

# SuperServer 2027TR-H71FRF



Available Colors:

Black



## Integrated Board



**Super X9DRT-HIBFF**

## Key Features

Four **hot-pluggable** systems (nodes) in a 2U form factor. Each node supports the following:

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. 1x PCI-E 3.0 (x16) low-profile slot
4. Intel® i350 Dual port Gigabit Ethernet
5. 6x Hot-swap 2.5" SATA3/SAS2 HDD Bays
6. Onboard Mellanox ConnectX FDR InfiniBand Controller, QSFP interface
7. 1620W Redundant Power Supplies Platinum Level (94%)

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

## Specifications

### Product SKUs

SYS-2027TR-H71FRF	<ul style="list-style-type: none"> <li>SuperServer 2027TR-H71FRF (Black)</li> </ul>
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### Motherboard

Super X9DRT-HIBFF

### 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 135W TDP *)</li> </ul> <p>* Please contact your Supermicro sales representative for additional details</p>
Note	† BIOS version 3.0 or above is required

Cache	<ul style="list-style-type: none"> <li>Up to 30MB</li> </ul>
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System Bus	<ul style="list-style-type: none"> <li>QPI up to 8 GT/s</li> </ul>
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### 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> </ul>
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### Chassis

Form Factor	<ul style="list-style-type: none"> <li>2U Rackmount</li> </ul>
Model	<ul style="list-style-type: none"> <li>CSE-217HQ-R1620B</li> </ul>

### Dimensions

Width	<ul style="list-style-type: none"> <li>17.25" (438mm)</li> </ul>
Height	<ul style="list-style-type: none"> <li>3.47" (88mm)</li> </ul>
Depth	<ul style="list-style-type: none"> <li>26.75" (679mm)</li> </ul>
Gross Weight	<ul style="list-style-type: none"> <li>85 lbs (38.6kg)</li> </ul>
Available Colors	<ul style="list-style-type: none"> <li>Black</li> </ul>

### Front Panel

Buttons	<ul style="list-style-type: none"> <li>Power On/Off button</li> <li>System Reset button</li> <li>UID button</li> </ul>
LEDs	<ul style="list-style-type: none"> <li>Power status LED</li> <li>HDD activity LED</li> <li>2x Network activity LEDs</li> <li>Universal Information (UID) LED</li> </ul>

### Expansion Slots (per Node)

PCI-Express	<ul style="list-style-type: none"> <li>1x PCI-E 3.0 (x16) Low-profile slot</li> </ul>
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Memory Type	<ul style="list-style-type: none"> <li>1866/1600/1333/1066/800MHz 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>
Infiniband	<ul style="list-style-type: none"> <li>Mellanox ConnectX-3 FDR Infiniband 56Gbps Controller</li> </ul>
SAS	<ul style="list-style-type: none"> <li>LSI 2108 SAS (6Gbps) w/ Hardware RAID support</li> <li>RAID 0, 1, 5, 6, 10, 50, 60 support</li> <li>Note: In order to support the LSI RAID Controllers, both CPU socket must be populated</li> </ul>
SATA	<ul style="list-style-type: none"> <li>SATA 2.0 &amp; 3.0 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>
Graphics	<ul style="list-style-type: none"> <li>Matrox G200eW</li> </ul>

#### Input / Output (per Node)

Serial ATA	<ul style="list-style-type: none"> <li>2x SATA 3.0 ports (6Gbps)</li> <li>5x SATA 2.0 ports (3Gbps)</li> </ul>
SAS	<ul style="list-style-type: none"> <li>8x SAS2 ports (6Gbps)</li> </ul>
LAN	<ul style="list-style-type: none"> <li>2x RJ45 Gigabit Ethernet LAN ports</li> <li>1x RJ45 Dedicated IPMI LAN port</li> </ul>
USB	<ul style="list-style-type: none"> <li>3x USB 2.0 ports total (2x rear + 1x Type A)</li> </ul>
VGA	<ul style="list-style-type: none"> <li>1x VGA port</li> </ul>
Serial Port / Header	<ul style="list-style-type: none"> <li>1x Fast UART 16550 port / 1 Header</li> </ul>
Infiniband	<ul style="list-style-type: none"> <li>1 external QSFP Infiniband connector</li> </ul>

#### Drive Bays (per Node)

- Hot-swap
  - 6x Hot-swap 2.5" SATA3/SAS2 HDD trays

#### System Cooling



- Fans
  - 4x 8cm heavy duty PWM fans with optimal fan speed control

#### Power Supply

1620W high-efficiency redundant power supply w/ PMBus

- AC Input
  - 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
  - 1000W: +12V/84A; +5Vsb/4A
  - 1200W: +12V/100A; +5Vsb/4A
  - 1620W: +12V/150A; +5Vsb/4A

- Certification
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 Platinum Certified [ [Test Report](#) ]

#### System BIOS

- BIOS Type
  - 128Mb SPI Flash EEPROM with AMI BIOS
- BIOS Features
  - Plug and Play (PnP)
  - APM 1.2
  - PCI 2.2
  - ACPI 1.0 / 2.0
  - USB Keyboard support
  - SMBIOS 2.3
  - UEFI

#### Operating Environment / Compliance

- RoHS
  - RoHS Compliant
- Environmental Spec.
  - 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-X9DRT-HIBFF	4	Super X9DRT-HIBFF Motherboard
	CSE-217HQ-R1620B	1	2U Chassis
Backplane	BPN-SAS-217HQ	1	Support 24x2.5ö SAS/SATA hard drives
Backplane	BPN-ADP-SAS2-H6IR-O-P	4	BPN-ADP-SAS2-H6IR-O-P
CD	CDR-X9	1	Driver CD for X9 series
Riser Card	RSC-R1U-E16R-O-P	4	RSC-R1U-E16R
Heatsink / Retention	SNK-P0047PS	4	1U Passive CPU Heat Sink for X9 Generation Motherboards w/ Narrow ILM
Heatsink / Retention	SNK-P0047PW	4	1U Passive Customized Rear CPU Heat Sink for X9 Twin Series Motherboards
Power Supply	PWS-1K62P-1R	2	1620W REDUNDANT POWER MODULE