

# SuperStorage 6049P-E1CR36L



SAS3 IT controller Storage Expandable

## Integrated Board



**Super X11DPH-T**

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

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

## Key Features

- Corporate Database
- Database Processing & Storage
- Enterprise Server
- HPC, Data Center
- iSCSI SAN

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. 3 PCI-E 3.0 x16, 4 PCI-E 3.0 x8 (slot 2 & 3 occupied by controller and JBOD expansion port)
4. 36 Hot-swap 3.5" SAS3/SATA3 drive bays including 4 optional NVMe drives; 2 hot-swap 2.5" SATA3 drive bays (rear), 2 M.2 NVMe, Expander based backplane
5. Broadcom 3008 SAS3 AOC
6. 2x 10GBase-T LAN ports with Intel X722 + PHY Intel X557
7. Server remote management: IPMI 2.0 / KVM over LAN / Media over LAN
8. 3 Hot-swap 8cm redundant PWM cooling fans, 2 hot-swap 8cm rear exhaust PWM fans PWM fans
9. 1200W Redundant Power Supplies **Titanium Level (96%)**

# Specifications

## Product SKUs

- SSG-6049P-E1CR36L** ■ SuperStorage 6049P-E1CR36L (Black)

## Motherboard

### Super X11DPH-T

## Processor/Cache

- CPU** ■ Dual Socket P (LGA 3647)
  - 2nd Gen. Intel® Xeon® Scalable Processors (Cascade Lake/Skylake)‡, 3 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

## 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

- 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® C622 chipset

- SAS** ■ SAS3 (12Gbps) via Broadcom 3008 AOC
  - Broadcom 3008 controller

- SATA** ■ SATA3 (6Gbps) w ith RAID 0, 1, 5, 10

- Network Controllers** ■ Dual 10GBase-T LAN ports w ith Intel X722 + PHY Intel X557

- IPMI** ■ Support for Intelligent Platform Management Interface v.2.0
  - IPMI 2.0 w ith virtual media over LAN and KVM-over-LAN support

- Graphics** ■ ASPEED AST2500 BMC

## Input / Output

- LAN** ■ 2 RJ45 10GBase-T LAN ports
  - 1 RJ45 Dedicated IPMI LAN port

- USB** ■ 4 USB 3.0 ports (rear)
  - 1 Type A

- VGA** ■ 1 VGA port

- Serial Port / Header** ■ 1 Fast UART 16550 port / 1 Header

## System BIOS

- BIOS Type** ■ 256Mb AMI UEFI

## Chassis

- Form Factor** ■ 4U Rackmount

- Model** ■ **CSE-847BE1C4-R1K23LPB**

## Dimensions

- Width** ■ 17.2" (437mm)

- Height** ■ 7" (178mm)

- Depth** ■ 27.5" (699mm)

- Weight** ■ Gross Weight: 102.5 lbs (46.4 kg)
  - Net Weight: 65.5 lbs (29.7 kg)

- Available Colors** ■ Black

## Front Panel

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

- LEDs** ■ Power status LED
  - Hard drive activity LED
  - Network activity LEDs
  - System Information LED
  - Power fail LED

## Expansion Slots

- PCI-Express** ■ 3 PCI-E 3.0 x16 slot
  - 4 PCI-E 3.0 x8 slots
  - Slot 2 & 3 occupied by controller and JBOD Expansion Port

## Drive Bays

- Hot-swap** ■ 36 Hot-sw ap 3.5" SAS3/SATA3 drive bays
  - 2 Hot-sw ap 2.5" SATA3 drive bays (rear)

- Optional** ■ 4 U.2 NVMe
  - 2 M.2 NVMe

## Backplane

SAS3/SATA3 single expander per backplane

## System Cooling

- Fans** ■ 3 Hot-sw ap 8cm redundant PWM cooling fans
  - 2 Hot-sw ap 8cm rear exhaust PWM fans
  - Redundant cooling

## Power Supply (76mm Width)

1200W Redundant Power Supplies w ith PMBus

- Total Output Power** ■ 1000W/1200W

- Dimension (W x H x L)** ■ 76 x 40 x 336 mm

- Input** ■ 100-127Vac / 15-12A / 50-60Hz
  - 200-240Vac / 8.5-7A / 50-60Hz
  - 200-240Vdc / 8.5-7A (for CCC only)

## Management

### Software

- Intel® Node Manager
- IPMI 2.0
- NMI
- SPM, SUM
- SuperDoctor® 5
- Watchdog

## PC Health Monitoring

### CPU

- Monitors for CPU Cores, Chipset Voltages, Memory.
- 4+1 Phase-sw itching 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

### +12V

- Max: 83A / Min: 0A (100-127Vac)
- Max: 100A / Min: 0A (200-240Vac)
- Max: 100A / Min: 0A (200-240Vdc)

