

SuperServer 4029GP-TXRT (Complete System Only)



Due to the complexity of integration, this product is sold as a completely assembled system only (with minimum 2 CPUs, 4 DIMMs, 4 GPUs installed). Please contact your Supermicro sales rep for special requirements.

[▶ Drivers & Utilities](#) [▶ BIOS](#) [▶ IPMI](#) [▶ Tested Memory](#) [▶ OS Certification Matrix](#) [▶ Drive Options](#)

Key Features

- Artificial Intelligence
- Big Data Analytics
- High-performance Computing
- Research Lab/National Lab
- Astrophysics, Business Intelligence

1. Dual socket P (LGA 3647) supports Intel® Xeon® Scalable Processors, 3 UPI up to 10.4GT/s
2. Up to 3TB ECC 3DS LRDIMM, up to DDR4-2666MHz; 24 DIMM slots
3. 4 PCI-E 3.0 x16 (LP) (GPU tray for GPUDirect RDMA), 2 PCI-E 3.0 x16 (LP, CPU tray)
4. Support 8 Tesla P100 with 160GB/s NVLINK
5. Dual 10GBase-T LAN with Intel® X550
6. 16 Hot-swap 2.5" SAS/SATA drives; Supports 8 NVMe drives
7. 8x 92mm cooling fans
8. 2200W Redundant (2+2) 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-4029GP-TXRT	▪ SuperServer 4029GP-TXRT (Black)
Motherboard	
Super X11DGO-T	
Processor/Cache	
CPU	▪ Dual Socket P (LGA 3647) ▪ Intel® Xeon® Scalable Processors, 3 UPI up to 10.4GT/s ▪ Support CPU TDP 70-205W
Cores	▪ Up to 28 Cores with Intel® HT Technology
GPU Support	▪ NVIDIA Tesla P100 SXM2 GPU
System Memory	
Memory	▪ 24 DIMM slots

Chassis	
Form Factor	▪ 4U Rackmountable ▪ Rackmount Kit (MCP-290-00057-0N)
Model	▪ CSE-R422BG-1
Dimensions	
Height	▪ 7.0" (178mm)
Width	▪ 17.6" (447mm)
Depth	▪ 31.7" (805mm)
Weight	▪ Net Weight: 80 lbs (36.2 kg) ▪ Gross Weight: 135 lbs (61.2 kg)
Available Colors	▪ Black
Drive Bays	
Hot-swap	▪ 16 Hot-swap 2.5" SAS/SATA drive bays
Expansion Slots	
PCI-	▪ 4 PCI-E 3.0 x16 (LP, GPU tray for

Capacity	<ul style="list-style-type: none"> Up to 3TB ECC 3DS LRDIMM, 1TB ECC RDIMM, DDR4 up to 2666MHz
Memory Type	<ul style="list-style-type: none"> 2666/2400/2133MHz ECC DDR4 SDRAM
On-Board Devices	
Chipset	<ul style="list-style-type: none"> Intel® C621 chipset
SATA	<ul style="list-style-type: none"> SATA3 (6Gbps) with RAID 0, 1, 5, 10
Network Controllers	<ul style="list-style-type: none"> Dual Port 10GBase-T from Intel X550 Ethernet Controller
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	
SATA	<ul style="list-style-type: none"> 8 SATA3 (6Gbps) ports
LAN	<ul style="list-style-type: none"> 2 RJ45 10GBase-T LAN ports 1 RJ45 Dedicated IPMI LAN port
USB	<ul style="list-style-type: none"> 2 USB 3.0 ports (front)
Video	<ul style="list-style-type: none"> 1 VGA Connector
COM Port	<ul style="list-style-type: none"> 1 COM port (header)

System BIOS	
BIOS Type	<ul style="list-style-type: none"> AMI 32Mb SPI Flash ROM
BIOS Features	<ul style="list-style-type: none"> Intel® Node Manager IPMI 2.0 KVM with dedicated LAN SSM, SPM, SUM SuperDoctor® 5 Watchdog

Express	<ul style="list-style-type: none"> GPUDirect RDMA) slots 2 PCI-E 3.0 x16 (LP, CPU tray) slots
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Backplane	
16-port 2U SAS3 12Gbps hybrid backplane, support up to 8x 2.5" SAS3/SATA3 HDD/SSD and 8x SAS3/SATA3/NVMe Storage Devices	

