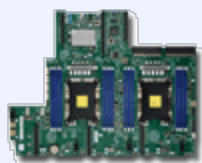


# SuperServer 1029GQ-TNRT



## Integrated Board



[X11DGQ](#)

## Key Features

- Supports up to 4 NVIDIA® GPUs in 1U
- Support Active/Passive GPUs
- GPU health monitoring with Fan speed control

1. Dual socket P (LGA 3647) supports Intel® Xeon® Scalable Processors, 3 UPI up to 10.4GT/s
2. Up to 1.5TB ECC 3DS LRDIMM, up to DDR4-2666MHz; 12 DIMM slots
3. 4 PCI-E 3.0 x16 (FHFL), 1 PCI-E 3.0 x16 (LP) and 1 PCI-E 3.0 x8 (LP)
4. 2 Hot-swap 2.5" NVMe drive bays, 2 Internal 2.5" SAS/SATA drive bays
5. 2x 10GBase-T LAN ports via Intel X540
6. 9 Heavy duty 4cm counter-rotating fans with air shroud & optimal fan speed control
7. 2000W Redundant Power Supplies **Titanium Level (96%)**

[Drivers & Utilities](#) ▶ [BIOS](#) ▶ [IPMI](#) ▶ [Tested Memory](#) ▶ [NVMe Options](#) ▶ [Manuals](#) ▶ [OS Certification Matrix](#) ▶ [Drive Options](#)

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

## Specifications

### Product SKUs

- SYS-1029GQ-TNRT** ■ SuperServer 1029GQ-TNRT (**Black**)

### Motherboard

**Super X11DGQ**

### Processor/Cache

- CPU**
- Dual Socket P (LGA 3647)
  - Intel® Xeon® Scalable Processors, 3 UPI up to 10.4GT/s
  - Support CPU TDP 70-165W
- Cores** ■ Up to 28 Cores with Intel® HT Technology

- GPU Support** ■ Please refer to: [Compatible GPU list](#)

### System Memory

- Memory Capacity**
- 12 DIMM slots
  - Up to 1.5TB ECC 3DS LRDIMM, 1.5TB ECC RDIMM, DDR4 up to 2666MHz

- Memory Type** ■ 2666/2400/2133MHz ECC DDR4 SDRAM

### Chassis

- Form Factor** ■ 1U Rackmount

- Model** ■ **CSE-118GQETS-R2K05P2**

### 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
  - UID button

- LEDs**
- Power LED
  - Hard drive activity LED
  - Network activity LEDs
  - System Overheat LED / Fan fail LED /UID LED

## On-Board Devices

|                             |   |
|-----------------------------|---|
| <b>Chipset</b>              | ▪ Intel® C621 chipset   |
| <b>SATA</b>                 | ▪ SATA3 (6Gbps) with RAID 0, 1, 5, 10   |
| <b>Network Connectivity</b> | ▪ Intel® X540 Dual Port 10GBase-T<br>▪ Virtual Machine Device Queues reduce I/O overhead<br>▪ Supports 10GBASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output |
| <b>IPMI</b>                 | ▪ Support for Intelligent Platform Management Interface v.2.0<br>▪ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support                          |
| <b>Graphics</b>             | ▪ ASPEED AST2500 BMC  |

## Input / Output

|                      |  |
|----------------------|--|
| <b>SATA</b>          | ▪ 4 SATA3 (6Gbps) ports                                      |
| <b>LAN</b>           | ▪ 2 RJ45 10GBase-T ports<br>▪ 1 RJ45 Dedicated IPMI LAN port |
| <b>USB</b>           | ▪ 2 USB 3.0 ports (rear)                                     |
| <b>Video</b>         | ▪ 1 VGA port   |
| <b>Serial Header</b> | ▪ 1 Fast UART 16550 header                                   |

## System BIOS

|                  |                          |
|------------------|--------------------------|
| <b>BIOS Type</b> | ▪ AMI 32Mb SPI Flash ROM |
|------------------|--------------------------|

