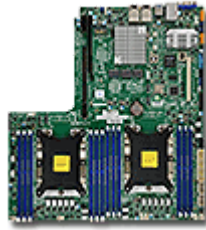


SuperServer 1029P-WTR



Integrated Board



Super X11DDW-L

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

▶ [Drivers & Utilities](#) ▶ [BIOS](#) ▶ [IPMI](#) ▶ [Tested Memory](#) ▶ [Tested M.2 List](#) ▶ [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. 2 PCI-E 3.0 x16 (FHHL) slots,
1 PCI-E 3.0 x8 (LP) slot,
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. 8 Hot-swap 2.5" drive bays,
1 slim DVD-ROM drive bay (optional)
5. 2x 1GbE LAN ports via Intel C621
6. 1 VGA, 4 USB 3.0 (rear)
7. 2 SuperDOM (Disk on Module) ports
8. 750W Redundant Power Supplies
Platinum Level High-efficiency

Specifications

Product SKUs

SYS-1029P-WTR ■ SuperServer 1029P-WTR (Black)

Motherboard

Super X11DDW-L

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 70-165W*

Cores ■ Up to 28 Cores

Note * Certain high frequency optimized CPUs within 165W TDP are not supported, such as Intel Gold 6144, 6146, 6244, 6246, 6250 and 6256.

Note ‡ BIOS version 3.2 or above is required to support 2nd Gen Intel® Xeon® Scalable processors (codenamed Cascade Lake-R).

Extended thermal solutions may be required to support CPUs higher than 165W TDP, please contact Supermicro Technical Support for additional information.

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® C621 chipset

SATA ■ SATA3 (6Gbps); RAID 0, 1, 5, 10

Network Controllers ■ Dual LAN with Gigabit Ethernet from C621

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 ■ 8 SATA3 (6 Gbps) ports

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

USB ■ 4 USB 3.0 ports (rear)

Chassis

Form Factor ■ 1U Rackmount

Model ■ **CSE-113AC2-R706WB2**

Dimensions and Weight

Width ■ 17.2" (437mm)

Height ■ 1.7" (43mm)

Depth ■ 23.5" (597mm)

Gross Weight ■ 46 lbs (20.9kg)

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 ■ 2 PCI-E 3.0 x16 (FHHL) slots
 ■ 1 PCI-E 3.0 x8 (LP) slot
 ■ 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 ■ 8 Hot-swap 2.5" SAS/SATA drive bays

Peripheral ■ 1 Slim DVD-ROM drive bay (optional)

Backplane

SAS/SATA HDD Backplane

System Cooling

Fans ■ 4 Counter-rotating 4cm PWM fans, 2 fans for cooling AOC

AC/DC240V Input Redundant Power Supply

700W/750W Redundant Power Supplies with PMBus

Total Output Power ■ 700W/750W

Dimension (W x H x L) ■ 54.5 x 40.25 x 320 mm

Input ■ 100 - 140Vac / 8 - 6A / 50-60Hz
 ■ 200 - 240Vac / 4.5 - 3.8A / 50-60Hz
 ■ 200 - 240Vdc / 4.5 - 3.8A (CCC Only)

Video	<ul style="list-style-type: none"> 1 VGA port
DOM	<ul style="list-style-type: none"> 2 SuperDOM (Disk on Module) ports

System BIOS

BIOS Type	<ul style="list-style-type: none"> AMI 32Mb SPI Flash ROM
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Management

