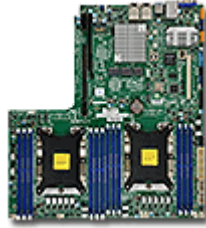


SuperServer 6029P-WTRT



Integrated Board



Super X11DDW-NT

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

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

Web Server, Firewall Apps.
Corporate-Wins, DNS, Print, Login
Gateway, provisioning servers
Compact Network Appliance
Cloud Computing

Key Features

1. Dual Socket P (LGA 3647) support
2nd Gen Intel® Xeon® Scalable
processors (Cascade Lake/Skylake)‡
2. 12 DIMMs; up to 3TB 3DS ECC
DDR4-2933MHz† RDIMM/LRDIMM,
Supports Intel® Optane™ DCPMM††
3. 1 PCI-E 3.0 x16 (FHHL) slots,
2 PCI-E 3.0 x8 (FHHL) slots,
2 PCI-E 3.0 x8 (LP) slots,
1 PCI-E 3.0 x16 for Add-on-Module
(Support SAS3 Storage controller),
1 PCI-E 3.0 x4 NVMe M.2 slot
4. 12 Hot-swap 3.5" SAS/SATA drive
bays (4 NVMe/SAS3/SATA3
hybrid drive bays)
5. 2x 10GBase-T ports via Intel C622
6. 1 VGA, 4 USB 3.0 (rear)
7. 1200W Redundant Power Supplies
Titanium Level (96% Efficiency)

Specifications

Product SKUs

- **SYS-6029P-WTRT** SuperServer 6029P-WTRT (**Black**)

Motherboard

Super X11DDW-NT

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)

System Memory

- **Memory Capacity**
 - 12 DIMM slots
 - Up to 3TB 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® C622 chipset
- **SATA** SATA3 (6Gbps); RAID 0, 1, 5, 10
- **Network Controllers** Dual 10Gbase-T LAN with Intel C622
- **IPMI**
 - Support for Intelligent Platform Management Interface v.2.0
 - IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
- **Video** ASPEED AST2500 BMC

Input / Output

- **SATA** 12 SATA3 (6 Gbps) ports
- **LAN**
 - 2 RJ45 10GBase-T ports
 - 1 RJ45 Dedicated IPMI LAN port
- **USB** 4 USB 3.0 ports (rear)
- **Video** 1 VGA port
- **DOM** 2 SuperDOM (Disk on Module) ports

System BIOS

- **BIOS Type** AMI 32Mb SPI Flash ROM

Chassis

- **Form Factor** 2U Rackmount

- **Model** **CSE-826BAC4-R1K23WB**

Dimensions and Weight

- **Width** 17.2" (437mm)

- **Height** 3.5" (89mm)

- **Depth** 25.5" (648mm)

- **Gross Weight** 64 lbs (29.0 kg)

- **Available Colors** Black

Front Panel

- **Buttons**
 - Power On/Off button
 - UID button

- **LEDs**
 - Power status LED
 - HDD activity LED
 - Network activity LEDs
 - Universal Information (UID) LED

Expansion Slots

- **PCI-Express**
 - 1 PCI-E 3.0 x16 (FHHL) slot
 - 2 PCI-E 3.0 x8 (FHHL) slots
 - 2 PCI-E 3.0 x8 (LP) slots
 - 1 PCI-E 3.0 x16 for Add-on-Module (AOM)
 - 1 PCI-E 3.0 x4 NVMe M.2 slot

(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

- **Hot-swap** 12 Hot-swap 3.5" SAS/SATA drive bays with SES2 and Mini-i-Pass (SFF 8087) connectivity

Backplane

- SAS/SATA HDD Backplane

System Cooling

- **Fans** 3 High-performance 8cm PWM fans

Power Supply (76mm Width)

- 1200W Redundant Power Supplies with PMBus

- **Total Output Power** 1000W/1200W

- **Dimension (W x H x L)** 76 x 40 x 336 mm

- **Input**
 - 100-127Vac / 15-12A / 50-60Hz
 - 200-240Vac / 8.5-7A / 50-60Hz
 - 200-240Vdc / 8.5-7A (for CCC only)

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

Management**Software**

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

Power Configurations

- ACPI / APM 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

+5Vsb

- Max: 4A / Min: 0A

Output Type

- 19 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-X11DDW-NT	1	Super X11DDW-NT Motherboard
	CSE-826BAC4-R1K23WB	1	2U Chassis
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
Storage Cable	CBL-SAST-0507-01	3	MINI SAS HD-MINI SAS,6G,INT,80CM,SB,28AWG
Rubber Pads	MCP-150-00017-0B	2	Rubber pad, 6.5mm H, 10x10mm
Chassis Part	MCP-240-00146-0N	1	2U WIO Half Length riser card bkt for SC825, 826, 213, 216,RoHS/REACH
Air Block	MCP-160-82603-0B	1	Air Blocker X11DDW
Air Shroud	MCP-310-82602-0B	1	air shroud X11DDW + CSE-826B
Manual	MNL-2033-QRG	1	6029P-WTRT Quick Reference Guide
Riser Card (right)	RSC-R2UW-2E8R	1	2U RHS WIO Riser card with two PCI-E x8 slots
Riser Card (left)	RSC-R2UW-2E8E16+	1	2U LHS WIO Riser card with one PCI-E x16 slot and two PCI-E x8 slots
Heatsink w/ Retention	SNK-P0068PS	2	2U Passive CPU Heat Sink 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
* Power Cord	CBL-0160L	2	NEMA5-15P to C13 US power cord 16AWG 6ft, PBF (default for high watt)
* FAN	FAN-0158L4	3	80x80x38 mm, 10.5K RPM Cooling Fan
* Rail Set	MCP-290-00053-0N	1	Rail set, quick/quick, default for 2,3U 17.2"W

Notes:

- Parts with * come with the chassis
- Excessive parts might not be shipped, including but not limited to excessive drive trays, fans, riser brackets, air shrouds, IO shields, cables.....etc.

