

# SuperServer 1029GQ-TXRT (Complete System Only)



X11DGO

## Key Features

- Up to 4 NVIDIA® Tesla® P100 SXM2 GPUs
- Up to 80 GB/s GPU-to-GPU NVIDIA® NVLINK™
- Optimized for NVIDIA® GPUDirect™ RDMA

1. Dual socket P (LGA 3647) supports Intel® Xeon® Scalable Processors, 3 UPI up to 10.4GT/s
2. Up to 1.5TB ECC 3DS LRDIMM, up to DDR4-2666MHz; 12 DIMM slots
3. 4 PCI-E 3.0 x16 slots
4. 2 Hot-swap 2.5" SAS/SATA drive bays, 2 Internal 2.5" drive bays
5. 2x 10GBase-T LAN ports via Intel X540
6. 7 Heavy duty 4cm counter-rotating fans with air shroud & optimal fan speed control
7. 2000W Redundant Power Supplies Titanium Level (96%)

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

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

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

## Specifications

### Product SKUs

SYS-1029GQ-TXRT ■ SuperServer 1029GQ-TXRT (Black)

### Motherboard

Super X11DGO

### Processor/Cache

**CPU**

- Dual Socket P (LGA 3647)
- Intel® Xeon® Scalable Processors, 3 UPI up to 10.4GT/s
- Support CPU TDP 70-165W

**Cores**

- Up to 28 Cores with Intel® HT Technology

GPU

- 4 Nvidia® Tesla® P100 SXM2 GPUs
- NVIDIA® NVLINK™ up to 80GB/s

### System Memory

**Memory Capacity**

- 12 DIMM slots
- Up to 1.5TB ECC 3DS LRDIMM, 1.5TB ECC RDIMM, DDR4 up to 2666MHz

### Chassis

**Form Factor**

- 1U Rackmount

**Model**

- CSE-118GQPTS-R2K05P2

### Dimensions and Weight

**Height**

- 1.7" (43mm)

**Width**

- 17.2" (437mm)

**Depth**

- 35.2" (894mm)
- 39.3" (997mm) with rails

**Package**

- 24" (H) x 8" (W) x 46" (D)

**Weight**

- Net Weight: 45 lbs (15.9 kg)
- Gross Weight: 58 lbs (21.8 kg)

**Available Color**

- Black

### Front Panel

**Buttons**

- Power On/Off button
- UID button

**LEDs**

- Power LED
- Hard drive activity LED
- Network activity LEDs

Memory Type	<ul style="list-style-type: none"> <li>2666/2400/2133MHz ECC DDR4 SDRAM</li> </ul>
<b>On-Board Devices</b>	
Chipset	<ul style="list-style-type: none"> <li>Intel® C621 chipset</li> </ul>
SATA	<ul style="list-style-type: none"> <li>SATA3 (6Gbps) with RAID 0, 1, 5, 10</li> </ul>
Network Connectivity	<ul style="list-style-type: none"> <li>Intel® X540 Dual Port 10GBase-T</li> <li>Virtual Machine Device Queues reduce I/O overhead</li> <li>Supports 10GBASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output</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>

<b>Input / Output</b>	
SATA	<ul style="list-style-type: none"> <li>4 SATA3 (6Gbps) ports</li> </ul>
LAN	<ul style="list-style-type: none"> <li>2 RJ45 10GBase-T ports</li> <li>1 RJ45 Dedicated IPMI LAN port</li> </ul>
USB	<ul style="list-style-type: none"> <li>2 USB 3.0 ports (rear)</li> </ul>
Video	<ul style="list-style-type: none"> <li>1 VGA port</li> </ul>
Serial Header	<ul style="list-style-type: none"> <li>1 Fast UART 16550 header</li> </ul>

<b>System BIOS</b>	
BIOS Type	<ul style="list-style-type: none"> <li>AMI 32Mb SPI Flash ROM</li> </ul>

<b>Management</b>	
Software	<ul style="list-style-type: none"> <li>Intel® Node Manager</li> <li><a href="#">IPMI 2.0</a></li> <li>KVM with dedicated LAN</li> <li><a href="#">SSM</a>, <a href="#">SPM</a>, <a href="#">SUM</a></li> <li><a href="#">SuperDoctor® 5</a></li> <li>Watch Dog</li> </ul>
Power Configurations	<ul style="list-style-type: none"> <li>ACPI / APM Power Management</li> </ul>

<b>PC Health Monitoring</b>	
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>

	<ul style="list-style-type: none"> <li>System Overheat LED / Fan fail LED / UID LED</li> </ul>
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<b>Expansion Slots</b>	
PCI-Express	<ul style="list-style-type: none"> <li>4 PCI-E 3.0 x16 slots</li> </ul>

<b>Drive Bays</b>	
Hot-swap	<ul style="list-style-type: none"> <li>2 Hot-swap 2.5" SAS/SATA drive bays</li> </ul>
Fixed	<ul style="list-style-type: none"> <li>2 Internal 2.5" drive bays</li> </ul>

