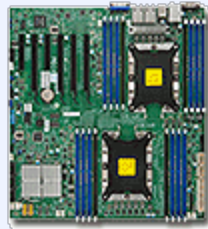


# SuperServer 2029P-C1RT



## Integrated Board



X11DPi-NT

## Key Features

1. Dual socket P (LGA 3647) supports Intel® Xeon® Scalable Processors, Dual UPI up to 10.4GT/s
2. Up to 2TB ECC 3DS LRDIMM, up to DDR4-2666MHz; 16 DIMM slots
3. 4 PCI-E 3.0 x16, 1 PCI-E 3.0 x8 slots, support 5 low-profile AOCs
4. 8x 2.5" SAS3 & 8x 2.5" SATA3 Hot-swap Drive Bays, optional DVD-ROM drive, optional support 2 NVMe/SSD/HDD 2.5" fix drives, 1 M.2 support
5. 2x 10GBase-T LAN ports with Intel X722
6. Integrated IPMI 2.0 with KVM and Dedicated LAN
7. 2 SuperDOM, 1 VGA, 2 COM, 2 USB 3.0, 4 USB 2.0, 1 Type A
8. 3 Heavy duty 8cm fans with PWM fan speed and cooling zone control
9. 1200W Redundant Power Supplies Titanium Level (96%)

[▶ Drivers & Utilities](#)
[▶ BIOS](#)
[▶ IPMI](#)
[▶ Tested Memory](#)
[▶ Manuals](#)
[▶ OS Certification Matrix](#)
[▶ Drive Options](#)

Note: Image above may show a varied configuration or optional parts, Please refer to parts list for standard parts included.

## Specifications

### Product SKUs

SYS-2029P-C1RT ■ SuperServer 2029P-C1RT (Black)

### Motherboard

Super X11DPi-NT

### Processor/Cache

CPU ■ Dual Socket P (LGA 3647)  
 ■ Intel® Xeon® Scalable Processors, Dual UPI up to 10.4GT/s  
 ■ Support CPU TDP 70-205W

Cores ■ Up to 28 Cores with Intel® HT Technology

### System Memory

Memory Capacity ■ 16 DIMM slots  
 ■ Up to 2TB ECC 3DS LRDIMM, 512GB ECC RDIMM, DDR4 up to 2666MHz

Memory Type ■ 2666/2400/2133MHz ECC DDR4 SDRAM

### On-Board Devices

### Chassis

Form Factor ■ 2U Rackmount

Model ■ CSE-213AC-R1K23LPB

### Dimensions and Weight

Height ■ 3.5" (89mm)

Width ■ 17.2" (437mm)

Depth ■ 24.8" (630mm)

Package ■ 11" (H) x 29" (W) x 38.7" (D)

Weight ■ Net Weight: 38 lbs (17.4 kg)  
 ■ Gross Weight: 63 lbs (28.8 kg)

Available Color ■ Black

### Front Panel

Buttons ■ Power On/Off button  
 ■ System Reset button

LEDs ■ Power LED  
 ■ Hard drive activity LED  
 ■ Network activity LEDs  
 ■ System Overheat LED / Fan fail LED / UID LED

Chipset	<ul style="list-style-type: none"> <li>Intel® C622 chipset</li> </ul>
SATA	<ul style="list-style-type: none"> <li>SATA3 (6Gbps); RAID 0, 1, 5, 10</li> </ul>
SAS	<ul style="list-style-type: none"> <li>Broadcom 3108 SAS3 (12Gbps) controller;</li> <li>HW RAID 0, 1, 5, 6, 10, 50, 60</li> </ul>
Network Controllers	<ul style="list-style-type: none"> <li>Intel® X722 10GBase-T Ethernet Controller</li> <li>Virtual Machine Device Queues reduce I/O overhead</li> <li>Supports 10GBASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output</li> </ul>
IPMI	<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> <li>ASPEED AST2500 BMC</li> </ul>
Graphics	<ul style="list-style-type: none"> <li>ASPEED AST2500 BMC</li> </ul>

