

# 2027GR-TRFT



Available Color: Black



## Key Features

1. Dual socket R (LGA 2011) supports Intel® Xeon® processor E5-2600 and E5-2600 v2 family†
2. Up to 512GB ECC DDR3, up to 1866MHz; 8x DIMM sockets
3. 4x PCI-E 3.0 x16 slots (support GPU/Xeon Phi cards, opt.)  
1x PCI-E 3.0 x8 (in x16) slot  
1x PCI-E 2.0 x4 (in x8) slot
4. Integrated IPMI 2.0 with KVM and Dedicated LAN
5. Intel® X540 10GBase-T Controller
6. 10x Hot-swap 2.5" SATA Drive Bays
7. 1800W Redundant Power Supplies Platinum Level (94%+)
8. 5x heavy duty cooling fans
9. Smart server management tools

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

## Specifications

Product SKUs	
SYS-2027GR-TRFT	■ SuperServer 2027GR-TRFT (Black)
Motherboard	
<u>Super X9DRG-HTF</u>	
Processor/Cache	
CPU	■ Dual Socket R (LGA 2011) ■ Intel® Xeon® processor E5-2600 and E5-2600 v2 family† (up to 130W TDP)
Note	† BIOS version 3.0 or above is required
Cache	■ Up to 30MB
System Bus	■ QPI up to 8 GT/s
<u>GPU/Xeon Phi Support</u>	■ M2090/M2075, up to 130W CPU at 35°C ■ K10/K20/K20X/K1/K2 (Kepler), up to 130W CPU at 35°C

Chassis	
Form Factor	■ 2U Rackmount
Model	■ CSE-218G-R1800B
Dimensions	
Height	■ 3.5" (89mm)
Width	■ 17.2" (437mm)
Depth	■ 31" (787mm)
Gross Weight	■ 54 lbs (24.5 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 ■ System Overheat LED / Fan fail LED /

Xeon Phi, up to 130W CPU at 35°C

## System Memory

Memory Capacity	<ul style="list-style-type: none"><li>8x 240-pin DDR3 DIMM sockets</li><li>Up to 512GB DDR3 ECC LRDIMM</li><li>Up to 256GB DDR3 ECC Registered memory (RDIMM)</li><li>Up to 48GB DDR3 ECC and non-ECC UDIMM</li></ul>
Memory Type	<ul style="list-style-type: none"><li>1866/1600/1333/1066MHz ECC DDR3 SDRAM 72-bit, 240-pin gold-plated DIMMs</li></ul>
DIMM Sizes	<ul style="list-style-type: none"><li>32GB, 16GB, 8GB, 4GB, 2GB, 1GB</li></ul>
Memory Voltage	<ul style="list-style-type: none"><li>1.5 V, 1.35 V</li></ul>
Error Detection	<ul style="list-style-type: none"><li>Corrects single-bit errors</li><li>Detects double-bit errors (using ECC memory)</li></ul>

## On-Board Devices

Chipset	<ul style="list-style-type: none"><li>Intel® C602 Chipset</li></ul>
SATA	<ul style="list-style-type: none"><li>Intel ICH10R SATA 3.0Gbps Controller</li><li>RAID 0, 1, 5, 10 support</li></ul>
IPMI	<ul style="list-style-type: none"><li>Support for Intelligent Platform Management Interface v.2.0</li><li>IPMI 2.0 with virtual media over LAN and KVM-over-LAN support</li><li>Nuvoton WPCM450 BMC</li></ul>
Network Controllers	<ul style="list-style-type: none"><li>Intel® X540 Dual Port 10GBase-T</li><li>Virtual Machine Device Queues reduce I/O overhead</li><li>Supports 10GBase-T, 100BASE-TX, and 1000BASE-T, RJ45 output</li></ul>
Graphics	<ul style="list-style-type: none"><li>Matrox G200eW</li></ul>

## Input / Output

SATA	<ul style="list-style-type: none"><li>2x SATA 3.0 ports (6Gbps)</li><li>8x SATA 2.0 ports (3Gbps)</li></ul>
LAN	<ul style="list-style-type: none"><li>2x RJ45 10GBase-T ports</li><li>1x RJ45 Dedicated IPMI LAN port</li></ul>
USB	<ul style="list-style-type: none"><li>2x USB 2.0 ports</li></ul>
Video	<ul style="list-style-type: none"><li>1x VGA Connector</li></ul>
Keyboard/Mouse	<ul style="list-style-type: none"><li>1x PS/2 Keyboard/Mouse port</li></ul>
Serial Port	<ul style="list-style-type: none"><li>1x Serial header</li></ul>

## System BIOS

BIOS Type	<ul style="list-style-type: none"><li>16Mb SPI Flash EEPROM with AMI® BIOS</li></ul>
BIOS Features	<ul style="list-style-type: none"><li>Plug and Play (PnP)</li><li>APM 1.2</li><li>DMI 2.3</li><li>PCI 2.2</li><li>ACPI 1.0 / 2.0</li><li>USB Keyboard support</li><li>Hardware BIOS Virus protection</li><li>SMBIOS 2.3</li><li>UEFI</li><li>RTC (Real Time Clock) Wakeup</li></ul>