### +5Vsb

- Max: 4A / Min: 0A

### Output Type

- 19 Pairs Gold Finger Connector

### Certification



**Titanium Level**

**[ Test Report ]**

## Operating Environment

### RoHS

- RoHS Compliant

### 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)

# Parts List

## Parts List - (Items Included)

	Part Number	Qty	Description
<b>Motherboard / Chassis</b>	MBD-X11DPH-T	1	Super X11DPH-T Motherboard
	CSE-847BE1C4-R1K23LPB	1	4U Chassis
<b>Add-on Card</b>	AOC-S3008L-L8E-P	1	12Gbps SAS3/HBA/ 2 internal HD connectors/STD Gen3 PCI/122 HD support
<b>Add-on Card / Module</b>	AOM-SAS3-8I8E-LP	1	8-port Mini SAS HD Int-to-Ext cable adapter w / LP bracket,HF,RoHS/REACH
<b>Backplane</b>	BPN-SAS3-826EL1-N4	1	12-port 2U SAS3 12Gbps single-expander backplane, support up to 8x 3.5-inch SAS3/SATA3 HDD/SSD and 4x NVMe/SAS3/SATA3 storage devices
<b>Backplane</b>	BPN-SAS3-846EL1	1	24-port 4U SAS3 12Gbps single-expander backplane, support up to 24x 3.5-inch SAS3/SATA3 HDD/SSD
<b>Cable 1</b>	CBL-0296L	3	4 pin to 4 pin fan extension cord, for PWM fan. 23cm. 24AWG
<b>Cable 2</b>	CBL-SAST-0531-01	4	MINI SAS HD,12G,INT,80CM,30AWG
<b>Cable 3</b>	CBL-SAST-0532	2	MINI SAS HD,12G,INT,50CM,30AWG
<b>Parts</b>	MCP-220-82616-0N	1	12G 2.5x2 Drive Kit w / Status LED(216B/826B/417B/846X/847B)
<b>Parts</b>	MCP-260-00042-0N	1	STD I/O shield for X9 socket R server MB w ith Gasket.
<b>Heatsink / Retention</b>	SNK-P0068PS	1	2U Passive CPU Heat Sink for X11 Purley Platform Equipped w ith a Narrow Retention Mechanism
<b>Heatsink / Retention</b>	SNK-P0068PSC	1	2U Passive CPU Heat Sink w ith a Side Air Channel for X11 Purley Platform Equipped w ith a Narrow Retention Mechanism
<b>Power Supply</b>	PWS-1K23A-1R	2	AC-DC 1200W, Titanium Level, Redundancy, 1U, PMBUS 1.2, +12V/+5Vsb, 360x76x40 mm,HF,RoHS/REACH
<b>FAN 1</b>	FAN-0158L4	7	80x80x38 mm, 10.5K RPM, Optional Middle Cooling Fan for X10 2U Ultra and HFT Series Servers,RoHS/REACH

## Optional Parts List

	Part Number	Qty	Description
<b>Converter Trays</b>	MCP-220-00118-0B	-	Black gen-5.5 tool-less 3.5-to-2.5 converter drive tray
	MCP-220-00043-0N	-	Black hot-sw ap gen 4 3.5 to 2.5 HDD tray
<b>Convert 2 Rear SATA to NVMe</b>	MCP-220-82619-0N	1	2.5x2 NVMe Drive Kit for 216B/826B/417B/846X/847B,RoHS
	AOC-SLG3-2E4R	1	LP, PCIe3 x8, 2 internal Mini-SAS HD port redriver NVMe card
	CBL-SAST-0849	2	MiniSAS HD source to OcuLink v 1.0,INT,PCIe,57CM,34AWG
<b>4 NVMe Drives Support</b>	AOC-SLG3-2E4R	2	NVMe AOC
	CBL-SAST-0590	4	Internal Mini-SAS HD cable for PCIe SSD NVMe, 12Gb/s, 70cm
	MCP-220-00116-0B	4	3.5" to 2.5" NVMe drive tray
<b>Drive Tray</b>	MCP-220-84701-0N	1	Internal drive tray for one 3.5" HDD or two 2.5" HDD
	CBL-SAST-0388L-02	2	MINI SAS-4 SATA,INT,75/75/90/90CM,90CM SB,30AWG
	CBL-0082L	1	Y split SATA power extension
<b>Tray Converter</b>	MCP-220-00118-0B	1	Black gen-5.5 tool-less 3.5-to-2.5 converter drive tray,RoHS/REACH
<b>Global Services &amp; Support</b>	<u>OS4HR3/2/1</u>	-	3/2/1-year onsite 24x7x4 service
	<u>OSNBD3/2/1</u>	-	3/2/1-year onsite NBD service
<b>Software</b>	<u>SFT-OOB-LIC</u> • eStore	1	OOB Management Package (per node license)
<b>Software</b>	<u>SFT-DCMS-Single</u>	1	DataCenter Management Package (per node license)