

SuperServer 2029P-TXRT



Integrated Board



Super X11DPX-T

**Views: | [Angled View](#) | [Top View](#) |
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Key Features

- Industrial Server Solutions
- Networking Telephony
- Surveillance DCR
- GPU Pass-through VM server
- Flash Array Server
- Head-node Controller

1. Dual Socket P (LGA 3647) support
2nd Gen. Intel® Xeon® Scalable
processors (Cascade Lake/Skylake)[‡]
2. 16 DIMMs; up to 4TB 3DS ECC
DDR4-2933MHz[†] RDIMM/LRDIMM,
Supports Intel® Optane™ DCPMM^{††}
3. 2 PCI-E 3.0 x16 slots,
2 PCI-E 3.0 x16 slots (or 4 PCI-E
3.0 x8), 4 PCI-E 3.0 x8 slots,
1 PCI-E 3.0 x4 (in x8 slot)
4. 16 Hot-swap 2.5" SAS/SATA drive
bays, 1 slim DVD-ROM drive bay
5. 2x 10GBase-T ports via Intel X550-AT2
6. Integrated IPMI 2.0 with KVM and
Dedicated LAN
7. 1 PCI-E 3.0 x4 M.2 2280 slot from PCH
8. 4 middle fans
9. 1000W Redundant Power Supplies
Titanium Level (96%)

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

Specifications

Product SKUs

SYS-2029P-TXRT	■ SuperServer 2029P-TXRT (Black)
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Motherboard

Super X11DPX-T

Processor/Cache

CPU	■ Dual Socket P (LGA 3647) ■ 2nd Gen. Intel® Xeon® Scalable Processors (Cascade Lake/Skylake) [‡] , 3 UPI up to 10.4GT/s ■ Support CPU TDP 205W
Cores	■ Up to 28 Cores
Note	[‡] BIOS version 3.0a or above is required to support 2nd Gen. Intel® Xeon® Scalable processors

System Memory

Memory Capacity	■ 16 DIMM slots ■ Up to 4TB 3DS ECC DDR4-2933MHz [†] RDIMM/LRDIMM ■ Supports Intel® Optane™ DCPMM ^{††}
Memory Type	■ 2933 [†] /2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM
Note	[†] 2933MHz in two DIMMs per channel can be achieved by using memory purchased from Supermicro ^{††} Cascade Lake only. Contact your Supermicro sales rep for more info.

On-Board Devices

Chipset	■ Intel® C621 chipset
SATA	■ SATA3 (6Gbps) with RAID 0, 1, 5, 10
Network Controllers	■ Intel® X550-AT2 Dual Port 10GBase-T
IPMI	■ Support for Intelligent Platform Management Interface v.2.0 ■ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Graphics	■ ASPEED AST2500 BMC

Input / Output

Serial ATA	■ 8 SATA3 (6Gbps) ports
LAN	■ 2 RJ45 10GBase-T ports ■ 1 RJ45 Dedicated IPMI LAN port
USB	■ 2 USB 3.0 ports (rear) ■ 2 USB 2.0 ports (rear)
Serial Port / Header	■ 1 COM port (rear)
VGA	■ 1 VGA port
DOM	■ 2 Super DOM (Disk on Module) ports
TPM	■ 1 TPM 2.0 Header

System BIOS

BIOS Type	■ AMI UEFI
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Management

Chassis

Form Factor	■ 2U Rackmount
Model	■ <u>CSE-213XAC-R1K05LP</u>

Dimensions

Width	■ 17.2" (437mm)
Height	■ 3.5" (89mm)
Depth	■ 25.6" (650mm)
Package	■ 14.8" (H) x 27" (W) x 37.3" (D)
Weight	■ Net Weight: 36 lbs (16.4 kg) ■ Gross Weight: 72 lbs (32.7 kg)
Available Colors	■ Black

Front Panel

Buttons	■ Pow er On/Off button ■ System Reset button
LEDs	■ Pow er status LED ■ Hard drive activity LED ■ Netw ork activity LEDs ■ System information (overheat/UID) LED ■ Pow er fail LED

Expansion Slots

PCI-Express	■ 2 PCI-E 3.0 x16 slots ■ 2 PCI-E 3.0 x16 slots (or 4 PCI-E 3.0 x8 by MUX) ■ 4 PCI-E 3.0 x8 slots ■ 1 PCI-E 3.0 x4 (in x8 slot)
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Drive Bays

Hot-swap	■ 16 Hot-sw ap 2.5" drive bays ■ 10 SATA3 ports by default ■ Optional drive support: 16 SAS3 Note: optional storage card is required to support more than 10 drives
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Peripheral Bay

Peripheral	■ 1 slim DVD-ROM drive
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Backplane

1 SAS/SATA backplane

System Cooling

Fans	■ 4 Middle fans
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PowerStick Power Supply