## Management

|                             |   |
|-----------------------------|---|
| <b>Software</b>             | ▪ Intel® Node Manager<br>▪ <a href="#">IPMI 2.0</a><br>▪ KVM with dedicated LAN<br>▪ <a href="#">SSM</a> , <a href="#">SPM</a> , <a href="#">SUM</a><br>▪ <a href="#">SuperDoctor® 5</a><br>▪ Watch Dog |
| <b>Power Configurations</b> | ▪ ACPI / APM Power Management   |

## PC Health Monitoring

|                    |   |
|--------------------|---|
| <b>CPU</b>         | ▪ Monitors for CPU Cores, Chipset Voltages, Memory.<br>▪ 4+1 Phase-switching voltage regulator                          |
| <b>FAN</b>         | ▪ Fans with tachometer monitoring<br>▪ Status monitor for speed control<br>▪ Pulse Width Modulated (PWM) fan connectors |
| <b>Temperature</b> | ▪ Monitoring for CPU and chassis environment<br>▪ Thermal Control for fan connectors                                    |

## Expansion Slots

|                    |   |
|--------------------|---|
| <b>PCI-Express</b> | ▪ 4 PCI-E 3.0 x16 (FHFL) slots<br>▪ 1 PCI-E 3.0 x16 (LP) slot<br>▪ 1 PCI-E 3.0 x8 (LP) slot |
|--------------------|---|

## Drive Bays

|                 |                                       |
|-----------------|---------------------------------------|
| <b>Hot-swap</b> | ▪ 2 Hot-swap 2.5" NVMe drive bays     |
| <b>Fixed</b>    | ▪ 2 Internal 2.5" SAS/SATA drive bays |

## System Cooling

|             |  |
|-------------|--|
| <b>Fans</b> | ▪ 9 Heavy duty 4cm counter-rotating fans with air shroud & optimal fan speed control |
|-------------|--|

## Power Supply

2000W Redundant Power Supplies with PMBus

|                              |                           |
|------------------------------|---------------------------|
| <b>Total Output Power</b>    | ▪ 1000W/1800W/1980W/2000W |
| <b>Dimension (W x H x L)</b> | ▪ 73.5 x 40 x 265 mm      |

|              |  |
|--------------|--|
| <b>Input</b> | ▪ 100-120Vac / 12.5-9.5A / 50-60Hz<br>▪ 200-220Vac / 10-9.5A / 50-60Hz<br>▪ 220-230Vac / 10-9.8A / 50-60Hz<br>▪ 230-240Vac / 10-9.8A / 50-60Hz<br>▪ 200-240Vac / 11.8-9.8A / 50-60Hz (UL/cUL only) |
|--------------|--|

|             |   |
|-------------|---|
| <b>+12V</b> | ▪ Max: 83.3A / Min: 0A (100-120Vac)<br>▪ Max: 150A / Min: 0A (200-220Vac)<br>▪ Max: 165A / Min: 0A (220-230Vac)<br>▪ Max: 166.7A / Min: 0A (230-240Vac)<br>▪ Max: 166.7A / Min: 0A (200-240Vac) (UL/cUL only) |
|-------------|---|

|              |                       |
|--------------|-----------------------|
| <b>12Vsb</b> | ▪ Max: 2.1A / Min: 0A |
|--------------|-----------------------|

|                    |                                  |
|--------------------|----------------------------------|
| <b>Output Type</b> | ▪ 25 Pairs Gold Finger Connector |
|--------------------|----------------------------------|

|                      |   |
|----------------------|---|
| <b>Certification</b> |   UL/cUL/CB/BSMI/CE/CCC<br><b>Titanium Level</b><br>[ <a href="#">Test Report</a> ] |
|----------------------|---|

