

SuperServer 1028GQ-TRT



Available Color: Black



Key Features

1. Dual socket R3 (LGA 2011) supports Intel® Xeon® processor E5-2600 v3 family; QPI up to 9.6GT/s
2. Up to 1TB ECC, up to DDR4 2133MHz; 16x DIMM slots
3. 4x PCI-E 3.0 x16 slots (4x GPU/ Xeon Phi cards opt.), 2x PCI-E 3.0 x8 (in x16) LP slot
4. Dual port 10GbE LAN
5. 2x 2.5" Hot-swap drive bays, 2x 2.5" internal drive bays
6. 9x 4cm heavy duty counter-rotating fans with air shroud & optimal fan speed control
7. 2000W Redundant Power Supplies Platinum Level (94%+)

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

Specifications

Product SKUs

SYS-1028GQ-TRT ■ SuperServer 1028GQ-TRT (Black)

Motherboard

Super X10DGO

Processor/Cache

CPU ■ Intel® Xeon® processor E5-2600 v3 family (up to 145W TDP) *
 ■ Dual Socket R3 (LGA 2011)

Cores / Cache ■ Up to 18 Cores / Up to 45MB Cache

System Bus ■ QPI up to 9.6 GT/s

Note * Please contact Supermicro Technical Support for additional information about frequency optimized CPUs and specialized system optimization.

GPU/Xeon

Chassis

Form Factor ■ 1U Rackmount

Model ■ CSE-118GQE-R2K03P

Dimensions and Weight

Height ■ 1.7" (43mm)

Width ■ 17.2" (437mm)

Depth ■ 35.2" (894mm)

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
 ■ 2x Network activity LEDs

Phi Support

- K1/K2/K40M/K80/Xeon Phi

System Memory

- | | |
|-----------------|---|
| Memory Capacity | <ul style="list-style-type: none">▪ 16x 288-pin DDR4 DIMM slots▪ Up to 1TB ECC LRDIMM, 512GB ECC RDIMM |
| Memory Type | <ul style="list-style-type: none">▪ 2133/1866/1600MHz ECC DDR4 SDRAM 72-bit |
| DIMM Sizes | <ul style="list-style-type: none">▪ RDIMM: 64GB, 16GB, 8GB, 4GB▪ LRDIMM: 64GB, 32GB |
| 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.2.0▪ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support▪ ASPEED AST2400 BMC |
| Network Controllers | <ul style="list-style-type: none">▪ Dual Port 10GbE▪ Virtual Machine Device Queues reduce I/O overhead▪ Supports 10GBASE-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">▪ 4x SATA3 (6Gbps) ports |
| LAN | <ul style="list-style-type: none">▪ 2x RJ45 Gigabit Ethernet ports▪ 1x RJ45 Dedicated IPMI LAN port |
| USB | <ul style="list-style-type: none">▪ 2x USB 3.0 ports (2 via headers) |
| Video | <ul style="list-style-type: none">▪ 1x VGA Connector |
| Serial Port | <ul style="list-style-type: none">▪ 1x 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 1.2▪ DMI 2.3▪ PCI 2.3▪ ACPI 1.0 / 2.0 / 3.0▪ USB Keyboard support▪ SMBIOS 2.7.1▪ UEFI |

- System Overheat LED / Fan fail LED / UID LED

Expansion Slots

- | | |
|-------------|---|
| PCI-Express | <ul style="list-style-type: none">▪ 4x PCI-E 3.0 x16 slots (4x GPU/Xeon Phi cards optional)▪ 2x PCI-E 3.0 x8 (in x16) low-profile slot |
|-------------|---|

Drive Bays

- | | |
|----------|---|
| Hot-swap | <ul style="list-style-type: none">▪ 2x 2.5" Hot-swap drive bays |
| Fixed | <ul style="list-style-type: none">▪ 2x 2.5" internal drive bays |

System Cooling

- | | |
|------|---|
| Fans | <ul style="list-style-type: none">▪ 9x 4cm heavy duty counter-rotating fans with air shroud & optimal fan speed control |
|------|---|

Power Supply

2000W 1U Redundant Power Supply

- | | |
|-----------|---|
| AC Input | <ul style="list-style-type: none">▪ 1000W @ 100-120V, 12.5A Max., 50-60Hz▪ 2000W @ 200-240V, 10A Max., 50-60Hz |
| DC Output | <ul style="list-style-type: none">▪ 1000W: +12V/83.3A; +12Vsb/3.5A▪ 2000W: +12V/166.7A; +12Vsb/3.5A |

