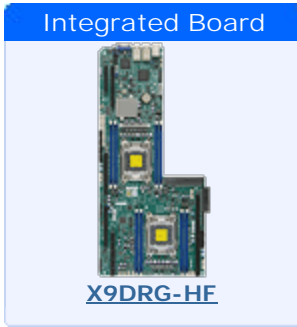


# 2027GR-TRF



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 slots
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 x16) slot
4. Integrated IPMI 2.0 with KVM and Dedicated LAN
5. Intel® i350 Dual-Port GbE 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-TRF	▪ SuperServer 2027GR-TRF (Black)
Motherboard	
<u>Super X9DRG-HF</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/K40M (Kepler), up to 130W CPU at 35°C ▪ Xeon Phi 5110P, 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 / UID LED

System Memory	
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	
Chipset	<ul style="list-style-type: none"> <li>Intel® C602 chipset</li> </ul>
AHCI SATA	<ul style="list-style-type: none"> <li>SATA 2.0 3Gbps with RAID 0, 1, 5, 10</li> <li>SATA 3.0 6Gbps with RAID 0, 1, 5, 10</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® i350 Dual Port Gigabit Ethernet</li> <li>Virtual Machine Device Queues reduce I/O overhead</li> <li>Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output</li> <li>1x Realtek RTL8201N PHY (dedicated IPMI)</li> </ul> <p><b>(Both CPUs need to be installed for LAN ports 1 and 2 to be enabled)</b></p>
Video	<ul style="list-style-type: none"> <li>Matrox G200eW</li> </ul>

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

System BIOS	
BIOS Type	<ul style="list-style-type: none"> <li>128Mb 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>

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 x16) slot</li> </ul>

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

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

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
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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 - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X9DRG-HF	1	Super X9DRG-HF 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-0460L	1	8 Pin to Two 4 Pin Backplane Power Ext. 28/22cm. 18AWG
Cable 3	CBL-0207L	2	59CM SATA ROUND S-S PBF.26AWG
Cable 4	CBL-0294L-02	2	Cross-over lpass to 4 SATA w/SB. S. 58cm. 30AWG
Cable 5	CBL-0333L	4	6+2 pin to 8 pin GPU power extension from MB, 30cm. 18/20AWG
Riser Card	RSC-R2UG-E16R-X9	1	RSC-R2UG-E16R-X9-O-P
Riser Card	RSC-R2UG-2E16-X9	1	RSC-R2UG-2E16-X9-O-P
Riser Card	RSC-R2UG-E8G-X9	1	RSC-R2UG-E8G-X9-O-P
Riser Card	RSC-R2UG-2E16R-X9	1	RSC-R2UG-2E16R-X9-O-P
Heatsink / Retention	SNK-P0048PS	1	2U Passive CPU Heat Sink for X9, X10 Generation Systems Equipped w/ a Narrow ILM MB
Heatsink / Retention	SNK-P0047PS	1	1U Passive CPU Heat Sink for X9, X10 Systems Equipped w/ a Narrow ILM MB

### 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)

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