Optional Parts List

	Part Number	Qty	Description
Optional Upgrade for 2U LHS WIO Riser	RSC-W2-66	1	2U LHS WIO Riser card with 2 PCI-E x16 double width slots
NVMe Drive Tray with Lock & NVMe Cable	MCP-220-00138-0B & CBL-SAST-0929	-	Tool-less Black gen-5 3.5"-to-2.5" NVMe drive tray, Orange tab OcuLink source to MiniSAS HD target V.91,INT,PCIe NVMe SSD
3.5" to 2.5" Converter Tray	MCP-220-00043-0N	-	Black Hot-swap Gen-4 2.5" to 3.5" HDD tray
Rear Window HDD Kit (SATA only)	MCP-220-82616-0N	1	Rear Window 12G 2x 2.5" HDD Module for 826B Series Chassis
Add-on card for internal M.2 NVMe	AOC-SLG3-2M2	-	Low Profile PCI-E x8 add-on card supports 2 PCI-E 3.0 x4 M-Key M.2 NVMe Modules
Intel VROC RAID Key	<u>AOC-VROCINTMOD</u>	1	Intel VROC, RAID 0, 1, 5, 10 (Intel SSD Only)
	<u>AOC-VROCSTNMOD</u>		Intel VROC Standard, RAID 0, 1, 10
	<u>AOC-VROCPREMOD</u>		Intel VROC Premium, RAID 0, 1, 5, 10

Storage Controller Card(s) & Cables(s)	AOC-S3216L-L16IT & 3x CBL-SAST-0531	-	Standard LP, 16 internal ports (12Gb/s) Gen-3, 240HDD; HBA
	AOM-S3108M-H8 & 2x CBL-SAST-0531		Supermicro LP, 8 internal ports (12Gb/s) SAS Mezzanine; RAID 0, 1, 5, 6, 10, 50, 60
	AOC-S3108L-H8IR-16DD & 2x CBL-SAST-0531		Standard LP, 8 internal ports (12Gb/s) Gen-3, 16HDD; RAID 0, 1, 5, 6, 10, 50, 60
	AOC-S3008L-L8i & 2x CBL-SAST-0531		Standard LP, 8 internal ports (12Gb/s) Gen-3, 63HDD; RAID 0, 1, 10
	AOC-S3008L-L8e & 2x CBL-SAST-0531		Standard LP, 8 internal ports (12Gb/s) Gen-3, 122HDD; HBA
CacheVault (for 3108)	BTR-TFM8G-LSICVM02 & BKT-BBU-BRACKET-05	-	CacheVault for Broadcom 3108; SuperCap mounting bracket for PCI-E location
	BTR-TFM8G-LSICVM02 & MCP-240-00127-0N & MCP-220-00043-0N		CacheVault for Broadcom 3108; SuperCap mounting bracket for 2.5" HDD location; Black Hot-swap Gen-4 2.5" to 3.5" HDD tray
Network Card(s)	AOC-SGP-i2	-	Standard LP, 2x GbE RJ45, PCI-E x4, Intel® i350AM2
	AOC-SGP-i4		Standard LP, 4x GbE RJ45, PCI-E x4, Intel® i350AM4
	AOC-STGS-i1T		Standard LP, 1x 10GbE RJ45, PCI-E x4, Intel® X550-AT
	AOC-STGS-i2T		Standard LP, 2x 10GbE RJ45, PCI-E x4, Intel® X550-AT2
	AOC-STG-i4T		Standard LP, 4x 10GbE RJ45, PCI-E x8, Intel® XL710-BM1
	AOC-STGN-i1S		Standard LP, 1x 10GbE SFP+, PCI-E x8, Intel® 82599EN
	AOC-STGN-i2S		Standard LP, 2x 10GbE SFP+, PCI-E x8, Intel® 82599ES
	AOC-STG-i4S		Standard LP, 4x 10GbE SFP+, PCI-E x8, Intel® XL710-BM1
	AOC-S25G-i2S		Standard LP, 2x 25GbE SFP28, PCI-E x8, Intel® XXV710 + Marvell Unionville
	AOC-MCX555A-ECAT		Standard LP, 1x 100GbE (and EDR IB) QSFP28, PCI-E x16, Mellanox® ConnectX-5
	AOC-MCX556A-ECAT		Standard LP, 2x 100GbE (and EDR IB) QSFP28, PCI-E x16, Mellanox® ConnectX-5
Front Bezel	MCP-210-82601-0B	1	Black Front Bezel for 826 chassis
Cable Management Arm	MCP-290-00073-0N & MCP-120-82503-0N	1	Supermicro Cable Management Arm for 2U, 3U and 4U chassis Cable arm adapter for SC825,213,829H,847B (MCP-290-00073-0N required),HF,RoHS/REACH,PBF
TPM security module (optional, not included)	AOM-TPM-9670V-S	1	SPI capable TPM 2.0 with Infineon 9670 controller; vertical form factor
	AOM-TPM-9671V-S		SPI capable TPM 1.2 with Infineon 9670 controller; vertical form factor
Global Services & Support	<u>OS4HR3/2/1</u>	-	3/2/1-year onsite 24x7x4 service
	<u>OSNBD3/2/1</u>		3/2/1-year onsite NBD service
Software	<u>SFT-OOB-LIC</u> • eStore	1	OOB Management Package (per node license)
Software	<u>SFT-DCMS-Single</u>	1	DataCenter Management Package (per node license)