

SuperServer 6029TP-HTR



Integrated Board



Super X11DPT-PS

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

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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%)

Note: Image above may show a varied configuration of optional parts.
Please refer to parts list for standard parts included.

Specifications

Product SKUs

SYS-6029TP-HTR	■ SuperServer 6029TP-HTR (Black)
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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 <u>SIOM</u> or <u>network</u> 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)
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Drive Bays (per Node)

Hot-swap	■ 3 Hot-swap 3.5" SATA3 HDD trays
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System Cooling

Fans	■ 4 Heavy duty 8cm PWM fans with optimal fan speed control
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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	■ 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	■ AMI 32MB SPI Flash ROM
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Management

Software	■ Intel® Node Manager ■ <u>IPMI 2.0</u> ■ KVM with dedicated LAN ■ NMI ■ <u>SSM, SPM, SUM</u> ■ <u>SuperDoctor® 5</u> ■ 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

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
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> • 	1	OOB Management Package (per node license)
Software	<u>SFT-DCMS-Single</u>	1	DataCenter Management Package (per node license)