### Input / Output

SATA	<ul style="list-style-type: none"> <li>8 SATA3 (6Gbps) ports</li> </ul>
SAS	<ul style="list-style-type: none"> <li>8 SAS3 (12Gbps) ports</li> </ul>
LAN	<ul style="list-style-type: none"> <li>2 RJ45 10GBase-T ports</li> <li>1 RJ45 Dedicated IPMI LAN port</li> </ul>
USB	<ul style="list-style-type: none"> <li>2 USB 3.0 ports (2 rear)</li> <li>4 USB 2.0 ports (2 rear, 2 front)</li> <li>1 USB Type A</li> </ul>
Video	<ul style="list-style-type: none"> <li>1 VGA Connector</li> </ul>
Serial Port / Header	<ul style="list-style-type: none"> <li>2 Fast UART 16550 serial</li> <li>2 COM Ports (1 rear, 1 front)</li> </ul>

### System BIOS

BIOS Type	<ul style="list-style-type: none"> <li>AMI UEFI</li> </ul>
-----------	--

### Management

Software	<ul style="list-style-type: none"> <li>Intel® Node Manager</li> <li>IPMI 2.0</li> <li>KVM with dedicated LAN</li> <li>NMI</li> <li>SSM, SPM, SUM</li> <li>SuperDoctor® 5</li> <li>Watchdog</li> </ul>
Power Configurations	<ul style="list-style-type: none"> <li>ACPI Power Management</li> </ul>

### PC Health Monitoring

CPU	<ul style="list-style-type: none"> <li>Monitors for CPU Cores, Chipset Voltages, Memory.</li> <li>4+1 Phase-switching voltage regulator</li> </ul>
FAN	<ul style="list-style-type: none"> <li>Fans with tachometer monitoring</li> <li>Status monitor for speed control</li> <li>Pulse Width Modulated (PWM) fan connectors</li> </ul>
Temperature	<ul style="list-style-type: none"> <li>Monitoring for CPU and chassis environment</li> <li>Thermal Control for fan connectors</li> </ul>

### Expansion Slots

PCI-Express	<ul style="list-style-type: none"> <li>4 PCI-E 3.0 x16 slots</li> <li>1 PCI-E 3.0 x8 slot</li> <li>Support total of 5 Low-profile AOC</li> </ul>
-------------	--

### Drive Bays

Hot-swap	<ul style="list-style-type: none"> <li>8x 2.5" SAS3 and 8x 2.5" SATA3 Hot-swap drive bays</li> </ul>
Peripheral	<ul style="list-style-type: none"> <li>Optional DVD-ROM drive supports 1x slim or 1x 5.25" DVD drive</li> </ul>
Optional	<ul style="list-style-type: none"> <li>Optional 2 NVMe/SSD/HDD 2.5" fix drives</li> <li>1 M.2 support</li> </ul>

### System Cooling

Fans	<ul style="list-style-type: none"> <li>3 Heavy duty 8cm fans with PWM fan speed and cooling zone control</li> </ul>
------	---

### Power Supply (76mm Width)

1200W Redundant Power Supplies with PMBus	
Total Output Power	<ul style="list-style-type: none"> <li>1000W/1200W</li> </ul>
Dimension (W x H x L)	<ul style="list-style-type: none"> <li>76 x 40 x 336 mm</li> </ul>
Input	<ul style="list-style-type: none"> <li>100-127Vac / 15-12A / 50-60Hz</li> <li>200-240Vac / 8.5-7A / 50-60Hz</li> </ul>
+12V	<ul style="list-style-type: none"> <li>Max: 83A / Min: 0A (100-127Vac)</li> <li>Max: 100A / Min: 0A (200-240Vac)</li> </ul>
+5Vsb	<ul style="list-style-type: none"> <li>Max: 4A / Min: 0A</li> </ul>
Output Type	<ul style="list-style-type: none"> <li>19 Pairs Gold Finger Connector</li> </ul>

### Certification



UL/cUL/CB/BSMI/CE/CCC  
Titanium Level  
[ [Test Report](#) ]

### Operating Environment

RoHS	<ul style="list-style-type: none"> <li>RoHS Compliant</li> </ul>
Environmental Spec.	<ul style="list-style-type: none"> <li>Operating Temperature: 10°C ~ 35°C (50°F ~ 95°F)</li> <li>Non-operating Temperature: -40°C to 60°C (-40°F to 140°F)</li> <li>Operating Relative Humidity: 8% to 90% (non-condensing)</li> <li>Non-operating Relative Humidity: 5% to 95% (non-condensing)</li> </ul>

