

Specifications

Product SKUs		Form Factor	■ 2U Rackmount
SYS-620C-TN12R	■ SuperServer SYS-620C-TN12R (Black front & silver body)	Model	■ CSE-LA26AC12-R1K23AW
Motherboard		Dimensions and Weight	
Super X12DDW-A6		Height	■ 3.5" (89mm)
Processor		Width	■ 17.2" (437mm)
CPU	■ Dual Socket P+ (LGA-4189) ■ 3rd Gen Intel® Xeon® Scalable processors ■ Support CPU TDP 270W	Depth	■ 25.5" (648mm)
Cores	■ Up to 40C/80T; Up to 60MB Cache	Package	■ 11.4" (H) x 26.7" (W) x 34.5" (D)
System Memory		Weight	■ Net Weight: 33.5 lbs (15.2 kg) ■ Gross Weight: 60 lbs (27.2 kg)
Memory	■ 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	Available Color	■ Black front & silver body
Memory Voltage	■ 1.2 V	Front Panel	
Error Detection	■ ECC	Buttons	■ Power On/Off button
On-Board Devices		LEDs	■ HDD activity LED ■ Network activity LEDs ■ Power status LED ■ Universal Information (UID) LED
NVMe	■ NVMe; RAID 0/1/5/10 support ■ U.2	Expansion Slots	
SATA	■ SATA3 (6Gbps); RAID 0/1/5/10 support	PCI-Express (PCI-E)	■ Slot 1: PCI-E 4.0 x8 FH, 6.6"L (optional x16 by merging slot 2) ■ Slot 2: PCI-E 4.0 x8 FH, 6.6"L ■ Slot 3: PCI-E 4.0 x16 FH, 6.6"L ■ Slot 4: PCI-E 4.0 x8 FH, 6.6"L ■ Slot 5: PCI-E 4.0 x8 FH, 6.6"L (optional x16 by merging slot 4) ■ Slot 6: PCI-E 4.0 x16 FH, 6.6"L ■ Slot A1: PCI-E 4.0 x16 OCP 3.0 Mezzanine NIC ■ Slot A2: PCI-E 4.0 x16 OCP 3.0 Mezzanine NIC
Chipset	■ Intel® C621A	(Slot 1, 2, 4 and 5 can support FH, 10.5"L by using 1U heatsinks. Some slots share PCIe lanes with NVMe drives.)	
Network Connectivity	■ Via Slim-AIOM	Drive Bays / Storage	
IPMI	■ Support for Intelligent Platform Management Interface v.2.0 ■ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support	Hot-swap	■ 12x 3.5" hot-swap NVMe/SATA/SAS drive bays (12x 2.5" NVMe hybrid) (Some PCIe expansion slots may disable to support 9 or more direct-attached NVMe drives.) ■ U.2 drive support
Input / Output		M.2	■ 2 M.2 NVMe ■ M-Key, 2280
LAN	■ 1 Dedicated IPMI LAN port	System Cooling	
USB	■ 2 USB 3.0 port(s) (2 rear)	Fans	■ 3x 8cm heavy duty fans with optimal fan speed control
Video	■ 1 VGA port(s)	Air Shroud	■ 1 Air Shroud(s)
Serial Port	■ 1 COM Port(s) (1 rear)		
DOM	■ 1 SuperDOM (Disk on Module) port		
System BIOS			
BIOS Type	■ AMI 32MB SPI FLASH ROM		
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

Power Supply

AC 1200W, Titanium Level, Redundancy,PMBUS 1.2, +12V/+5Vsb, 360x76x40 mm,HF,RoHS/REACH

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

Output Type ■ Gold Finger

Certification

Titanium Level

[Test Report]