Software	<ul style="list-style-type: none"> Intel® Node Manager IPMI 2.0 KVM with dedicated LAN SSM, SPM, SUM SuperDoctor® 5 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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+12V	<ul style="list-style-type: none"> Max: 58A / Min: 0.5A (100 - 140Vac) Max: 62A / Min: 0.5A (200 - 240Vac) Max: 62A / Min: 0.5A (200 - 240Vdc) (CB/CCC Only)
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+5V sb	<ul style="list-style-type: none"> Max: 3A / Min: 0A
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Output Type	<ul style="list-style-type: none"> Gold Finger Connector Mating with Molex 45984-4343
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Certification	 Platinum Certified [Test Report]
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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-X11DDW-L	1	Super X11DDW-L Motherboard
	CSE-113AC2-R706WB2	1	1U Chassis
Backplane	BPN-SAS3-113A-N2	1	8-port 1U SAS3 12Gbps Hybrid backplane, support up to 6x 2.5-inch SAS3/SATA3 HDD/SSD and 2x SAS3/SATA3/NVMe Storage Devices
Storage Cable	CBL-SAST-0507-01	2	MINI SAS HD-MINI SAS,6G,INT,80CM,SB,28AWG
Rubber Pad	MCP-150-00015-0B	2	Rubber pad, 3.0mm H, 10x10mm
Air Shroud	MCP-310-19019-0B	2	SC113/SC116/SC815/SC515, DP X11DDW Mylar air shroud
Air Block	MCP-320-00061-0B	1	CR foam for air block in SC113/SC116/SC815
Manual	MNL-1962-QRG	1	1029P-WT/WTR Quick Reference Guide
Riser Card (left)	RSC-R1UW-2E16	1	1U LHS WIO Riser card with two PCI-E x16 slots
Riser Card (right)	RSC-R1UW-E8R	1	1U RHS WIO Riser card with one PCI-E x8 slot
Heatsink w/ Retention	SNK-P0067PSMB	2	1U Passive High Performance Front CPU Heat Sink w/ an 18-mm Wide Middle Air Channel for X11 Purley Platform Equipped w/ a Narrow Retention Mechanism/Bolster
* Power Supply	PWS-706P-1R	2	1U 750W redundant power width 54.5mm(Platinum),HF,RoHS/REACH,PBF
* Power Cord	CBL-0160L	2	NEMA5-15P to C13 US power cord 16AWG 6ft, PBF (default for high watt)
* FAN	FAN-0156L4	4	40x40x56 mm 13K-11K RPM Counter-rotating Fan,RoHS/REACH
* Rail Set	MCP-290-00063-0N	1	Rail set, quick/quick, default for 1U 17.2"W for SC113/SC116,RoHS/REACH

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
DVD-ROM / RW & Mounting Kit	DVM-TEAC-DVD-SBT5 & MCP-220-81502-0N	1	BLACK TEAC SLIM DVD SATA DRIVE, HF, RoHS Slim SATA DVD mounting kit
	DVM-TEAC-DVDRW-SBT5 & MCP-220-81502-0N		BLACK TEAC SLIM DVD-RW SATA DRIVE, HF, RoHS Slim SATA DVD mounting kit
	DVM-PLDS-DVDRW-SBT5 & MCP-220-81502-0N		PHILIPS SLIM BLACK DVD-RW SATA DRIVE, HF, RoHS/REACH Slim SATA DVD mounting kit
Front USB Kit	MCP-220-00152-0B	1	Black dual 3.0 USB tray for slim DVD bay
Add-on card for additional 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
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
Additional Fan	FAN-0156L4	-	40x40x56 mm 13K-11K RPM Counter-rotating Fan
Storage Controller Card & Cables	AOM-S3108M-H8 & 2x CBL-SAST-0531 & 1x FAN-0156L4	-	Supermicro LP, 8 internal ports (12Gb/s) SAS Mezzanine; RAID 0, 1, 5, 6, 10, 50, 60; 80cm MiniSAS HD Cable 40x40x56 mm 13K-11K RPM Counter-rotating Fan
	AOC-S3108L-H8IR-16DD & 2x CBL-SAST-0593		Standard LP, 8 internal ports (12Gb/s) Gen-3, 16HDD; RAID 0, 1, 5, 6, 10, 50, 60; 60cm MiniSAS HD Cable
	AOC-S3008L-L8i & 2x CBL-SAST-0593		Standard LP, 8 internal ports (12Gb/s) Gen-3, 63HDD; RAID 0, 1, 10; 60cm MiniSAS HD Cable
	AOC-S3008L-L8e & 2x CBL-SAST-0593		Standard LP, 8 internal ports (12Gb/s) Gen-3, 122HDD; HBA; 60cm MiniSAS HD Cable
Alternative Storage Controller Cable	CBL-SAST-0531	-	Internal Mini-SAS HD to Mini-SAS HD 80cm,30AWG,12Gb/s, up to 4 drives per cable

CacheVault (for 3108)	BTR-CV3108-1U1	1	CacheVault for Broadcom 3108 with SuperCap mounting in 1U 40x56 fan tray
	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		CacheVault for Broadcom 3108; SuperCap mounting bracket for 2.5" HDD location
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-210-11601-0B	1	Black Front Bezel for SC113, SC113M, SC116, SC119, SC119U, SC514 (No LED indicator support)
Cable Management Arm	MCP-290-00085-0N	1	Supermicro Cable Management Arm for 1U Chassis
Inlet Thermal Sensor	MCP-280-00033-0N	-	Universal Thermal sensor kit with 80cm I2C cable
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	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)