

SuperServer 6029P-TR



Integrated Board



Super X11DPi-N

Views: | [Angled View](#) | [Top View](#) |
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Note: Image above may show a varied configuration of optional parts. Please refer to parts list for standard parts included.



Key Applications

Cloud and Virtualization needs
Compute Intensive Application
Database Processing and Storage
High Availability Storage
Hosting & Application Delivery

Key Features

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. 4 PCI-E 3.0 x16, 2 PCI-E 3.0 x8 slots
4. 8 Hot-swap 3.5" SATA3 drive bays;
RAID 0, 1, 5, 10
5. Optional DVD-ROM drive, optional
support: 2 fixed 2.5" NVMe/SSD/HDD,
1 M.2 support
6. M.2 Interface: PCI-E 3.0 x4
M.2 Form Factor: 2260, 2280, 22110
M.2 Key: M-Key
7. 2x 1GbE LAN ports with Intel® X722
8. 1000W Redundant Power Supplies
Titanium Level (96% efficiency)

Specifications

Product SKUs

SYS-6029P-TR ■ SuperServer 6029P-TR (Black)

Motherboard

Super X11DPI-N

Processor

CPU ■ Dual Socket P (LGA 3647)
 ■ 2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors[‡],
 Dual UPI up to 10.4GT/s
 ■ Support CPU TDP 70-205W

Cores ■ Up to 28 Cores

Note [‡] BIOS version 3.2 or above is required to support 2nd Gen Intel® Xeon® Scalable processors (codenamed Cascade Lake-R)
 * CPU SKUs not supported: Gold 6256 and Gold 6250(L) (L = increased memory capacity per socket), Gold 6233W and Gold 5216W

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); RAID 0, 1, 5, 10

Network Controllers ■ Dual 1GbE LAN with Intel® X722

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

SATA ■ 8 SATA3 (6Gbps) ports

LAN ■ 2 RJ45 Gigabit Ethernet LAN ports
 ■ 1 RJ45 Dedicated IPMI LAN port

USB ■ Rear USB: 2 USB 3.0 + 2 USB 2.0
 ■ Front USB: 2 USB 2.0
 ■ USB Header: 1 Type A

VGA ■ 1 VGA port

Serial Port / Header ■ 2 Fast UART 16550 serial
 ■ 2 COM Ports (1 rear, 1 header)

Chassis

Form Factor ■ 2U Rackmount

Model ■ **CSE-825TQC-R1K03LPB**

Dimensions and Weight

Width ■ 17.2" (437mm)

Height ■ 3.5" (89mm)

Depth ■ 25.5" (647mm)

Package ■ 26.7" (H) x 11.4" (W) x 34.5" (D)

Weight ■ Net Weight: 35.5 lbs (16.1 kg)
 ■ Gross Weight: 69 lbs (31.2 kg)

Available Colors ■ Black

Front Panel

Buttons ■ Power On/Off button
 ■ System Reset button
 ■ UID button

LEDs ■ Power status LED
 ■ HDD activity LED
 ■ Network activity LEDs
 ■ System information (overheat/UID) LED

Expansion Slots

PCI-Express ■ 4 PCI-E 3.0 x16 (Low-profile)
 ■ 2 PCI-E 3.0 x8 (Low-profile)

Drive Bays

Hot-swap ■ 8 Hot-swap 3.5" SATA drive bays

Backplane

2U SAS/SATA backplane

System Cooling

Fans ■ 3 Heavy duty 80mm fans with PWM fan speed control

Power Supply (76mm Width)

1000W Redundant Power Supplies with PMBus

Total Output Power ■ 800W/1000W

Dimension (W x H x L) ■ 76 x 40 x 336 mm

Input ■ 100-127Vac / 12-9A / 50-60Hz
 ■ 200-240Vac / 7.2-6A / 50-60Hz
 ■ 200-240Vdc / 7.2-6A (for CCC only)

+12V ■ Max: 66.7A / Min: 0A (100-127Vac)
 ■ Max: 83A / Min: 0A (200-240Vac)
 ■ Max: 83A / Min: 0A (200-240Vdc)

5Vsb ■ Max: 4A / Min: 0A

Output Type ■ 19 Pairs Gold Finger Connector

DOM	<ul style="list-style-type: none"> 2 Super<u>DOM</u> (Disk on Module) ports
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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 <u>IPMI 2.0</u> KVM with dedicated LAN <u>SSM, SPM, SUM</u> <u>SuperDoctor® 5</u> Watch Dog
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Power Configurations	<ul style="list-style-type: none"> ACPI / APM Power Management
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PC Health Monitoring

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



Titanium Level
[[Test Report](#)]

Operating Environment

RoHS	<ul style="list-style-type: none"> RoHS Compliant
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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)
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Parts List

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X11DPi-N	1	Super X11DPi-N Motherboard
	CSE-825TQC-R1K03LPB	1	2U Chassis
Backplane	BPN-SAS3-825TQ	1	8-port 2U SAS3 12Gbps TQ backplane, support up to 8x 3.5-inch SAS3/SATA3 HDD/SSD
Cable 1	CBL-0343L-01	2	MINI SAS-4 SATA,INT,76/66/54/45CM,66CM SB,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-1918-QRG	1	6029P-TR/TRT Quick Reference Guide
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-1K03A-1R	2	1U 1000W Redundant Power Supply Titanium W/PMbus 76x40x336mm,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
Storage Controller Card(s) & Cables(s)	AOC-S3008L-L8i & 2x CBL-SAST-0699	-	Standard LP, 8 internal ports (12Gb/s) Gen-3, 63HDD; RAID 0, 1, 10
	AOC-S3008L-L8e & 2x CBL-SAST-0699	-	Standard LP, 8 internal ports (12Gb/s) Gen-3, 122HDD; HBA
	AOC-S3108L-H8IR & 2x CBL-SAST-0699	-	Standard LP, 8 internal ports (12Gb/s) 8x Gen3; RAID 0, 1, 5, 6, 10, 50, 60
	AOC-S3108L-H8IR-16DD & 2x CBL-SAST-0699	-	Standard LP, 8 internal ports (12Gb/s) Gen-3, 16HDD; RAID 0, 1, 5, 6, 10, 50, 60
Cable Management Arm	MCP-290-00073-0N	-	Supermicro Cable Management Arm for 2U, 3U and 4U chassis (Extendable Length: 70mm to 830mm)
Adaptor Bracket	MCP-120-82503-0N	-	Cable arm adapter for SC825LP,213LP (MCP-290-00073-0N required),HF,RoHS/REACH,PBF
SATA DVD Kit	MCP-220-81502-0N	-	Slim SATA DVD mounting kit for SC213,219,813,815,818,819,825,828,829,836,842
2.5" NVMe fixed drive support	MCP-110-82501-0N	-	NVMe Drive kit for SC825 FDD bay
2.5" NVMe fixed drive support	CBL-SAST-0956	-	Oculink to 1 NVMe drive w/ power, each NVMe drive needs 1x cable, system can support total 2x NVMe fixed drives
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)