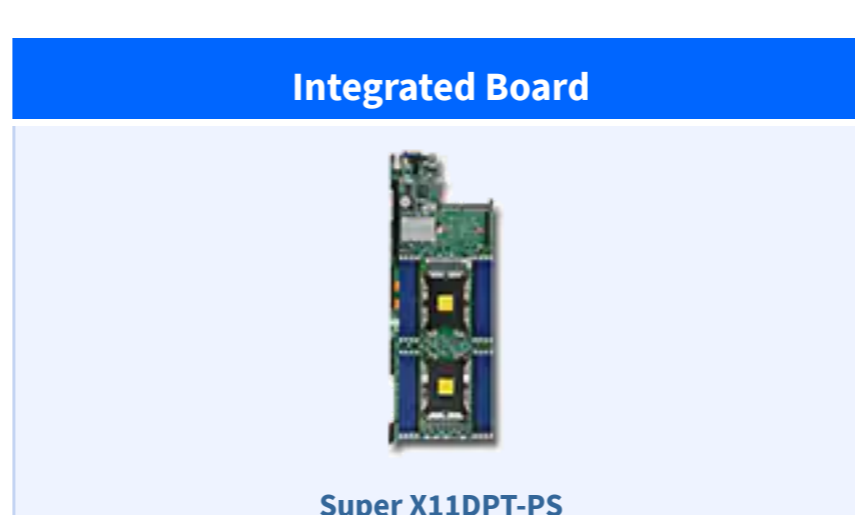


## SuperServer 2029TP-HC1R



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



### Key Features

- Compute Intensive Application
- HPC, Data Center
- Enterprise Server
- Financial Analysis
- Mission-critical applications

Four **hot-pluggable** systems (nodes) in a 2U form factor. Each node supports the following:

- Dual Socket P (LGA 3647) support 2nd Gen Intel® Xeon® Scalable processors (Cascade Lake/Skylake)<sup>‡</sup>
- 16 DIMMs; up to 4TB 3DS ECC DDR4-2933MHz<sup>†</sup> RDIMM/LRDIMM, Supports Intel® Optane™ DCPMM<sup>††</sup>
- 2 PCI-E 3.0 x16 (LP) slots
- Flexible Networking support via SIOM; Dedicated IPMI 2.0 LAN
- 6 Hot-swap 2.5" SAS/SATA drive bays
- Broadcom 3108 SAS3 controller; RAID 0, 1, 5, 6, 10, 50, 60 with SuperCap option
- Up to 2200W Redundant Power Supplies **Titanium Level (96%)**

**Barebone or Complete System requires SIOM or network card installed per node.**

[Drivers & Utilities](#) | [BIOS](#) | [IPMI](#) | [Tested Memory](#) | [Manuals](#) | [OS Certification Matrix](#) | [Quick-References Guide](#) | [Drive Options](#) | [Tested SIOM](#)  
[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-2029TP-HC1R** SuperServer 2029TP-HC1R (**Black**)

#### Motherboard (Four per System)

**Super X11DPT-PS**

#### Processor (per Node)

**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** \* Please contact Supermicro Technical Support for supporting conditions of high power (TDP 150W and above) or high base frequency (3.0 GHz and above) processors.

**Note** † Processors ending N or S are optimized for networking and storage applications. Customer need POC their application and observe any thermal throttling before large deployment.

**Note** ‡ BIOS version 3.2 or above is required to support 2nd Gen Intel® Xeon® Scalable processors (codenamed Cascade Lake-R)

#### System Memory (per Node)

**Memory Capacity** 16 DIMM slots  
Up to 4TB 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** † 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 (per Node)

**Chipset** Intel® C621 chipset

**SAS** Broadcom 3108 SAS3 (12Gbps) controller, 2GB cache; RAID 0, 1, 5, 6, 10, 50, 60 support  
Optional SuperCap

**Network Controllers** Barebones and Complete System must have at least one **SIOM or network card installed per node**

**IPMI** Support for Intelligent Platform Management Interface v.2.0  
IPMI 2.0 with virtual media over LAN and KVM-over-LAN support

**Graphics** ASPEED AST2500 BMC

#### Input / Output (per Node)

**SAS** 6 SAS3 (12Gbps) ports

**LAN** 1 RJ45 Dedicated IPMI LAN port

**USB** 2 USB 3.0 ports (rear)

**VGA** 1 VGA port

**Serial Port / Header** 1 Fast UART 16550 port / 1 Header (internal)

**Others** 2 [SuperDOM](#) support on the motherboard. SuperDOM is for OS boot.

#### System BIOS

**BIOS Type** AMI 32MB SPI Flash ROM

#### Management

**Software** Intel® Node Manager  
[IPMI 2.0](#)  
KVM with dedicated LAN  
NMI  
[SSM](#), [SPM](#), [SUM](#)  
[SuperDoctor® 5](#)  
Watchdog

