

SuperServer 4028GR-TXR (Complete System Only)



Due to the complexity of integration, this product is sold as completely assembled systems only (including but not limited to CPUs, memory, and HDDs). Please contact your Supermicro sales rep for special requirements.

[▶ Drivers & Utilities](#) [▶ BIOS](#) [▶ IPMI](#) [▶ NVMe Options](#) [▶ Drive Options](#)

Key Features

- Up to 8 Tesla P100 SXM2
- Up to 80 GB/s GPU-to-GPU NVLINK
- Supports 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 ; 24x DIMM slots
3. 4 PCI-E 3.0 x16 (low-profile) slots
2 PCI-E 3.0 x8 slots
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%+)

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

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 ▪ NVLINK up to 80GB/s

Chassis	
Form Factor	▪ 4U Rackmountable ▪ Rackmount Kit (MCP-290-00057-0N)
Model	▪ CSE-R422BG
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
System Cooling	
Fans	▪ 8x 92mm Cooling Fans
Shrouds	▪ 1 Air Shroud (MCP-310-41808-0B)

System Memory

Memory Capacity	<ul style="list-style-type: none">24x 288-pin DDR4 DIMM slotsUp to 3TB[†] ECC 3DS LRDIMM, 2TB ECC RDIMM
Memory Type	<ul style="list-style-type: none">2400[†]/2133/1866/1600MHz ECC DDR4 SDRAM 72-bit
DIMM Sizes	<ul style="list-style-type: none">RDIMM: 32GB, 16GB, 8GB, 4GBLRDIMM: 64GB, 32GB3DS LRDIMM: 128GB
Memory Voltage	<ul style="list-style-type: none">1.2 V
Error Detection	<ul style="list-style-type: none">Corrects single-bit errors

On-Board Devices

Chipset	<ul style="list-style-type: none">Intel® C612 chipset
SATA	<ul style="list-style-type: none">SATA3 (6Gbps) with RAID 0, 1, 5, 10
IPMI	<ul style="list-style-type: none">Support for Intelligent Platform Management Interface v.2.0IPMI 2.0 with virtual media over LAN and KVM-over-LAN supportASPEED AST2400 BMC
Network Controllers	<ul style="list-style-type: none">Dual Port 1GbE with Intel i350 Ethernet ControllerVirtual Machine Device Queues reduce I/O overheadSupports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output
Graphics	<ul style="list-style-type: none">ASPEED AST2400 BMC

Input / Output



SATA	<ul style="list-style-type: none">10 SATA3 (6Gbps) ports
LAN	<ul style="list-style-type: none">2 RJ45 1GbE LAN ports1 RJ45 Dedicated IPMI LAN port
USB	<ul style="list-style-type: none">4 USB 3.0 ports
Video	<ul style="list-style-type: none">1 VGA Connector
Serial Port	<ul style="list-style-type: none">1 Serial header

System BIOS

BIOS Type	<ul style="list-style-type: none">128Mb SPI Flash EEPROM with AMI® BIOS
BIOS Features	<ul style="list-style-type: none">Plug and Play (PnP)APM 1.2DMI 2.3PCI 2.3ACPI 1.0 / 2.0 / 3.0USB Keyboard supportSMBIOS 2.7.1UEFI

Power Supply

2200W Redundant Titanium Level Power Supplies with PMBus

Total Output Power and Input	<ul style="list-style-type: none">1200W / 100-127Vac / 50-60Hz1800W / 200-220Vac / 50-60Hz1980W / 220-230Vac / 50-60Hz2090W / 230-240Vac / 50-60Hz
Dimension (W x H x L)	<ul style="list-style-type: none">106.5 x 82.4 x 203.5 mm
+12V	<ul style="list-style-type: none">Max: 100A / Min: 0A (100Vac-127Vac)Max: 150A / Min: 0A (200Vac-220Vac)Max: 165A / Min: 0A (220Vac-230Vac)Max: 174.17A / Min: 0A (230Vac-240Vac)Max: 183.3A / Min: 0A (220Vac-240Vac)Max: 174.17A / Min: 0A (180Vac-220Vac)Max: 183.3A / Min: 0A (-)Max: 174.17A / Min: 0A (-)
12Vsb	<ul style="list-style-type: none">Max: 2A / Min: 0A
Output Type	<ul style="list-style-type: none">Backplanes (connector)
Certification	  UL/cUL/CB/BSMI/CE/CCC Titanium Level [Cert. in progress]

PC Health Monitoring

CPU	<ul style="list-style-type: none">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	<ul style="list-style-type: none">4-pin fan headers with tachometer status monitoringLow noise fan speed control mode
Temperature	<ul style="list-style-type: none">Monitoring for CPU and system environmentThermal Control for 8 fan connectors
Other Features	<ul style="list-style-type: none">Chassis intrusion detection

Operating Environment / Compliance

RoHS	<ul style="list-style-type: none">RoHS Compliant
Environmental Spec.	<ul style="list-style-type: none">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)

Parts List

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X10DGO	1	Super X10DGO Motherboard
	CSE-R422BG	1	CSE-R422BG 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-PWEX-0979	3	2X4F/GPU-White/P4.2 to TWO 1X4F/P5.08, (5,12V),48/51CM,18AWG
Cable 2	CBL-SAST-0550	2	Internal Mini-SAS HD to Mini-SAS HD 25cm,30AWG,12Gb/s,HF,RoHS/REACH,PBF
Cable 3	CBL-SAST-0819	4	OCuLink v.91,INT,PCIe NVMe SSD, 65CM,34AWG
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

Optional Parts List

	Part Number	Qty	Description
Global Services & Support	OS4HR3/2/1	-	3/2/1-year onsite 24x7x4 service
	OSNBD3/2/1	-	3/2/1-year onsite NBD service
Software	SFT-OOB-LIC	1	OOB Management Package (per node license)
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)