



Specifications

Product SKUs	
SYS-120C-TN10R	<ul style="list-style-type: none"> SuperServer SYS-120C-TN10R (Black front & silver body)
Motherboard	
Super X12DDW-A6	
Processor	
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.
Cores	<ul style="list-style-type: none"> Up to 40C/80T; Up to 60MB Cache
System Memory	
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
Memory Voltage	<ul style="list-style-type: none"> 1.2 V
Error Detection	<ul style="list-style-type: none"> ECC
On-Board Devices	
NVMe	<ul style="list-style-type: none"> NVMe; RAID 0/1/5/10 support U.2
SATA	<ul style="list-style-type: none"> SATA3 (6Gbps); RAID 0/1/5/10 support
Chipset	<ul style="list-style-type: none"> Intel® C621A
Network Connectivity	<ul style="list-style-type: none"> Via Slim-AIOM
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
Input / Output	
LAN	<ul style="list-style-type: none"> 1 Dedicated IPMI LAN port
USB	<ul style="list-style-type: none"> 2 USB 2.0 port(s) (2 front) 2 USB 3.0 port(s) (2 rear)
Video	<ul style="list-style-type: none"> 1 VGA port(s)
Serial Port	<ul style="list-style-type: none"> 1 COM Port(s) (1 rear)
DOM	<ul style="list-style-type: none"> 1 SuperDOM (Disk on Module) port
System BIOS	
BIOS Type	<ul style="list-style-type: none"> AMI 32MB SPI FLASH ROM

