

# CloudDC SuperServer SYS-121C-TN10R



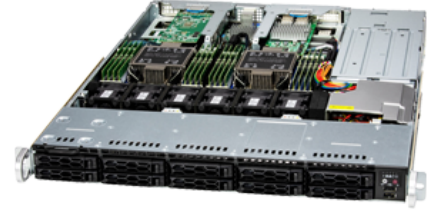
More details here

## Key Applications

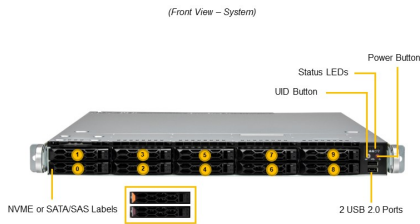
Web Server, Firewall Application, Data Center Optimized, Value IaaS, Cloud Computing, Compact Server, DNS & Gateway Servers, Firewall Application, CDN, Edge Nodes,

## Key Features

- Dual sockets E (LGA-4677) 5th and 4th Gen Intel® Xeon® Scalable processors;
- 16 DIMMs up to 4TB 3DS ECC DDR5-5600: RDIMM;
- 2 PCIe 5.0 x16 FHHL; 2 PCIe 5.0 x4 NVMe M.2;
- Dual AIOM (OCP 3.0) slots with NCSI for networking, 1 dedicated IPMI LAN;
- 10x 2.5" hot-swap hybrid NVMe/SATA/SAS drive bays;
- 6 counter-rotating 4 cm PWM fans with optimal fan speed control, 2 air shrouds;
- 860W redundant Titanium level 100-240Vac and 200-240 Vdc power supplies;
- 1 VGA, 1 COM, 2 USB 3.0 (rear), 2 USB 2.0 (front);

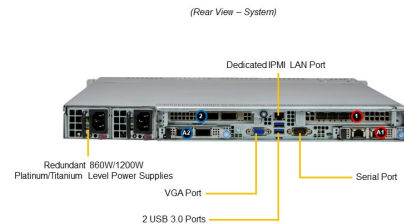


<b>Form Factor</b>	1U Rackmount Enclosure: 437 x 43 x 597mm (17.2" x 1.7" x 23.5") Package: 605 x 197 x 822mm (23.8" x 7.8" x 32.4")
<b>Processor</b>	Dual Socket E (LGA-4677) 5th Gen Intel® Xeon®/4th Gen Intel® Xeon® Scalable processors Up to 32C/64T; Up to 82.5MB Cache per CPU
<b>GPU</b>	Max GPU Count: Up to 2 single-width GPU(s) Supported GPU: Intel PCIe: Intel Data Center GPU Flex 140 NVIDIA PCIe: L4,A2
<b>System Memory</b>	Slot Count: 16 DIMM slots Max Memory (1DPC): Up to 4TB 5600MT/s ECC DDR5 RDIMM
<b>Drive Bays</b>	10x 2.5" hot-swap NVMe/SATA/SAS drive bays (10x 2.5" NVMe hybrid)(Storage drives require additional cables from the optional parts list.) 2x PCIe 5.0 x4 (*VROC is required) M-Key, 2280
<b>Expansion Slots</b>	2 PCIe 5.0 x16 FHHL slot(s)
<b>On-Board Devices</b>	NVMe: NVMe; RAID 0/1/5/10 support (*VROC is required) SATA: SATA3 (6Gbps) via Intel® C741; RAID 0/1/5/10 support Chipset: Intel® C741 Network Connectivity: with Advanced IO Module, AIOM (OCP 3.0 NIC, refer to AIOM Network Card(s) under Optional Parts List for options) Note: High TDP 200-400G NICs have support conditions due to thermal requirements. IPMI: Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
<b>Input / Output</b>	LAN: 1 Dedicated IPMI LAN port USB: 2 USB 3.0 port(s) (2 rear) 2 USB 2.0 port(s) (2 front) Video: 1 VGA port(s) Serial Port: 1 COM Port(s) (1 rear)



