

# CloudDC SuperServer SYS-620C-TN12R (Complete System Only )

NEW



## Key Applications

- Web Server, Firewall Application
- Data Center Optimized, Value IaaS
- Cloud Computing, Compact Server
- DNS & Gateway Servers, Firewall Application
- CDN, Edge Nodes

## Key Features

1. Dual sockets P+ (LGA-4189) 3rd Gen Intel® Xeon® Scalable processors
2. Intel® C621A Chipset
3. 16 DIMMs up to 6TB 3DS ECC DDR4-3200: LRDIMM/RDIMM/Intel® DCPMM
4. 4 PCI-E 4.0 x16 FHHL (OR) 2 PCI-E 4.0 x16 FHHL and 4 PCI-E 4.0 x8 FHHL;  
2 PCI-E 4.0 x16 AIOM (OCP 3.0);  
2 PCI-E 3.0 x2 NVMe M.2
5. Dual AIOM with NCSI (OCP 3.0) for networking, 1 dedicated IPMI LAN
6. 12x 3.5/2.5" hot-swap hybrid NVMe/SATA/SAS drive bays
7. 3 heavy duty fans with optimal fan speed control, 1 air shroud
8. 1200W redundant Titanium level 100-240Vac and 200-240 Vdc power supplies
9. 1 VGA, 1 COM, 2 USB 3.0 (rear)

# Specifications

## Product SKUs

<b>SYS-620C-TN12R</b>	<ul style="list-style-type: none"> <li>SuperServer SYS-620C-TN12R (Black)</li> </ul>
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## Motherboard

### Super X12DDW-A6

## Processor

<b>CPU</b>	<ul style="list-style-type: none"> <li>Dual Socket P+ (LGA-4189)</li> <li>3rd Gen Intel® Xeon® Scalable processors</li> <li>Support CPU TDP 270W</li> </ul>
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<b>Cores</b>	<ul style="list-style-type: none"> <li>Up to 40C/80T; Up to 60MB Cache</li> </ul>
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## System Memory

<b>Memory</b>	<ul style="list-style-type: none"> <li>Memory Capacity: 16 DIMM slots</li> <li>Up to 4TB: 16x 256 GB DRAM</li> <li>Up to 6TB: 8x 256 GB DRAM and 8x 512 GB PMem</li> <li>Memory Type: 3200/2933/2666MHz ECC DDR4 RDIMM;LRDIMM</li> <li>Intel® Optane™ persistent memory 200 series</li> </ul>
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<b>Memory Voltage</b>	<ul style="list-style-type: none"> <li>1.2 V</li> </ul>
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<b>Error Detection</b>	<ul style="list-style-type: none"> <li>ECC</li> </ul>
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## On-Board Devices

<b>NVMe</b>	<ul style="list-style-type: none"> <li>NVMe; RAID 0/1/5/10 support</li> <li>U.2</li> </ul>
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<b>SATA</b>	<ul style="list-style-type: none"> <li>SATA3 (6Gbps); RAID 0/1/5/10 support</li> </ul>
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<b>Chipset</b>	<ul style="list-style-type: none"> <li>Intel® C621A</li> </ul>
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<b>Network Connectivity</b>	<ul style="list-style-type: none"> <li>Via Slim-AIOM</li> </ul>
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<b>IPMI</b>	<ul style="list-style-type: none"> <li>Support for Intelligent Platform Management Interface v.2.0</li> <li>IPMI 2.0 with virtual media over LAN and KVM-over-LAN support</li> </ul>
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## Input / Output

<b>LAN</b>	<ul style="list-style-type: none"> <li>1 Dedicated IPMI LAN port</li> </ul>
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<b>USB</b>	<ul style="list-style-type: none"> <li>2 USB 3.0 port(s) (2 rear)</li> </ul>
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<b>Video</b>	<ul style="list-style-type: none"> <li>1 VGA port(s)</li> </ul>
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<b>Serial Port</b>	<ul style="list-style-type: none"> <li>1 COM Port(s) (1 rear)</li> </ul>
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<b>DOM</b>	<ul style="list-style-type: none"> <li>1 SuperDOM (Disk on Module) port</li> </ul>
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## System BIOS

