

# SuperServer 5019P-M



## Integrated Board



## Super X11SPM-F

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

- Web Hosting, VM
- Compact Network Appliance

## 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. 1 PCI-E 3.0 x16 slot (FH, HL)
4. 4 Hot-swap 3.5" SATA3 bays w/ RAID
5. 2x 1GbE with Marvell® 88E1512
6. Integrated IPMI 2.0 and KVM with Dedicated LAN
7. 1 VGA, 1 COM, 2 USB 3.0, 2 USB 2.0
8. 350W High-efficiency Power Supply **Platinum Level Certified**

# Specifications

## Product SKUs

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

## Motherboard

### Super X11SPM-F

## Processor/Cache

- CPU**
- Single Socket P (LGA 3647)
  - 2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors<sup>‡</sup>
  - Support CPU TDP 70-165W

- Cores** ■ Up to 28 Cores

- Note** ■ <sup>‡</sup> 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**
- 6 DIMM slots
  - Up to 1.5TB 3DS ECC DDR4-2933MHz<sup>†</sup> RDIMM/LRDIMM

- 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

## On-Board Devices

- Chipset** ■ Intel® C621 chipset

- SATA**
- SATA3 (6Gbps) via C621 controller
  - RAID 0, 1, 5, 10 support

- Network Controllers** ■ Dual Gigabit Ethernet LAN with Marvell® 88E1512

- 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** ■ 12 SATA3 (6Gbps) ports

- LAN**
- 2 RJ45 1GbE LAN ports
  - 1 RJ45 Dedicated IPMI LAN port

- USB**
- 5 USB 3.0 ports (2 rear + 2 headers + 1 Type A)
  - 6 USB 2.0 ports (2 rear + 4 headers)

## Chassis

- Form Factor** ■ 1U Rackmount

- Model** ■ **CSE-813MFTQC-350CB2**

## Dimensions and Weight

- Height** ■ 1.7" (43mm)

- Width** ■ 17.2" (437mm)

- Depth** ■ 19.85" (503mm)

- Package** ■ 8.5" (H) x 24" (W) x 29.5" (D)

- Weight**
- Gross Weight: 30.4 lbs (13.8 kg)
  - Net Weight: 17.6 lbs (8 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

## Expansion Slots

- PCI-Express** ■ 1 PCI-E 3.0 x16 slot (FH, HL)

- M.2**
- 1x M.2 Interface: PCI-E 3.0 x4
  - Form Factor: 2242, 2280
  - Key: M-Key
  - Double Height Connector

## Drive Bays / Storage

- Hot-swap** ■ 4 Hot-swap 3.5" SATA3 drive bays

## Peripheral Drives

- Optional** ■ Optional slim optical device bay, optional FDD/USB bay

## System Cooling

- Fans**
- 4x 40x28mm PWM fans
  - Optional 2 fans for AOC cooling

## Power Supply

350W AC power supply w/ PFC

- AC Voltage** ■ 100-240 V, 50-60 Hz, 5.0-2.5 Amp

- +5V**
- Max.: 15 Amp
  - Min.: 0.2 Amp

- +5V standby**
- Max.: 3 Amp
  - Min.: 0 Amp

- +12V**
- Max.: 29 Amp
  - Min.: 0.5 Amp

<b>Video</b>	<ul style="list-style-type: none"> <li>1 VGA port</li> </ul>
<b>Serial Port / Header</b>	<ul style="list-style-type: none"> <li>2 COM ports (1 rear, 1 header)</li> </ul>
<b>SuperDOM</b>	<ul style="list-style-type: none"> <li>2 <u>SuperDOM</u> (Disk on Module) ports with built-in power</li> </ul>

#### System BIOS

<b>BIOS Type</b>	<ul style="list-style-type: none"> <li>AMI UEFI</li> </ul>
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#### Management

<b>Software</b>	<ul style="list-style-type: none"> <li>Intel® Node Manager</li> <li><u>IPMI 2.0</u></li> <li>KVM with dedicated LAN</li> <li>NMI</li> <li><u>SPM, SUM</u></li> <li><u>SuperDoctor® 5</u></li> <li>Watch Dog</li> </ul>
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<b>Power Configurations</b>	<ul style="list-style-type: none"> <li>ACPI Power Management</li> </ul>
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#### PC Health Monitoring