Drive Bay	Description
1 - 4	2.5" Hot-swap (SATA/SAS/3.5" Hybrid Drive Bays

<sup>1</sup> NVMe device populated in drive bay #0 is limited to PCIe 4.0 with four UPI processors  
<sup>2</sup> Drives require corresponding data cable(s) from the optional parts list



Slot	Slot Description	Slot	Slot Description
1	PCIe 5.0 x16 FHFL	1	PCIe 5.0 x16 FHFL
2	PCIe 5.0 x16 AIOM (OCP 3.0)	2	PCIe 5.0 x16 AIOM (OCP 3.0)



System Cooling	Fans: 6x 4cm heavy duty fans with optimal fan speed control Air Shroud: 2 Air Shroud(s)
Power Supply	2x 860W Redundant Titanium Level power supplies
System BIOS	BIOS Type: AMI 32MB SPI FLASH ROM
Management	Redfish API; SuperCloud Composer; Supermicro Server Manager (SSM); Supermicro Power Manager (SPM); Supermicro Update Manager (SUM); SuperDoctor® 5; Super Diagnostics Offline ; KVM with dedicated LAN ; IPMI 2.0
PC Health Monitoring	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 CPU: Monitors for CPU Cores, Chipset Voltages, Memory. 8 Phase-switching voltage regulator
Dimensions and Weight	Height: 1.7" (43 mm) Width: 17.2" (437 mm) Depth: 23.5" (597 mm) Gross Weight: 40 lbs (18.1 kg) Net Weight: 25 lbs (11.3 kg) Packaging: 7.8" (H) x 23.8" (W) x 32.4" (D) Available Color: Black front & silver body
Operating Environment	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)
Motherboard	<a href="#">Super X13DDW-A</a>
Chassis	CSE-LB16TS-R0AWNP3

## Parts List

### Standard Parts (Parts Included)

Motherboard / Chassis				
Part Number	MBD-X13DDW-A	CSE-LB16TS-ROAWN3		
Qty	1	1		
Description	Super X13DDW-A Motherboard		1U Chassis	
Backplane				
Part Number	BPN-NVME5-LB16A-S10			
Qty	1			
Description	1U 10-port backplane, 10x SAS3/SATA3/NVME5 for X13 CloudDC			
Fan				
Part Number	FAN-0163L4			
Qty	6			
Description	40x40x56 mm, 23.3K-20.3K RPM, Counter-rotating Fan			
Parts				
Part Number	MCP-150-00015-0B	MCP-160-00028-0B	MCP-320-00067-0B	
Qty	4	1	1	
Description	Rubber pad, 3.0mm H, 10x10mm	Mylar Cable Channel for Cloud-DC, X12 DDW	Chassis base Air Foam block set (L+R) for Cloud-DC	
Front Panel				
Part Number	MCP-280-00033-0N	FPB-FP116		
Qty	1	1		
Description	Universal Thermal sensor kit with 80cm I2C cable	Front control board for SC116 (USB 2.0 x 2)		
Air Shroud				
Part Number	MCP-310-00105-0B			
Qty	2			
Description	Mylar Air Shroud for LA15-AW, LB13-AW, LB16-AW + X12DDW			
Manual				
Part Number	MNL-2522-QRG			
Qty	1			
Description	I21C-TN10R Quick Reference Guide			
Power Supply				
Part Number	PWS-861A-1R	MCP-250-00009-0N		
Qty	2	1		
Description	1U redundant 800/860W Titanium AC power supply 54.5x40x322mm	SC113 Redundant Power Distributor Cover		
Riser Card				
Part Number	RSC-D-6G5	RSC-DR-6G5		
Qty	1	1		
Description	1U LHS DCO Riser card with one PCIe-E 5.0 X16 slot, HF, RoH	1U RHS DCO Riser card with one PCIe 5.0 X16 slot, HF, RoH		
Software				
Part Number	SFT-OOB-LIC			
Qty	1			
Description	License key for enabling OOB BIOS management			
Heatsink / Retention				
Part Number	SNK-P0087P			
Qty	2			
Description	1U Passive CPU HS for X13 Intel Eagle Stream Platform			
*Power Distributor				
Part Number	PDB-PT116-SL8824			
Qty	1			
Description	Based on PDB-PT116-L8824 to optimize 24Pin etc cable lengths			
*Cable				
Part Number	CBL-CDAT-0680-55	CBL-PWCD-0160-IS		
Qty	1	2		
Description	NCSI, 2x10F to 2x10F, IDC, PH2.54, 55cm, shield, 28AWG, RoHS	PWCD, US, NEMA5-15P to IEC60320 C13, 6FT, 16AWG, RoHS/REACH		
*Drive Tray(s)				
Part Number	MCP-220-00188-0B			
Qty	10			
Description	Black gen-5.5 tool-less cost-effective 2.5			
*Rear Window				
Part Number	MCP-240-00173-0N			
Qty	1			
Description	1U X12 AWIO Rear window for LA15, LB16, LB13 Redundant PWS			
*Rail Set				
Part Number	MCP-290-00016-0N	MCP-290-00063-0N	MCP-290-00102-0N	MCP-290-00108-0N
Qty	1	1set	1 set	1 set
Description	1U open rack bracket set for CSE-PT51L, MCP-290-00054-0N	Rail set, quick/quick, default for 1U 17.2"W for SC113/SC116, RoHS/REACH	Outer rail, quick-release type, 25.6	Inner rail, front, short, quick-release type
*Fan Holder				
Part Number	MCP-320-00056-0B	MCP-320-00066-0B	MCP-340-00035-0B	
Qty	24	1	2	
Description	40X56 rubber fan pin for SC819U, SC119U, RoHS/REACH	Fan holder with cable channel, 40X56mm fan, for LA15, LB16, LB13	Dummy fan 40x56mm for 40x56 counter-rotating fan (cost-effective)	

