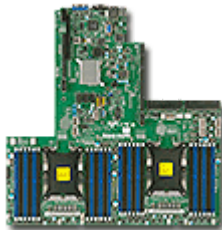


SuperServer 6029U-TR25M (Complete System Only)



Integrated Board



Super X11DPU

Views: | [Angled View](#) | [Top View](#) |
| [Front View](#) | [Rear View](#) |

Complete System Only: To maintain quality and integrity, this product is sold only as a completely-assembled system (with minimum 2 CPUs and 4 DIMMs).

[▶ Drivers & Utilities](#) | [▶ BIOS](#) | [▶ IPMI](#) | [▶ Tested Memory](#) | [▶ Tested M.2 List](#) | [▶ NVMe Options](#) | [▶ Manuals](#) | [▶ OS Certification Matrix](#) | [▶ Compatible GPU List](#) | [▶ Quick-References Guide](#) | [▶ Drive Options](#) | [▶ Network Card \(AOC\) Matrix](#)

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

Key Features

- Virtualization**
- Hyperconverge Storage**
- Cloud Computing**
- High End Enterprise Server**
- Flexible Networking Options**

1. Dual Socket P (LGA 3647) support
2nd Gen. Intel® Xeon® Scalable
processors (Cascade Lake/SkyLake)‡

2. 24 DIMMs; up to 6TB 3DS ECC
DDR4-2933MHz† RDIMM/LRDIMM,
Supports Intel® Optane™ DCPMM††

3. 1 PCI-E 3.0 x16 slot (FH, 10.5" L),
5 PCI-E 3.0 x8 slots (FH, 10.5" L),
1 PCI-E 3.0 x8 slot (LP),
1 PCI-E 3.0 x8 slot (internal LP)

4. 2 25GbE SFP28 Ethernet ports

5. 12 Hot-swap 3.5" drive bays:
12 SATA (opt. 8 SAS3 + 4 NVMe/SAS3),
Optional 2 hot-swap 2.5" rear drive
bays for SSDs;
Optional M.2 NVMe and SATA3 ports

6. 4 Heavy duty 8cm fans

7. 1000W High efficiency (96%)
Redundant PSU; **Titanium Level**

Specifications

Product SKUs

- SYS-6029U-TR25M** ■ SuperServer 6029U-TR25M (Black)

Motherboard

Super X11DPU

Processor/Cache

- CPU**
 - Dual Socket P (LGA 3647)
 - 2nd Gen. Intel® Xeon® Scalable Processors (Cascade Lake/Skylake)‡, Dual UPI up to 10.4GT/s
 - Support CPU TDP 70-205W

- 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**
 - 24 DIMM slots
 - Up to 6TB 3DS ECC DDR4-2933MHz† RDIMM/LRDIMM
 - Supports Intel® Optane™ DCPMM††

- Memory Type**
 - 2933†/2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM
 - 2666 ECC DDR4 NVDIMM

- 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 Connectivity**
 - 2 25GbE SFP28 ports via AOC-2UR68-M2TS-O (Mellanox ConnectX-4 Lx EN)
- 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** ■ 12 SATA3 (6Gbps) ports
- SAS** ■ 8 SAS3 + 4 SAS3/NVMe support optional
- LAN**
 - 2 25GbE SFP28 ports
 - 1 RJ45 Dedicated IPMI LAN port
- USB** ■ 3 USB 3.0 ports (2 rear, 1 Type A)
- Video** ■ 2 VGA ports (1 rear, 1 onboard)
- Serial Port / Header** ■ 1 Serial header
- DOM** ■ 2 SuperDOM (Disk on Module) ports

System BIOS

Chassis

- Form Factor** ■ 2U Rackmount

- Model** ■ CSE-829U2AC4-R1K02-T

Dimensions and Weight

- Width** ■ 17.2" (437mm)

- Height** ■ 3.5" (89mm)

- Depth** ■ 28.46" (723mm)

- Weight**
 - Net Weight: 36 lbs (16.4 kg)
 - Gross Weight: 72 lbs (32.7 kg)

- Available Colors** ■ Black

Front Panel

- Buttons**
 - Power On/Off button
 - System Reset button

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

Expansion Slots

- PCI-Express**
 - 1 PCI-E 3.0 x16 (FH, 10.5" L)
 - 5 PCI-E 3.0 x8 (FH, 10.5" L)
 - 1 PCI-E 3.0 x8 (LP)
 - 1 PCI-E 3.0 x8 (internal LP)

(Both CPUs need to be installed for full access to PCI-E slots and onboard controllers. See manual block diagram and AOC Support for details.)

