

SuperServer 1028GQ-TVRT (Complete System Only)



Integrated Board



X10DGQ

Views: | [Angled View](#) | [Top View](#) |
| [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, 2 GPUs installed).

► [Drivers & Utilities](#) ► [BIOS](#) ► [IPMI](#) ► [Tested Memory](#) ► [Tested M.2 List](#) ► [Manuals](#) ► [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 4 NVIDIA® Tesla® V100 SXM2 GPUs
- Up to 300 GB/s GPU-to-GPU NVIDIA® NVLINK™
- Optimized for 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 **1TB[†]** ECC 3DS LRDIMM , up to DDR4- **2400[†]**MHz ; 16 DIMM slots

3. 3 PCI-E 3.0 x16 slots, 1 PCI-E 3.0 x8 Low-profile slot

4. 2 10GBase-T LAN via Intel X540

5. 2 Hot-swap 2.5" drive bays, 2 internal 2.5" drive bays

6. 7x 4cm heavy duty counter-rotating fans with air shroud & optimal fan speed control

7. 2000W Redundant Power Supplies **Titanium Level (96%)**

Specifications

Product SKUs

SYS-1028GQ-TVRT	■ SuperServer 1028GQ-TVRT (Black)
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Motherboard

Super X10DGQ

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	■ 4 NVIDIA® Tesla® V100 SXM2 GPUs ■ Up to 300GB/s GPU-to-GPU NVIDIA® NVLINK™

System Memory

Memory Capacity	■ 16x 288-pin DDR4 DIMM slots ■ Up to 1TB [†] ECC 3DS LRDIMM, 1TB ECC RDIMM
Memory Type	■ 2400 [†] /2133/1866/1600MHz ECC DDR4 SDRAM 72-bit
DIMM Sizes	■ RDIMM: 64GB, 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	■ Intel® X540 Dual Port 10GBase-T ■ Virtual Machine Device Queues reduce I/O overhead ■ Supports 10GBASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output
Graphics	■ ASPEED AST2400 BMC

Input / Output

SATA	■ 6 SATA3 (6Gbps) ports
LAN	■ 2 RJ45 10GBase-TEthernet ports ■ 1 RJ45 Dedicated IPMI LAN port

Chassis

Form Factor	■ 1U Rackmount
Model	■ CSE-118GQP-R2K05B

Dimensions and Weight

Height	■ 1.7" (43mm)
Width	■ 17.2" (437mm)
Depth	■ 35.2" (894mm) ■ 39.3" (997mm) with rails
Package	■ 24" (H) x 8" (W) x 46" (D)
Weight	■ Net Weight: 45 lbs (15.9 kg) ■ Gross Weight: 58 lbs (21.8 kg)
Available Color	■ Black

Front Panel

Buttons	■ Power On/Off button ■ System Reset button
LEDs	■ Power LED ■ Hard drive activity LED ■ 2 Network activity LEDs ■ System Overheat LED / Fan fail LED / UID LED

Expansion Slots

PCI-Express	■ 3 PCI-E 3.0 x16 slots ■ 1 PCI-E 3.0 x8 low-profile slot
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Drive Bays

Hot-swap	■ 2x 2.5" Hot-swap drive bays
Fixed	■ 2x 2.5" internal drive bays

System Cooling

Fans	■ 7x 4cm heavy duty counter-rotating fans with air shroud & optimal fan speed control
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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)

USB	■ 2 USB 3.0 ports (2 via headers)
Video	■ 1 VGA Connector
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

+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]