- Notes:
- Parts with \* are inside the chassis
  - 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

3108/3908/3916 SuperCap Mount				
Part Number	MCP-240-00127-0N	MCP-240-00203-0N	MCP-240-21747-0N	
Qty	1	1	1	
Description	SuperCap mounting tray for 2.5" drive location	SuperCap mounting bracket for PCIe location	SuperCap mounting card for AIOM location	
3808 HBA Card				
Part Number	<a href="#">AOC-S3808L-L8IT</a> <a href="#">(/products/accessories/addon/AOC-S3816L-L16IT_S3808L-L8IT.php)</a>	CBL-SAST-1276F-100- <a href="#">eStore</a> <a href="#">(/https://store.supermicro.com/supermicro-slimline-x8-to-2x-slimline-x4-76cm-cable-cbl-sast-1276f-100.html)</a>		
Qty	1	1		
Description	Standard LP, 8 internal ports (12Gb/s) Gen-4, 16HDD; HBA;	Slimline x8 (LE) to 2x Slimline x4 (STR), 76/76CM, Alternative: CBL-SAST-1264F-100 (64 CM)		
3816 HBA Card				
Part Number	AOC-S3816L-L16IT	CBL-SAST-1276F-100- <a href="#">eStore</a> <a href="#">(/https://store.supermicro.com/supermicro-slimline-x8-to-2x-slimline-x4-76cm-cable-cbl-sast-1276f-100.html)</a>	CBL-SAST-1265F-100	
Qty	1	1	1	
Description	Standard LP, 16 internal ports (12Gb/s) Gen-4, 122HDD; HBA;	Slimline x8 (LE) to 2x Slimline x4 (STR), 76/76CM, Alternative: CBL-SAST-1264F-100 (64 CM)		
3908 RAID Card				
Part Number	<a href="#">AOC-S3908L-H8IR-16DD</a> <a href="#">(/products/accessories/addon/AOC-S3908L-H8IR_S3916L-H16IR.php)</a>	CBL-SAST-1276F-100- <a href="#">eStore</a> <a href="#">(/https://store.supermicro.com/supermicro-slimline-x8-to-2x-slimline-x4-76cm-cable-cbl-sast-1276f-100.html)</a>		
Qty	1	1		
Description	Standard LP, 8 internal ports (12Gb/s) Gen-4, 122HDD; RAID 0, 1, 5, 6, 10, 50, 60;	Slimline x8 (LE) to 2x Slimline x4 (STR), 76/76CM, Alternative: CBL-SAST-1264F-100 (64 CM)		
3908/3916 CacheVault				
Part Number	BTR-CVPM05			
Qty	1			

