

Specifications

Product SKUs		Chassis	
SYS-120C-TR	<ul style="list-style-type: none"> SuperServer SYS-120C-TR (Black front & silver body) 	Form Factor	<ul style="list-style-type: none"> 1U Rackmount
Motherboard		Model	<ul style="list-style-type: none"> CSE-LB13AC2-R860AW
Super X12DDW-A6		Dimensions and Weight	
Processor		Height	<ul style="list-style-type: none"> 1.7" (43mm)
CPU	<ul style="list-style-type: none"> Dual Socket P+ (LGA-4189) 3rd Gen Intel® Xeon® Scalable processors Support CPU TDP 270W CPUs with TDP higher than 185W may have support conditions due to power and thermal limitations. 	Width	<ul style="list-style-type: none"> 17.2" (437mm)
Cores	<ul style="list-style-type: none"> Up to 40C/80T; Up to 60MB Cache 	Depth	<ul style="list-style-type: none"> 23.5" (597mm)
System Memory		Package	<ul style="list-style-type: none"> 7.8" (H) x 23.8" (W) x 32.4" (D)
Memory	<ul style="list-style-type: none"> Memory Capacity: 16 DIMM slots Up to 4TB: 16x 256 GB DRAM Up to 6TB: 8x 256 GB DRAM and 8x 512 GB PMem Memory Type: 3200/2933/2666MHz ECC DDR4 RDIMM;LRDIMM Intel® Optane™ persistent memory 200 series 	Weight	<ul style="list-style-type: none"> Net Weight: 25 lbs (11.3 kg) Gross Weight: 40 lbs (18.1 kg)
Memory Voltage	<ul style="list-style-type: none"> 1.2 V 	Available Color	<ul style="list-style-type: none"> Black front & silver body
Error Detection	<ul style="list-style-type: none"> ECC 	Front Panel	
On-Board Devices		Buttons	<ul style="list-style-type: none"> Power On/Off button Reset button
NVMe	<ul style="list-style-type: none"> NVMe; RAID 0/1/5/10 support 	LEDs	<ul style="list-style-type: none"> HDD activity LED Network activity LEDs Power status LED
SATA	<ul style="list-style-type: none"> SATA3 (6Gbps); RAID 0/1/5/10 support 	Expansion Slots	
Chipset	<ul style="list-style-type: none"> Intel® C621A 	PCI-Express (PCI-E)	<ul style="list-style-type: none"> Slot 1: PCI-E 4.0 x16 FHHL Slot 2: PCI-E 4.0 x16 FHHL
Network Connectivity	<ul style="list-style-type: none"> Via Slim-AIOM 	Drive Bays / Storage	
IPMI	<ul style="list-style-type: none"> Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support 	Hot-swap	<ul style="list-style-type: none"> 8x 2.5" hot-swap SATA/SAS drive bays
Input / Output		M.2	<ul style="list-style-type: none"> 2 M.2 NVMe M-Key, 2280
LAN	<ul style="list-style-type: none"> 1 Dedicated IPMI LAN port 	Peripheral Bays	<ul style="list-style-type: none"> 1 DVD-ROM drive bays (optional)
USB	<ul style="list-style-type: none"> 2 USB 3.0 port(s) (2 rear) 	System Cooling	
Video	<ul style="list-style-type: none"> 1 VGA port(s) 	Fans	<ul style="list-style-type: none"> 6x 4cm heavy duty fans with optimal fan speed control
Serial Port	<ul style="list-style-type: none"> 1 COM Port(s) (1 rear) 	Air Shroud	<ul style="list-style-type: none"> 2 Air Shroud(s)
DOM	<ul style="list-style-type: none"> 1 SuperDOM (Disk on Module) port 	Power Supply	
System BIOS		AC 860W, Platinum Level, Redundant Power Supply, 54.5mm width	
BIOS Type	<ul style="list-style-type: none"> AMI 32MB SPI FLASH ROM 	Dimension (W x H x L)	<ul style="list-style-type: none"> 54.5 x 40.25 x 320 mm
		Output Type	<ul style="list-style-type: none"> Gold Finger
		Certification	 Platinum Level [Test Report]
		Operating Environment	

Management

Software

- SCC
- Redfish API
- IPMI 2.0
- SSM
- Intel® Node Manager
- SPM
- KVM with dedicated LAN
- SUM
- NMI
- Watch Dog
- SuperDoctor® 5

Power Configurations

- ACPI/APM Power Management

PC Health Monitoring

CPU

- 4+1 Phase-switching voltage regulator
- Monitors for CPU Cores, Chipset Voltages, Memory.

