

SuperServer 5019P-WT



Integrated Board



Super X11SPW-TF

Views: | [Angled View](#) | [Top View](#) |
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Note: Image above may show a varied configuration of optional parts. Please refer to parts list for standard parts included.

Key Applications

- DB Processing & Storage
- Data Center Applications
- Firewall 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. 4 Hot-swap 3.5" SATA3 drive bays, 1 slim DVD-ROM drive bay
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. 600W Multi Output Power Supply, **Platinum Level** High-efficiency

Specifications

Product SKUs

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

Motherboard

Super X11SPW-TF

Processor

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-815TQC-605WB**

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: 46 lbs (20.87 kg)
 ■ Net Weight: 22 lbs (9.98 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

Peripheral Drives

DVD-ROM ■ 1 Slim DVD-ROM drive bay

System Cooling

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

Power Supply

600W High-Efficiency Power Supply w/PMBus 1.2, I²C, PFC, and Digital Switching

AC Input ■ 100-240V, 50-60Hz

DC Output ■ +3.3V: 15A
 ■ +5V: 18A
 ■ +5V standby: 3A
 ■ +12V: 49A
 ■ -12V: 0.5A

Certification



Platinum Certified
 [[Test Report](#)]

SuperDOM	<ul style="list-style-type: none"> 2 <u>SuperDOM</u> (Disk on Module) ports with built-in power
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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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Operating Environment

RoHS	<ul style="list-style-type: none"> RoHS Compliant
Environmental Spec.	<ul style="list-style-type: none"> Operating Temperature: 10°C ~ 35°C (50°F ~ 95°F) Non-operating Temperature: -40°C to 70°C (-40°F to 158°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-X11SPW-TF	1	Super X11SPW-TF Motherboard
	CSE-815TQC-605WB	1	1U Chassis
Backplane	BPN-SAS3-815TQ	1	1U 4-Port 12Gbps Backplane Support 4x3.5
Cable 1	CBL-0180L-01	1	SATA,INT,ROUND,SET OF 4,ST-RA 70/59/48/38CM,26AWG
Cable 2	CBL-0296L	1	4 pin to 4 pin fan extension cord, for PWM fan. 23cm. 24AWG
Cable 3	CBL-CDAT-0660	1	CBL,SGPIO,2X4F TO 2X4F,P2.54,ROUND CABLE,27CM,28AWG
FAN 1	FAN-0156L4	1	40x40x56 mm 13K-11K RPM Counter-rotating Fan,RoHS/REACH
Manual	MNL-1921-QRG	1	5019P-WT/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-605P-1H	1	1U 600W Multi Output Power Supply PMbus
Rear Window	MCP-240-00097-0N	1	WIO rear window for SC113,SC116, SC815 Single PWS
FAN	FAN-0156L4	4	40x40x56 mm 13K-11K RPM Counter-rotating Fan,RoHS/REACH

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
3.5" to 2.5" Converter Tray	MCP-220-00043-0N	-	Black Hot-swap Gen-4 2.5" to 3.5" HDD tray
DVD-ROM / DVD-RW	DVM-TEAC-DVD-SBT5	1	TEAC slim DVD-ROM SATA drive
	DVM-PLDS-DVDRW-SBT5	1	PHILIPS slim DVD-RW SATA drive
DVD-ROM Accessory	MCP-220-81502-0N	1	Slim SATA DVD mounting kit
Internal 2.5" HDD Tray (FDD slot)	MCP-220-83601-0B	1	Black FDD dummy tray support 1x 2.5" slim HDD
Internal 2.5" HDD Tray (DVD slot)	MCP-290-00036-0B	1	Black DVD dummy tray support 1x 2.5" slim HDD
Cable for internal HDD	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
Hot-swap 2.5" kit (FDD slot)	MCP-220-81504-0N	1	Single slim 2.5" SAS3 (12Gb/s) hot swap in slim FDD form factor
Hot-swap 2.5" kit (DVD slot)	MCP-220-81506-0N	1	Single slim 2.5" SAS3 (12Gb/s) hot swap in slim DVD form factor
USB/COM port tray (FDD slot)	MCP-220-00129-0B	1	Black 2x USB3.0/COM port tray in slim FDD form factor
Cooling Fan	FAN-0156L4	-	40x40x56mm 13K-11K RPM Counter-rotating Fan
Storage Controller card & cable	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
	AOC-S3008L-L8e & 1x CBL-SAST-0699	-	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
Front Bezels	CSE-PTFB-813LB	-	Black front bezels
	CSE-PTFB-813-02B	-	Black Front Bezel w/ Round Venting Holes
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	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)