

SuperServer 2029P-C1R



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 1GbE 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%)

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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-C1R	▪ SuperServer 2029P-C1R (Black)
Motherboard	
Super X11DPi-N	
Processor/Cache	
CPU	<ul style="list-style-type: none"> ▪ 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	<ul style="list-style-type: none"> ▪ 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	
Chipset	▪ Intel® C621 chipset

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	<ul style="list-style-type: none"> ▪ Net Weight: 38 lbs (17.4 kg) ▪ Gross Weight: 63 lbs (28.8 kg)
Available Color	▪ Black
Front Panel	
Buttons	<ul style="list-style-type: none"> ▪ Power On/Off button ▪ System Reset button
LEDs	<ul style="list-style-type: none"> ▪ Power LED ▪ Hard drive activity LED ▪ Network activity LEDs ▪ System Overheat LED / Fan fail LED / UID LED

SATA	<ul style="list-style-type: none"> ▪ SATA3 (6Gbps); RAID 0, 1, 5, 10
SAS	<ul style="list-style-type: none"> ▪ Broadcom 3108 SAS3 (12Gbps) controller; ▪ HW RAID 0, 1, 5, 6, 10, 50, 60
Network Controllers	<ul style="list-style-type: none"> ▪ Dual 1GbE LAN with Intel® X722
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
Graphics	<ul style="list-style-type: none"> ▪ ASPEED AST2500 BMC

Input / Output

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

System BIOS

BIOS Type	<ul style="list-style-type: none"> ▪ AMI UEFI
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Management

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

PC Health Monitoring

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

Expansion Slots

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

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

System Cooling

Fans	<ul style="list-style-type: none"> ▪ 3 Heavy duty 8cm fans with PWM fan speed and cooling zone control
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Power Supply (76mm Width)

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

Certification	 <p>UL/cUL/CB/BSMI/CE/CCC Titanium Level [Test Report]</p>
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Operating Environment

RoHS	<ul style="list-style-type: none"> ▪ RoHS Compliant
Environmental Spec.	<ul style="list-style-type: none"> ▪ 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-X11DPi-N	1	Super X11DPi-N 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	OS4HR3/2/1	-	3/2/1-year onsite 24x7x4 service
	OSNBD3/2/1	-	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)