

# SuperServer 5019P-WTR



## Integrated Board



## Super X11SPW-TF

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](#) | [▶ Drive Options](#) | [▶ Network Card \(AOC\) Matrix](#)

## Key Features

- DB Processing & Storage**
- Data Center Applications**
- Firewall Applications**

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. 4 Hot-swap 3.5" SATA3 drive bays
5. 2x 10GBase-T ports with Intel X722 + X557
6. 1 VGA, 2 COM, 2 USB 3.0, 2 USB 2.0
7. 2 SuperDOM (Disk on Module) ports
8. 500W Redundant power supplies **Platinum Level Certified**

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

# Specifications

## Product SKUs

- SYS-5019P-WTR** ■ SuperServer 5019P-WTR (**Black**)

## Motherboard

### Super X11SPW-TF

## Processor/Cache

- CPU** ■ Single Socket P (LGA 3647)
  - 2nd Gen. Intel® Xeon® Scalable Processors (Cascade Lake/Skylake)‡
  - Support CPU TDP 70-205W

- Cores** ■ Up to 28 Cores

- Note** ‡ BIOS version 3.0b or above is required to support 2nd Gen. Intel® Xeon® Scalable processors

## 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)

- SuperDOM** ■ 2 SuperDOM (Disk on Module) ports with built-in power

## System BIOS

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

## Chassis

- Form Factor** ■ 1U Rackmount

- Model** ■ **CSE-815TQC-R504WB2**

## Dimensions and Weight

- Height** ■ 1.7" (43mm)

- Width** ■ 17.2" (437mm)

- Depth** ■ 25.6" (650mm)

- Package** ■ 23.5" (W) x 8.5" (H) x 33.7" (L)

- Weight** ■ Gross Weight: 48 lbs (21.77 kg)
  - Net Weight: 24 lbs (10.89 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** ■ 4 Hot-swap 3.5" SATA3 drive bays

## 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: 4A / Min: 0A

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

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

## Management

### Software

- Intel® Node Manager
- IPMI 2.0
- KVM with dedicated LAN
- NMI
- 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

## 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-X11SPW-TF	1	Super X11SPW-TF Motherboard
	CSE-815TQC-R504WB2	1	1U Chassis
<b>Backplane</b>	BPN-SAS3-815TQ	1	1U 4-Port 12Gbps Backplane Support 4x3.5
<b>Cable 1</b>	CBL-0180L-01	1	SATA,INT,ROUND,SET OF 4,ST-RA 70/59/48/38CM,26AWG
<b>Cable 2</b>	CBL-0296L	1	4 pin to 4 pin fan extension cord, for PWM fan. 23cm. 24AWG
<b>Cable 3</b>	CBL-CDAT-0660	1	CBL,SGPIO,2X4F TO 2X4F,P2.54,ROUND CABLE,27CM,28AWG
<b>FAN 1</b>	FAN-0156L4	2	40x40x56 mm 13K-11K RPM Counter-rotating Fan,RoHS/REACH
<b>Manual</b>	MNL-1921-QRG	1	5019P-WT/WTR, QRG,HF,RoHS/REACH
<b>Riser Card</b>	RSC-R1UW-2E16	1	1U LHS WIO Riser card with two PCI-E x16 slots
<b>Riser Card</b>	RSC-R1UW-E8R	1	1U RHS WIO Riser card with one PCI-E x8 slot
<b>Heatsink / Retention</b>	SNK-P0067PS	1	1U Passive CPU Heat Sink for X11 Purley Platform Equipped with a Narrow Retention Mechanism
<b>* Power Supply</b>	PWS-504P-1R	2	500W 1U Redundant PWS W/ 54.5MM Wide
<b>* Power Distributor</b>	PDB-PT112-S2424	1	WIO X11 Support,PDB-PT112-S2424 is based on PDB-PT112-2424
<b>* Cable 4</b>	CBL-0335L	1	CBL,FRONT CNTL,20 TO 20 PIN,RA,RND TUBE,73CM,28AWG
<b>* Cable 5</b>	CBL-PWCD-0160-IS	2	PWCD,US,NEMA5-15P TO IEC60320 C13,6FT,16AWG,13A,125V,RoHS/REACH
<b>* Fan Holder</b>	CSE-PT0135	1	FAN HOLDER FOR SIX 40X56MM COUNTER ROTATING FANS
<b>* Peripheral Drive 1</b>	CSE-PT93L-B	1	Black DVD dummy cover for SC813, 813M, 815, PBF-RoHS
<b>* FAN 2</b>	FAN-0156L4	3	40x40x56 mm 13K-11K RPM Counter-rotating Fan,RoHS/REACH
<b>* Front Panel</b>	FPB-FP815U	1	815 UIO front control board (U)
<b>* Parts</b>	MCP-120-00030-0N	1	Blank LP L-bracket (1 row of capsule hole)
<b>* Parts</b>	MCP-120-00053-0N	2	Blank FH L bracket w/o SCSI cutout for SC825,836,846,743
<b>* Drive Tray(s)</b>	MCP-220-00075-0B	4	Black gen 5.5 hot-sw ap 3.5"; HDD tray
<b>* Rear Window</b>	MCP-240-00098-0N	1	WIO rear window for SC113,SC116, SC815 Redundant PWS
<b>* Power Supply</b>	MCP-250-81502-0N	1	SC815 Redundant Power Distributor Cover
<b>* Rail Set</b>	MCP-290-00054-0N	1set	Rail set, quick/quick, optional for 1U 17.2
<b>* Fan Holder</b>	MCP-340-00035-0B	3	Dummy fan 40x56mm for 40x56 counter-rotating fan (cost-effective)