<b>CPU</b>	<ul style="list-style-type: none"> <li>Monitors for CPU Cores, Chipset Voltages, Memory.</li> <li>4+1 Phase-switching voltage regulator</li> </ul>
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<b>FAN</b>	<ul style="list-style-type: none"> <li>Fans with tachometer monitoring</li> <li>Status monitor for speed control</li> <li>Pulse Width Modulated (PWM) fan connectors</li> </ul>
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<b>Temperature</b>	<ul style="list-style-type: none"> <li>Monitoring for CPU and chassis environment</li> <li>Thermal Control for fan connectors</li> </ul>
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<b>-12V</b>	<ul style="list-style-type: none"> <li>Max.: 0.2 Amp</li> <li>Min.: 0 Amp</li> </ul>
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<b>+3.3V</b>	<ul style="list-style-type: none"> <li>Max.: 12 Amp</li> <li>Min.: 0.2 Amp</li> </ul>
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<b>Certification</b>	 <b>Platinum Level Certified</b> <b>[ <a href="#">Test Report</a> ]</b>
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#### Operating Environment

<b>RoHS</b>	<ul style="list-style-type: none"> <li>RoHS Compliant</li> </ul>
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<b>Environmental Spec.</b>	<ul style="list-style-type: none"> <li>Operating Temperature: 10°C ~ 35°C (50°F ~ 95°F)</li> <li>Non-operating Temperature: -40°C to 70°C (-40°F to 158°F)</li> <li>Operating Relative Humidity: 8% to 90% (non-condensing)</li> <li>Non-operating Relative Humidity: 5% to 95% (non-condensing)</li> </ul>
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## Parts List

### Parts List - (Items Included)

	Part Number	Qty	Description
<b>Motherboard / Chassis</b>	MBD-X11SPM-F	1	Super X11SPM-F Motherboard
	CSE-813MFTQC-350CB2	1	1U Chassis
<b>Backplane</b>	BPN-SAS3-815TQ	1	1U 4-Port 12Gbps Backplane Support 4x3.5
<b>Cable 1</b>	CBL-SAST-0644	1	MINI SAS(RA)-4 SATA(RA),INT,75/75/90/90CM,90CM SB,30AWG
<b>Parts</b>	MCP-120-00031-0N	1	Riser card bracket for SC812,813,813M,815,111,113,113M
<b>Manual</b>	MNL-2008-QRG	1	5019P-M/MR Quick Reference Guide
<b>Riser Card</b>	RSC-RR1U-E16	1	RSC-RR1U-E16 with PIC-E x16 output
<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-350-1H	1	1U Single AC-DC 350W Platinum Level, multiple output power supply (180mm)
<b>FAN 1</b>	FAN-0154L4	4	40x40x28 mm, 22.5K RPM, SC813MF Middle Cooling Fan,RoHS/REACH

### Optional Parts List

	Part Number	Qty	Description
<b>3.5" to 2.5" Converter Tray</b>	MCP-220-00043-0N	-	Black Hot-swap 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 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 swap 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-0154L4	-	40x40x28mm 22.5K RPM, SC813MF Middle Cooling Fan
<b>Storage Controller card &amp; cable</b>	AOC-S3108L-H8iR & 1x CBL-SAST-0811	-	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-0811	-	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-0811	-	Standard LP, 8 internal ports (12Gb/s) PCI-E 3.0 x8, 63HDD, RAID 0, 1, 10
	AOC-S3008L-L8e & 1x CBL-SAST-0811	-	Standard LP, 8 internal ports (12Gb/s) PCI-E 3.0 x8, 122HDD HBA
<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>	<a href="#">CSE-PTFB-813LB</a>	-	Black front bezels
	<a href="#">CSE-PTFB-813-02B</a>	-	Black Front Bezel w/ Round Venting Holes
<b>TPM security module</b>	<a href="#">AOM-TPM-9670V</a>	1	TPM 2.0, vertical form factor
	<a href="#">AOM-TPM-9671V</a>	1	TPM 1.2, vertical form factor
<b>Global Services &amp; Support</b>	<a href="#">OS4HR3/2/1</a>	-	3/2/1-year onsite 24x7x4 service
	<a href="#">OSNBD3/2/1</a>	-	3/2/1-year onsite NBD service
<b>Software</b>	<a href="#">SFT-OOB-LIC</a> • <a href="#">eStore</a>	1	OOB Management Package (per node license)
<b>Software</b>	<a href="#">SFT-DCMS-Single</a>	1	DataCenter Management Package (per node license)