## Operating Environment

|                            |   |
|----------------------------|---|
| <b>RoHS</b>                | ▪ RoHS Compliant  |
| <b>Environmental Spec.</b> | ▪ Operating Temperature: 10°C ~ 35°C (50°F ~ 95°F)<br>▪ Non-operating Temperature: -40°C to 60°C (-40°F to 140°F)<br>▪ Operating Relative Humidity: 8% to 90% (non-condensing)<br>▪ Non-operating Relative Humidity: 5% to 95% (non-condensing) |

## Parts List

### Parts List - (Items Included)

|                       | Part Number          | Qty | Description   |
|-----------------------|----------------------|-----|---|
| Motherboard / Chassis | MBD-X11DGQ           | 1   | Super X11DGQ Motherboard  |
|                       | CSE-118GQETS-R2K05P2 | 1   | CSE-118GQETS-R2K05P2 Chassis  |
| Add-on Card / Module  | AOM-PIO-I2XT-P       | 1   | AOM-PIO-I2XT  |
| Backplane             | BPN-NVMe3-118GQE     | 1   | 1U 2-Port Gen 3 NVMe Backplane for 2xNVMe SSD   |
| Cable 1               | CBL-0484L            | 2   | SATA,INT,ROUND,ST-ST,55CM,30AWG   |
| Cable 2               | CBL-PWEX-1026        | 3   | GPU,2x4F/RA/CPU to 2x4F/CPU,P4.2, 35CM, 17AWG, 8A/pin, -25~85C, RoHS                        |
| Cable 3               | CBL-PWEX-1027        | 1   | GPU,2x4F/RA/CPU to 2x4F/CPU,P4.2, 14CM, 17AWG, 8A/pin, -25~85C, RoHS                        |
| Cable 4               | CBL-SAST-0935-1      | 1   | Oculink-Oculink 8 lanes Pascal Cable 60cm 34AWG,RoHS  |
| Drive Tray(s)         | MCP-220-00121-0B     | 2   | Black gen-3 2.5 NVMe drive tray, Orange tab with lock (improved EMI for hotswap NVMe drive) |
| Riser Card            | RSC-G-A6             | 1   | U RHS Active Rear Riser card with 1 PCI-E x16,HF,RoHS                                       |
| Riser Card            | RSC-GN2-A68          | 1   | 1U LHS Active GPU Riser Card with one PCI-E x8 slot, one PCI                                |
| Riser Card            | RSC-GR-6-X           | 3   | 1U LHS GPU riser card with one PCI-E x16 slot,HF,RoHS                                       |
| Heatsink / Retention  | SNK-P0067PS          | 2   | 1U Passive CPU Heat Sink for X11 Purley Platform Equipped with a Narrow Retention Mechanism |
| Power Supply          | PWS-2K05A-1R         | 2   | 1U 2000W Redundant Titanium Power Supply W/PMbus 73.5x40x265mm,RoHS/REACH                   |
| FAN 1                 | FAN-0163L4           | 9   | 40x40x56 mm, 23.3K-20.3K RPM, Counter-rotating Fan  |
| Rear Window           | MCP-240-11807-0N     | 1   | SC118GQE Rear Window for 2x PCI-FL or 4th GPU   |
| Fans                  | FAN-0163L4           | 8   | 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  |
|---------------------------|----------------------------|-----|--|
| GTX GPU cables            | CBL-PWEX-1061              | 3   | GPU,2x4F/RA/CPU to 2 (2x3F+2x1F)/PCIe,P4.2,34CM,17/20AWG |
|                           | CBL-PWEX-1062              | 1   | GPU,2x4F/RA/CPU to 2 (2x3F+2x1F)/PCIe,P4.2,25CM,17/20AWG |
| Global Services & Support | <a href="#">OS4HR3/2/1</a> | -   | 3/2/1-year onsite 24x7x4 service                         |
|                           | <a href="#">OSNBD3/2/1</a> | -   | 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)         |

Note: For Coprocessors, GPUs, VCA, FPGA cards not listed in table above please contact sales to discuss compatibility.