PC Health Monitoring

CPU	■ Monitors for CPU Cores, +1.5V, +3.3V, +5V, +12V, +5 Stdbby, +3.3 Stdbby, VBAT, Memory Voltages. ■ 5 Phase-switching voltage regulator
FAN	■ Total of seven 4-pin PWM fans ■ 7 fans with tachometer monitoring ■ Status monitor for speed control ■ Status monitor for on/off control ■ Low noise fan speed control
Temperature	■ Monitoring for CPU and chassis environment ■ CPU thermal trip support ■ Thermal Control for 8 Fan Connectors ■ PSU I²C temperature sensing logic ■ Thermal Monitor 2 (TM2) support ■ PECI
LED	■ Power Fail / Overheat LED ■ Suspend-state Indicator LED ■ UID LED
Other Features	■ SDDC Support

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-X10DGQ	1	Super X10DGQ Motherboard
	CSE-118GQP-R2K05B	1	CSE-118GQP-R2K05B Chassis
Add-on Card / Module	AOM-PIO-I2XT-P	1	AOM-PIO-I2XT
Add-on Card / Module	AOM-SXMV-P	1	AOM housing Volta SXM 2.0 modules in conjunction with X11DGQ DP MB,HF,RoHS
Backplane	BPN-SAS3-118GQE	1	2-port 1U SAS3 12Gbps backplane, support up to 2x 2.5-inch SAS3/SATA3 HDD/SSD
Cable 1	CBL-SAST-0934-12	4	Oculink-Oculink X8 Cable 50cm 34AWG,RoHS
Cable 2	CBL-0484L	4	SATA,INT,ROUND,ST-ST,55CM,30AWG
Cable 3	CBL-PWEX-0665	1	PCIe 8 pin female(black) to CPU 8 pin female(white), M60/M40 GPU power cable, 30cm, 18AWG, 10A/pin, 0~80C, RoHS/REACH
Cable 4	CBL-PWEX-0953	1	GPU,2x4F/RA/PCIe to 2x4F/CPU, P4.2, 42CM,17AWG, 8A/pin, -25~85C, RoHS/REACH
Cable 5	CBL-PWEX-0954	2	GPU,2x4F/RA/PCIe to 2x4F/RA/CPU, P4.2, 5.5CM,17AWG, 8A/pin, -25~85C, RoHS/REACH
Label	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
Manual	MNL-1810-QRG	1	SYS-1028GQ-TR(T) Quick Reference Guide,HF,RoHS/REACH
Riser Card	RSC-G-68	1	RSC-G-68
Riser Card	RSC-G-66	1	1U GPU Riser Card with 2 PCI-E x16 slot
Heatsink / Retention	SNK-P0057P	2	1U High Performance Passive CPU Heat Sink for X9, X10 Systems Equipped w/ a Square ILM MB
Heatsink / Retention	SNK-P4004V	4	1U Passive GPU Heat Sink for NVIDIA SXM2 Module Equipped with Pascal or Volta GPU
Power Supply	PWS-2K05A-1R	2	1U 2000W Redundant Titanium Power Supply W/PMbus 73.5x40x265mm,RoHS/REACH
Fans	FAN-0163L4	7	40x40x56 mm 23.3K-20.3K RPM Counter-rotating Fan
Rail Set	MCP-290-11809-0N	1	Rail set, Quick/Quick, Auto Latch, travel 535mm Short Version, Post to Post 685mm

Optional Parts List

	Part Number	Qty	Description
CAB	MCP-120-11812-0N	-	SC118GQP Pascal GPU Dummy & Air Shroud Mylar Module
AOC-S3008L-L8i (SAS3)	CBL-SAST-0699	1	Mini SAS HD to 4 SATA 12G
AOC-S3108L-H8IR-16DD (SAS3)	CBL-SAST-0699	1	Mini SAS HD to 4 SATA 12G
AOC-S3108L-H8IR (SAS3)	CBL-SAST-0699	1	Mini SAS HD to 4 SATA 12G
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	OS4HR3/2/1	-	3/2/1-year onsite 24x7x4 service
	OSNBD3/2/1	-	3/2/1-year onsite NBD service
Software	SFT-OOB-LIC • eStore	1	OOB Management Package (per node license)
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)