

SuperServer 4029GP-TRT2



Integrated Board



X11DPG-OT-CPU



X10DRG-O-PCIE

Views: | [Angled View](#) | [Top View](#) |
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Key Features

- Artificial Intelligence
- Big Data Analytics
- High-performance Computing
- Research Lab/National Lab
- Astrophysics, Business Intelligence
- Single Root System for excellent GPU peer to peer communication with sufficient CPU to GPU throughput

1. Dual Socket P (LGA 3647) support 2nd Gen. Intel® Xeon® Scalable processors (Cascade Lake/Skylake)‡
2. 24 DIMMs; up to 6TB 3DS ECC DDR4-2933MHz† RDIMM/LRDIMM, Supports Intel® Optane™ DCPMM††
3. 11 PCI-E 3.0 x16 (FH, FL) slots
1 PCI-E 3.0 x8 (FH, FL in x16 slot)
4. 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
5. 2x 10GBase-T LAN ports via Intel C622
6. 8 Hot-swap 92mm RPM cooling fans
7. 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-TRT2** ■ SuperServer 4029GP-TRT2 (Black)

Motherboard

Super X11DPG-OT-CPU

Processor/Cache

- CPU** ■ Dual Socket P (LGA 3647)
■ 2nd Gen. Intel® Xeon® Scalable Processors (Cascade Lake/Skylake)†, 3 UPI up to 10.4GT/s
■ Support CPU TDP 70-205W

- Cores** ■ Up to 28 Cores

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

- GPU Support** ■ Please refer to: [Compatible GPU list](#)

System Memory

- Memory Capacity** ■ 24 DIMM slots
■ Up to 6TB 3DS ECC DDR4-2933MHz† RDIMM/LRDIMM
■ Supports Intel® Optane™ DCPMM††

- Memory Type** ■ 2933†/2666/2400/2133MHz ECC DDR4 RDIMM/LRDIMM

- Note** † 2933MHz in two DIMMs per channel can be achieved by using memory purchased from Supermicro

†† 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

Input / Output

- SATA** ■ 10 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)

System BIOS

- BIOS Type** ■ AMI 32Mb SPI Flash ROM

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** ■ 11 PCI-E 3.0 x16 (FH, FL) slots
■ 1 PCI-E 3.0 x8 (FH, FL, in x16) slot

System Cooling

- Fans** ■ 8 Hot-sw ap 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)

- 12Vsb** ■ Max: 2.1A / Min: 0A

- Output Type** ■ 25 Pairs Gold Finger Connector

- Certification**   **Titanium Level**
[[Test Report](#)]

Operating Environment

Management

Software	■ Intel® Node Manager ■ <u>IPMI 2.0</u> ■ KVM with dedicated LAN ■ <u>SSM, SPM, SUM</u> ■ <u>SuperDoctor® 5</u> ■ 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

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)

Parts List

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X11DPG-OT-CPU	1	Super X11DPG-OT-CPU Motherboard
	MBD-X10DRG-O-PCIE	1	Super X10DRG-O-PCIE Motherboard
	CSE-418GTS-R4000BP2	1	CSE-418GTS-R4000BP2 Chassis
Backplane	BPN-SAS3-216A-N4	1	24-port 2U SAS3 12Gbps hybrid backplane, support up to 20x 2.5-inch SAS3/SATA3 HDD/SSD and 4x SAS3/SATA3/NVMe Storage Devices
Cable 1	CBL-0449L	2	HDD power extension for X8OBN, special 8 pin to 4 HDD. 45cm. 18AWG
Cable 2	CBL-PWEX-1028	8	GPU,2x4F/CPU to 2x4F/CPU,P4.2, 30CM,16AWG, 10A/pin, -40~105C
Cable 3	CBL-SAST-0507-01	2	MINI SAS HD-MINI SAS,6G,INT,80CM,SB,28AWG
Cable 4	CBL-SAST-0972	2	OcuLink V. 1.0 source to MiniSAS HD,INT,PCle, 70CM,34AWG,RoH
Parts	MCP-130-41802-0B	1	Black plastic palm cover for X10DRG-O-PCIE
Riser Card	RSC-X9DRG-O	4	RSC-X9DRG-O
Heatsink / Retention	SNK-P0068APS4	2	2U Active CPU Heat Sink Supporting Narrow Bolster Plate Mounting Mechanism for X11 Purley Platform
Power Supply	PWS-2K05A-1R	4	1U 2000W Redundant Titanium Power Supply W/PMbus 73.5x40x265mm,RoHS/REACH
FAN 1	FAN-0151L4	8	92x92x38 mm, 11.5K RPM, SC418G Middle Fan w / Housing,RoHS/REACH,PBF
Rear Window	MCP-240-84802-0N	1	21 slot rear window for SC418X

Optional Parts List

	Part Number	Qty	Description
NVIDIA Quadro & Generic GPU Cables	CBL-PWEX-1040	1 per GPU	GPU,2x4M/CPU to two (2x3F+2x1F)/PCle,P4.2, 5CM,16/20AWG, 10.5A/pin(16AWG), 8A/pin(20AWG), -25~85C,RoHS
Storage Control Card and Cable for 2x Hybrid NVMe/SAS Drive Bays	1x AOC-S3008L-L8e & 2x CBL-SAST-0531	-	Std LP, 8 internal ports, 12Gb/s per port- Gen3, 122 HDD, HBA
	1x AOC-S3008L-L8i & 2x CBL-SAST-0531		Std LP, 8 internal ports, 12Gb/s per port- Gen3, 63 HDD, RAID 0,1,1E
	1x AOC-S3108L-H8iR & 2x CBL-SAST-0531		Std LP, 8 internal ports, 12Gb/s per port- Gen3, 240 HDD, RAID 0,1,5,6,10,50,60
2.5" NVMe Drive Trays	MCP-220-00121-0B	1-2	Black Gen-3 2.5" NVMe drive tray, Orange tab with lock
	MCP-220-00167-0B		Tool-less black hot-sw ap 2.5" NVMe drive tray (Orange tab, w / key lock, clip design)
Super Cap for LSI 3108	BKT-BBU-BRACKET-05	1	Mounting Bracket for LSI BBUs
	BTR-TFM8G-LSICVM02	1	LSI Super Cap
Global Services & Support	<u>OS4HR3/2/1</u>	-	3/2/1-year onsite 24x7x4 service
	<u>OSNBD3/2/1</u>	-	3/2/1-year onsite NBD service
Software	<u>SFT-OOB-LIC</u> • eStore	1	OOB Management Package (per node license)
Software	<u>SFT-DCMS-Single</u>	1	DataCenter Management Package (per node license)