

SuperServer 2029TP-HC1R



Integrated Board



[./products/motherboard/Xeon/C620/X11DPT-](/products/motherboard/Xeon/C620/X11DPT-PS.cfm)

[PS.cfm](#)

Super X11DPT-PS ([./products/motherboard/Xeon/C620/X11DPT-PS.cfm](/products/motherboard/Xeon/C620/X11DPT-PS.cfm))

Views: | [Angled View \(/a_images/products/views/2029TP-HC1R_angle.jpg\)](#) | [Node View \(/a_images/products/views/2029TP-HC1R_node.jpg\)](#) |

[Front View \(/a_images/products/views/2029TP-HC1R_front.jpg\)](#) | [Rear View \(/a_images/products/views/2029TP-HC1R_rear.jpg\)](#) |

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:

1. Dual Socket P (LGA 3647) support 2nd Gen Intel® Xeon® Scalable processors (Cascade Lake/Skylake)[‡]
2. 16 DIMMs; up to 4TB 3DS ECC DDR4-2933MHz[†] RDIMM/LRDIMM, Supports Intel® Optane™ DCPMM^{††}
3. 2 PCI-E 3.0 x16 (LP) slots
4. Flexible Networking support via SIOM; Dedicated IPMI 2.0 LAN
5. 6 Hot-swap 2.5" SAS/SATA drive bays
6. Broadcom 3108 SAS3 controller; RAID 0, 1, 5, 6, 10, 50, 60 with SuperCap option
7. 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

[./support/resources/OS/OS_Certification_Intel.cfm?](/support/resources/OS/OS_Certification_Intel.cfm?MProduct_Name=SYS%2D2029TP%2DHC1R)

[MProduct_Name=SYS%2D2029TP%2DHC1R](#)

[Quick-References Guide](#) | [Drive Options](#)

Tested SIOM ([/en/support/resources/aoc/siom?](/en/support/resources/aoc/siom?show=SELECT&type=TwinPro)

[show=SELECT&type=TwinPro](#))

Network Card (AOC) Matrix ([/en/support/resources/aoc/standard?](/en/support/resources/aoc/standard?show=SELECT&type=Twin)

[show=SELECT&type=Twin](#))

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

(</products/motherboard/Xeon/C620/X11DPT-PS.cfm>).

Processor (per Node)

CPU

Dual Socket P (LGA 3647)

2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors[†],

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[†] RDIMM/LRDIMM

Supports Intel® Optane™ DCPMM^{††}

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 (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](#)

(</en/support/resources/aoc/siom?show=SELECT&type=TwinPro>).

or [network](#)

(</en/support/resources/aoc/standard?show=SELECT&type=TwinPro>).

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

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 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

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 \(/products/nfo/SATADOM.cfm\)](#), 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 \(/solutions/IPMI.cfm\)](#),

KVM with dedicated LAN

NMI

[SSM \(/solutions/SMS_SSM.cfm\)](#), [SPM](#)

[\(/solutions/SMS_SPM.cfm\)](#), [SUM](#)

[\(/solutions/SMS_SUM.cfm\)](#),

[SuperDoctor® 5 \(/solutions/SMS_SD5.cfm\)](#),

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

Parts List

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

<http://www.plugloadsolutions.com/80PlusPowerSupply>



[id=69&type=2](#)). Titanium Level

[[Test Report](#)

[\(/products/powersupply/80PLUS/80PLUS](#)

[1R.pdf](#))]

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:

[Global SKU \(/en/products/SMC_global_skus\)](#)