

GPU SuperWorkstation 7047GR-TPRF



Available Color: Black



Integrated Board



Super X9DRG-QF

Key Features

1. Dual socket R (LGA 2011) supports Intel® Xeon® processor E5-2600 and E5-2600 v2 family†
2. Up to 1TB ECC DDR3, up to 1866MHz; 16x DIMM sockets
3. 4x PCI-E 3.0 x16 slots (4x double-width GPU/Xeon Phi opt.), 2x PCI-E 3.0 x8 (1 in x16) slots, 1x PCI-E 2.0 x4 (in x8) slot
4. I/O ports: 1 VGA, 2 COM, 2 GbE, 10 USB 2.0, & 1 IPMI Dedicated LAN
5. 8x Hot-swap 3.5", 3x Fixed 5.25" and 1x Fixed 3.5" Drive Bays
6. 4x Heavy Duty Fans, 4x Exhaust Fans, and 2x Active Heatsink with Optimal Fan Speed Control
7. 1620W Redundant Power Supplies Platinum Level (94%)
8. Tower or Rackmount

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

Specifications

Product SKUs

SYS-7047GR-TPRF	■ SuperServer 7047GR-TPRF (Black)
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Motherboard

Super X9DRG-QF

Processor/Cache

CPU	<ul style="list-style-type: none"> ■ Intel® Xeon® processor E5-2600 and E5-2600 v2 family† (up to 150W TDP) ■ Dual Socket R (LGA 2011)
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Note † BIOS version 3.0 or above is required

Cache	■ Up to 20MB
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System Bus	■ QPI up to 8 GT/s
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<u>GPU/Xeon Phi Support</u>	<ul style="list-style-type: none"> ■ M2075/FC475, up to 150W CPU at 35°C ■ M2090, up to 150W CPU at 30°C ■ K10/K20/K20X/K1/K2 (Kepler), up to 150W CPU at 35°C ■ K40 (Atlas), up to 150W CPU at 35°C ■ Xeon Phi, up to 150W CPU at 30°C
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Chassis

Form Factor	<ul style="list-style-type: none"> ■ 4U Rackmountable / Tower ■ Optional Rackmount Kit
Model	■ CSE-747BTQ-R1K62B

Dimensions



Height	■ 18.2" (462mm)
Width	■ 7.0" (178mm)
Depth	■ 26.5" (673mm)
Gross Weight	■ 62 lbs (28.1kg)
Available Colors	■ Dark Gray

Front Panel

Buttons	<ul style="list-style-type: none"> ■ Power On/Off button ■ System Reset button
LEDs	<ul style="list-style-type: none"> ■ Power status LED ■ Hard drive activity LED ■ 2x Network activity LEDs ■ System Overheat & Power Fail LED
Ports	■ 2x Front USB 2.0 Ports

Drive Bays

System Memory	
Memory Capacity	<ul style="list-style-type: none"> 16x 240-pin DDR3 DIMM sockets Up to 1TB DDR3 ECC LRDIMM Up to 512GB DDR3 ECC Registered memory (RDIMM) Up to 192GB DDR3 ECC Un-Buffered memory (UDIMM)
Memory Type	<ul style="list-style-type: none"> 1866/1600/1333/1066/800MHz ECC DDR3 SDRAM 72-bit, 240-pin gold-plated DIMMs
DIMM Sizes	<ul style="list-style-type: none"> 32GB, 16GB, 8GB, 4GB, 2GB, 1GB
Memory Voltage	<ul style="list-style-type: none"> 1.5 V, 1.35 V
Error Detection	<ul style="list-style-type: none"> Corrects single-bit errors Detects double-bit errors (using ECC memory)
On-Board Devices	
Chipset	<ul style="list-style-type: none"> Intel® C602 Chipset
SATA	<ul style="list-style-type: none"> SATA 2.0 3Gbps with RAID 0, 1, 5, 10 SATA 3.0 6Gbps with RAID 0, 1
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 Renesas SH7757 BMC
Network Controllers	<ul style="list-style-type: none"> Intel® i350 Dual Port Gigabit Ethernet Virtual Machine Device Queues reduce I/O overhead Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output 1x Realtek RTL8201N PHY (dedicated IPMI)
Video	<ul style="list-style-type: none"> Matrox G200eW
Input / Output	
SATA	<ul style="list-style-type: none"> 2x SATA 3.0 ports (6Gbps) 8x SATA 2.0 ports (3Gbps)
LAN	<ul style="list-style-type: none"> 2x RJ45 Gigabit Ethernet LAN ports 1x RJ45 Dedicated IPMI LAN port
USB	<ul style="list-style-type: none"> 9x USB 2.0 ports total (4x rear + 4x via header + 1x Type A)
Video	<ul style="list-style-type: none"> 1x VGA port
Serial Port / Header	<ul style="list-style-type: none"> 1x Fast UART 16550 port / 1 Header
Expansion Slots	
PCI-Express	<ul style="list-style-type: none"> 4x PCI-E 3.0 x16 (double-width) 2x PCI-E 3.0 x8 (1 in x16 slot) 1x PCI-E 2.0 x4 (in x8)
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 2.2 ACPI 1.0 / 2.0 USB Keyboard support SMBIOS 2.3 UEFI

