

SuperServer 6029TR-DTR



Key Features

- HPC
- Virtualization
- Data Center
- Web Server

Two **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† RDIMM/LRDIMM
3. 2 PCI-E 3.0 x8 (FH/HL) or 1 PCI-E 3.0 x8 (FH/HL) + 1 PCI-E 3.0 x4 (FH/HL) + 1 PCI-E 3.0 x4 (LP) (8/8/0 or 8/4/4)
4. Dedicated IPMI 2.0 LAN
5. 6 Hot-swap 3.5" SATA3 drive bays
6. 2 SATA DOM + 1 SATA/NVMe M.2 (22110/2280)
7. Up to 1200W Redundant Power Supplies Titanium Level (96%)

[▶ Drivers & Utilities](#) ▶ [BIOS](#) ▶ [IPMI](#) ▶ [Tested Memory](#)
[▶ Tested M.2 List](#) ▶ [Manuals](#) ▶ [OS Certification Matrix](#) ▶ [Quick-References Guide](#) ▶ [Drive Options](#) ▶ [Network Card \(AOC\) Matrix](#)

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-DTR ■ SuperServer 6029TR-DTR (Black)

Motherboard (Two per System)

[Super X11DPT-L](#)

Processor/Cache (per Node)

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

Cores ■ Up to 22 Cores with Intel® HT Technology

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

System Memory (per Node)

Memory ■ 8 DIMM slots

Chassis

Form Factor ■ 2U Rackmount
 Model ■ CSE-827HD-R1K23BP3

Dimensions and Weight

Width ■ 17.25" (438mm)
 Height ■ 3.47" (88mm)
 Depth ■ 28.5" (724mm)
 Weight ■ Gross Weight: 61.1 lbs (27.71kg)
 ■ Net Weight: 42.1 lbs (19.1kg)
 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

Capacity	<ul style="list-style-type: none"> Up to 2TB 3DS ECC DDR4-2933MHz† RDIMM/LRDIMM
Memory Type	<ul style="list-style-type: none"> 2933†/2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM
Note	<ul style="list-style-type: none"> † 2933MHz in two DIMMs per channel can be achieved by using memory purchased from Supermicro

On-Board Devices (per Node)

Chipset	<ul style="list-style-type: none"> Intel® C621 chipset
SATA	<ul style="list-style-type: none"> SATA3 (6Gbps); RAID 0, 1, 5, 10 support
Network Controllers	<ul style="list-style-type: none"> Intel® C621 chipset
IPMI	<ul style="list-style-type: none"> Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Graphics	<ul style="list-style-type: none"> ASPEED AST2500 BMC

Input / Output (per Node)

SATA	<ul style="list-style-type: none"> 6 SATA3 (6Gbps) ports
LAN	<ul style="list-style-type: none"> 2 RJ45 Gigabit Ethernet LAN ports 1 RJ45 Dedicated IPMI LAN port
USB	<ul style="list-style-type: none"> 2 USB 3.0 ports total (rear)
VGA	<ul style="list-style-type: none"> 1 VGA port
Serial Port / Header	<ul style="list-style-type: none"> 1 COM Port (1 rear)
Others	<ul style="list-style-type: none"> TPM 2.0 Header

System BIOS

BIOS Type	<ul style="list-style-type: none"> AMI 32Mb SPI Flash ROM with UEFI
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Management

Software	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Monitors for CPU Cores, Chipset Voltages, Memory. 4+1 Phase-switching voltage regulator
FAN	<ul style="list-style-type: none"> Fans with tachometer monitoring Status monitor for speed control Pulse Width Modulated (PWM) fan connectors
Temperature	<ul style="list-style-type: none"> Monitoring for CPU and chassis environment Thermal Control for fan connectors

Expansion Slots (per Node)

PCI-Express	<ul style="list-style-type: none"> 2 PCI-E 3.0 x8 (FH/HL) or 1 PCI-E 3.0 x8 (FH/HL) + 1 PCI-E 3.0 x4 (FH/HL) + 1 PCI-E 3.0 x 4 (LP) (8/8/0 or 8/4/4)
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Drive Bays / Storage (per Node)

Hot-swap	<ul style="list-style-type: none"> 6 Hot-swap 3.5" SATA3 HDD trays
Others	<ul style="list-style-type: none"> 2 SATA DOM 1 PCI-E 3.0 x4 NVMe or 1 SATA M.2 (22110/2280) support via BPN-ADP-6SATA3M2-1UL <p>* M.2 and SuperDOM are for OS boot</p>

System Cooling

Fans	<ul style="list-style-type: none"> 4x 8cm heavy duty PWM fans with optimal fan speed controlled
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Power Supply (76mm Width)

1200W Redundant Power Supplies with PMBus	
Total Output Power	<ul style="list-style-type: none"> 1000W/1200W
Dimension (W x H x L)	<ul style="list-style-type: none"> 76 x 40 x 336 mm
Input	<ul style="list-style-type: none"> 100-127Vac / 15-12A / 50-60Hz 200-240Vac / 8.5-7A / 50-60Hz 200-240Vdc / 8.5-7A (for CCC only)
+12V	<ul style="list-style-type: none"> Max: 83A / Min: 0A (100-127Vac) Max: 100A / Min: 0A (200-240Vac) Max: 100A / Min: 0A (200-240Vdc)
+5Vsb	<ul style="list-style-type: none"> Max: 4A / Min: 0A
Output Type	<ul style="list-style-type: none"> 19 Pairs Gold Finger Connector

Certification	 <p>UL/cUL/CB/BSMI/CE/CCC Titanium Level [Test Report]</p>
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Operating Environment

RoHS	<ul style="list-style-type: none"> RoHS Compliant
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)

Parts List

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X11DPT-L	2	Super X11DPT-L Motherboard
	CSE-827HD-R1K23BP3	1	2U Chassis
Backplane	BPN-ADP-6SATA3M2-1UL	2	6 x SATA3 with 6Gb/s,onboard 1 x M.2 . 22x80 mm and 22x110 mm,HF,RoHS
			2U 12-Port 2-Node 6Gbps Backplane Supports 6x3.5"

Backplane	BPN-SAS2-827HD2	1	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-310-82721-0B	2	SC827HD mylar air shroud for on MBD-X11DPT-L-P
Riser Card	RSC-T2R-884	2	2U RHS Twin Riser card with two PCI-E x8 and one PCI-E x4 sl
Heatsink / Retention	SNK-P0068PS	2	2U Passive CPU Heat Sink for X11 Purley Platform Equipped with a Narrow Retention Mechanism
Heatsink / Retention	SNK-P0069PS	2	1.5U Proprietary 50-mm Tall Front Passive CPU Heat Sink for X11 Purley Platform 2U Node Twin Series Servers
Power Supply	PWS-1K23A-1R	2	AC-DC 1200W, Titanium Level, Redundancy, 1U, PMBUS 1.2, +12V/+5Vsb, 360x76x40 mm,HF,RoHS/REACH
FAN 1	FAN-0129L4	4	80x80x38 mm 11K RPM SC217, SC827 Chassis Middle Fan

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	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)