

SuperServer 6029TP-HTR



Integrated Board



Super X11DPT-PS

**Views: | [Angled View](#) | [Node View](#) |
| [Front View](#) | [Rear 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 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. 3 Hot-swap 3.5" SATA3 drive bays
6. Up to 2200W Redundant Power Supplies
Titanium Level (96%)

Specifications

Product SKUs

- SYS-6029TP-HTR** ■ SuperServer 6029TP-HTR (**Black**)

Motherboard (Four per System)

Super X11DPT-PS

Processor/Cache (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** [‡] 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

- SATA** ■ SATA3 (6Gbps); RAID 0, 1, 5 support

- 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)

- SATA** ■ 3 SATA3 (6Gbps) ports

- LAN** ■ 1 RJ45 Dedicated IPMI LAN port

- USB** ■ 2 USB 3.0 ports total (rear)

- VGA** ■ 1 VGA port

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

Chassis

- Form Factor** ■ 2U Rackmount

- Model** ■ **CSE-827HQ+-R2K20BP2**

Dimensions and Weight

- Width** ■ 17.25" (438mm)

- Height** ■ 3.47" (88mm)

- Depth** ■ 30.5" (774mm)

- 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

(With only one CPU installed, SXB2 M.2 and SXB4 riser card slots not function)

Drive Bays (per Node)

- Hot-swap** ■ 3 Hot-swap 3.5" SATA3 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)

Others	<ul style="list-style-type: none"> 2 <u>SuperDOM</u> support on the motherboard 1 NVMe or 2 SATA M.2 (22x80/60/42 mm) support with option part: AOC-SMG3-2H8M2 M.2 and SuperDOM are for OS boot and they cannot coexist
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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>SSM, SPM, SUM</u> <u>SuperDoctor® 5</u> Watchdog
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Power Configurations	<ul style="list-style-type: none"> ACPI Power Management
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PC Health Monitoring

CPU	<ul style="list-style-type: none"> Monitors for CPU Cores, Chipset Voltages, Memory. 5+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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Omni-Path Fabric CPUs	<ul style="list-style-type: none"> Do not support
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5VSB	<ul style="list-style-type: none"> Max: 1A / Min: 0A
Output Type	<ul style="list-style-type: none"> Backplanes (gold finger)
Certification	  Titanium Level [Test Report]

Operating Environment

RoHS	<ul style="list-style-type: none"> RoHS Compliant
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Environmental Spec.	<ul style="list-style-type: none"> 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)
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Parts List

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X11DPT-PS	4	Super X11DPT-PS Motherboard
	CSE-827HQ+-R2K20BP2	1	2U Chassis
Backplane	BPN-ADP-6SATA3P	4	Backplan adapter card; 6SATA ports,RoHS/REACH,PBF
Backplane	BPN-SAS3-827HQ2	1	2U 12-Port 4-Node Backplane Supports 3x3,5
Cable 1	CBL-PWCD-0578	2	PWCD,US,IEC60320 C14 TO C13,3FT,14AWG
Parts	MCP-240-82715-0N	1	TwinPro SC827HQ+ BPN retention bracket assembly
Air Shroud	MCP-310-21716-0B	4	Twinpro X11 air shroud
Riser Card	RSC-P-6	4	RSC-P-6 (1U LHS TwinPro RSC with 1 PCI-Ex16),RoHS
Riser Card	RSC-R1UTP-E16R	4	1U RHS TwinPro Riser card with one PCI-E x16 slot
Heatsink / Retention	SNK-P0067PS	4	1U Passive CPU Heat Sink for X11 Purley Platform Equipped with a Narrow Retention Mechanism
Heatsink / Retention	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
Power Supply	PWS-2K20A-1R	2	1U 2200W Redundant, Titanium, 76(W) X 40(H) X 336(L) mm
FAN 1	FAN-0162L4	4	80x80x38 mm, 13.5K RPM, HCP, LMV, and LPC Cooling Fan,RoHS/REACH

Optional Parts List

	Part Number	Qty	Description
TPM security module (optional, not included)	AOM-TPM-9670V	1	SPI capable TPM 2.0 with Infineon 9670 controller with vertical form factor
TPM security module (optional, not included)	AOM-TPM-9671V	1	SPI capable TPM 1.2 with Infineon 9670 controller with vertical form factor
Add-on-Card	AOC-SMG3-2H8M2	-	AOC supports 2280 M.2 form factor SSD (1 NVMe or 2 SATA), FST-SCRW-0121L is included in AOC-SMG3-2H8M2
Hot-swap 3.5" to 2.5" Hard Disk Drive Tray	MCP-220-00043-0N	-	Black Hot-swap gen 4 3.5" to 2.5" HDD tray
Global Services & Support	<u>OS4HR3/2/1</u>	-	3/2/1-year onsite 24x7x4 service
	<u>OSNBD3/2/1</u>	-	3/2/1-year onsite NBD service
Software	<u>SFT-OOB-LIC</u> • eStore	1	OOB Management Package (per node license)
Software	<u>SFT-DCMS-Single</u>	1	DataCenter Management Package (per node license)