SuperServer 6027TR-D70QRF

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/SAS 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-D70QRF	SuperServer 6027TR-D70QRF (**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	• Up to 256GB DDR3 ECC Registered memory (RDIMM)
Memory Type	• 1866/1600/1333/1066/800MHz ECC DDR3 SDRAM 72-bit, 240-pin gold-plated DIMMs
DIMM Sizes	• 32GB, 16GB, 8GB, 4GB, 2GB, 1GB
Memory Voltage	• 1.5 V, 1.35 V
Error Detection	• Corrects single-bit errors • Detects double-bit errors (using ECC memory)

On-Board Devices

Chipset	• Intel® C602 Chipset
Infiniband	• Mellanox ConnectX-3 QDR Infiniband 40Gbps Controller
SAS	• LSI 2008 SAS (6Gbps) • RAID 0, 1, 10 support • (Optional: AOC-SAS2-RAID5-KEY) RAID 5 support • Note: In order to support the LSI RAID Controllers, both CPU socket must be populated
SATA	• SATA 2.0 & 3.0 with RAID 0, 1, 5, 10
IPMI	• 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	• 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	• Matrox G200eW

Input / Output (per Node)

Serial ATA	• 2x SATA 3.0 ports (6Gbps) • 5x SATA 2.0 ports (3Gbps)
SAS	• 8x SAS ports (6Gbps)
LAN	• 2x RJ45 Gigabit Ethernet LAN ports • 1x RJ45 Dedicated IPMI LAN port
USB	• 3x USB 2.0 ports total (2x rear + 1x Type A)
VGA	• 1x VGA port
Serial Port / Header	• 1x Fast UART 16550 port / 1 Header
Infiniband	• 1 external QSFP Infiniband connector

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	80 PLUS PLATINUM 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 - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X9DRT-HIBQF	2	Super X9DRT-HIBQF Motherboard
	CSE-827HD-R1K28B	1	2U Chassis
Backplane	BPN-SAS-827HD	1	Sup 6x3.5ö SATA hdd; hot swap
Backplane	BPN-ADP-SAS2-L6I-O-P	2	BPN,BPN-ADP-SAS2-L6i,LSI2008,PBF
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