

SuperServer 6029TR-HTR



Integrated Board



Super X11DPT-L

Views: | [Angled View](#) | [Node View](#) |
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Key Features

- 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. 8 DIMMs; up to 2TB 3DS ECC
DDR4-2933MHz[†] RDIMMLRDIMM
3. 1 PCI-E 3.0 x16 (LP) slot
4. Dedicated IPMI 2.0 LAN
5. 3 Hot-swap 3.5" SATA3 drive bays
6. 2 SATA DOM + 1 SATA/NVMe
M.2 (22110/2280)
7. Up to 1600W 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-6029TR-HTR	■ SuperServer 6029TR-HTR (Black)
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Motherboard (Four per System)

Super X11DPT-L

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 70-140W
Cores	■ Up to 22 Cores
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	■ 8 DIMM slots ■ Up to 2TB 3DS ECC DDR4-2933MHz [†] RDIMM/LRDIMM
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

On-Board Devices (per Node)

Chipset	■ Intel® C621 chipset
SATA	■ SATA3 (6Gbps); RAID 0, 1, 5 support
Network Controllers	■ Intel® C621 chipset
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	■ 2 RJ45 Gigabit Ethernet LAN ports ■ 1 RJ45 Dedicated IPMI LAN port
USB	■ 2 USB 3.0 ports total (rear)
VGA	■ 1 VGA port
Serial Port / Header	■ 1 COM Port (1 rear)
Others	■ TPM 2.0 Header

System BIOS

BIOS Type	■ AMI 32Mb SPI Flash ROM with UEFI
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Management

Software	■ Intel® Node Manager ■ IPMI 2.0 ■ KVM with dedicated LAN ■ NMI ■ SSM, SPM, SUM ■ SuperDoctor® 5 ■ Watchdog
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PC Health Monitoring

CPU	■ Monitors for CPU Cores, Chipset Voltages, Memory. ■ 4+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

Chassis

Form Factor	■ 2U Rackmount
Model	■ CSE-827HQ-R1K68BP3

Dimensions and Weight

Width	■ 17.25" (438mm)
Height	■ 3.47" (88mm)
Depth	■ 28.5" (724mm)
Weight	■ Gross Weight: 73.5 lbs (33.34kg) ■ Net Weight: 52.1 lbs (23.63kg)
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	■ 1 PCI-E 3.0 x16 Low-profile slot
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Drive Bays / Storage (per Node)

Hot-swap	■ 3 Hot-swap 3.5" SATA3 HDD trays
Others	■ 2 SATA DOM ■ 1 PCI-E 3.0 x4 NVMe or 1 SATA M.2 (22110/2280) support via BPN-ADP-6SATA3M2-1UL * M.2 and SuperDOM are for OS boot

System Cooling

Fans	■ 4x 8cm heavy duty PWM fans with optimal fan speed controlled
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Power Supply (76mm Width)

1600W 1U Redundant Power Supplies with PMBus	
Total Output Power	■ 800W: 100 – 140Vac ■ 1600W: 180 – 240Vac
Dimension (W x H x L)	■ 76 x 40.4 x 336 mm
Input	■ 100-140Vac / 10-7A / 50-60Hz ■ 180-240Vac / 11-8A / 50-60Hz
+12V	■ Max: 67A / Min: 0A (100-140Vac) ■ Max: 133A / Min: 0A (180-240Vac)
+5Vsb	■ Max: 1A / Min: 0A
Output Type	■ 27 Pairs Gold Finger Connector
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-L	4	Super X11DPT-L Motherboard
	CSE-827HQ-R1K68BP3	1	2U Chassis
Backplane	BPN-ADP-6SATA3M2-1UL	4	6 x SATA3 w ith 6Gb/s,onboard 1 x M.2 . 22x80 mm and 22x110 mm,HF,RoHS
Backplane	BPN-SAS2-827HQ2	1	2U 12-Port 4-Node 6Gbps Backplane Supports 3x3.5
Cable 1	CBL-PWCD-0900	2	PWCD,US/EU/Canada/China/Australia,IEC60320 C14 TO C13,4FT,17AWG
Air Shroud	MCP-310-82722-0B	4	SC827HQ mylar air shroud for on MBD-X11DPT-L-P
Manual	MNL-2163-QRG	1	6029TR-HTR Quick Reference Guide
Riser Card	RSC-R1UTP-E16R	4	1U RHS Tw inPro Riser card w ith one PCIe x16 slot
Heatsink / Retention	SNK-P0067PS	4	1U Passive CPU Heat Sink for X11 Purley Platform Equipped w ith a Narrow Retention Mechanism
Heatsink / Retention	SNK-P0067PSM	4	1U Passive CPU Heat Sink w ith a 26-mm Wide Middle Air Channel for X11 Purley Platform Equipped w ith a Narrow Retention Mechanism
Power Supply	PWS-1K68A-1R	2	1U 1600W Redundant Titanium Pow er Supply 76mm w idth 27Pair,PBF
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 w ith Infineon 9670 controller w ith vertical form factor
TPM security module (optional, not included)	AOM-TPM-9671V	1	SPI capable TPM 1.2 w ith Infineon 9670 controller w ith vertical form factor
Hot-swap 3.5" to 2.5" Hard Disk Drive Tray	MCP-220-00043-0N	-	Black Hot-sw ap gen 4 3.5" to 2.5" HDD tray
Global Services & Support	OS4HR3/2/1	-	3/2/1-year onsite 24x7x4 service
	OSNBD3/2/1	-	3/2/1-year onsite NBD service
Software	SFT-OOB-LIC • eStore	1	OOB Management Package (per node license)
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)