



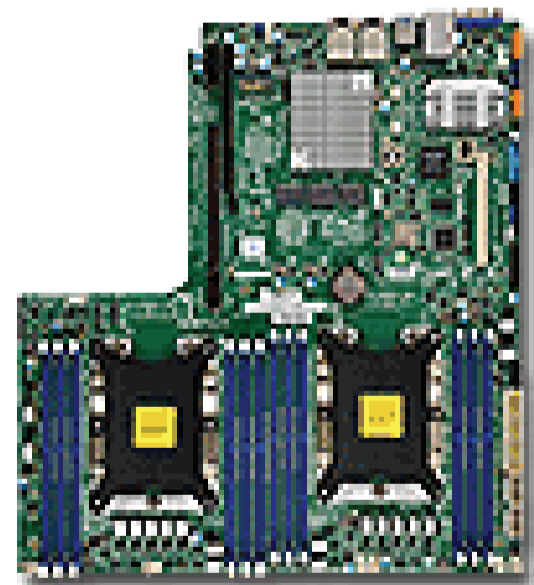
## Key Features

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

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



## Integrated Board



## Super X11DDW-L

# Specifications

## Product SKUs

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

## Motherboard

- Super X11DDW-L

## Processor/Cache

- CPU**
  - Dual Socket P (LGA 3647)
  - 2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors<sup>‡</sup>, 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 and 6246.

- 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<sup>†</sup> RDIMM/LRDIMM
  - Supports Intel® Optane™ DCPMM<sup>††</sup>

- Memory Type**
  - 2933<sup>†</sup>/2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM

- Note**
  - <sup>†</sup> 2933MHz in two DIMMs per channel can be achieved by using memory purchased from Supermicro
  - <sup>††</sup> 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)
- Video**
  - 1 VGA port
- DOM**
  - 2 SuperDOM (Disk on Module) ports

## System BIOS

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

## 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

## 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)
- +12V**
  - Max: 58A / Min: 0.5A (100 - 140Vac)
  - Max: 62A / Min: 0.5A (200 - 240Vac)
  - Max: 62A / Min: 0.5A (200 - 240Vdc) (CB/CCC Only)
- +5V sb**
  - Max: 3A / Min: 0A
- Output Type**
  - Gold Finger Connector Mating with Molex 45984-4343
- Certification**
  -  **Platinum Certified** [ 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
<b>Motherboard / Chassis</b>	MBD-X11DDW-L	1	Super X11DDW-L Motherboard
	CSE-113AC2-R706WB2	1	1U Chassis
<b>Backplane</b>	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
<b>Storage Cable</b>	CBL-SAST-0507-01	2	MINI SAS HD-MINI SAS,6G,INT,80CM,SB,28AWG
<b>Rubber Pad</b>	MCP-150-00015-0B	2	Rubber pad, 3.0mm H, 10x10mm
<b>Air Shroud</b>	MCP-310-19019-0B	2	SC113/SC116/SC815/SC515, DP X11DDW Mylar air shroud
<b>Air Block</b>	MCP-320-00061-0B	1	CR foam for air block in SC113/SC116/SC815
<b>Manual</b>	MNL-1962-QRG	1	1029P-WT/WTR Quick Reference Guide
<b>Riser Card (left)</b>	RSC-R1UW-2E16	1	1U LHS WIO Riser card with two PCI-E x16 slots
<b>Riser Card (right)</b>	RSC-R1UW-E8R	1	1U RHS WIO Riser card with one PCI-E x8 slot
<b>Heatsink w/ Retention</b>	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
<b>* Power Supply</b>	PWS-706P-1R	2	1U 750W redundant power width 54.5mm(Platinum),HF,RoHS/REACH,PBF
<b>* Power Cord</b>	CBL-0160L	2	NEMA5-15P to C13 US power cord 16AWG 6ft, PBF (default for high watt)
<b>* FAN</b>	FAN-0156L4	4	40x40x56 mm 13K-11K RPM Counter-rotating Fan,RoHS/REACH
<b>* Rail Set</b>	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
<b>DVD-ROM / RW &amp; Mounting Kit</b>	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
<b>Add-on card for additional M.2 NVMe</b>	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
<b>Intel VROC RAID Key</b>	AOC-VROCINTMOD	1	Intel VROC, RAID 0, 1, 5, 10 (Intel SSD Only)
	AOC-VROCSTNMOD		Intel VROC Standard, RAID 0, 1, 10
	AOC-VROCPREMOD		Intel VROC Premium, RAID 0, 1, 5, 10
<b>Additional Fan</b>	FAN-0156L4	-	40x40x56 mm 13K-11K RPM Counter-rotating Fan
<b>Storage Controller Card &amp; Cables</b>	AOM-S3108M-H8 & 2x CBL-SAST-0531 & 1x FAN-0156L4	-	Supercap 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
<b>Alternative Storage Controller Cable</b>	CBL-SAST-0531	-	Internal Mini-SAS HD to Mini-SAS HD 80cm,30AWG,12Gb/s, up to 4 drives per cable
<b>CacheVault (for 3108)</b>	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
<b>Network Card(s)</b>	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
<b>Front Bezel</b>	MCP-210-11601-0B	1	Black Front Bezel for SC113, SC113M, SC116, SC119, SC119U, SC514 (No LED indicator support)
<b>Cable Management Arm</b>	MCP-290-00085-0N	1	Supercap Cable Management Arm for 1U Chassis
<b>TPM security module (optional, not included)</b>	AOM-TPM-9670V	1	SPI capable TPM 2.0 with Infineon 9670 controller; vertical form factor
	AOM-TPM-9671V		SPI capable TPM 1.2 with Infineon 9670 controller; vertical form factor
<b>Global Services &amp; Support</b>	OS4HR3/2/1	-	3/2/1-year onsite 24x7x4 service
	OSNBD3/2/1	-	3/2/1-year onsite NBD service
<b>Software</b>	SFT-OOB-LIC • eStore	1	OOB Management Package (per node license)
<b>Software</b>	SFT-DCMS-Single	1	DataCenter Management Package (per node license)