Operating Environment**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-X12DDW-A6	1	Super X12DDW-A6 Motherboard
	CSE-LA26AC12-R1K23AW	1	2U Chassis
Backplane	BPN-SAS3-LA26A-N12	1	2U 12-Slot LFF Backplane Supports 12 x SAS3/SATA3/NVMe4 Storage Devices with 1x(2x4) + 4x(1x4) power connectors, co-lay with BPN-SAS3-LA26A-N12,HF,RoHS
Cable 1	CBL-SAST-1208LP-85	4	SlimlineLP x8 (STR) to SlimlineLP x8 (STR),8CM,85 OHM,Ro
Cable 2	CBL-SAST-1274LP-100	1	SlimlineLP x8 (LE) to 2x Slimline x4 (STR),68/76CM,100 O
Cable 3	CBL-SAST-1285LP-100	1	SlimlineLP x4 (STR) to Slimline x4 (STR),57CM,100 OHM,Ro
Parts	MCP-150-00022-0B	6	Rubber pad, 5mm H, 10x10mm
Air Shroud	MCP-310-82606-0B	1	Mylar air shroud X12DDW for SCLA26-AW
Manual	MNL-2344-QRG	1	620C-TN12R Quick Reference Guide
Riser Card	RSC-D2-668G4	1	2U LHS DCO Riser card with two PCI-E 4.0 x16 and one PCI-E
Riser Card	RSC-D2R-668G4	1	2U RHS DCO Riser card with two PCI-E 4.0 x16 and one PCI-E
Software	SFT-OOB-LIC	1	License key for enabling OOB BIOS management
Heatsink / Retention	SNK-P0078P	2	2U Passive CPU Heat Sink for X12 Generation Intel Whitley and Cedar Island Platforms
*Power Supply	PWS-1K23A-1R	2	AC-DC 1200W, Titanium Level, Redundancy, 1U, PMBUS 1.2, +12V/+5Vsb, 336x76x40 mm,HF,RoHS/REACH
*Power Distributor	PDB-PT826-S4824	1	Based on PDB-PT826-8824 to add 2pcs 8pin for option support
*Cable 4	CBL-PWCD-0160-IS	2	PWCD,US,NEMA5-15P TO IEC60320 C13,6FT,16AWG,RoHS/REACH
*FAN 1	FAN-0206L4	3	80x80x38 mm, 13.5K RPM, Middle Cooling Fan for 2U and above Servers
*Drive Tray(s)	MCP-220-00184-0B	12	Black gen-9 tool-less cost-effective 3.5
*Rear Window	MCP-240-00170-0N	1	2U X12 WIO rear window for SCLA26
*Rail Set	MCP-290-00053-0N	1	Rail set, quick/quick, default for 2,3U 17.2";W
*Drive Tray(s)	MCP-290-82607-0N	1	826B/216B rear dummy cover for 2 X 2.5

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	BTR-TFM8G-LSICVM02	1	CacheVault for Broadcom 3108
	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
3108 RAID Card	AOC-S3108L-H8IR-16DD	1	Standard LP, 8 internal ports (12Gb/s) Gen-3, 16HDD; RAID 0, 1, 5, 6, 10, 50, 60
	CBL-SAST-1260-100	1	MiniSAS HD x8 (LE) to 2x Slimline x4 (STR),60CM
3808 HBA Card	CBL-SAST-1276F-100	1	Slimline x8 (LE) to 2x Slimline x4 (STR),76/76CM
	<u>AOC-S3808L-L8IT</u>	1	Standard LP, 8 internal ports (12Gb/s) Gen-4, 16HDD; HBA;
3816 HBA Card	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;
	CBL-SAST-1276F-100	1	Slimline x8 (LE) to 2x Slimline x4 (STR),76/76CM

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	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
3916 RAID 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
	<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;
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-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
	<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-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
	<u>AOC-AG-i4M</u>	-	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
	Cable Management Arm	MCP-290-00073-0N • eStore	1
MCP-120-82601-0N		1	Cable arm adapter for SCLA26-AW
GPU Support	SNK-P0077P • eStore	2	1U Passive CPU Heat Sink for X12 Generation Intel Whitley and Cedar Island Platforms
	MCP-310-82613-0N	1	Plastic air shroud X12DDW for SCLA26-AW(GPU)
	CBL-PWEX-1040 • eStore	2	PWYCB,GPU,2x4M/CPU to two (2x3F+2x1F)/PCIe,P4.2, 5CM
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-620C-TN12R-12	1	Supports 12x NVMe drives. Kit includes: 4x CBL-SAST-1236LP-85 (NVMe drive slot # 0-7) 2x CBL-SAST-1267FLP-85 (NVMe drive slot # 8-11)
Rear Window NVMe Drive Kit	CBL-PWEX-1276	1	1x4M/P5.08 to 2x2Micro-Fit Male,15cm
	MCP-220-82620-0N	1	Rear Window Module for 2x 2.5" NVMe Drives PCIE Gen 4
	CBL-SAST-1236LP-85	1	Slimline x8 (STR) to 2x SlimlineLP x4 (STR),40/40CM
Rear Window SATA Drive Kit	<u>MCP-220-82616-0N</u> • eStore	1	Rear Window Module for 2x 2.5" SATA/SAS Drives
Software	<u>SFT-DCMS-Single</u>	1	DataCenter Management Package (per node license)

TPM security module	AOM-TPM-9670V-S-FIPS	1	SPI capable TPM 2.0 with Infineon 9670 controller w/ FIPS; vertical form factor
	<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

Note: For special low power setup SKU (3 optional parts below), please contact our sales for details.

Fan	FAN-0181L4 •eStore	3	80x80x38 mm 9.4K RPM Chassis Middle Fan
Power Supply	PWS-1K23A-1R •eStore	1	1200W 100-240Vac, and DC240 input
Power Supply Dummy Cover	CSE-PT0130L	1	Power Supply Dummy Cover