## Parts List

Parts List - (Items Included)			
	Part Number	Qty	Description
Motherboard / Chassis	MBD-X11DPi-NT	1	Super X11DPi-NT Motherboard
	CSE-213AC-R1K23LPB	1	2U Black SC213AC Chassis
Add-on Card / Module	AOC-S3108L-H8IR-16DD	1	LSI 3108 based SAS3 RAID, 12Gb, 8 internal ports, 16 drives with expander - RAID 0,1,10,5,6,50,60, Gen3 x8 Standard Low Profile
Backplane	BPN-SAS3-213A	1	16-port 2U SAS3 12Gbps direct-attached backplane, support up to 16x 2.5-inch SAS3/SATA3 HDD/SSD
Cable 1	CBL-SAST-0508-01	2	MINI SAS HD-MINI SAS,6G,INT,50CM,SB,30AWG
Cable 2	CBL-SAST-0508-02	2	Internal Mini-SAS to Mini-SAS HD 50cm w/ SB, 30AWG [Amphenol],RoHS/REACH
Cable 3	CBL-SAST-0532	1	MINI SAS HD,12G,INT,50CM,30AWG
Cable 4	CBL-SAST-0568	1	MINI SAS HD,12G,INT,35CM,30AWG
Drive Tray(s)	MCP-220-00007-01	1	Black USB/COM port tray for SC825, 836
Parts	MCP-260-00042-0N	1	STD I/O shield for X9 socket R server MB with Gasket.
Manual	MNL-1993-QRG	1	SYS-2029P-C1R/SYS-2029P-C1RT, QRG
Heatsink / Retention	SNK-P0068PS	1	2U Passive CPU Heat Sink for X11 Purley Platform Equipped with a Narrow Retention Mechanism
Heatsink / Retention	SNK-P0068PSC	1	2U Passive CPU Heat Sink with a Side Air Channel for X11 Purley Platform Equipped with a Narrow Retention Mechanism
Power Supply	PWS-1K23A-1R	2	AC-DC 1200W, Titanium Level, Redundancy, 1U, PMBUS 1.2, +12V/+5Vsb, 360x76x40 mm,HF,RoHS/REACH
FAN 1	FAN-0181L4	3	80x80x38 mm, 9.4K RPM, Hot-swappable Middle Cooling Fan for X11 Purley Platform Newly Enabled 2U+ Chassis

Optional Parts List			
	Part Number	Qty	Description
Cable Management Arm	MCP-290-00073-0N	1	Supermicro Cable Management Arm for 2U, 3U and 4U chassis (Extendable Length: 70mm to 830mm)
Adaptor Bracket	MCP-120-82503-0N	1	Cable arm adapter for SC825LP,213LP (MCP-290-00073-0N required),HF,RoHS/REACH,PBF
SATA DVD Kit	MCP-220-81502-0N	1	Slim SATA DVD mounting kit for SC213,219,813,815,818,819,825,828,829,836,842
2.5" NVMe fixed drive support	MCP-220-81502-0N	1	Slim SATA DVD mounting kit for SC213,219,813,815,818,819,825,828,829,836,842
2.5" drive converter	MCP-220-00043-0N	1	Each NVMe drive needs 1 MCP-220-00043-0N
5.25" SATA DVD drive	5.25" DVD reader or writer	1	Any third party 5.25 inch SATA DVD reader or writer
SATA cable for DVD drive	CBL-0178L	1	SATA CABLE 48CM FLAT S-S PBF. 26AWG
SATA Power cable for DVD drive	CBL-0080L	1	Big 4 pin to SATA POWER ADAPTER CABLE 6", 18AWG
Global Services & Support	<a href="#">OS4HR3/2/1</a>	-	3/2/1-year onsite 24x7x4 service
	<a href="#">OSNBD3/2/1</a>	-	3/2/1-year onsite NBD service
Software	SFT-OOB-LIC	1	OOB Management Package (per node license)
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)