FAN

- Fans with tachometer monitorin
- Pulse Width Modulated (PWM) fan connectors
- Status monitor for speed control

Temperature

- Monitoring for CPU and chassis environment
- Thermal Control for fan connectors

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-X12DDW-A6	1	Super X12DDW-A6 Motherboard
	CSE-LB13AC2-R860AW	1	1U Chassis
Backplane	BPN-SAS3-113A-N2	1	8-port 1U SAS3 12Gbps Hybrid backplane, support up to 6x 2.5-inch SAS3/SATA3 HDD/SSD and 2x SAS3/SATA3/NVMe Storage Devices
Cable 1	CBL-SAST-1270LP-100	1	SlimlineLP x8 (LE) to 2x MiniSAS HD x4(STR),70/60CM,100
FAN 1	FAN-0101L4	2	40x56,4 Pin PWM,Primary for SC809,111, Sec.for SC816,819,808
Parts	MCP-150-00015-0B	6	Rubber pad, 3.0mm H, 10x10mm
Air Shroud	MCP-310-00105-0B	2	Mylar Air Shroud for LA15-AW,LB13-AW,LB16-AW + X12DDW
Manual	MNL-2330-QRG	1	120C-TR Quick Reference Guide
Riser Card	RSC-D-6G4	1	1U LHS DCO Riser card with one PCI-E 4.0 x16 slot,HF,RoHS
Riser Card	RSC-DR-6G4	1	1U RHS DCO Riser card with one PCI-E 4.0 x16 slot,HF,RoHS
Software	SFT-OOB-LIC	1	License key for enabling OOB BIOS management
Heatsink / Retention	SNK-P0077P	2	1U Passive CPU Heat Sink for X12 Generation Intel Whitley and Cedar Island Platforms
*Power Supply	PWS-860P-1R2	2	1U 860W, Redundant power supply, 54.5mm width, Platinum with
*Power Distributor	PDB-PT116-SL8824	1	Based on PDB-PT116-L8824 to optimize 24Pin etc cable lengths
*Cable 2	CBL-CDAT-0680-55	1	[NR]FRNT CNTL,FLAT,IDC 2x10,PH1.27 TO 2x10,PH1.27,55CM,28AWG
*Cable 3	CBL-PWCD-0160-IS	2	PWCD,US,NEMA5-15P TO IEC60320 C13,6FT,16AWG,RoHS/REACH
*FAN 2	FAN-0101L4	4	40x56,4 Pin PWM,Primary for SC809,111, Sec.for SC816,819,808
*Front Panel	FPB-FP112	1	Front control board for SC113,113M (U/C share)
*Parts	MCP-160-00028-0B	1	Mylar Cable Channel for Cloud-DC, X12 DDW
*Drive Tray(s)	MCP-220-00188-0B	8	Black gen-5.5 tool-less cost-effective 2.5" HDD tray (no dummy)
*Rear Window	MCP-240-00173-0N	1	1U X12 AWIO Rear window for LA15,LB16,LB13 Redundant PWS
*Power Supply	MCP-250-00009-0N	1	SC113 Redundant Power Distributor Cover
*Rail Set	MCP-290-00063-0N	1set	Rail set, quick/quick, default for 1U 17.2"W for SC113/SC116,RoHS/REACH
*Fan Holder	MCP-320-00056-0B	24	40X56 rubber fan pin for SC819U, SC119U,RoHS/REACH
*Fan Holder	MCP-320-00066-0B	1	Fan holder with cable channel, 40X56mm fan, for LA15,LB16,LB13
*Parts	MCP-320-00067-0B	1	Chassis base Air Foam block set (L+R) for Cloud-DC
*Fan Holder	MCP-340-00035-0B	2	Dummy fan 40x56mm for 40x56 counter-rotating fan (cost-effective)

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
3108 CacheVault	MCP-240-00127-0N	1	SuperCap mounting bracket for 2.5" HDD location
	BTR-TFM8G-LSICVM02	1	CacheVault for Broadcom 3108
	BKT-BBU-BRACKET-05	1	SuperCap mounting bracket for PCI-E location
3108 RAID Card	CBL-SAST-0593 	2	Internal Mini-SAS HD to Mini-SAS HD 60cm
	AOC-S3108L-H8IR-16DD	1	Standard LP, 8 internal ports (12Gb/s) Gen-3, 16HDD; RAID 0, 1, 5, 6, 10, 50, 60;