### Notes:

1. Parts with \* are inside the chassis
2. 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>2.5" to 3.5" Converter Tray</b>	MCP-220-00043-0N	-	Black Hot-sw ap Gen-4 2.5" to 3.5" HDD tray
<b>DVD-ROM / DVD-RW</b>	DVM-TEAC-DVD-SBT5	1	TEAC slim DVD-ROM SATA drive
	DVM-PLDS-DVDRW-SBT5	1	PHILIPS slim DVD-RW SATA drive
<b>DVD-ROM Accessory</b>	MCP-220-81502-0N	1	Slim SATA DVD mounting kit
<b>Internal 2.5" HDD Tray (FDD slot)</b>	MCP-220-83601-0B	1	Black FDD dummy tray support 1x 2.5" slim HDD
<b>Internal 2.5" HDD Tray (DVD slot)</b>	MCP-290-00036-0B	1	Black DVD dummy tray support 1x 2.5" slim HDD
<b>Cable for internal HDD</b>	CBL-0484L	2	55cm 30AWG SATA straight to straight cable
	CBI-0289L	1	Y split, big 4 pin to two RA SATA power extension 30cm
<b>Hot-swap 2.5" kit (FDD slot)</b>	MCP-220-81504-0N	1	Single slim 2.5" SAS3 (12Gb/s) hot swap ap in slim FDD form factor

<b>Hot-swap 2.5" kit (DVD slot)</b>	MCP-220-81506-0N	1	Single slim 2.5" SAS3 (12Gb/s) hot sw ap in slim DVD form factor
<b>USB/COM port tray (FDD slot)</b>	MCP-220-00129-0B	1	Black 2x USB3.0/COM port tray in slim FDD form factor
<b>Cooling Fan</b>	FAN-0156L4	-	40x40x56mm 13K-11K RPM Counter-rotating Fan
<b>Storage Controller card &amp; cable</b>	AOC-S3108L-H8iR & 1x CBL-SAST-0699	-	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 & 1x CBL-SAST-0699	-	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 & 1x CBL-SAST-0699	-	Standard LP, 8 internal ports (12Gb/s) PCI-E 3.0 x8, 63HDD, RAID 0, 1, 10
	AOC-S3008L-L8e & 1x CBL-SAST-0699	-	Standard LP, 8 internal ports (12Gb/s) PCI-E 3.0 x8, 122HDD HBA
<b>CacheVault</b>	BTR-CV3108-1U1	-	CacheVault for Broadcom 3108 w ith SuperCap mounting in 1Y 40x56 fan tray
	BTR-TFM8G-LSICV/M02 & BKT-BBU-BRACKET-05	-	CacheVault for Broadcom 3108 w ith SuperCap mounting bracket for PCI-E location
<b>Network Card(s)</b>	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
<b>Front Bezels</b>	CSE-PTFB-813LB	-	Black front bezels
	CSE-PTFB-813-02B	-	Black Front Bezel w / Round Venting Holes
<b>TPM security module</b>	AOM-TPM-9670V	1	TPM 2.0, vertical form factor
	AOM-TPM-9671V	1	TPM 1.2, vertical form factor
<b>Global Services &amp; Support</b>	<u>OS4HR3/2/1</u>	-	3/2/1-year onsite 24x7x4 service
	<u>OSNBD3/2/1</u>	-	3/2/1-year onsite NBD service
<b>Software</b>	<u>SFT-OOB-LIC</u> • eStore	1	OOB Management Package (per node license)
<b>Software</b>	<u>SFT-DCMS-Single</u>	1	DataCenter Management Package (per node license)