

SuperServer 1019P-WTR



Integrated Board



Super X11SPW-TF

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



Key Applications

**DB Processing & Storage
Data Center Applications**

Key Features

1. Single Socket P (LGA 3647) supports 2nd Gen Intel® Xeon® Scalable processor (Cascade Lake/Skylake)‡
2. 6 DIMMs; up to 1.5TB 3DS ECC DDR4-2933MHz† RDIMM/LRDIMM
3. 2 PCI-E 3.0 x16 (FHFL) slots, 1 PCI-E 3.0 x8 (LP) slot
4. 10 Hot-swap 2.5" SATA3 drive bays (2 hybrid NVMe w/ AOC option)
5. 2x 10GBase-T ports with Intel X722 + X557
6. 1 VGA, 1 COM, 4 USB 3.0, 2 USB 2.0
7. 500W Redundant Platinum Level power supplies

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

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

Specifications

Product SKUs

SYS-1019P-WTR ■ SuperServer 1019P-WTR (Black)

Motherboard

Super X11SPW-TF

Processor/Cache

CPU ■ Single Socket P (LGA 3647)
 ■ 2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors[‡]
 ■ Support CPU TDP 70-205W*

Cores ■ Up to 28 Cores

Note * Certain high frequency optimized CPU are not supported, such as Intel Gold 6250 and 6256. Please contact Supermicro Technical Support for additional information.

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 ■ 6 DIMM slots
 ■ Up to 1.5TB 3DS ECC DDR4-2933MHz[†] RDIMM/LRDIMM

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® X722 + X557

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 ■ 10 SATA3 (6Gbps) ports

LAN ■ 2 RJ45 10GBase-T LAN ports
 ■ 1 RJ45 dedicated IPMI LAN port

USB ■ 5 USB 3.0 ports (2 rear + 2 headers + 1 Type A)
 ■ 7 USB 2.0 ports (2 rear + 5 headers)

Video ■ 1 VGA port

Serial Port / Header ■ 2 COM ports (1 rear, 1 header)

Chassis

Form Factor ■ 1U Rackmount

Model ■ **CSE-116AC2-R504WB**

Dimensions and Weight

Height ■ 1.7" (43mm)

Width ■ 17.2" (437mm)

Depth ■ 23.5" (597mm)

Package ■ 24" (W) x 8" (H) x 32" (L)

Weight ■ Gross Weight: 27 lbs (12.25 kg)
 ■ Net Weight: 15.5 lbs (7.03 kg)

Available Colors ■ Black

Front Panel

Buttons ■ Power On/Off button
 ■ System Reset button

LEDs ■ Power LED
 ■ Hard drive activity LED
 ■ Network activity LEDs
 ■ System Information LED
 ■ Information LED (temp., status)

Expansion Slots

PCI-Express ■ 2 PCI-E 3.0 x16 (FHFL) slots
 ■ 1 PCI-E 3.0 x8 (LP) slot

M.2 ■ 1x M.2 Interface: PCI-E 3.0 x4 and SATA
 ■ Form Factor: 2280, 22110
 ■ Key: M-Key
 ■ Double Height Connector

Drive Bays

Hot-swap ■ 10 Hot-swap 2.5" SATA3 drive bays
 ■ 2 NVMe with AOC (option)

System Cooling

Fans ■ 5 counter-rotation 40x56mm PWM fans
 ■ 1 fan for AOC cooling (option)

Power Supply

500W Redundant Power Supplies with PMBus

Total Output Power ■ 500W: 100 – 240Vac

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

Input ■ 100-240Vac, 50-60Hz, 6.1-2.6A

+12V ■ Max: 42A / Min: 0.5A

+5Vsb ■ Max: 3A / Min: 0A

Output Type ■ Gold Finger Connector Mating with Molex 45984-4343

With Power Distributor ■ +5V: 25A
 ■ +3.3V: 12A
 ■ -12V: 0.6A

SuperDOM	<ul style="list-style-type: none"> Ports default connect to hard drive bays
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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 <u>IPMI 2.0</u> KVM with dedicated LAN NMI <u>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