Chassis	
Form Factor	<ul style="list-style-type: none"> 1U Rackmount
Model	<ul style="list-style-type: none"> CSE-LB16AC10-R860AW
Dimensions and Weight	
Height	<ul style="list-style-type: none"> 1.7" (43mm)
Width	<ul style="list-style-type: none"> 17.2" (437mm)
Depth	<ul style="list-style-type: none"> 23.5" (597mm)
Package	<ul style="list-style-type: none"> 7.8" (H) x 23.8" (W) x 32.4" (D)
Weight	<ul style="list-style-type: none"> Net Weight: 25 lbs (11.3 kg) Gross Weight: 40 lbs (18.1 kg)
Available Color	<ul style="list-style-type: none"> Black front & silver body
Front Panel	
Buttons	<ul style="list-style-type: none"> Power On/Off button UID button
LEDs	<ul style="list-style-type: none"> HDD activity LED Network activity LEDs Power status LED
Expansion Slots	
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
Drive Bays / Storage	
Hot-swap	<ul style="list-style-type: none"> 10x 2.5" hot-swap NVMe/SATA/SAS drive bays (10x 2.5" NVMe hybrid) U.2 drive support
M.2	<ul style="list-style-type: none"> 2 M.2 NVMe M-Key, 2280
System Cooling	
Fans	<ul style="list-style-type: none"> 6x 4cm heavy duty fans with optimal fan speed control
Air Shroud	<ul style="list-style-type: none"> 2 Air Shroud(s)
Power Supply	
AC 860W, Platinum Level, Redundant Power Supply, 54.5mm width	
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	<ul style="list-style-type: none">   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-LB16AC10-R860AW	1	1U Chassis
Backplane	BPN-SAS3-LB16A-N10	1	1U 10-Slot SFF Hybrid Backplane Supports 10xSAS3/SATA3/NVMe4 Storage Devices with 1x(2x4) + 2x(1x4) + 1x(2x2) Power Connectors
Cable 1	CBL-SAST-1274LP-100	1	SlimlineLP x8 (LE) to 2x Slimline x4 (STR),68/76CM,100 O
Cable 2	CBL-SAST-1285LP-100	1	SlimlineLP x4 (STR) to Slimline x4 (STR),57CM,100 OHM,Ro
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-2332-QRG	1	120C-TN10R 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 3	CBL-CDAT-0680-55	1	[NR]NCSI,2x10F to 2x10F,IDC,PH1.27,55cm,shield,28AWG,RoHS
*Cable 4	CBL-CUSB-1001-57	1	[NR] USB2.0,2x5,PH2.54 to 2x5,PH2.54,57CM,28AWG
*Cable 5	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-FP116	1	Front control board for SC116 (USB 2.0 x 2)
*Parts	MCP-160-00028-0B	1	Mylar Cable Channel for Cloud-DC, X12 DDW
*Drive Tray(s)	MCP-220-00188-0B	10	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-1260-100	1	MiniSAS HD x8 (LE) to 2x Slimline x4 (STR),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	<u>AOC-S3808L-L8IT</u>	1	Standard LP, 8 internal ports (12Gb/s) Gen-4, 16HDD; HBA;
	CBL-SAST-1276F-100	1	Slimline x8 (LE) to 2x Slimline x4 (STR),76/76CM
3816 HBA Card	CBL-SAST-1276F-100	1	Slimline x8 (LE) to 2x Slimline x4 (STR),76/76CM
	CBL-SAST-1265F-100	1	Slimline x8 (STR) to Slimline x4 (STR),64CM
	AOC-S3816L-L16IT	1	Standard LP, 16 internal ports (12Gb/s) Gen-4, 122HDD; HBA;
3908 RAID Card	CBL-SAST-1276F-100	1	Slimline x8 (LE) to 2x Slimline x4 (STR),76/76CM
	<u>AOC-S3908L-H8IR-16DD</u>	1	Standard LP, 8 internal ports (12Gb/s) Gen-4, 122HDD; RAID 0, 1, 5, 6, 10, 50, 60;
3908/3916 CacheVault	BKT-BBU-BRACKET-05	1	SuperCap mounting bracket for PCI-E location
	MCP-240-00127-0N	1	SuperCap mounting bracket for 2.5" HDD location
	BTR-CVPM05	1	CacheVault for Broadcom 3908/3916
3916 RAID Card	<u>AOC-S3916L-H16IR-32DD</u>	1	Standard LP, 16 internal ports (12Gb/s) Gen-4, 32HDD; RAID 0, 1, 5, 6, 10, 50, 60;
	CBL-SAST-1276F-100	1	Slimline x8 (LE) to 2x Slimline x4 (STR),76/76CM
	CBL-SAST-1265F-100	1	Slimline x8 (STR) to Slimline x4 (STR),64CM
Add-on card for additional M.2	<u>AOC-SLG3-2M2</u>	-	Low Profile PCI-E x8 add-on card supports 2 PCI-E 3.0 x4 M-Key M.2 NVMe Modules
	<u>AOC-SLG3-2H8M2</u>	-	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)	<u>AOC-AG-i4M</u>	-	OCP 3.0 AIOM NIC, 4x 1GbE RJ45, PCI-E 2.1 x4, Intel® i350-AM4
	<u>AOC-AH25G-m2S2TM</u>	-	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-ATG-i4SM	-	OCP 3.0 AIOM NIC, 4x 10GbE SFP+, PCI-E 3.0 x8, Intel® XL710-BM1
	<u>AOC-AG-i2M</u>	-	OCP 3.0 AIOM NIC, 2x 1GbE RJ45, PCI-E 2.1 x4, Intel® i350-AM2
	<u>AOC-ATG-i2TM</u>	-	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
	<u>AOC-ATG-i2T2SM</u>	-	OCP 3.0 AIOM NIC, 4x 10GbE RJ45 & SFP+, PCI-E x8, Intel® X710-TM4
	<u>AOC-A25G-b2SM</u>	-	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
	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
	<u>AOC-A100G-b2CM</u>	-	OCP 3.0 AIOM NIC, 2x 100GbE QSFP28, PCI-E 4.0 x16, Broadcom® BCM57508
	<u>AOC-AG-i4SM</u>	-	OCP 3.0 AIOM NIC, 4x 1GbE SFP, PCI-E 2.1 x4, Intel® i350-AM4
	Cable Management Arm	MCP-290-00152-0N	1
Fan Upgrade	FAN-0163L4 •eStore	6	40x40x56 mm, 23.3K-20.3K RPM, Counter-rotating Fan
Inlet Temp Sensor	MCP-280-00033-0N	1	Universal Thermal sensor kit with 80cm I2C cable
Intel VROC Key	<u>AOC-VROCSTNMOD</u>	1	Intel VROC Standard, RAID 0, 1, 10
	<u>AOC-VROCPREMOD</u>	1	Intel VROC Premium, RAID 0, 1, 5, 10
	<u>AOC-VROCINTMOD</u>	1	Intel VROC, RAID 0, 1, 5, 10 (Intel SSD Only)
NVMe Cables Kit	CBL-KIT-120C-TN10R-10	1	Supports 10x NVMe drives. Kit includes: 4x CBL-SAST-1219LP-85 (NVMe drive slot # 0-7) 1x CBL-SAST-1234FLP-85 (NVMe drive slot # 8-9)
Software	<u>SFT-DCMS-Single</u>	1	DataCenter Management Package (per node license)
TPM security module	<u>AOM-TPM-9671V</u>	1	SPI capable TPM 1.2 with Infineon 9670 controller; vertical form factor
	<u>AOM-TPM-9670V</u>	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
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