

# 2027GR-TRFHT



Available Colors:

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 slots
3. 6x PCI-E 3.0 x16 slots (support GPU/Xeon Phi cards, opt.), 1x PCI-E 3.0 x8 (in x16) low-profile 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-TRFHT	▪ SuperServer 2027GR-TRFHT (Black)
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### Motherboard

[Super X9DRG-HTF](#)

### Processor/Cache

CPU	<ul style="list-style-type: none"> <li>▪ Dual Socket R (LGA 2011)</li> <li>▪ Intel® Xeon® processor E5-2600 and E5-2600 v2 family† (up to 130W TDP)</li> </ul>
Note	† BIOS version 3.0 or above is required
Cache	▪ Up to 30MB

System Bus	▪ QPI up to 8 GT/s
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GPU/Xeon Phi Support	<ul style="list-style-type: none"> <li>▪ M2090/M2075/K10/K20M, up to 130W CPU at 30°C</li> <li>▪ K20X/K40M (Kepler), up to 130W CPU at 25°C</li> <li>▪ Xeon Phi 3120P*/5110P*/7120P*, up to 130W CPU</li> </ul>
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\*Note: Intel Xeon Phi 3120P/5110P/7120P can be supported with limited thermal condition, please contact Supermicro

### 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	<ul style="list-style-type: none"> <li>▪ Power On/Off button</li> <li>▪ System Reset button</li> </ul>
LEDs	<ul style="list-style-type: none"> <li>▪ Power LED</li> <li>▪ Hard drive activity LED</li> <li>▪ 2x Network activity LEDs</li> <li>▪ System Overheat LED / Fan fail LED / UID LED</li> </ul>

### Expansion Slots

PCI-Express	<ul style="list-style-type: none"> <li>▪ 6x PCI-E 3.0 x16 slots (support GPU/Xeon Phi cards, option)</li> </ul>
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sales and technical support for details.

## System Memory

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|-----------------|---|
| Memory Capacity | <ul style="list-style-type: none"><li>8x 240-pin DDR3 DIMM slots</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

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|---------------------|---|
| 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

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|----------------|---|
| 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> |

1x PCI-E 3.0 x8 (in x16) low-profile slot

## Drive Bays

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

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|------|---|
| 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

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|-----------|---|
| 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

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|----------------|--|
| CPU            | <ul style="list-style-type: none"><li>Monitors for CPU Cores, +1.5V, +3.3V, +5V, +12V, +5 Stdbv, +3.3 Stdbv, 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

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|---------------------|--|
| 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
<b>Motherboard / Chassis</b>	MBD-X9DRG-HTF	1	Super X9DRG-HTF Motherboard
	CSE-218G-R1800B	1	2U Black SC218G Chassis
<b>Backplane</b>	BPN-SAS-218A	1	SAS Backplane for 2U GPU, x10 2.5
<b>Cable 1</b>	CBL-0157L	1	8 pin to 8 pin ribbon SGPIO cable with tube , 40cm, PBF
<b>Cable 2</b>	CBL-0333L	6	6+2 pin to 8 pin GPU power extension from MB, 30cm. 18/20AWG
<b>Cable 3</b>	CBL-0460L	1	8 Pin to Two 4 Pin Backplane Power Ext. 28/22cm. 18AWG
<b>Cable 4</b>	CBL-0207L	2	59CM SATA ROUND S-S PBF.26AWG
<b>Cable 5</b>	CBL-0294L-02	2	Cross-over lpass to 4 SATA w/SB. S. 58cm. 30AWG
<b>Riser Card</b>	RSC-R2UG-A2E16-A	1	RSC-R2UG-A2E16-A
<b>Riser Card</b>	RSC-R2UG-E16R-X9	1	RSC-R2UG-E16R-X9-O-P
<b>Riser Card</b>	RSC-R2UG-A2E16-B	1	RSC-R2UG-A2E16-B
<b>Riser Card</b>	RSC-R2UG-2E16R-X9	1	RSC-R2UG-2E16R-X9-O-P
<b>Heatsink / Retention</b>	SNK-P0048PS	1	2U Passive CPU Heat Sink for X9, X10 Generation Systems Equipped w/ a Narrow ILM MB
<b>Heatsink / Retention</b>	SNK-P0047PS	1	1U Passive CPU Heat Sink for X9, X10 Systems Equipped w/ a Narrow ILM MB

Note: Different GPU/Xeon Phi cards require special brackets, for more information please refer to the user's manual