Description	CacheVault for Broadcom 3908/3916 (requires a SuperCap mount)				
3916 RAID Card					
Part Number	CBL-SAST-1276F-100 <a href="https://store.supermicro.com/supermicro-slimline-x8-to-2x-slimline-x4-76cm-cable-cbl-sast-1276F-100.html">Store</a>	CBL-SAST-1265F-100	AOC-S3916L-H1GR-32DD	<a href="https://products/accessories/addon/AOC-S3908L-H8R_S3916L-H1GR.php">/products/accessories/addon/AOC-S3908L-H8R_S3916L-H1GR.php</a>	
Qty	1	1	1		
Description	Slimline x8 (LE) to 2x Slimline x4 (STR), 76/76CM, Alternative: CBL-SAST-1264F-100 (64 CM)	Slimline x8 (STR) to Slimline x4 (STR), 64CM	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					
Part Number	AOC-SL64-2H8M2				
Qty	-				
Description	Low Profile PCIe x8 add-on card supports 2 PCIe 4.0 x4 M-Key M.2 NVMe/SATA Modules; RAID 0,1				
AIOM Network Card(s)					
Part Number	AOC-AG-i2M <a href="https://products/accessories/addon/AOC-AG-i2M.php">/products/accessories/addon/AOC-AG-i2M.php</a> AOC-ATG-i2TM <a href="https://products/accessories/addon/AOC-ATG-i2T.php">/products/accessories/addon/AOC-ATG-i2T.php</a> AOC-A25G-i2SM	AOC-AH25G-m2S2TM <a href="https://products/accessories/addon/AOC-AH25G-m2S2TM.php">/products/accessories/addon/AOC-AH25G-m2S2TM.php</a> AOC-ATG-b2TM AOC-A100G-b2CM <a href="https://products/accessories/addon/AOC-A100G-b2CM.php">/products/accessories/addon/AOC-A100G-b2CM.php</a>	AOC-ATG-i4SM AOC-A25G-b2SM <a href="https://products/accessories/addon/AOC-A25G-b2S.php">/products/accessories/addon/AOC-A25G-b2S.php</a> AOC-ATG-i2SM	AOC-ATGC-i2TM AOC-A25G-i4SM AOC-AG-i4SM <a href="https://products/accessories/addon/AOC-AG-i4S.php">/products/accessories/addon/AOC-AG-i4S.php</a>	AOC-A25G-m2SM AOC-ATG-i2T2SM <a href="https://products/accessories/addon/AOC-ATG-i2T2SM.php">/products/accessories/addon/AOC-ATG-i2T2SM.php</a> AOC-AG-i4M <a href="https://products/accessories/addon/AOC-AG-i4M.php">/products/accessories/addon/AOC-AG-i4M.php</a>
Qty	-	-	-	-	-
Description	OCPC 3.0 AIOM NIC, 2x 1GbE RJ45, PCIe 2.1 x4, Intel® i350-AM2  OCPC 3.0 AIOM NIC, 2x 10GbE RJ45, PCIe 3.0 x4, Intel® X550-AT2 OCPC 3.0 AIOM NIC, 2x 25GbE SFP28, PCIe x8, Intel® E810-XXVAM2	OCPC 3.0 AIOM NIC, 2x 25GbE SFP28 & 2x 10GbE RJ45, PCIe x8/x4, Mellanox® CX4 Lx EN & Intel® X550-AT2, (Add 1x MCP-310-00107-0B per card to support this NIC)  OCPC 3.0 AIOM NIC, 2x 10GbE RJ45, PCIe 3.0 x4, Broadcom® BCM57416 OCPC 3.0 AIOM NIC, 2x 100GbE QSFP28, PCIe 4.0 x16, Broadcom® BCM57508	OCPC 3.0 AIOM NIC, 4x 10GbE SFP+, PCIe 3.0 x8, Intel® XL710-BM1  OCPC 3.0 AIOM NIC, 2x 25GbE SFP28, PCIe x8, Broadcom® BCM57414 OCPC 3.0 AIOM NIC, 2x 10GbE SFP+, PCIe 3.0 x8, Intel® X710-BM2	OCPC 3.0 AIOM NIC, 2x 10GbE RJ45, PCIe 3.0 x4, Intel® X710-AT2  OCPC 3.0 AIOM NIC, 4x 25GbE SFP28, PCIe x8, Intel® E810-CAM1 OCPC 3.0 AIOM NIC, 4x 1GbE SFP, PCIe 2.1 x4, Intel® i350-AM4	OCPC 3.0 AIOM NIC, 2x 25GbE SFP28, PCIe x8, Mellanox® CX-6 LX  OCPC 3.0 AIOM NIC, 4x 10GbE RJ45 & SFP+, PCIe x8, Intel® X710-TM4 OCPC 3.0 AIOM NIC, 4x 1GbE RJ45, PCIe 2.1 x4, Intel® i350-AM4