<b>BIOS Type</b>	<ul style="list-style-type: none"> <li>AMI 32MB SPI FLASH ROM</li> </ul>
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## Chassis

<b>Form Factor</b>	<ul style="list-style-type: none"> <li>2U</li> </ul>
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<b>Model</b>	<ul style="list-style-type: none"> <li><b>CSE-LA26AC12-R1K23AW</b></li> </ul>
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## Dimensions and Weight

<b>Height</b>	<ul style="list-style-type: none"> <li>3.5" (89mm)</li> </ul>
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<b>Width</b>	<ul style="list-style-type: none"> <li>17.2" (437mm)</li> </ul>
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<b>Depth</b>	<ul style="list-style-type: none"> <li>25.5" (647mm)</li> </ul>
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<b>Package</b>	<ul style="list-style-type: none"> <li>11.4" (H) x 26.4" (W) x 34.3" (D)</li> </ul>
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<b>Weight</b>	<ul style="list-style-type: none"> <li>Net Weight: 35.3 lbs (16 kg)</li> <li>Gross Weight: 69 lbs (31.3 kg)</li> </ul>
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<b>Available Color</b>	<ul style="list-style-type: none"> <li>Black</li> </ul>
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## Front Panel

<b>Buttons</b>	<ul style="list-style-type: none"> <li>Power On/Off</li> <li>Universal Information (UID)</li> </ul>
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<b>LEDs</b>	<ul style="list-style-type: none"> <li>Drive activity</li> <li>Network activity</li> <li>Power status</li> <li>Universal Information (UID)</li> </ul>
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## Expansion Slots

<b>PCI-Express (PCI-E)</b>	<ul style="list-style-type: none"> <li>Slot 1: PCI-E 4.0 x8 FHHL (optional x16 by merging slot 2)</li> <li>Slot 2: PCI-E 4.0 x8 FHHL</li> <li>Slot 3: PCI-E 4.0 x16 FHHL</li> <li>Slot 4: PCI-E 4.0 x8 FHHL</li> <li>Slot 5: PCI-E 4.0 x8 FHHL (optional x16 by merging slot 4)</li> <li>Slot 6: PCI-E 4.0 x16 FHHL</li> <li>Slot A1: PCI-E 4.0 x16 OCP 3.0 Mezzanine NIC</li> <li>Slot A2: PCI-E 4.0 x16 OCP 3.0 Mezzanine NIC</li> </ul> <p><b>(Slot 1, 2, 4 and 5 can support FHFL cards with 1U heatsinks. Some riser slots share PCIe lanes with NVMe drives. Acronyms: FH = Full Height, LP = Low Profile, FL = Full Length, HL = Half Length, DW = Double Width, SW = Single Width)</b></p>
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## Drive Bays / Storage

<b>Hot-swap</b>	<ul style="list-style-type: none"> <li>12x 3.5" hot-swap NVMe/SATA/SAS drive bays (12x 3.5" NVMe hybrid) (NVMe drives require additional cables from the optional parts list. To support more than 8 NVMe drives, some PCIe expansion slots will disable. Default 3.5" drive trays can also support 2.5" drives.)</li> <li>U.2 drive support</li> </ul>
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<b>M.2</b>	<ul style="list-style-type: none"> <li>2 M.2 NVMe</li> <li>M-Key, 2280</li> </ul>
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**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

**System Cooling**

**Fans**

- 3x 8cm heavy duty fans with optimal fan speed control

**Air Shroud**

- 1 Air Shroud(s)