Platinum Certified
[[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-X11SPW-TF	1	Super X11SPW-TF Motherboard
	CSE-116AC2-R504WB	1	1U Chassis
Backplane	BPN-SAS3-116A-N2	1	10-port 1U SAS3 12Gbps Hybrid backplane, support up to 8x 2.5-inch SAS3/SATA3 HDD/SSD and 2x SAS3/SATA3/NVMe Storage Devices
Cable 1	CBL-0207L	2	SATA,INT,ROUND,ST-ST,59CM,26AWG
Cable 2	CBL-CDAT-0662	1	CBL,SGPIO,2X4F TO 2X4F,P2.54,ROUND CABLE,61.5CM,28AWG
Cable 3	CBL-SAST-0591	1	MINI SAS HD-4 SATA,6G,INT,RF,Cross Over,75CM,75CM SB,30AWG
Cable 4	CBL-SAST-0657	1	MINI SAS HD(ST)-MINI SAS(RA-RS EXIT),6G,INT,55CM,SB,30AWG
FAN 1	FAN-0101L4	5	40x56,4 Pin PWM,Primary for SC809,111, Sec.for SC816,819,808
Manual	MNL-1923-QRG	1	1019P-WTR, QRG, HF, RoHS/REACH
Riser Card	RSC-R1UW-2E16	1	1U LHS WIO Riser card with two PCI-E x16 slots
Riser Card	RSC-R1UW-E8R	1	1U RHS WIO Riser card with one PCI-E x8 slot
Heatsink / Retention	SNK-P0067PS	1	1U Passive CPU Heat Sink for X11 Purley Platform Equipped with a Narrow Retention Mechanism
Power Supply	PWS-504P-1R	2	500W 1U Redundant PWS W/ 54.5MM Wide

Optional Parts List

	Part Number	Qty	Description
GPU Optional Parts	FAN-0141L4	2	40x40x56mm 20.5K RPM, Counter-rotation fan
	MCP-310-81504-0B	1	Air shroud for Tesla T4 GPU
Cooling Fan	FAN-0101L4	-	40x40x56mm 14.4K-10.7K RPM Counter-rotating Fan
Storage Controller card & cable	AOC-S3108L-H8iR & 2x CBL-SAST-0593	-	Standard LP, 8 Internal ports (12Gb/s) PCI-E 3.0 x8, RAID controller, RAID 0, 1, 5, 6, 10, 50, 60
	AOC-S3108L-H8iR-16DD & 2x CBL-SAST-0593	-	Standard LP, 8 Internal ports (12Gb/s) PCI-E 3.0 x8, 16HDD RAID controller, RAID 0, 1, 5, 6, 10, 50, 60
	AOC-S3008L-L8i & 2x CBL-SAST-0593	-	Standard LP, 8 internal ports (12Gb/s) PCI-E 3.0 x8, 63HDD, RAID 0, 1, 10
	AOC-S3008L-L8e & 2x CBL-SAST-0593	-	Standard LP, 8 internal ports (12Gb/s) PCI-E 3.0 x8, 122HDD HBA
CacheVault	BTR-CV3108-1U1	-	CacheVault for Broadcom 3108 with SuperCap mounting in 1Y 40x56 fan tray
	BTR-TFM8G-LSICVM02 & BKT-BBU-BRACKET-05	-	CacheVault for Broadcom 3108 with SuperCap mounting bracket for PCI-E location
Network Card(s)	AOC-SGP-i2	-	Standard LP, 2x GbE RJ45, PCI-E x4, Intel i350-AM2
	AOC-SGP-i4	-	Standard LP, 4x GbE RJ45, PCI-E x4, Intel i350
	AOC-STGN-i2S	-	Standard LP, 2x 10GbE SFP+, PCI-E x8, Intel 82599ES
	AOC-STGF-i2S	-	Standard LP, 2x 10GbE SFP+, PCI-E x8, Intel X710-BM2
	AOC-STG-B4S	-	Standard LP, 4x 10GbE SFP+, PCI-E x8, Broadcom BCM57840S
	AOC-STGS-i2T	-	Standard LP, 2x 10GbE RJ45, PCI-E x8, Intel X550-AT2
	AOC-S25G-b2S	-	Standard LP, 2x 25GbE SFP28, PCI-E x8, Broadcom BCM57414
	AOC-S25G-m2S	-	Standard LP, 2x 25GbE SFP28, PCI-E x8, Mellanox CX-4 LX
	NVMe Optional Parts (Complete System with NVMe Drives)	AOC-SLG3-2E4	1
CBL-SAST-0590		2	Internal Mini-SAS HD cable for PCIe SSD NVMe, 12Gb/s 70cm 30AWG
MCP-220-00127-0B		2	Black Gen-3 2.5" NVMe drive tray, Orange tab with lock
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 (Intel + 3rd party SSD)
Front Bezels	MCP-210-11601-0B	1	Black front bezels
TPM security module	AOM-TPM-9670V	1	TPM 2.0, vertical form factor
	AOM-TPM-9671V	1	TPM 1.2, 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> • <i>eStore</i>	1	OOB Management Package (per node license)
Software	<u>SFT-DCMS-Single</u>	1	DataCenter Management Package (per node license)