Drive Bays / Storage

- Hot-swap**
 - 12 Hot-swap 3.5" drive bays
 - 12 SATA3 ports by default; Optional 8 SAS3 + 4 NVMe/SAS3

- M.2**
 - 1 M.2 PCI-E 3.0 x4 M-Key NVMe or 1 M.2 M-Key SATA3 (2240/2260/2280/22110) via optional riser card (see optional parts list)
 - 2 M.2 PCI-E 3.0 x4 M-Key NVMe (2260/2280/22110) via optional add-on card AOC-SLG3-2M2

Backplane

2U SAS/SATA backplane

System Cooling

- Fans** ■ 4 Heavy duty 8cm PWM fans

Power Supply

1000W Redundant Power Supplies with PMBus

- Total Output Power**
 - 800W: 100 – 127Vac
 - 1000W: 200 – 240Vac
 - 1000W: 200 – 240Vdc (for CCC only)

- Dimension (W x H x L)** ■ 73.5 x 40 x 203 mm

BIOS Type ■ AMI 32Mb SPI Flash ROM

Management

Software

- Intel® Node Manager
- [IPMI 2.0](#)
- KVM with dedicated LAN
- NMI
- [SSM](#), [SPM](#), [SUM](#)
- [SuperDoctor® 5](#)

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

Input

- 100-127Vac / 9.8 - 7A / 50-60Hz
- 200-240Vac / 7 - 5A / 50-60Hz
- 200-240Vdc / 7 - 5A (for CCC only)

+12V

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

12Vsb ■ Max: 2.1A / Min: 0A

Output Type ■ 25 Pairs Gold Finger Connector

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-X11DPU	1	Super X11DPU Motherboard
	CSE-829U2AC4-R1K02-T	1	2U Chassis
Add-on Card / Module	AOC-2UR68-M2TS-O	1	[NR]AOC-2UR68-M2TS-P
Backplane	BPN-SAS3-826A-N4	1	12-port 2U SAS3 12Gbps hybrid backplane, support up to 8x 3.5-inch SAS3/SATA3 HDD/SSD and 4x SAS3/SATA3/NVMe Storage Devices
Cable 1	CBL-PWEX-0652	1	8 pin female to 2x RA(Right Angle) big 4 pin female power, 60/65CM, 18AWG,RoHS/REACH
Cable 2	CBL-PWEX-0673	1	8 pin female to 2x big 4 pin female power, 65/70CM, 18AWG,RoHS/REACH
Cable 3	CBL-SAST-0655	1	MINI SAS HD(ST)-MINI SAS(RA-RS EXIT),6G,INT,47CM,SB,30AWG
Cable 4	CBL-SAST-0656	1	MINI SAS HD(ST)-MINI SAS(RA-RS EXIT),6G,INT,39CM,SB,30AWG
Cable 5	CBL-SAST-0657	1	MINI SAS HD(ST)-MINI SAS(RA-RS EXIT),6G,INT,55CM,SB,30AWG
Parts	MCP-240-82914-0N	1	Ultra I/O bracket for SC829U, 219U (B2TS)
Air Shroud	MCP-310-82921-0N	1	Plastic air shroud for SC829U, 219U (X11 24DIMM, left side)
Air Shroud	MCP-310-82922-0N	1	Plastic air shroud for SC829U, 219U (X11 24DIMM, right side)
Riser Card	RSC-R1UW-E8R	1	1U RHS WIO Riser card with one PCI-E x8 slot
Riser Card	RSC-R2UW-4E8	1	2U LHS WIO Riser card with four PCI-E x8 slots
Heatsink / Retention	SNK-P0068PS	2	2U Passive CPU Heat Sink for X11 Purley Platform Equipped with a Narrow Retention Mechanism
Power Supply	PWS-1K02A-1R	2	1U 1000W Redundant Power Supply 73.5mm width Titanium Level,RoHS/REACH
FAN 1	FAN-0118L4	4	80 x 80 x 38 mm, 9.5K RPM, 4-pin PWM Fan, Hot