**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
<b>Motherboard / Chassis</b>	MBD-X12DDW-A6	1	Super X12DDW-A6 Motherboard
	CSE-LA26AC12-R1K23AW	1	2U Chassis
<b>Backplane</b>	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
<b>Cable 1</b>	CBL-SAST-1208LP-85	4	SlimlineLP x8 (STR) to SlimlineLP x8 (STR),8CM,85 OHM,Ro
<b>Cable 2</b>	CBL-SAST-1274LP-100	1	SlimlineLP x8 (LE) to 2x Slimline x4 (STR),68/76CM,100 O
<b>Cable 3</b>	CBL-SAST-1285LP-100	1	SlimlineLP x4 (STR) to Slimline x4 (STR),57CM,100 OHM,Ro
<b>Parts</b>	MCP-150-00022-0B	6	Rubber pad, 5mm H, 10x10mm
<b>Air Shroud</b>	MCP-310-82606-0B	1	Mylar air shroud X12DDW for SCLA26-AW
<b>Manual</b>	MNL-2344-QRG	1	620C-TN12R Quick Reference Guide
<b>Riser Card</b>	RSC-D2-668G4	1	2U LHS DCO Riser card with two PCI-E 4.0 x16 and one PCI-E
<b>Riser Card</b>	RSC-D2R-668G4	1	2U RHS DCO Riser card with two PCI-E 4.0 x16 and one PCI-E
<b>Software</b>	SFT-OOB-LIC	1	License key for enabling OOB BIOS management
<b>Heatsink / Retention</b>	SNK-P0078P	2	2U Passive CPU Heat Sink for X12 Generation Intel Whitley and Cedar Island Platforms
<b>*Power Supply</b>	PWS-1K23A-1R	2	AC-DC 1200W, Titanium Level, Redundancy, 1U, PMBUS 1.2, +12V/+5Vsb, 336x76x40 mm,HF,RoHS/REACH
<b>*Power Distributor</b>	PDB-PT826-S4824	1	Based on PDB-PT826-8824 to add 2pcs 8pin for option support
<b>*Cable 4</b>	CBL-PWCD-0160-IS	2	PWCD,US,NEMA5-15P TO IEC60320 C13,6FT,16AWG,RoHS/REACH
<b>*FAN 1</b>	FAN-0206L4	3	80x80x38 mm, 13.5K RPM, Middle Cooling Fan for 2U and above Servers
<b>*Drive Tray(s)</b>	MCP-220-00184-0B	12	Black gen-9 tool-less cost-effective 3.5
<b>*Rear Window</b>	MCP-240-00170-0N	1	2U X12 WIO rear window for SCLA26
<b>*Rail Set</b>	MCP-290-00053-0N	1	Rail set, quick/quick, default for 2,3U 17.2";W
<b>*Drive Tray(s)</b>	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
<b>3108 CacheVault</b>	BTR-TFM8G-LSICVM02	1	CacheVault for Broadcom 3108 (requires a SuperCap mount)
<b>3108 RAID Card</b>	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;
<b>3108/3908/3916 SuperCap Mount</b>	MCP-240-21747-0N	1	SuperCap mounting card for AIOM location
	MCP-240-00127-0N	1	SuperCap mounting tray for 2.5" drive location
	BKT-BBU-BRACKET-05	1	SuperCap mounting bracket for PCI-E location
<b>3808 HBA Card</b>	<u>AOC-S3808L-L8IT</u>	1	Standard LP, 8 internal ports (12Gb/s) Gen-4, 16HDD; HBA;