## UID LED

## Expansion Slots

PCI-Express	<ul style="list-style-type: none"><li>4x PCI-E 3.0 x16 slots (support GPU/Xeon Phi cards, option)</li><li>1x PCI-E 3.0 x8 (in x16) low-profile slot</li><li>1x PCI-E 2.0 x4 (in x8) slot</li></ul>
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## Drive Bays

Hot-swap	<ul style="list-style-type: none"><li>10x 2.5" Hot-swap drive bays</li></ul>
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## System Cooling

Fans	<ul style="list-style-type: none"><li>5x 8cm heavy duty fans with optimal fan speed control</li></ul>
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## Power Supply

1800W (1+1) Redundant 1800W power supply with PMBus

AC Input	<ul style="list-style-type: none"><li>1000W Output @ 100-120V, 12-10A, 50-60Hz</li><li>1200W Output @ 120-140V, 12-10A, 50-60Hz</li><li>1800W Output @ 200-240V, 10-8.5A, 50-60Hz</li></ul>
DC Output	<ul style="list-style-type: none"><li>1000W: +12V/84A; +5Vsb/4A</li><li>1200W: +12V/100A; +5Vsb/4A</li><li>1800W: +12V/150A; +5Vsb/4A</li></ul>

Certification



Platinum Certified

## PC Health Monitoring

CPU	<ul style="list-style-type: none"><li>Monitors for CPU Cores, +1.5V, +3.3V, +5V, +12V, +5 Stdby, +3.3 Stdby, VBAT, Memory Voltages.</li><li>CPU Core 6-Phase-switching voltage regulator</li></ul>
FAN	<ul style="list-style-type: none"><li>Total of five 4-pin PWM fans</li><li>5x fans with tachometer monitoring</li><li>Status monitor for speed control</li><li>Status monitor for on/off control</li><li>Low noise fan speed control</li></ul>
Temperature	<ul style="list-style-type: none"><li>Monitoring for CPU and chassis environment</li><li>CPU thermal trip support</li><li>Thermal Control for 10x Fan Connectors</li><li>PSU I<sup>2</sup>C temperature sensing logic</li><li>Thermal Monitor 2 (TM2) support</li><li>PECI</li></ul>
LED	<ul style="list-style-type: none"><li>Power Fail / Overheat LED</li><li>Suspend-state Indicator LED</li><li>UID LED</li></ul>
Other Features	<ul style="list-style-type: none"><li>SDDC Support</li></ul>

## Operating Environment / Compliance

RoHS	<ul style="list-style-type: none"><li>RoHS Compliant</li></ul>
Environmental Spec.	<ul style="list-style-type: none"><li>Operating Temperature: 10°C to 35°C (50°F to 95°F)</li><li>Non-operating Temperature: -40°C to 70°C (-40°F to 158°F)</li><li>Operating Relative Humidity: 8% to 90% (non-condensing)</li><li>Non-operating Relative Humidity: 5% to 95% (non-condensing)</li></ul>

## Parts List

### Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X9DRG-HTF	1	Super X9DRG-HTF Motherboard
	CSE-218G-R1800B	1	2U Black SC218G Chassis
Backplane	BPN-SAS-218A	1	SAS Backplane for 2U GPU, x10 2.5
Cable 1	CBL-0157L	1	8 pin to 8 pin ribbon SGPIO cable with tube , 40cm, PBF
Cable 2	CBL-0207L	2	59CM SATA ROUND S-S PBF.26AWG
Cable 3	CBL-0294L-02	2	Cross-over lpass to 4 SATA w/SB. S. 58cm. 30AWG
Cable 4	CBL-0333L	4	6+2 pin to 8 pin GPU power extension from MB, 30cm. 18/20AWG
Cable 5	CBL-0460L	1	8 Pin to Two 4 Pin Backplane Power Ext. 28/22cm. 18AWG
Riser Card	RSC-R2UG-2E16-X9	1	RSC-R2UG-2E16-X9-O-P
Riser Card	RSC-R2UG-2E16R-X9	1	RSC-R2UG-2E16R-X9-O-P
Riser Card	RSC-R2UG-E16R-X9	1	RSC-R2UG-E16R-X9-O-P
Riser Card	RSC-R2UG-E8G-X9	1	RSC-R2UG-E8G-X9-O-P
Heatsink / Retention	SNK-P0047PS	1	1U Passive CPU Heat Sink for X9 Generation Motherboards w/ Narrow ILM
Heatsink / Retention	SNK-P0048PS	1	2U Passive CPU Heat Sink for X9 Generation Motherboards w/ Narrow ILM
Power Supply	PWS-1K81P-1R	2	1800W Platinum Redundant Single Output
Fan 1	FAN-0137L4	5	80x80x38 mm 10.5K RPM SC217, SC827 Chassis Middle Fan
Drive Tray(s)	MCP-220-00047-0B	10	Black gen 3rd hot-swap 2.5inch HDD tray
Mounting Rails	MCP-290-00057-0N	1	Rail set, quick/quick, default for 4U 17.2

### Optional Parts List

	Part Number	Qty	Description
GPU Supporting Bracket	MCP-120-00070-0N	-	SC218G-4GPU INTEL-XEON-PHI GPU Supporting Bracket Set (SC218-INTEL-KNIGHTR-GPU-BKT)