

SuperServer 4028GR-TXR (Complete System Only)



Integrated Board



X10DGO

Views: | [Angled View](#) | [Top View \(CPU\)](#) | [Top View \(GPU\)](#)
| [Front View](#) | [Rear View](#) |

Complete System Only: To maintain quality and integrity, this product is sold only as a completely-assembled system (with minimum 2 CPUs, 4 DIMMs, 4 GPUs installed).

► [Drivers & Utilities](#) ► [BIOS](#) ► [IPMI](#) ► [Tested Memory](#) ► [NVMe Options](#) ► [Manuals](#) ► [OS Certification Matrix](#) ► [Compatible GPU List](#) ► [Drive Options](#)

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

Key Features

- Up to 8 NVIDIA® Tesla® P100 SXM2
- Up to 80 GB/s GPU-to-GPU NVIDIA® NVLINK™
- Supports NVIDIA® GPUDirect™ RDMA

1. Dual socket R3 (LGA 2011) supports Intel® Xeon® processor E5-2600 v4[†]/ v3 family; QPI up to 9.6GT/s
2. Up to 3TB[†] ECC 3DS LRDIMM , up to DDR4- 2400[†]MHz ; 24 DIMM slots
3. 4 PCI-E 3.0 x16 (low-profile) slots
2 PCI-E 3.0 x8 (low-profile) slots
M.2 Interface: PCI-E 3.0 x4
M.2 Form Factor: 2260, 2280, 22110
4. Dual 1GbE LAN with Intel® i350
5. 16 Hot-swap 2.5" SATA/SAS drives;
Supports 8 NVMe drives
6. 8x 92mm cooling fans
7. 2200W Redundant (2+2) Power Supplies; **Titanium Level (96%+)**

Specifications

Product SKUs

SYS-4028GR-TXR	■ SuperServer 4028GR-TXR (Black)
-----------------------	---

Motherboard

Super X10DGO

Processor/Cache

CPU	■ Intel® Xeon® processor E5-2600 v4 [†] / v3 family (up to 145W TDP) * ■ Dual Socket R3 (LGA 2011)
Cores / Cache	■ Up to 22 Cores [†] / Up to 55MB [†] Cache
System Bus	■ QPI up to 9.6 GT/s
Note	[†] BIOS version 2.0 or above is required
Note	* Please contact Supermicro Technical Support for additional information about frequency optimized CPUs and specialized system optimization.
GPU	■ 8 NVIDIA® Tesla® P100 SXM2 ■ NVIDIA® NVLINK™ up to 80GB/s

System Memory

Memory Capacity	■ 24x 288-pin DDR4 DIMM slots ■ Up to 3TB [†] ECC 3DS LRDIMM, 2TB ECC RDIMM
Memory Type	■ 2400 [†] /2133/1866/1600MHz ECC DDR4 SDRAM 72-bit
DIMM Sizes	■ RDIMM: 32GB, 16GB, 8GB, 4GB ■ LRDIMM: 64GB, 32GB ■ 3DS LRDIMM: 128GB
Memory Voltage	■ 1.2 V
Error Detection	■ Corrects single-bit errors

On-Board Devices

Chipset	■ Intel® C612 chipset
SATA	■ SATA3 (6Gbps) with RAID 0, 1, 5, 10
IPMI	■ Support for Intelligent Platform Management Interface v.2.0 ■ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support ■ ASPEED AST2400 BMC
Network Controllers	■ Dual Port 1GbE with Intel i350 Ethernet Controller ■ Virtual Machine Device Queues reduce I/O overhead ■ Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output
Graphics	■ ASPEED AST2400 BMC

Input / Output

SATA	■ 10 SATA3 (6Gbps) ports
LAN	■ 2 RJ45 1GbE LAN ports ■ 1 RJ45 Dedicated IPMI LAN port
USB	■ 2 USB 3.0 ports
Video	■ 1 VGA Connector

Chassis

Form Factor	■ 4U Rackmountable ■ Rackmount Kit (MCP-290-31401-0N)
Model	■ CSE-R422BG-2

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" SATA/SAS drive bays
-----------------	--

Expansion Slots

PCI-Express	■ 4 PCI-E 3.0 x16 (low-profile) slots ■ 2 PCI-E 3.0 x8 slots
M.2	■ M.2 Interface: PCI-E 3.0 x4 ■ Form Factor: 2260, 2280, 22110