<b>3816 HBA Card</b>	CBL-SAST-1276F-100	1	Slimline x8 (LE) to 2x Slimline x4 (STR),76/76CM Alternative: CBL-SAST-1264F-100 (64 CM)	
	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;	
<b>3908 RAID Card</b>	CBL-SAST-1276F-100	1	Slimline x8 (LE) to 2x Slimline x4 (STR),76/76CM Alternative: CBL-SAST-1264F-100 (64 CM)	
	<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;	
<b>3908/3916 CacheVault</b>	BTR-CVPM05	1	CacheVault for Broadcom 3908/3916 (requires a SuperCap mount)	
<b>3916 RAID Card</b>	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;	
	CBL-SAST-1276F-100	1	Slimline x8 (LE) to 2x Slimline x4 (STR),76/76CM Alternative: CBL-SAST-1264F-100 (64 CM)	
<b>Add-on card for additional M.2</b>	<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	
<b>AIOM Network Card(s)</b>	<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	
	<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	
	<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	
	<b>Cable Management Arm</b>	MCP-290-00073-0N • <i>eStore</i>	1	Supermicro Cable Management Arm for 2U, 3U and 4U chassis
		MCP-120-82601-0N	1	Cable arm adapter for SCLA26-AW
<b>GPU Support</b>	MCP-310-82613-0N	1	Plastic air shroud X12DDW for SCLA26-AW(GPU)	
	SNK-P0077P • <i>eStore</i>	2	1U Passive CPU Heat Sink for X12 Generation Intel Whitley and Cedar Island Platforms	
	CBL-PWEX-1040 • <i>eStore</i>	2	PWYCB,GPU,2x4M/CPU to two (2x3F+2x1F)/PCIe,P4.2, 5CM	
<b>Intel VROC Key</b>	<u>AOC-VROCSTNMOD</u>	1	Intel VROC Standard, RAID 0, 1, 10	

	<a href="#">AOC-VROCPREMOD</a>	1	Intel VROC Premium, RAID 0, 1, 5, 10
	<a href="#">AOC-VROCINTMOD</a>	1	Intel VROC, RAID 0, 1, 5, 10 (Intel SSD Only)
<b>NVMe Cables Kit</b>	CBL-KIT-620C-TN12R-12	1	Supports 12 NVMe drives. This kit cannot support rear NVMe drives. Includes: 4x CBL-SAST-1236LP-85 (NVMe drive slots # 2-5, 8-11) 2x CBL-SAST-1267FLP-85 (NVMe drive slots # 0-1,6-7)
<b>Rear Window NVMe Drive Kit</b>	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	Supports only 2 rear NVMe drives. To support front NVMe, please use cable kit. Slimline x8 (STR) to 2x SlimlineLP x4 (STR),40/40CM
	CBL-KIT-620C-TN12R-14	1	Supports 14 NVMe drives: 12 in front and 2 in rear. Includes: 3x CBL-SAST-1236LP-85 (NVME drive slots # 4-7, 12-13) 4x CBL-SAST-1267FLP-85 (NVMe drive slots # 0-3, 8-11)
<b>Rear Window SATA Drive Kit</b>	<a href="#">MCP-220-82616-0N</a> • <a href="#">eStore</a>	1	Rear Window Module for 2x 2.5" SATA/SAS Drives
<b>Riser Card Upgrade</b>	CBL-SAST-1296LPA-85	1	2*SlimSASLP x4 (STR) to SlimSASLP x8 (STR),55CM, 85ohm, LNRV
	CBL-SAST-1296LP-85	3	2*SlimSASLP x4 (STR) to SlimSASLP x8 (STR),55CM, 85ohm
	RSC-D2R-666G4	1	2U RHS DCO Riser card with three PCI-E 4.0 x16slots
	RSC-D2-666G4	1	2U LHS DCO Riser card with three PCI-E 4.0x16slots
<b>Software</b>	<a href="#">SFT-DCMS-Single</a>	1	DataCenter Management Package (per node license)
<b>TPM security module</b>	<a href="#">AOM-TPM-9671V</a>	1	SPI capable TPM 1.2 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
	<a href="#">AOM-TPM-9670V</a>	1	SPI capable TPM 2.0 with Infineon 9670 controller; vertical form factor
<b>Note: For special low power setup SKU (3 optional parts below), please contact our sales for details.</b>			
<b>Dummy Cover</b>	CSE-PT0130L	1	Power Supply Dummy Cover
<b>Low Power Fan</b>	FAN-0181L4 • <a href="#">eStore</a>	3	80x80x38 mm 9.4K RPM Chassis Middle Fan
<b>Low Power Supply</b>	PWS-1K23A-1R • <a href="#">eStore</a>	1	1200W 100-240Vac, and DC240 input