Hot-swap	<ul style="list-style-type: none"> 8x Hot-swap 3.5" SAS/SATA Drive Trays
Peripheral Bay(s)	<ul style="list-style-type: none"> 3x 5.25" drive bays in storage module - rotates 90° for Rackmount 1x 3.5" fixed drive bay
SAS / SATA Backplane	
SAS / SATA Hard Drive Backplane with SES2	
System Cooling	
Fans	<ul style="list-style-type: none"> 4x 92x38mm 4-pin PWM Middle Cooling Fans 4x 80x38mm 4-pin PWM Rear Exhaust Fans
Power Supply	
1620W high-efficiency redundant power supply w/ PMBus	
AC Input	<ul style="list-style-type: none"> 1000W Output @ 100-120V, 12-10A, 50-60Hz 1200W Output @ 120-140V, 12-10A, 50-60Hz 1620W Output @ 180-240V, 10.5-8A, 50-60Hz
DC Output	<ul style="list-style-type: none"> 1000W: +12V/84A; +5Vsb/4A 1200W: +12V/100A; +5Vsb/4A 1620W: +12V/150A; +5Vsb/4A
Certification	  Platinum Certified [Test Report]
PC Health Monitoring	
CPU	<ul style="list-style-type: none"> Monitors for CPU Cores, +1.8V, +3.3V, +5V, +12V, +3.3V Standby, +5V Standby, VBAT, Memory, Chipset Voltages. 6-Phase-switching voltage regulator
FAN	<ul style="list-style-type: none"> Total of eight fan headers supporting up to 8 fans 8x fans with tachometer status monitoring Status monitor for speed control Pulse Width Modulated (PWM) fan connectors
Temperature	<ul style="list-style-type: none"> Monitoring for CPU and chassis environment CPU thermal trip support Thermal Control for 8x fan connectors Thermal Monitor 2 (TM2) support PECI
LED	<ul style="list-style-type: none"> CPU / System Overheat LED Suspend static indicator LED UID/Remote LED
Other Features	<ul style="list-style-type: none"> Chassis intrusion detection Chassis intrusion header
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

Parts List - (Items Included)			
	Part Number	Qty	Description
Motherboard / Chassis	MBD-X9DRG-QF	1	Super X9DRG-QF Motherboard
	CSE-747BTQ-R1K62B	1	4U Chassis
Backplane	BPN-SAS-747TQ-O-P	1	4u, SAS Backplane,x8 3.5
Cable 1	CBL-0061L	8	35CM, SATA CABLE, PB FREE, 26AWG, flat
Cable 2	CBL-0157L	2	8 pin to 8 pin ribbon SGPIO cable with tube , 40cm, PBF
CD	CDR-X9	1	Driver CD for X9 series
Heatsink / Retention	SNK-P0050AP4	2	4U Active CPU Heat Sink for X9 Socket R WS
Power Supply	PWS-1K62P-1R	2	1620W REDUNDANT POWER MODULE

Optional Parts List			
	Part Number	Qty	Description
Mounting Rails	MCP-290-00059-0B	-	Rail set+handles, quick/quick, optional for 4U 17.2"W tower
AOC Dummy Assembly	MCP-240-00096-0N	-	SC747B GPU / Add-on Card Dummy Assembly (2 Slots)-Single Pack
HDD Converter	MCP-220-93801-0B	-	Black Hotswap Gen 6 3.5 to 2.5 HDD Tray (SC747, 936, 938 and Blade)
Rear Fan	FAN-0148L4	-	80x80x38 mm, 11K RPM SC747 GPU Server Rear Exhaust Fan to support 300W Xeon Phi