

SuperServer 6028TR-HTFR



Integrated Board



Super X10DRT-HIBF



Key Features

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

1. Dual socket R3 (LGA 2011) supports Intel® Xeon® processor E5-2600 v3 family; QPI up to 9.6GT/s
 2. Up to 512GB ECC DDR4 2133MHz; 8x DIMM slots
 3. 1x PCI-E 3.0 (x16) low-profile slot
 4. Single port IB (FDR, 56Gbps), w/ QSFP connector
 5. Intel® i350 Dual port GbE LAN
 6. 3x 3.5" Hot-swap SATA3 drive bays
 7. 2x SATA DOM
 8. 1600W Redundant Power Supplies
- Titanium Level**

Available Colors:

Black



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

Specifications

Product SKUs

- SYS-6028TR-HTFR** ■ SuperServer 6028TR-HTFR (**Black**)

Motherboard

Super X10DRT-HIBF

Processor/Cache (per Node)

- CPU** ■ Intel® Xeon® processor E5-2600 v3 family (up to 145W TDP) *
 ■ Dual Socket R3 (LGA 2011)

- Cores / Cache** ■ Up to 18 Cores / Up to 45MB Cache

- System Bus** ■ QPI up to 9.6 GT/s

Note * Please contact Supermicro Technical Support for additional information about frequency optimized CPUs and specialized system optimization.

System Memory (per Node)

Chassis

- Form Factor** ■ 2U Rackmount
Model ■ **CSE-827HQ-R1K68B**

Dimensions and Weight

- Width** ■ 17.25" (438mm)
Height ■ 3.47" (88mm)
Depth ■ 28.5" (724mm)
Package ■ 26.4" (H) x 11.2" (W) x 39.8" (D)
Weight ■ Gross Weight: 105 lbs (47.5kg)
 ■ Net Weight: 87.6 lbs (39.7 kg)

- 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

Memory Capacity	<ul style="list-style-type: none"> 8x 288-pin DDR4 DIMM slots Up to 512GB ECC LRDIMM, 256GB ECC RDIMM
Memory Type	<ul style="list-style-type: none"> 2133/1866/1600MHz ECC DDR4 SDRAM 72-bit
DIMM Sizes	<ul style="list-style-type: none"> RDIMM: 32GB, 16GB, 8GB, 4GB LRDIMM: 64GB, 32GB
Memory Voltage	<ul style="list-style-type: none"> 1.2 V
Error Detection	<ul style="list-style-type: none"> Corrects single-bit errors

On-Board Devices

Chipset	<ul style="list-style-type: none"> Intel® C612 Express chipset
Infiniband	<ul style="list-style-type: none"> Mellanox ConnectX-3 FDR Infiniband 56Gbps Controller
SATA	<ul style="list-style-type: none"> SATA3 (6Gbps) with RAID 0, 1, 5
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 ASPEED AST2400 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"> ASPEED AST2400 BMC

Input / Output (per Node)

Infiniband	<ul style="list-style-type: none"> 1x External QSFP Infiniband connector
Serial ATA	<ul style="list-style-type: none"> 8x SATA3 (6Gbps) ports
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"> 2x USB 3.0 ports (rear)
Video	<ul style="list-style-type: none"> 1x VGA port
Serial Port / Header	<ul style="list-style-type: none"> 1x RS232

Expansion Slots (per Node)

PCI-Express	<ul style="list-style-type: none"> 1x PCI-E 3.0 (x16) Low-profile slot 1x PCI-E 3.0 (x8) connectors for SMCI Add-on Cards
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Drive Bays (per Node)

Hot-swap	<ul style="list-style-type: none"> 3x 3.5" Hot-swap SATA3 HDD trays
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System Cooling

Fans	<ul style="list-style-type: none"> 4x 8cm heavy duty PWM fans with optimal fan speed control
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Power Supply

1600W Titanium Level (96%) High-efficiency Redundant Single Output Power Supplies

AC Input	<ul style="list-style-type: none"> 800W Output @ 100-140V, 7-10A, 50-60Hz 1600W Output @ 180-240V, 8-11A, 50-60Hz
DC Output	<ul style="list-style-type: none"> 800W: +12V/67A, +5Vsb/1A 1600W: +12V/133A, +5Vsb/1A

Certification	  Titanium Level [Test Report]
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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 PCI 2.2 ACPI 1.0 / 2.0 USB Keyboard support SMBIOS 2.3 UEFI

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-X10DRT-HIBF	4	Super X10DRT-HIBF Motherboard
	CSE-827HQ-R1K68B	1	2U Chassis
Backplane	BPN-ADPX9-6SATA-O-P	4	6-PORT SATA ADAPTER FOR TWIN
Backplane	BPN-SAS-827HQ	1	SAS Backplane, x12 3.5" HDD, 2U Twin
Cable 1	CBL-0473L	8	21cm 30AWG SATA S-S cable
Riser Card	RSC-R1UTP-E16R-O-P	4	,RoHS/REACH,PBF
Heatsink / Retention	SNK-P0047PS	4	1U Passive CPU Heat Sink for X9, X10 Systems Equipped w/ a Narrow ILM MB
Heatsink / Retention	SNK-P0047PW	4	1U Passive Custom Rear CPU Heat Sink for X9, X10 1U Twin, 2U Twin^2 8-DIMM per Node Series Servers
Power Supply	PWS-1K68A-1R	2	1U 1600W Redundant Titanium Power Supply 76mm width 27Pair,PBF

Optional Parts List			
	Part Number	Qty	Description
Onsite Service Program	QS4HR3/2/1	-	3/2/1-year onsite 24x7x4 service
Onsite Service Program	OSNBD3/2/1	-	3/2/1-year onsite NBD service
Software	SFT-OOB-LIC	4	OOB Management Package (per node license)
Software	SFT-DCMS-Single	4	DataCenter Management Package (per node license)
SuperDOM	-	-	Supermicro SATA DOM Solutions [Details]
Network Card(s)	AOC-S40G-i2Q	-	Standard LP 2-port 40GbE controller, based on Intel Fortville XL710
	AOC-SGP-i2	-	Standard LP, 2x GbE RJ45, PCI-E x4, Intel i350AM2
	AOC-SGP-i4	-	Standard LP, 4x GbE RJ45, PCI-E x4, Intel i350
	AOC-STG-b4S	-	Standard LP, 4x 10GbE SFP+, PCI-E x8, Broadcom BCM57840S
	AOC-STGN-i2S	-	Standard LP, 2x 10GbE SFP+, PCI-E x8, Intel 82599ES
	AOC-STGN-i1S	-	Standard LP, 1x 10GbE SFP+, PCI-E x8, Intel 82599EN
	AOC-STG-i2T	-	Standard LP, 2x 10GbE RJ45, PCI-E x8, Intel X540
	AOC-STG-i2	-	Standard LP, 2x 10GbE CX4, PCI-E x8, Intel 82598EB
BBU (Battery Backup Unit)	BTR-0018L-0000-LSI	-	Battery Backup for SAS 2108 (can be direct attached to card or connect by extension cable use BTR-0018L-Kit)