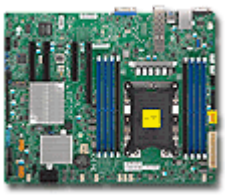
SuperStorage 5029P-E1CTR12L

Integrated Board



Super X11SPH-nCTF

Views: | Angled View | Top View | | Front View | Rear View |

Drivers & Utilities | BIOS | IPMI | Tested Memory | Tested M.2 List | NVMe Options | Manuals | OS Certification Matrix | 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.

Key Features

- **Application and data serving**
- **Connectivity/Storage Compute Nodes**
- **High Availability Storage Appliance Platform**

1. Single Socket P (LGA 3647) supports 2nd Gen. Intel® Xeon® Scalable processor (Cascade Lake/Skylake)‡
2. 8 DIMMs; up to 2TB 3DS ECC DDR4-2933MHz† RDIMM/LRDIMM, Supports Intel® Optane™ DCPMM††
3. 1 PCI-E 3.0 x16, 1 PCI-E 3.0 x8, 1 PCI-E 3.0 x8, 1 PCI-E 3.0 x4 (in x8)
4. 2x 10GBase-T with Intel® X557
5. 12 Hot-swap 3.5" SAS/SATA drive bays with SES3; 2 Hot-swap 2.5" NVMe/SATA (rear, optional)
6. SAS3 via Broadcom 3008 controller
7. Server remote management: IPMI 2.0 / KVM over LAN / Media over LAN
8. 3 High-performance 80mm PWM fans
9. 800W Redundant Power Supplies **Titanium Level (96%)**

Specifications

Product SKUs

SSG-5029P-E1CTR12L	SuperStorage 5029P-E1CTR12L (**Black**)

Motherboard

Super X11SPH-nCTF

Processor/Cache

CPU	Single Socket P (LGA 3647) 2nd Gen. Intel® Xeon® Scalable Processors (Cascade Lake/Skylake)‡ Support CPU TDP 70-205W
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	8 DIMM slots Up to 2TB 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
SATA	SATA3 (6Gbps) via C622 controller RAID 0, 1, 5, 10 support
SAS	SAS3 (12Gbps) via Broadcom 3008 SW RAID 0, 1, 10
Network Controllers	Dual LAN with 10GBase-T with Intel® X722 + X557
IPMI	Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Graphics	ASPEED AST2500 BMC

Input / Output

SATA	10 SATA3 (6Gbps) ports
LAN	2 RJ45 10GBase-T LAN ports 1 RJ45 Dedicated IPMI LAN port
USB	5 USB 3.0 ports (2 rear + 2 headers + 1 Type A) 8 USB 2.0 ports (2 rear + 6 headers)
VGA	1 VGA port
Serial Port / Header	2 COM Ports (1 rear, 1 header)

System BIOS

Chassis

Form Factor	2U Rackmount
Model	**CSE-826BE1C-R802LPB**

Dimensions

Width	17.2" (437mm)
Height	3.5" (89mm)
Depth	25.6" (648mm)
Package	11.5" (H) x 26.5" (W) x 34" (D)
Weight	Gross Weight: 58 lbs (26.3 kg) Net Weight: 34 lbs (15.4 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	1 PCI-E 3.0 x16 1 PCI-E 3.0 x8 1 PCI-E 3.0 x8 1 PCI-E 2.0 x4 (in x8)
M.2	1x M.2 Interface: PCI-E 3.0 x4 and SATA Form Factor: 2280 Key: M-Key Double Height Connector

Drive Bays / Storage

Hot-swap	12 Hot-swap 3.5" SAS/SATA drive bays with SES3
Optional	2 Hot-swap 2.5" NVMe/SATA drive bays (rear)

Backplane

SAS3 Backplane: SAS3 12Gbps single expander backplane, w/ LSISAS3x28 expander, support 12x 3.5" drives, with 4x mini-SAS HD connectors, 2 for uplink and another 2 for downlink

System Cooling

Fans	3 High-performance 80mm PWM fans

Power Supply (76mm Width)

800W Redundant Power Supplies with PMBus

Total Output Power	800W: 100 – 240Vac 800W: 200 – 240Vdc
Dimension (W x H x L)	76 x 40 x 336 mm
Input	800W: 100-240Vac / 50-60Hz 800W: 200-240Vdc

BIOS Type	▪ AMI UEFI

Management

Software	▪ Intel® Node Manager ▪ IPMI 2.0 ▪ KVM with dedicated LAN ▪ NMI ▪ SPM, SUM ▪ SuperDoctor® 5 ▪ Watch Dog
Power Configurations	▪ ACPI Power Management

