cores with Intel® HT Technology |
| System Memory | |
| Memory Capacity | <ul style="list-style-type: none"> ▪ 16 DIMM slots ▪ Up to 2TB ECC 3DS LRDIMM, up to 2TB ECC 3DS RDIMM, DDR4 up to 2666MHz |
| Memory Type | ▪ 2666/2400/2133MHz ECC DDR4 RDIMM, LRDIMM |
| DIMM Sizes | <ul style="list-style-type: none"> ▪ RDIMM: 64GB ▪ LRDIMM: 64GB ▪ 3DS LRDIMM: 128GB |
| Memory Voltage | ▪ 1.2V |
| | ▪ Corrects single-bit errors |

| 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 | <ul style="list-style-type: none"> ▪ Power On/Off button ▪ System Reset button |
| LEDs | <ul style="list-style-type: none"> ▪ Power LED ▪ Hard drive activity LED ▪ Network activity LEDs ▪ System Overheat / Fan Fail LED |
| Ports | ▪ 2 front USB 3.0 Ports |
| Expansion Slots | |
| PCI- | ▪ 4 PCI-E 3.0 x16 slots |

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| Error Detection | <ul style="list-style-type: none"> ▪ Detects double-bit errors (using ECC memory) |
| On-Board Devices | |
| Chipset | <ul style="list-style-type: none"> ▪ Intel® C621 chipset |
| SATA | <ul style="list-style-type: none"> ▪ SATA3 (6Gbps); RAID 0, 1, 5, 10 |
| Network Controllers | <ul style="list-style-type: none"> ▪ Dual LAN with GbE from C621 |
| IPMI | <ul style="list-style-type: none"> ▪ ASPEED AST2500 |
| Audio | <ul style="list-style-type: none"> ▪ RealTek ALC888 7.1 High Definition Audio with S/PDIF header |
| Input / Output | |
| SATA | <ul style="list-style-type: none"> ▪ 10 SATA3 (6Gbps) ports |
| NVMe | <ul style="list-style-type: none"> ▪ 2 NVMe support with optional cables |
| LAN | <ul style="list-style-type: none"> ▪ 2 RJ45 Gigabit Ethernet LAN ports |
| USB | <ul style="list-style-type: none"> ▪ 6 USB 3.0 ports (4 rear, 2 front) ▪ 2 USB 3.1 ports (rear) |
| Audio | <ul style="list-style-type: none"> ▪ 7.1 HD Audio with optical S/PDIF |
| Video | <ul style="list-style-type: none"> ▪ 1 VGA port |
| Serial Port / Header | <ul style="list-style-type: none"> ▪ 1 COM port (header) |
| DOM | <ul style="list-style-type: none"> ▪ 2 SuperDOM (Disk on Module) ports |
| TPM | <ul style="list-style-type: none"> ▪ 1 TPM 2.0 Header |
| System BIOS | |
| BIOS Type | <ul style="list-style-type: none"> ▪ UEFI 128M |
| Management | |
| Software | <ul style="list-style-type: none"> ▪ Intel® Node Manager ▪ IPMI 2.0 ▪ SSM, SPM, SUM ▪ SuperDoctor® 5 ▪ Watchdog |
| PC Health Monitoring | |
| CPU | <ul style="list-style-type: none"> ▪ Monitors for CPU Cores, Chipset Voltages, Memory. ▪ 4+1 Phase-switching voltage regulator |
| FAN | <ul style="list-style-type: none"> ▪ Fans with tachometer 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 ▪ Thermal Control for fan connectors |

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| Express | <ul style="list-style-type: none"> ▪ 2 PCI-E 3.0 x8 slots |
| M.2 | <ul style="list-style-type: none"> ▪ Interface: PCIe 3.0 x4 ▪ Form Factor: M-Key 2260, 2280, 22110 |
| Drive Bays | |
| Hot-swap | <ul style="list-style-type: none"> ▪ 8 Hot-swap 3.5" SAS3/SATA3 drive bays (SATA3 default) |
| Peripheral Bay(s) [90° Rotatable] | <ul style="list-style-type: none"> ▪ 3x 5.25" drive bays |
| Backplane | |
| Supports 8 SATA3 or 8 SAS3 HDD | |
| System Cooling | |
| Fans | <ul style="list-style-type: none"> ▪ 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 | <ul style="list-style-type: none"> ▪ 1000W: 100-114.9 V, 50-60 Hz, 12 Amp ▪ 1200W: 114.9-240 V, 50-60 Hz, 12-8 Amp |
| DC Output | <ul style="list-style-type: none"> ▪ +3.3V / +5V / +12V / -12V / +5VSB ▪ 1000W max 20A / 20A / 83A / 0.3A / 3A ▪ 1200W max 20A / 20A / 99A / 0.3A / 3A |
| Note: | <ul style="list-style-type: none"> ▪ Max. continuous combined load on +3.3V and +5V output shall not exceed 120W. |
| Certification |  |
| Operating Environment | |
| RoHS | <ul style="list-style-type: none"> ▪ RoHS Compliant |
| Environmental Spec. | <ul style="list-style-type: none"> ▪ 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) |

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/Tower (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 |

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| | | | 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-swap 3.5" to 2.5" HDD tray - Add QTY 1 per drive |
| | CBL-SAST-0818 | | OCuLink v.91,INT,PCIe 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-swap 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-ROM | 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 |
| | 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 |