Certification



Platinum Level
[[Test Report](#)]

PC Health Monitoring

- | | |
|----------------|---|
| CPU | <ul style="list-style-type: none">▪ Monitors for CPU Cores, +1.5V, +3.3V, +5V, +12V, +5 Stdbv, +3.3 Stdbv, VBAT, Memory Voltages.▪ 5 Phase-switching voltage regulator |
| FAN | <ul style="list-style-type: none">▪ Total of nine 4-pin PWM fans▪ 9x fans with tachometer monitoring▪ Status monitor for speed control▪ Status monitor for on/off control▪ Low noise fan speed control |
| Temperature | <ul style="list-style-type: none">▪ Monitoring for CPU and chassis environment▪ CPU thermal trip support▪ Thermal Control for 9x Fan Connectors▪ PSU I²C temperature sensing logic▪ Thermal Monitor 2 (TM2) support▪ PECI |
| LED | <ul style="list-style-type: none">▪ Power Fail / Overheat LED▪ Suspend-state Indicator LED▪ UID LED |
| Other Features | <ul style="list-style-type: none">▪ SDDC Support |

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 - (Items Included)

| | Part Number | Qty | Description |
|-----------------------|-------------------|-----|---|
| Motherboard / Chassis | MBD-X10DGQ | 1 | Super X10DGQ Motherboard |
| | CSE-118GQE-R2K03P | 1 | CSE-118GQE-R2K03P Chassis |
| Add-on Card / Module | AOM-PIO-I2XT-P | 1 | AOM-PIO-I2XT |
| Backplane | BPN-SAS3-118GQE | 1 | 12Gb/s Backplane supports 2x2.5" SAS/SATA HDD/SSD |
| Cable 1 | CBL-0484L | 4 | 55cm 30AWG SATA S-S cable |
| Label | LBL-0108 | 1 | CAUTION LABEL FOR REDUNDANT PWR SYSTEMS |
| Manual | MNL-1810 | 1 | 1028GQ-TR(T) Manual,HF,RoHS/REACH |
| Riser Card | RSC-G-6 | 3 | LHS 1U GPU Riser with PCI-Ex16,RoHS/REACH |
| Riser Card | RSC-GR-6 | 1 | RSC-GR-6 |
| Riser Card | RSC-GR-A88 | 1 | RSC-GR-A88 |
| Heatsink / Retention | SNK-P0057P | 2 | 1U High Performance Passive CPU Heat Sink for X9, X10 Systems Equipped w/ a Square ILM MB |
| Power Supply | PWS-2K03P-1R | 2 | 1U 2000W Redundant Power Supply Platinum 73.5mm width.,RoHS/REACH |
| Fans | FAN-0163L4 | 9 | 40x40x56 mm 23.3K-20.3K RPM Counter-rotating Fan |

Optional Parts List

| | Part Number | Qty | Description |
|------------------------|-----------------------------------|-----|--|
| Cable | CBL-PWEX-0782 | 1 | NVIDIA Tesla K80/M60/M40 Cable |
| | CBL-PWEX-0783 | 2 | |
| | CBL-PWEX-0814 | 1 | |
| Cable | CBL-PWEX-0784 | 1 | NVIDIA Tesla K40 Cable |
| | CBL-PWEX-0785 | 2 | |
| | CBL-PWEX-0786 | 1 | |
| Cable | CBL-PWEX-0790 | 1 | NVIDIA GeForce TitanX, GTX980TI Cable |
| | CBL-PWEX-0791 | 2 | |
| | CBL-PWEX-0792 | 1 | |
| Cable | CBL-PWEX-0815 | 1 | NVIDIA GeForce GTX980 Cable |
| | CBL-PWEX-0816 | 2 | |
| | CBL-PWEX-0817 | 1 | |
| Cable | CBL-PWEX-0787 | 1 | Intel Xeon Phi Cable |
| | CBL-PWEX-0788 | 2 | |
| | CBL-PWEX-0789 | 1 | |
| Onsite Service Program | <u>OS4HR3/2/1</u> | - | 3/2/1-year onsite 24x7x4 service |
| Onsite Service Program | <u>OSNBD3/2/1</u> | - | 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) |