Optional Parts List

	Part Number	Qty	Description
Add-on card for internal M.2 NVMe	AOC-SLG3-2M2	1	Low Profile PCI-E x8 add-on card supports 2 PCI-E 3.0 x4 M-Key M.2 NVMe Modules
2U Cable Management Arm	MCP-290-00128-0N & MCP-290-00127-0N	1	2U Supermicro Cable Management Arm 2nd Gen (Compatible for racks that are 42" in depth)
Internal Drive Tray for Two 2.5" Drives	MCP-120-82916-0N	1	Internal drive plate Supports Two 2.5" Drive, PCI slots
	CBL-PWEX-0650	1	Power cable for Two internal 2.5" drives
	CBL-0080L	2	
	CBL-0484L Or	2	SATA3 S-S Cable
	CBL-SAST-0654 Or CBL-SAST-0948	1 1	miniSAS(iPass) to 4 SATA Cable miniSAS HD to 4 SATA Cable
Cable for 4 NVMe Hybrid Drive Bays	2 CBL-SAST-0929 & 2 CBL-SAST-0972	1	OCuLink source to MiniSAS HD target V.91,INT,PCIe NVMe SSD, 57CM,34AWG
Hot-swap 3.5" to 2.5" NVMe Drive Tray	MCP-220-00138-0B	1~4	Tool-less black hot-swap 3.5-to-2.5 converter NVMe drive tray (Orange tab)
Hot-swap 3.5" to 2.5" SATA/SAS Drive Trays	MCP-220-00118-0B	1~12	Tool-less black hot-swap 3.5-to-2.5 converter HDD drive tray (Red tab)
	MCP-220-00043-0N		Black hot-swap 3.5-to-2.5 converter HDD drive tray (Red tab)
2 Internal M.2 slots (1 SATA, 1 NVMe)	RSC-UMR-8 & CBL-SAST-0538 & MCP-120-82924-0N & MCP-310-21902-0N	1	1U Ultra RHS Riser Card with 1 PCIe/SATA Hybrid M.2 & 1 PCIe X8
2 Rear 2.5" Hot-swap SATA Drive Bays (Complete System Only)	MCP-240-82922-0N-OEM	-	Rear 2x 2.5" HDDs riser bracket kit for SC829U/219U, tool-less

Storage Control Card and Cable(s)	AOC-S3008L-L8e & 2x CBL-SAST-0593	1~2	Std LP, 8 internal ports, 12Gb/s per port- Gen3, 122HDD, HBA; MINI SAS HD,12G,INT,60CM,30AWG
	AOC-S3008L-L8i & 2x CBL-SAST-0593		Std LP, 8 internal ports, 12Gb/s per port- Gen3, 63HDD, RAID 0,1,1E; MINI SAS HD,12G,INT,60CM,30AWG
	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; MINI SAS HD,12G,INT,60CM,30AWG
	AOC-S3108L-H8iR-16DD & 2x CBL-SAST-0593		Std LP, 8 internal ports, 12Gb/s per port- Gen3, 16HDD, RAID 0, 1, 5, 6, 10, 50, 60; MINI SAS HD,12G,INT,60CM,30AWG
Network Card(s)	AOC-SGP-i2/4	-	Standard LP, 2/4x GbE RJ45, PCI-E x4, Intel i350
	AOC-STGN-i1S/i2S	-	Standard LP, 1/2x 10GbE SFP+, PCI-E x8, Intel 82599EN
	AOC-STGF-i2S	-	Standard LP, 2x 10GbE SFP+, PCI-E x8, Intel XL710-BM2
	AOC-STG-i4S	-	Standard LP, 4x 10GbE SFP+, PCI-E x8, Intel XL710
	AOC-STG-b4S	-	Standard LP, 4x 10GbE SFP+, PCI-E x8, Broadcom BCM57840S
	AOC-STG-i2T	-	Standard LP, 2x 10GbE RJ45, PCI-E x8, Intel X540
	AOC-STGS-i1/2T	-	Standard LP, 1/2x 10GbE RJ45, PCI-E x8, Intel X550
	AOC-STG-i4T	-	Standard LP, 4x 10GbE RJ45, PCI-E x8, Intel XL710
	AOC-STG-i2	-	Standard LP, 2x 10GbE CX4, PCI-E x8, Intel 82598EB
	AOC-S25G-m2S	-	Standard LP, 2x 25GbE SFP28, Mellanox ConnectX-4 LX EN
	AOC-S40G-i2Q	-	Standard LP 2-port 40GbE controller, Intel Fortville XL710
	More	-	AOC Compatibility Matrix
	Cache Vault(s)	BTR-CV3108-U1	-
Hot-swap 3.5" to 2.5" Hard Disk Drive Tray	MCP-220-00043-0N	-	Black hot-sw ap 3.5" to 2.5" HDD tray
TPM security module	AOM-TPM-9670H-S	1	TCG 2.0 compliant trusted platform module (TPM), Horizontal FF
	AOM-TPM-9671H-S	1	TCG 1.2 compliant trusted platform module (TPM), Horizontal FF
Intel VROC RAID Key	AOC-VROCIINTMOD	1	Intel VROC, RAID 0, 1, 5, 10 (Intel SSD Only)
	AOC-VROCSTNMOD	1	Intel VROC Standard, RAID 0, 1, 10
	AOC-VROCPREMOD	1	Intel VROC Premium, RAID 0, 1, 5, 10
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)