

# SuperServer 6029TR-HTR



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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)<sup>†</sup>
2. 8 DIMMs; up to 2TB 3DS ECC DDR4-2933MHz<sup>†</sup> RDIMM/LRDIMM
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 or optional parts. Please refer to parts list for standard parts included.

## Specifications

### Product SKUs

SYS-6029TR-HTR ■ SuperServer 6029TR-HTR (Black)

### Motherboard (Four per System)

Super X11DPT-L

### Processor/Cache (per Node)

CPU ■ Dual Socket P (LGA 3647)  
 ■ 2nd Gen. Intel® Xeon® Scalable Processors (Cascade Lake/Skylake)<sup>†</sup>,  
 Dual UPI up to 10.4GT/s  
 ■ Support CPU TDP 70-140W

Cores ■ Up to 22 Cores with Intel® HT Technology

Note <sup>†</sup> BIOS version 3.0a or above is required to support 2nd Gen. Intel® Xeon® Scalable processors

### System Memory (per Node)

Memory Capacity ■ 8 DIMM slots  
 ■ Up to 2TB 3DS ECC DDR4-2933MHz<sup>†</sup>

### 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

RDIMM/LRDIMM	
Memory Type	<ul style="list-style-type: none"> <li>2933<sup>†</sup>/2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM</li> </ul>
Note	<ul style="list-style-type: none"> <li><sup>†</sup> 2933MHz in two DIMMs per channel can be achieved by using memory purchased from Supermicro</li> </ul>
On-Board Devices (per Node)	
Chipset	<ul style="list-style-type: none"> <li>Intel® C621 chipset</li> </ul>
SATA	<ul style="list-style-type: none"> <li>SATA3 (6Gbps); RAID 0, 1, 5 support</li> </ul>
Network Controllers	<ul style="list-style-type: none"> <li>Intel® C621 chipset</li> </ul>
IPMI	<ul style="list-style-type: none"> <li>Support for Intelligent Platform Management Interface v.2.0</li> <li>IPMI 2.0 with virtual media over LAN and KVM-over-LAN support</li> </ul>
Graphics	<ul style="list-style-type: none"> <li>ASPEED AST2500 BMC</li> </ul>
Input / Output (per Node)	
SATA	<ul style="list-style-type: none"> <li>3 SATA3 (6Gbps) ports</li> </ul>
LAN	<ul style="list-style-type: none"> <li>2 RJ45 Gigabit Ethernet LAN ports</li> <li>1 RJ45 Dedicated IPMI LAN port</li> </ul>
USB	<ul style="list-style-type: none"> <li>2 USB 3.0 ports total (rear)</li> </ul>
VGA	<ul style="list-style-type: none"> <li>1 VGA port</li> </ul>
Serial Port / Header	<ul style="list-style-type: none"> <li>1 COM Port (1 rear)</li> </ul>
Others	<ul style="list-style-type: none"> <li>TPM 2.0 Header</li> </ul>
System BIOS	
BIOS Type	<ul style="list-style-type: none"> <li>AMI 32Mb SPI Flash ROM with UEFI</li> </ul>
Management	
Software	<ul style="list-style-type: none"> <li>Intel® Node Manager</li> <li>IPMI 2.0</li> <li>KVM with dedicated LAN</li> <li>NMI</li> <li>SSM, SPM, SUM</li> <li>SuperDoctor® 5</li> <li>Watchdog</li> </ul>
PC Health Monitoring	
CPU	<ul style="list-style-type: none"> <li>Monitors for CPU Cores, Chipset Voltages, Memory.</li> <li>4+1 Phase-switching voltage regulator</li> </ul>
FAN	<ul style="list-style-type: none"> <li>Fans with tachometer monitoring</li> <li>Status monitor for speed control</li> <li>Pulse Width Modulated (PWM) fan connectors</li> </ul>
Temperature	<ul style="list-style-type: none"> <li>Monitoring for CPU and chassis environment</li> <li>Thermal Control for fan connectors</li> </ul>

Expansion Slots (per Node)	
PCI-Express	<ul style="list-style-type: none"> <li>1 PCI-E 3.0 x16 Low-profile slot</li> </ul>
Drive Bays / Storage (per Node)	
Hot-swap	<ul style="list-style-type: none"> <li>3 Hot-swap 3.5" SATA3 HDD trays</li> </ul>
Others	<ul style="list-style-type: none"> <li>2 SATA DOM</li> <li>1 PCI-E 3.0 x4 NVMe or 1 SATA M.2 (22110/2280) support via BPN-ADP-6SATA3M2-1UL</li> </ul> <p>* M.2 and SuperDOM are for OS boot</p>
System Cooling	
Fans	<ul style="list-style-type: none"> <li>4x 8cm heavy duty PWM fans with optimal fan speed controlled</li> </ul>
Power Supply (76mm Width)	
1600W 1U Redundant Power Supplies with PMBus	
Total Output Power	<ul style="list-style-type: none"> <li>800W/1600W</li> </ul>
Dimension (W x H x L)	<ul style="list-style-type: none"> <li>76 x 40.4 x 336 mm</li> </ul>
Input	<ul style="list-style-type: none"> <li>100-140Vac / 10-7A / 50-60Hz</li> <li>180-240Vac / 11-8A / 50-60Hz</li> </ul>
+12V	<ul style="list-style-type: none"> <li>Max: 67A / Min: 0A (100-140Vac)</li> <li>Max: 133A / Min: 0A (180-240Vac)</li> </ul>
+5Vsb	<ul style="list-style-type: none"> <li>Max: 1A / Min: 0A</li> </ul>
Output Type	<ul style="list-style-type: none"> <li>27 Pairs Gold Finger Connector</li> </ul>
Certification	  UL/cUL/CB/BSMI/CE/CCC Titanium Level <a href="#">[ Test Report ]</a>
Operating Environment	
RoHS	<ul style="list-style-type: none"> <li>RoHS Compliant</li> </ul>
Environmental Spec.	<ul style="list-style-type: none"> <li>Operating Temperature: 10°C ~ 35°C (50°F ~ 95°F)</li> <li>Non-operating Temperature: -40°C to 60°C (-40°F to 140°F)</li> <li>Operating Relative Humidity: 8% to 90% (non-condensing)</li> <li>Non-operating Relative Humidity: 5% to 95% (non-condensing)</li> </ul>

## 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 with 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" SATA3/SAS2 HDD per Node

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
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-1K68A-1R	2	1U 1600W Redundant Titanium Power Supply 76mm width 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 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
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	<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
Software	<a href="#">SFT-OOB-LIC</a> • <b>eStore</b>	1	OOB Management Package (per node license)
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)