

SuperServer 4029GP-TRT3



Integrated Board



X11DPG-OT-CPU



X11DPG-O-PCIE

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

- AI /Deep Learning
- Support up to 9 GPUs
- Single Root System, Cascade Mode for maximum GPU peer to peer communication

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

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-TRT3** ■ SuperServer 4029GP-TRT3 (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** ■ 8x 92mm heavy duty counter-rotating 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
 - IPMI 2.0
 - KVM with dedicated LAN
 - SSM, SPM, SUM
 - SuperDoctor® 5
 - Watchdog
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PC Health Monitoring

CPU

- Monitors for CPU Cores, Chipset Voltages, Memory.
 - 4+1 Phase-switching voltage regulator
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FAN

- Fans with tachometer monitoring
 - Status monitor for speed control
 - Pulse Width Modulated (PWM) fan connectors
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Temperature

- Monitoring for CPU and chassis environment
 - Thermal Control for fan connectors
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RoHS

- RoHS Compliant
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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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Parts List

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X11DPG-OT-CPU	1	Super X11DPG-OT-CPU Motherboard
	MBD-X11DPG-O-PCIE	1	Super X11DPG-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
* Cable 5	CBL-0071L	1	CBL,FRONT CNTL,16 TO 16 PIN,RA,RND TUBE,75CM,28AWG
* Cable 6	CBL-0174L	4	PWCD,US,NEMA5-15P TO IEC60320 C13,6FT,14AWG,15A,125V,RoHS/REACH
* FAN 1	FAN-0151L4	8	92x92x38 mm, 11.5K RPM, SC418G Middle Fan w/ Housing,RoHS/REACH,PBF
* Drive Tray(s)	MCP-220-00047-0B	24	Black gen 3rd hot-sw ap 2.5inch HDD tray
* Rear Window	MCP-240-84802-0N	1	21 slot rear window for SC418X
* Parts	MCP-260-41801-0N	1	IO shield for X9DRG-O in SC418G
* Front Panel	MCP-280-82601-0N	1	Front control board adapter (TB826) for SC216,826,936,846
* Rail Set	MCP-290-00057-0N	1 set	Rail set, quick/quick, default for 4U 17.2"; W
* Rail Set	MCP-290-00060-0N	1	Threaded rail adapter default for round hole rack
* Drive Tray(s)	MCP-290-21301-0B	3	Black 2.5" HDD dummy cover for SC213,216 (Cover 8 HDD)
* Rail Set	MCP-290-00115-0N	1	Inner rail, quick-release type
* Rail Set	MCP-290-00117-0N	1	Outer rail, quick-release type
* FAN 2	MCP-340-00044-0N	1	92x92x38 mm, 11.5K RPM, 4-pin PWM Bare Fan

Notes:

1. Parts with * are inside the chassis
2. Excessive parts might not be shipped, including but not limited to excessive drive trays, fans, riser brackets, air shrouds, IO shields, cables.....etc.

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	AOC-S3008L-L8e & CBL-SAST-0531	1 AOC + 2 CBL	Std LP, 8 internal ports, 12Gb/s per port- Gen3, 122 HDD, HBA
	AOC-S3008L-L8i & CBL-SAST-0531	1 AOC + 2 CBL	Std LP, 8 internal ports, 12Gb/s per port- Gen3, 63 HDD, RAID 0,1,1E
	AOC-S3108L-H8iR & CBL-SAST-0531	1 AOC + 2 CBL	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	<u>MCP-220-00121-0B</u>	1-2	Black Gen-3 2.5" NVMe drive tray, Orange tab w ith lock
	<u>MCP-220-00167-0B</u>		Tool-less black hot-sw ap 2.5" NVMe drive tray (Orange tab, w / key lock, clip design)
Super Cap for LSI 3108	<u>BKT-BBU-BRACKET-05</u>	1	Mounting Bracket for LSI BBUs
	<u>BTR-TFM8G-LSICVM02</u>	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)