

## SuperServer 4029GP-TRT

### 4U Dual Processor (Intel), Dual-Root GPU System with Up to 8 PCI-E GPUs



#### Integrated Board



[CPU.cfm](#) [X11DPG-OT-CPU](#) ([/products/motherboard/Xeon/C620/X11DPG-OT-CPU.cfm](#)) [X9DRG-O-PCIE](#)



[X9DRG-O-PCIE](#)

**Views:** | [Angled View \(/a\\_images/products/views/4029GP-TRT\\_angle.jpg\)](#) | [Top View \(/a\\_images/products/views/4029GP-TRT\\_top.jpg\)](#) | [Front View \(/a\\_images/products/views/4029GP-TRT\\_front.jpg\)](#) | [Rear View \(/a\\_images/products/views/4029GP-TRT\\_rear.jpg\)](#) |

[Drivers & Utilities](#) [BIOS](#) [IPMI](#) [Tested Memory](#)

[Tested M.2 List \(/en/support/resources/m2ssd?SystemID=86137&ProductName=SS4029GP-TRT\)](#)

[Drive Options](#) [NVMe Options](#) [Manuals](#)

[OS Certification Matrix \(/en/support/resources/certification/SYS-4029GP-TRT\)](#)

[Compatible GPU List \(/en/support/resources/gpu\)](#)

[4U PCIe Root Architectures \(/products/system/4U/4029/PCIe-Root-Architecture.cfm\)](#)

## Key Applications

- 3D Rendering
- Astrophysics Simulation
- Chemistry Simulation
- Virtualization
- Cloud Computing
- Research Laboratory/National Laboratory



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## Key Features

1. Dual Root System for balanced performance & higher CPU to GPU communication
2. Dual Socket P (LGA 3647) support 2nd Gen Intel® Xeon® Scalable processors (Cascade Lake/Skylake)†
3. 24 DIMMs; up to 6TB 3DS ECC DDR4-2933MHz† RDIMM/LRDIMM, Supports Intel® Optane™ DCPMM††
4. 8 PCI-E 3.0 x16 slots (support up to 8 double width GPU), 2 PCI-E 3.0 x8, 1 PCI-E 3.0 x4
5. Up to 24 Hot-swap 2.5" drive bays; 8x 2.5" SATA drives supported with included H/W, 2x 2.5" NVMe drives supported with included H/W, 1 NVMe based M.2 SSD
6. 2x 10GBase-T LAN ports via Intel C622
7. 8 Hot-swap 92mm RPM cooling fans
8. 2000W (2+2) 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-4029GP-TRT

SuperServer 4029GP-TRT (Black)

## Motherboard

### Super X11DPG-OT-CPU

(</products/motherboard/Xeon/C620/X11DPG-OT-CPU.cfm>).

## Processor

### CPU

Dual Socket P (LGA 3647)

2nd Gen Intel® Xeon® Scalable Processors and Intel® Xeon® Scalable Processors<sup>‡</sup>,

3 UPI up to 10.4GT/s

Support CPU TDP 70-205W

### Cores

Up to 28 Cores

### Note

<sup>‡</sup> BIOS version 3.2 or above is required to support 2nd Gen Intel® Xeon® Scalable processors (codenamed Cascade Lake-R)

## GPU

### Supported GPUs

8 Double-Width/Single-Width PCI-E 3.0 x16 Card (Full Height Full Length)

NVIDIA V100, P40, T4, Quadro, RTX

Supports both active and passive cooled GPUs

[Compatible GPU list \(/support/resources/GPU\)](/support/resources/GPU).

### CPU-GPU Interconnect

PCI-E Gen 3 x16 Switch Dual-Root

### PCIe Root Architecture Chart

(</products/system/4U/4029/PCIe-Root-Architecture.cfm>).