1000W 1U Redundant Pow er Supplies with PMBus	
Total Output Power	■ 800W: 100 – 127Vac ■ 1000W: 200 – 240Vac
Dimension (W x H x L)	■ 38 x 40 x 360 mm
Input	■ 100-127Vac / 9-7.5A / 50-60Hz ■ 200-240Vac / 6-5A / 50-60Hz
+12V	■ Max: 66.7A / Min: 0A (100-127Vac) ■ Max: 83A / Min: 0A (200-240Vac)
+5Vsb	■ Max: 4A / Min: 0A
Output Type	■ Gold Finger Connector (16 Pow er Pin, 14 Signal Pin)

Software	■ Intel® Node Manager ■ <u>IPMI 2.0</u> ■ KVM with dedicated LAN ■ NMI ■ <u>SSM, SPM, SUM</u> ■ <u>SuperDoctor® 5</u>
Power Configurations	■ ACPI Power Management
PC Health Monitoring	
CPU	■ Monitors for CPU Cores, Chipset Voltages, Memory. ■ 4+1 Phase-switching voltage regulator
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

Certification	  Titanium Level [Test Report]
Operating Environment	
RoHS	■ RoHS Compliant
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-X11DPX-T	1	Super X11DPX-T Motherboard
	CSE-213XAC-R1K05LP	1	2U Chassis
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
Parts	MCP-260-00042-2N	1	STD I/O shield for X9/X10/X11 server MB w ith EMI Gasket & Mylar
Air Shroud	MCP-310-00082-0B	1	Mylar Air Shroud for SC213X (X11DPX)
Parts	MCP-450-00003-0N	1	Plastic M.2 holder kit for X11 MB
Manual	MNL-2081-QRG	1	2029P-TXRT Quick Reference Guide
Heatsink / Retention	SNK-P0068PS	2	2U Passive CPU Heat Sink for X11 Purley Platform Equipped w ith a Narrow Retention Mechanism
Power Supply	PWS-1K05A-1R	2	1U 1000W Redundant Pow er Supply Titanium, 38X40X360mm length
FAN 1	FAN-0190L4	4	80x80x38 mm, 10.5K RPM, Middle Cooling Fan for SC213X Chassis

Optional Parts List

	Part Number	Qty	Description
Slim DVD Kit	MCP-220-81502-0N	-	Slim SATA DVD mounting kit for SC213,219,813,815,818,819,825,828,829,836,842
5.25" DVD kit	MCP-220-00006-00	-	5.25" drive rail set
USB 2.0/COM port tray	MCP-220-00007-01	-	Black USB2.0 /COM port tray (mount w ith Slim DVD Kit)
USB 3.0/COM port tray	MCP-220-00114-0N	-	Black 2x USB3.0/COM port tray (mount w ith Slim DVD Kit)
Mobile Rack	CSE-M14TQC & CBL-SAST-0699	-	Black SAS3/SATA3 Mobile Rack for 4x 2.5 (mount w ith 5.25" DVD kit); internal mini SAS HD to 4 SATA 12G, 75/75/90/90cm w /75cm SB, S. 30AWG
Storage Control Card and Cable(s)	AOC-S3008L-L8e & 2x CBL-SAST-0593	-	Std LP, 8 internal ports, 12Gb/s per port- Gen3, 122HDD, HBA; Internal Mini-SAS HD to Mini-SAS HD 60cm,30AWG,12Gb/s
Storage Control Card and Cable(s)	AOC-S3008L-L8i & 2x CBL-SAST-0593	-	Std LP, 8 internal ports, 12Gb/s per port- Gen3, 63HDD, RAID 0,1,1E; Internal Mini-SAS HD to Mini-SAS HD 60cm,30AWG,12Gb/s
Storage Control Card and Cable(s)	AOC-S3108L-H8iR & 2x CBL-SAST-0593	-	Std LP, 8 internal ports, 12Gb/s per port- Gen3, 240HDD, RAID 0, 1, 5, 6, 10, 50, 60; Internal Mini-SAS HD to Mini-SAS HD 60cm,30AWG,12Gb/s
CacheVault	BTR-TFM8G-LSICVM02	1	Supercap 8GB CV + BKT-BBU-BRACKET-05 or MCP-240-00127-0N x1
	BKT-BBU-BRACKET-05	1	Mounting PCIe Card
	MCP-240-00127-0N	1	SuperCap tray for 2.5" HDD
P4 GPU kit	MCP-310-00085-0B	1	Mylar Air Shroud(GPU) and air block for SC213X (X11DPX)
	MCP-310-00086-0B	1	Mylar Air dummy(GPU) for SC213X
AOC	AOC-VROCPREMOD	-	Intel VROC Premium, RAID 0, 1, 5, 10
	AOC-VROCSTNMOD	-	Intel VROC HW key (RSTe) standard upgrade module
	AOC-VROCINTMOD	-	Intel VROC, RAID 0, 1, 5, 10 (Intel SSD Only)
TPM security module (optional, not included)	AOM-TPM-9670V	-	TPM module (Vertical) TPM 2.0
	AOM-TPM-9671V	-	TPM module (Vertical) TPM 1.2.
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 • eStore	1	OOB Management Package (per node license)
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)