

SuperServer 6027TR-D71QRF



Integrated Board



Super X9DRT-HIBQF

Available Colors:

Black



Key Features

Two 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. 3x PCI-E 3.0 (x8) slots (1x low-profile and 2x full-height full-length)
4. Intel® i350 Dual port Gigabit Ethernet
5. 6x Hot-swap 3.5" SATA3/SAS2 HDD Bays
6. Onboard Mellanox ConnectX QDR InfiniBand Controller, QSFP interface
7. 1280W Redundant Digital PS **Platinum Level (95%)**
8. Support 1 Full-height Full-length PCI-E x16 GPU card per node w/ GPU Kit

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

Specifications

Product SKUs

- SYS-6027TR-D71QRF** ■ SuperServer 6027TR-D71QRF (**Black**)

Motherboard

Super X9DRT-HIBQF

Processor/Cache

CPU

- Dual Socket R (LGA 2011)
 - Intel® Xeon® processor E5-2600 and **E5-2600 v2** family[†] (up to 135W TDP *)
- * Please contact your Supermicro sales representative for additional details

Note † BIOS version 3.0 or above is required

Cache ■ Up to 30MB

System Bus ■ QPI up to 8 GT/s

System Memory

Memory

- 8x 240-pin DDR3 DIMM sockets
- Up to 512GB DDR3 ECC LRDIMM

Chassis

Form Factor ■ 2U Rackmount

Model ■ **CSE-827HD-R1K28B**

Dimensions

Width ■ 17.25" (438mm)

Height ■ 3.47" (88mm)

Depth ■ 28.5" (724mm)

Gross Weight ■ 85 lbs (38.6kg)

Available Colors ■ Black

Front Panel

- Buttons**
- Power On/Off button
 - System Reset button
 - UID button

LEDs

- Power status LED
- HDD activity LED
- 2x Network activity LEDs
- Universal Information (UID) LED

Expansion Slots (per Node)

Capacity	<ul style="list-style-type: none"> Up to 256GB DDR3 ECC Registered memory (RDIMM)
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
Infiniband	<ul style="list-style-type: none"> Mellanox ConnectX-3 QDR Infiniband 40Gbps Controller
SAS	<ul style="list-style-type: none"> LSI 2108 SAS (6Gbps) w/ Hardware RAID support RAID 0, 1, 5, 6, 10, 50, 60 support Note: In order to support the LSI RAID Controllers, both CPU socket must be populated
SATA	<ul style="list-style-type: none"> SATA 2.0 & 3.0 with RAID 0, 1, 5, 10
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 Nuvoton WPCM450 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)
Graphics	<ul style="list-style-type: none"> Matrox G200eW

Input / Output (per Node)

Serial ATA	<ul style="list-style-type: none"> 2x SATA 3.0 ports (6Gbps) 5x SATA 2.0 ports (3Gbps)
SAS	<ul style="list-style-type: none"> 8x SAS2 ports (6Gbps)
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"> 3x USB 2.0 ports total (2x rear + 1x Type A)
VGA	<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
Infiniband	<ul style="list-style-type: none"> 1 external QSFP Infiniband connector

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X9DRT-HIBQF	2	Super X9DRT-HIBQF Motherboard
	CSE-827HD-R1K28B	1	2U Chassis
Backplane	BPN-ADP-SAS2-H6IR-O-P	2	BPN-ADP-SAS2-H6IR-O-P
Backplane	BPN-SAS-827HD	1	Sup 6x3.5ö SATA hdd; hot swap
CD	CDR-X9	1	Driver CD for X9 series
Riser Card	RSC-R2UT-3E8R-O-P	2	2U RHS Riser Card with 3 PCI-E x8 for X9DRT-HF Twin MBs
Heatsink / Retention	SNK-P0048PS	2	2U Passive CPU Heat Sink for X9 Generation Motherboards w/ Narrow ILM
Heatsink / Retention	SNK-P0048PW	2	2U Passive Rear CPU Heat Sink for X9 2U Twin Series Servers
Power Supply	PWS-1K28P-SQ	2	1U 1280W, redundant single output power supply

PCI-Express

- 3x PCI-E 3.0 (x8) slots (1x Low-profile and 2x Full-height Full-length)

Drive Bays (per Node)

Hot-swap

- 6x Hot-swap 3.5" SATA3/SAS2 HDD trays

System Cooling

Fans

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

Power Supply

1280W Redundant High-efficiency Digital Power Supplies w/ PMBus 1.2

AC Input

- 1000W Output @ 100-140V, 12-8A, 50-60Hz
- 1280W Output @ 180-240V, 8-6A, 50-60Hz

DC Output

- 1000W: +12V/83A; +5Vsb/4A
- 1280W: +12V/106.7A, +5Vsb/4A

Certification



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)