System Cooling	
Fans	<ul style="list-style-type: none"> 8x 92mm Cooling Fans

Power Supply	
2200W Redundant Titanium Level Power Supplies with PMBus	

Total Output Power	<ul style="list-style-type: none"> 1200W/1800W/1980W/2090W/2200W (UL/cUL only)
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Dimension (W x H x L)	<ul style="list-style-type: none"> 106.5 x 82.4 x 203.5 mm
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Input	<ul style="list-style-type: none"> 1200W: 100-127 Vac / 14-11 A / 50-60 Hz 1800W: 200-220 Vac / 10-9.5 A / 50-60 Hz 1980W: 220-230 Vac / 10-9.5 A / 50-60 Hz 2090W: 230-240 Vac / 10-9.8 A / 50-60 Hz 2200W: 220-240 Vac / 12-11 A / 50-60 Hz (UL/cUL only) 2090W: 180-220 Vac / 14-11 A / 50-60 Hz (UL/cUL only) 2090W: 230-240 Vdc / 10-9.8 A (CCC only)
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+12V	<ul style="list-style-type: none"> Max: 100A / Min: 0A (1200W) Max: 150A / Min: 0A (1800W) Max: 165A / Min: 0A (1980W) Max: 174.17A / Min: 0A (2090W) Max: 183.3A / Min: 0A (2200W) Max: 174.17A / Min: 0A (2090W)
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12Vsb	<ul style="list-style-type: none"> Max: 2A / Min: 0A
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Output Type	<ul style="list-style-type: none"> Gold Finger (connector on M/P)
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Certification	  <ul style="list-style-type: none"> UL/cUL/CB/BSMI/CE/CCC Titanium Level [Test Report]
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Operating Environment	
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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-X11DGO-T	1	Super X11DGO-T Motherboard
	CSE-R422BG-1	1	CSE-R422BG-1 Chassis
Backplane	BPN-MB-R422	1	Pascal 4U midplane, 2U Pascal node on top, and 2U CPU node on bottom. Support 8x fan/power module at rear side.,RoHS
Backplane	BPN-SAS3-213A-N8	1	16-port 2U SAS3 12Gbps hybrid backplane, support up to 8x 2.5-inch SAS3/SATA3 HDD/SSD and 8x SAS3/SATA3/NVMe Storage Devices
Cable 1	CBL-0174L	4	PWCD,US,NEMA5-15P TO IEC60320 C13,6FT,14AWG,15A,125V,RoHS/REACH
Cable 2	CBL-PWEX-0979	3	2X4F/GPU-White/P4.2 to TWO 1X4F/P5.08, (5,12V),48/51CM,18AWG
Cable 3	CBL-SAST-0550	2	MINI SAS HD,12G,INT,25CM,30AWG
Cable 4	CBL-SAST-0935-1	4	Oculink-Oculink 8 lanes Pascal Cable 60cm 34AWG,RoHS
Parts	MCP-220-42202-0N-PACK	1	Single pack R422BG 2U GPU tray (2U, 8 Pascal GPU)
Power Supply	PWS-2K21A-2R	4	2U 2200W 90-264VAC/47-63Hz, or wide DC input 180Vdc~300Vdc,
Power Supply	PWS-DF004-1F	4	12Vdc input redundant FAN module power supports I2C function
Heatsink / Retention	SNK-P0068APS4	2	2U Active CPU Heat Sink Supporting Narrow Bolster Plate Mounting Mechanism for X11 Purley Platform
Heatsink / Retention	SNK-P4003P	8	2U Passive GPU Heat Sink for NVIDIA Pascal and Volta GPUs in SYS-4028GR-TXR/TXRT Series Servers

Optional Parts List			
	Part Number	Qty	Description
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	1	OOB Management Package (per node license)
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)

Optional NVMe Kit			
	Part Number	Qty	Description
Cable	CBL-SAST-1021	1	Oculink-8 lanes to 2x Oculink 4 lanes, 30cm 34AW
NVMe drive Tray	MCP-220-00121-0B	2	Black Gen-3 2.5" NVMe drive tray, Orange tab with lock