3808 HBA Card	CBL-SAST-1264-100	1	Slimline x8 (STR) to 2x MiniSAS HD x4,65CM
	AOC-S3808L-L8IT	1	Standard LP, 8 internal ports (12Gb/s) Gen-4, 16HDD; HBA;
3908 RAID Card	AOC-S3908L-H8IR-16DD	1	Standard LP, 8 internal ports (12Gb/s) Gen-4, 122HDD; RAID 0, 1, 5, 6, 10, 50, 60;
	CBL-SAST-1264-100	1	Slimline x8 (STR) to 2x MiniSAS HD x4,65CM
3908/3916 CacheVault	MCP-240-00127-0N	1	SuperCap mounting bracket for 2.5" HDD location
	BTR-CVPM05	1	CacheVault for Broadcom 3908/3916
	BKT-BBU-BRACKET-05	1	SuperCap mounting bracket for PCI-E location
Add-on card for additional M.2	AOC-SLG3-2M2	-	Low Profile PCI-E x8 add-on card supports 2 PCI-E 3.0 x4 M-Key M.2 NVMe Modules
	AOC-SLG3-2H8M2	-	Low Profile PCI-E x8 add-on card supports 2 PCI-E 3.0 x4 M-Key M.2 NVMe/SATA Modules; RAID 0,1
AIOM Network Card(s)	AOC-A100G-m2CM	-	OCP 3.0 AIOM NIC, 2x 100GbE QSFP28, PCI-E 4.0 x16, Mellanox® CX-6 DX
	AOC-ATGC-i2TM	-	OCP 3.0 AIOM NIC, 2x 10GbE RJ45, PCI-E 3.0 x4, Intel X710-AT2
	AOC-A100G-b2CM	-	OCP 3.0 AIOM NIC, 2x 100GbE QSFP28, PCI-E 4.0 x16, Broadcom® BCM57508
	AOC-AG-i4SM	-	OCP 3.0 AIOM NIC, 4x 1GbE SFP, PCI-E 2.1 x4, Intel® i350-AM4
	AOC-AG-i4M	-	OCP 3.0 AIOM NIC, 4x 1GbE RJ45, PCI-E 2.1 x4, Intel® i350-AM4
	AOC-ATG-i4SM	-	OCP 3.0 AIOM NIC, 4x 10GbE SFP+, PCI-E 3.0 x8, Intel® XL710-BM1
	AOC-AG-i2M	-	OCP 3.0 AIOM NIC, 2x 1GbE RJ45, PCI-E 2.1 x4, Intel® i350-AM2
	AOC-ATG-i2TM	-	OCP 3.0 AIOM NIC, 2x 10GbE RJ45, PCI-E 3.0 x4, Intel® X550-AT2
	AOC-A25G-m2SM	-	OCP 3.0 AIOM NIC, 2x 25GbE SFP28, PCI-E x8, Mellanox® CX-6 LX
	AOC-ATG-i2T2SM	-	OCP 3.0 AIOM NIC, 4x 10GbE RJ45 & SFP+, PCI-E x8, Intel® X710-TM4
	AOC-AH25G-m2S2TM	-	OCP 3.0 AIOM NIC, 2x 25GbE SFP28 & 2x 10GbE RJ45, PCI-E x8/x4, Mellanox® CX4 Lx EN & Intel® X550-AT2 (Add 1x MCP-310-00107-0B per card to support this NIC)
	AOC-A25G-b2SM	-	OCP 3.0 AIOM NIC, 2x 25GbE SFP28, PCI-E x8, Broadcom® BCM57414
	AOC-ATG-i2SM	-	OCP 3.0 AIOM NIC, 2x 10GbE SFP+, PCI-E 3.0 x8, Intel® X710-BM2
Cable Management Arm	MCP-290-00152-0N	1	1U Supermicro Cable Management Arm 2nd Gen
DVD Reader	DVM-TEAC-DVDRW-SBT5	1	BLACK TEAC SLIM DVD-RW SATA DRIVE
	DVM-PLDS-DVDRW-SBT5	1	PHILIPS SLIM BLACK DVD-RW SATA DRIVE
	MCP-220-81502-0N • eStore	1	Slim SATA DVD mounting kit. Add 1 per DVD
	DVM-TEAC-DVD-SBT5	1	BLACK TEAC SLIM DVD SATA DRIVE
Fan Upgrade	FAN-0163L4 • eStore	6	40x40x56 mm, 23.3K-20.3K RPM, Counter-rotating Fan
Front USB Kit	MCP-220-00087-0B • eStore	1	Black USB tray for slim DVD bay
Inlet Temp Sensor	MCP-280-00033-0N	1	Universal Thermal sensor kit with 80cm I2C cable
Intel VROC Key	AOC-VROCINTMOD	1	Intel VROC, RAID 0, 1, 5, 10 (Intel SSD Only)
	AOC-VROCSTNMOD	1	Intel VROC Standard, RAID 0, 1, 10
	AOC-VROCPREMOD	1	Intel VROC Premium, RAID 0, 1, 5, 10
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)
TPM security module	AOM-TPM-9671V	1	SPI capable TPM 1.2 with Infineon 9670 controller; vertical form factor
	AOM-TPM-9670V	1	SPI capable TPM 2.0 with Infineon 9670 controller; vertical form factor
	AOM-TPM-9670V-S-FIPS	1	SPI capable TPM 2.0 with Infineon 9670 controller w/ FIPS; vertical form factor