### GPU-GPU Interconnect

PCI-E, NVIDIA® NVLink™ Bridge (Optional)

## System Memory

### Memory Capacity

24 DIMM slots

Up to 6TB 3DS ECC DDR4-2933MHz<sup>†</sup> RDIMM/LRDIMM

Supports Intel® Optane™ DCPMM<sup>††</sup>

### Memory Type

2933<sup>†</sup>/2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM

### Note

<sup>†</sup> 2933MHz in two DIMMs per channel can be achieved by using memory purchased from Supermicro

<sup>††</sup> Cascade Lake only. Contact your Supermicro sales rep for more info.

## On-Board Devices

### Chipset

Intel® C622 chipset

### SATA

SATA3 (6Gbps) with RAID 0, 1, 5, 10

### Network Controllers

Dual Port 10GbE from C622

### 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

## Chassis

### Form Factor

4U Rackmountable

Rackmount Kit (MCP-290-00057-0N)

### Model

CSE-418GTS-R4000BP2

## Dimensions

### Height

7.0" (178mm)

### Width

17.2" (437mm)

### Depth

29" (737mm)

### Weight

Net Weight: 65.5 lbs (29.7 kg)

Gross Weight: 100 lbs (45.3 kg)

### Available Colors

Black

## Drive Bays / Storage

### Hot-swap

Up to 24x 2.5" SAS/SATA drive bays

8x 2.5" SATA supported natively

2x 2.5" NVMe supported natively

### M.2

1 NVMe based M.2 SSD

Form Factors: 2260, 2280, 22110

## Expansion Slots

### PCI-Express

8 PCI-E 3.0 x16 (FHFL) slots - supporting up to 8 GPUs

2 PCI-E 3.0 x8 slots

1 PCI-E 3.0 x4 slot

## System Cooling

### Fans

8 Hot-swap 92mm cooling fans

## Power Supply

2000W Redundant Power Supplies with PMBus

### Total Output Power

1000W: 100 – 120Vac

1800W: 200 – 220Vac

1980W: 220 – 230Vac

2000W: 230 – 240Vac

2000W: 200 – 240Vac (UL/CUL only)

### Dimension

#### (W x H x L)

73.5 x 40 x 265 mm

### Input

100-120Vac / 12.5-9.5A / 50-60Hz

200-220Vac / 10-9.5A / 50-60Hz

220-230Vac / 10-9.8A / 50-60Hz

230-240Vac / 10-9.8A / 50-60Hz

200-240Vac / 11.8-9.8A / 50-60Hz (UL/CUL only)

### +12V

Max: 83.3A / Min: 0A (100-120Vac)

Max: 150A / Min: 0A (200-220Vac)

Max: 165A / Min: 0A (220-230Vac)

Max: 166.7A / Min: 0A (230-240Vac)

Max: 166.7A / Min: 0A (200-240Vac) (UL/CUL only)

## Input / Output

### SATA

8 SATA3 (6Gbps) ports

### LAN

2 RJ45 10GBase-T LAN ports

1 RJ45 Dedicated IPMI LAN port

### USB

4 USB 3.0 ports (rear)

### Video

1 VGA Connector

### COM Port

1 COM port (header)

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## System BIOS

### BIOS Type

AMI 32Mb SPI Flash ROM

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## Management

### Software

Intel® Node Manager

[IPMI 2.0 \(/solutions/IPMI.cfm\)](#)

KVM with dedicated LAN

[SSM \(/solutions/SMS\\_SSM.cfm\)](#), [SPM](#)

[\(/solutions/SMS\\_SPM.cfm\)](#), [SUM](#)

[\(/solutions/SMS\\_SUM.cfm\)](#)

[SuperDoctor® 5 \(/solutions/SMS\\_SD5.cfm\)](#)

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

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## Parts List

### 12Vsb

Max: 2.1A / Min: 0A

### Output Type

25 Pairs Gold Finger Connector

### Certification

(<http://www.plugloadsolutions.com/80PlusPowerSupplies>



[id=69&type=2](#)). **Titanium Level**

[ [Test Report](#)

([/products/powersupply/80PLUS/80PLUS\\_P](#)

[1R.pdf](#).) ]

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## 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)

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Certain products may not be available in your region

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[Global SKU \(/en/products/SMC\\_global\\_skus\)](#)

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