System Cooling

Fans	■ 8x 92mm Cooling Fans
Shrouds	■ 1 Air Shroud (MCP-310-41808-0B)

Power Supply

2200W Redundant Titanium Level Power Supplies with PMBus	
Total Output Power	■ 1200W/1800W/1980W/2090W/2200 W (UL/cUL only)
Dimension (W x H x L)	■ 106.5 x 82.4 x 203.5 mm
Input	■ 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)
+12V	■ 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)
12Vsb	■ Max: 2A / Min: 0A
Output Type	■ Gold Finger (connector on M/P)

Serial Port	■ 1 Serial header
-------------	-------------------

System BIOS

BIOS Type	■ 128Mb SPI Flash EEPROM with AMI® BIOS
BIOS Features	■ Plug and Play (PnP) ■ APM 1.2 ■ DMI 2.3 ■ PCI 2.3 ■ ACPI 1.0 / 2.0 / 3.0 ■ USB Keyboard support ■ SMBIOS 2.7.1 ■ UEFI

Certification	  Titanium Level [Test Report]
---------------	---

PC Health Monitoring

CPU	■ Monitors for CPU Cores, +1.2V, 1.5V, +3.3V, +12V, (+3V, 1.0V, 1.2V, 1.8V, 1.1V) Standby, VBAT, Memory, Chipset Voltages. ■ 4-Phase-switching voltage regulator with auto-sense from 0.6V-1.35V
FAN	■ 4-pin fan headers with tachometer status monitoring ■ Low noise fan speed control mode
Temperature	■ Monitoring for CPU and system environment ■ Thermal Control for 8 fan connectors
Other Features	■ Chassis intrusion detection

Operating Environment / Compliance

RoHS	■ RoHS Compliant
Environmental Spec.	■ Operating Temperature: 10°C to 35°C (50°F to 95°F) ■ Non-operating Temperature: -40°C to 70°C (-40°F to 158°F) ■ Operating Relative Humidity: 8% to 90% (non-condensing) ■ Non-operating Relative Humidity: 5% to 95% (non-condensing)

Список деталей

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X10DGO	1	Super X10DGO Motherboard
	MBD-X10DGO-SXM-P	1	P100 SXM2 GPU Board
	CSE-R422BG-2	1	CSE-R422BG-2 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-0449L	2	HDD power extension for X8OBN, special 8 pin to 4 HDD. 45cm. 18AWG
Cable 2	CBL-PWCD-0174-IS	4	PWCD,US,NEMA5-15P TO IEC60320 C13,6FT,14AWG,RoHS/REACH
Cable 3	CBL-PWEX-0979	3	2X4F/GPU-White/P4.2 to TWO 1X4F/P5.08, (5,12V),48/51CM,18AWG
Cable 4	CBL-SAST-0550	2	MINI SAS HD,12G,INT,25CM,30AWG
Cable 5	CBL-SAST-0819	2	OCuLink v 1.0,INT,PCIe NVMe SSD, 65CM,34AWG,RoHS/REACH
Cable 6	CBL-SAST-0974-1	2	OcuLink v 1.0,INT,PCIe NVMe SSD, 37CM,34AWG
Parts	MCP-220-42204-0N-PACK	1	Single pack R422BG 2U GPU tray (2U, 8 Pascal / Volta GPU),Ro
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-P0048AP4	2	2U Active CPU Heat Sink for Intel R2/R3/B2/B3 and AMD C32
Heatsink / Retention	SNK-P4001P	8	2U Passive GPU Heat Sink for NVIDIA SXM2 Module in SYS-4028GR-TXR/TXRT Series Servers
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	<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> • <i>eStore</i>	1	OOB Management Package (per node license)
Software	<u>SFT-DCMS-Single</u>	1	DataCenter Management Package (per node license)

Optional NVMe Kit

NVMe AOC	AOC-SLG3-4E2P-O	1	4 port PLX NVMe PCIe x8 card,HF,RoHS. Support up to 4 NVMe drives
Cable	CBL-SAST-0974-1	4	OCuLink v.1.0,INT,x4,PCIe,37 CM,RoHS
NVMe drive Tray	MCP-220-00121-0B	4	Black Gen-3 2.5" NVMe drive tray, Orange tab with lock