**Power Configurations** ACPI Power Management

#### PC Health Monitoring

**CPU** Monitors for CPU Cores, Chipset Voltages, Memory.  
5+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

**Omni-Path Fabric CPUs** Do not support

#### Chassis

**Form Factor** 2U Rackmount

**Model** **CSE-217HQ+-R2K20BP3**

#### Dimensions and Weight

**Width** 17.25" (438mm)

**Height** 3.47" (88mm)

**Depth** 28.5" (724mm)

**Weight** Gross Weight: 90 lbs (40.9kg)  
Net Weight: 72 lbs (32.7 kg)

**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 (per Node)

**PCI-Express** 2 PCI-E 3.0 x16 Low-profile slots  
1 SIOM card support

Note: Barebones and Complete System must bundle with Network Card

**Note: With only one CPU installed, SXB2 M.2 and SXB4 riser card slots not function. This SKU does not support AOC-SMG3-2H8M2 M.2 carrier.**

#### Drive Bays (per Node)

**Hot-swap** 6 Hot-swap 2.5" SAS/SATA HDD trays

#### System Cooling

**Fans** 4 Heavy duty 8cm PWM fans with optimal fan speed control

#### Power Supply

2200W Redundant Power Supplies with PMBus

**Total Output Power and Input** 1200W with Input 100-127Vac  
1800W with Input 200-220Vac  
1980W with Input 220-230Vac  
2090W with Input 230-240Vac  
2200W with Input 220-240Vac (for UL/cUL use only)  
2090W with Input 230-240Vdc (for CCC only)

**AC Input Frequency** 50-60Hz

**Dimension (W x H x L)** 76 x 40 x 336 mm

**+12V** Max: 100A / Min: 0A (100-127Vac)  
Max: 150A / Min: 0A (200-220Vac)  
Max: 165A / Min: 0A (220-230Vac)  
Max: 174.17A / Min: 0A (230-240Vac)  
Max: 183.3A / Min: 0A (220-240Vac)

**5VSB** Max: 1A / Min: 0A

**Output Type** Backplanes (gold finger)

**Certification** **Titanium Level**  
[\[ Test Report \]](#)

#### 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-X11DPT-PS	4	Super X11DPT-PS Motherboards
	CSE-217HQ+-R2K20BP3	1	2U Chassis
<b>Backplane</b>	BPN-ADP-S3108L-H6IRP	4	LSI 3108, SAS 12Gbps (x6 internal); Broadcom 3108 2GB cache
<b>Backplane</b>	BPN-SAS3-217HQ2	1	2U 24-Port 4-Node Backplane Supports 6x 2.5"
<b>Cable 1</b>	CBL-PWCD-0578	2	PWCD,US,IEC60320 C14 TO C13,3FT,14AWG
<b>Air Shroud</b>	MCP-310-21716-0B	4	Twinpro X11 air shroud
<b>Riser Card</b>	RSC-P-6	4	RSC-P-6 (1U LHS TwinPro RSC with 1 PCI-Ex16),RoHS
<b>Riser Card</b>	RSC-R1UTP-E16R	4	1U RHS TwinPro Riser card with one PCI-E x16 slot
<b>Heatsink / Retention</b>	SNK-P0067PS	4	1U Passive CPU Heat Sink for X11 Purley Platform Equipped with a Narrow Retention Mechanism
<b>Heatsink / Retention</b>	SNK-P0067PSM	4	1U Passive CPU Heat Sink with a 26-mm Wide Middle Air Channel for X11 Purley Platform Equipped with a Narrow Retention Mechanism
<b>Power Supply</b>	PWS-2K20A-1R	2	1U 2200W Redundant, Titanium, 76(W) X 40(H) X 336(L) mm

#### Optional Parts List

	Part Number	Qty	Description
<b>TPM security module (optional, not included)</b>	AOM-TPM-9670V	1	SPI capable TPM 2.0 with Infineon 9670 controller with vertical form factor
<b>TPM security module (optional, not included)</b>	AOM-TPM-9671V	1	SPI capable TPM 1.2 with Infineon 9670 controller with vertical form factor
<b>SuperCap Kit</b>	BTR-CV3108-TP2	-	Broadcom 3108 CacheVault kit for TwinPro
<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> • eStore	1	OOB Management Package (per node license)
<b>Software</b>	<a href="#">SFT-DCMS-Single</a>	1	DataCenter Management Package (per node license)

Global SKU **English**

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