Cable Management Arm					
Part Number	MCP-290-00152-0N <a href="https://store.supermicro.com/1u-cable-management-arm-mcp-290-00152-0n.html">Store</a>				
Qty	1				
Description	1U Supermicro Cable Management Arm 2nd Gen				
Intel VROC Key					
Part Number	AOC-VROCSTNMOD <a href="https://products/accessories/addon/AOC-VROCXxxMOD.php">/products/accessories/addon/AOC-VROCXxxMOD.php</a> <a href="https://store.supermicro.com/supermicro-vroc-standard-module-1.html">Store</a>	AOC-VROCPREMOD <a href="https://products/accessories/addon/AOC-VROCXxxMOD.php">/products/accessories/addon/AOC-VROCXxxMOD.php</a> <a href="https://store.supermicro.com/supermicro-vroc-premium-module.html">Store</a>	AOC-VROCIINTMOD <a href="https://products/accessories/addon/AOC-VROCXxxMOD.php">/products/accessories/addon/AOC-VROCXxxMOD.php</a>		
Qty	1	1	1		
Description	Intel VROC Standard, RAID 0, 1, 10	Intel VROC Premium, RAID 0, 1, 5, 10	Intel VROC, RAID 0, 1, 5, 10 (Intel SSD Only)		
NC-SI Cable					
Part Number	CBL-PWEX-1099-34				
Qty	1				
Description	FLAT, IDC 2X11F/P1.27 TO IDC 2X11F/P1.27, NC51, 0.5A, 35CM				
NVMe Cables Kit					
Part Number	CBL-KIT-121C-TN10R-10				
Qty	1				
Description	Supports 10 NVMe drives. Kit includes: , 4x CBL-MCIO-1214MSFY (NVMe drive slots # 0-3, 6-9) , 1x CBL-MCIO-1234MSFRE (NVMe drive slots # 4-5)				
Power Supply Upgrade					
Part Number	PWS-1K27A-1R <a href="https://store.supermicro.com/1000w-1200w-1u-pws-1k27a-1r.html">Store</a>				
Qty	2				
Description	1200W Redundant Titanium Power Supply				
SATA Cables Kit					
Part Number	CBL-KIT-SATA-CDC-1				
Qty	1				
Description	Supports 10-12 SATA drives. Kit includes: , 1x CBL-SAST-1274LP-100 (SATA drive slots # 0-7) , 1x CBL-SAST-1285LP-100 (SATA drive slots # 8-11)				
Software					
Part Number	SFT-DCMS-Single	SFT-SDDC-SINGLE			
Qty	1	1			
Description	Supermicro System Management Software License	Supermicro Data Center Monitor License			
TPM security module					
Part Number	AOM-TPM-9670V	AOM-TPM-9670V-S-FIPS	AOM-TPM-9672V-FIPS	AOM-TPM-9672V	
Qty	1	1	1	1	
Description	SPI capable TPM 2.0 with Infineon 9670 controller; vertical form factor	SPI capable TPM 2.0 with Infineon 9670 controller w/ FIPS; vertical form factor	SPI capable TPM 2.0 with Infineon 9672 controller w/ FIPS; vertical form factor	SPI capable TPM 2.0 with Infineon 9672 controller; vertical form factor	

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