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

+12V	▪ Max: 66A / Min: 0A (100-240Vac) ▪ Max: 66A / Min: 0A (200-240Vdc)
+5Vsb	▪ Max: 4A / Min: 0A
Output Type	▪ Gold Finger
Certification	**Titanium Level**

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
Motherboard / Chassis	MBD-X11SPH-nCTF	1	Super X11SPH-nCTF Motherboard
	CSE-826BE1C-R802LPB	1	2U Chassis
Add-on Card / Module	AOM-SAS3-8I8E-LP	1	8-port Mini SAS HD Int-to-Ext cable adapter w / LP bracket,HF,RoHS/REACH
Backplane	BPN-SAS3-826EL1	1	12-port 2U SAS3 12Gbps single-expander backplane, support up to 12x 3.5-inch SAS3/SATA3 HDD/SSD
Cable 1	CBL-SAST-0532	2	MINI SAS HD,12G,INT,50CM,30AWG
Cable 2	CBL-SAST-0568	2	MINI SAS HD,12G,INT,35CM,30AWG
Parts	MCP-260-00109-0N	1	Standard I/O Shield for X11SPM-TF w ith EMI Gasket
Manual	MNL-1991-QRG	1	5029P-E1CR12L Quick Reference Guide
Heatsink / Retention	SNK-P0068PS	1	2U Passive CPU Heat Sink for X11 Purley Platform Equipped w ith a Narrow Retention Mechanism
Power Supply	PWS-802A-1R	2	1U 800W 100-240Vac/47-63Hz, and DC240 input
FAN 1	FAN-0158L4	3	80x80x38 mm, 10.5K RPM, Optional Middle Cooling Fan for X10 2U Ultra and HFT Series Servers,RoHS/REACH
Drive Tray(s)	MCP-220-00075-0B	12	Black 3.5" HDD tray

Optional Parts List

	Part Number	Qty	Description
2.5" to 3.5" Converter Tray	MCP-220-00043-0N	-	Black Hot-sw ap Gen-4 2.5" to 3.5" HDD tray
Peripheral Drives	MCP-220-82616-0N	1	Rear Window 12G 2x 2.5" HDD Module
Storage Controller card & cable	AOC-S3108L-H8iR	-	Standard LP, 8 Internal ports (12Gb/s) PCI-E 3.0 x8, RAID controller, RAID 0, 1, 5, 6, 10, 50, 60
CacheVault	BTR-TFM8G-LSICVM02 & BKT-BBU-BRACKET-05	-	CacheVault for Broadcom 3108 w ith SuperCap mounting bracket for PCI-E location
Network Card(s)	AOC-SGP-i2	-	Standard LP, 2x GbE RJ45, PCI-E x4, Intel i350-AM2
	AOC-SGP-i4	-	Standard LP, 4x GbE RJ45, PCI-E x4, Intel i350
	AOC-STGN-i2S	-	Standard Lp, 2x 10GbE SFP+, PCI-E x8, Intel 82599ES
	AOC-STGF-i2S	-	Standard Lp, 2x 10GbE SFP+, PCI-E x8, Intel X710-BM2
	AOC-STG-B4S	-	Standard Lp, 4x 10GbE SFP+, PCI-E x8, Broadcom BCM57840S
	AOC-STGS-i2T	-	Standard Lp, 2x 10GbE RJ45, PCI-E x8, Intel X550-AT2
	AOC-S25G-b2S	-	Standard LP, 2x 25GbE SFP28, PCI-E x8, Broadcom BCM57414
	AOC-S25G-m2S	-	Standard LP, 2x 25GbE SFP28, PCI-E x8, Mellanox CX-4 LX
NVMe Optional Parts (Complete System Only)	MCP-220-82619-0N	1	Rear hot-sw ap 2.5" x2 NVMe drive kit
	CBL-SAST-0819	2	OCuLink v1.0 INT PCIe NVMe SSD, 65CM, 34AWG
Front Bezels	MCP-210-82601-0B	1	Black front bezels
TPM security module	AOM-TPM-9670V	1	TPM 2.0, vertical form factor
	AOM-TPM-9671V	1	TPM 1.2, vertical form factor
Global Services & Support	OS4HR3/2/1	-	3/2/1-year onsite 24x7x4 service
	OSNBD3/2/1	-	3/2/1-year onsite NBD service
Software	SFT-OOB-LIC • eStore	1	OOB Management Package (per node license)
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)