<b>System Cooling</b>	
Fans	<ul style="list-style-type: none"> <li>7 Heavy duty 4cm counter-rotating fans with air shroud &amp; optimal fan speed control</li> </ul>

<b>Power Supply</b>	
2000W Redundant Power Supplies with PMBus	

Total Output Power	<ul style="list-style-type: none"> <li>1000W/1800W/1980W/2000W</li> </ul>
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Dimension (W x H x L)	<ul style="list-style-type: none"> <li>73.5 x 40 x 265 mm</li> </ul>
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Input	<ul style="list-style-type: none"> <li>100-120Vac / 12.5-9.5A / 50-60Hz</li> <li>200-220Vac / 10-9.5A / 50-60Hz</li> <li>220-230Vac / 10-9.8A / 50-60Hz</li> <li>230-240Vac / 10-9.8A / 50-60Hz</li> <li>200-240Vac / 11.8-9.8A / 50-60Hz (UL/cUL only)</li> </ul>
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+12V	<ul style="list-style-type: none"> <li>Max: 83.3A / Min: 0A (100-120Vac)</li> <li>Max: 150A / Min: 0A (200-220Vac)</li> <li>Max: 165A / Min: 0A (220-230Vac)</li> <li>Max: 166.7A / Min: 0A (230-240Vac)</li> <li>Max: 166.7A / Min: 0A (200-240Vac) (UL/cUL only)</li> </ul>
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12Vsb	<ul style="list-style-type: none"> <li>Max: 2.1A / Min: 0A</li> </ul>
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Output Type	<ul style="list-style-type: none"> <li>25 Pairs Gold Finger Connector</li> </ul>
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Certification	  <ul style="list-style-type: none"> <li>UL/cUL/CB/BSMI/CE/CCC Titanium Level [ <a href="#">Test Report</a> ]</li> </ul>
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<b>Operating Environment</b>	
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RoHS	<ul style="list-style-type: none"> <li>RoHS Compliant</li> </ul>
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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>
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## Parts List

Parts List - (Items Included)			
	Part Number	Qty	Description
<b>Motherboard / Chassis</b>	MBD-X11DGQ	1	Super X11DGQ Motherboard
	CSE-118GQPTS-R2K05P2	1	CSE-118GQPTS-R2K05P2 Chassis
<b>Add-on Card / Module</b>	AOM-PIO-I2XT-P	1	AOM-PIO-I2XT
<b>Backplane</b>	BPN-SAS3-118GQE	1	2-port 1U SAS3 12Gbps backplane, support up to 2x 2.5-inch SAS3/SATA3 HDD/SSD
<b>Cable 1</b>	CBL-0484L	4	SATA,INT,ROUND,ST-ST,55CM,30AWG
<b>Cable 2</b>	CBL-PWEX-1025	3	GPU,2x4F/RA/CPU to 2x4F/RA/CPU,P4.2, 6CM,17AWG, 8A/pin, -25~85C, RoHS
<b>Cable 3</b>	CBL-PWEX-1028	1	GPU,2x4F/CPU to 2x4F/CPU,P4.2, 30CM,16AWG, 10A/pin, -40~105C
<b>Cable 4</b>	CBL-SAST-0934	4	Oculink-Oculink 8 lanes Pascal Cable 50cm 34AWG
<b>Manual</b>	MNL-1810-QRG	1	SYS-1028GQ-TR(T) Quick Reference Guide,HF,RoHS/REACH
<b>Riser Card</b>	RSC-G-A66-X1	1	1U RHS Active Rear Riser card with two PCI-E x16 Slot,HF,RoH
<b>Riser Card</b>	RSC-GN2-66	1	1U Passive LHS GPU Riser Card with two NVMe ports and two PC
<b>Heatsink / Retention</b>	SNK-P0067PS	2	1U Passive CPU Heat Sink for X11 Purley Platform Equipped with a Narrow Retention Mechanism
<b>Heatsink / Retention</b>	SNK-P4000V	4	1U Passive GPU Heat Sink for NVIDIA SXM2 Module in SYS-1028GQ-TXR(T) Series Servers
<b>Power Supply</b>	PWS-2K05A-1R	2	1U 2000W Redundant Titanium Power Supply W/PMbus 73.5x40x265mm,RoHS/REACH
<b>FAN 1</b>	FAN-0163L4	7	40x40x56 mm, 23.3K-20.3K RPM, Counter-rotating Fan
<b>Rear Window</b>	MCP-240-11807-0N	1	SC118GQE Rear Window for 2x PCI-FL or 4th GPU
<b>Rail Set</b>	MCP-290-11808-0N	1	Rail set, Quick/Quick, Auto Latch, 548mm Short Version, 685mm~812.8mm(27"~32"), 1U 17.2 SC118GQE 1U 4xGPU

Optional Parts List			
	Part Number	Qty	Description
<b>CAB</b>	MCP-120-11812-0N	-	SC118GQP Pascal GPU Dummy & Air Shroud Mylar Module
<b>Global Services &amp; Support</b>	<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
<b>Software</b>	SFT-OOB-LIC	1	OOB Management Package (per node license)
<b>Software</b>	SFT-DCMS-Single	1	DataCenter Management Package (per node license)