

SuperServer 6028TP-HC1FR



Integrated Board



Super X10DRT-PIBF



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 v3 family; QPI up to 9.6GT/s
2. Up to 1TB ECC LRDIMM, 512GB ECC RDIMM, up to 2133MHz; 16x DIMM sockets
3. 1x PCI-E 3.0 x16 Low-profile slot
4. Single port IB (FDR, 56Gbps), w/ QSFP connector
5. Intel® i350-AM2 Dual port GbE LAN
6. Integrated IPMI 2.0 with KVM and Dedicated LAN
7. 3x 3.5" Hot-swap SAS/SATA HDD Bays
8. LSI 3108 SAS3 controller (3 ports); RAID 0, 1, 5, 10
9. 2000W Redundant Power Supplies **Platinum Level (94%)**

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-6028TP-HC1FR** ■ SuperServer 6028TP-HC1FR (**Black**)

Motherboard

Super X10DRT-PIBF

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

Chassis

- Form Factor** ■ 2U Rackmount

- Model** ■ **CSE-827HQ+-R2K02B**

Dimensions and Weight

- Width** ■ 17.25" (438mm)

- Height** ■ 3.47" (88mm)

- Depth** ■ 30.5" (774mm)

- Weight** ■ Gross Weight: 90 lbs (40.9kg)
■ Net Weight: 72 lbs (32.7 kg)

- Available Colors** ■ Black

Front Panel

- Buttons** ■ Power On/Off button
■ UID button
■ Power status LED

frequency optimized CPUs and specialized system optimization.

System Memory (per Node)

Memory Capacity	<ul style="list-style-type: none"> 16x 288-pin DDR4 DIMM slots Up to 1TB ECC LRDIMM, 512GB 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
SAS	<ul style="list-style-type: none"> LSI 3108 SAS3 (12Gbps) controller; RAID 0, 1, 5, 10 support Optional SuperCap
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-AM2 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"> ASPEED AST2400 BMC

Input / Output (per Node)

SAS	<ul style="list-style-type: none"> 3x SAS3 (12Gbps) ports
LAN	<ul style="list-style-type: none"> 2x RJ45 Gigabit Ethernet LAN ports 1x RJ45 Dedicated IPMI LAN port
Infiniband	<ul style="list-style-type: none"> 1x external QSFP Infiniband connector
USB	<ul style="list-style-type: none"> 2x USB 3.0 ports total (2x rear)
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 (internal)
Others	<ul style="list-style-type: none"> 1x <u>SATADOM</u> support on the motherboard

LEDs

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

Expansion Slots (per Node)

- PCI-Express**
- 1x PCI-E 3.0 x16 Low-profile slot

Drive Bays (per Node)

- Hot-swap**
- 3x 3.5" Hot-swap SAS/SATA HDD trays

System Cooling

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

Switching Power Supply

2000W Redundant Power Supplies with I²C & PMBus

- AC Input**
- 1100W Output @ 100-120V, 12.7-10.5A, 50-60Hz
 - 1400W Output @ 120-140V, 13.5-11.5A, 50-60Hz
 - 1800W Output @ 200-220V, 10.0-9.5A, 50-60Hz
 - 1980W Output @ 220-230V, 10.0-9.8A, 50-60Hz
 - 2000W Output @ 230-240V, 10.0-9.8A, 50-60Hz

5Vsb 4A

I²C Remote Monitoring FRU Data / SMBus / PMBus

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)

Parts List

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X10DRT-PIBF	4	Super X10DRT-PIBF Motherboard
	CSE-827HQ+-R2K02B	1	2U Chassis
Backplane	SAS3-827HQ	1	compliance, new Molex 64-pin receptacles, PWM fan control and Power delay control on HDD spin up,RoHS/REACH,PBF
Backplane	BPN-ADP-S3108L-H6IRP-O-P	4	LSI 3108, SAS 12Gbps (x6 internal)
Riser Card	RSC-R1UTP-E16R-O-P	4	,RoHS/REACH,PBF
Heatsink / Retention	SNK-P0057PS	4	1U High Performance Passive CPU Heat Sink for X9, X10 Systems Equipped w/ a Narrow ILM MB
Heatsink / Retention	SNK-P0047PSM	4	1U Passive Front CPU Heat Sink w/ a Middle Air Channel for X9, X10 2U Twin^2+ and Twin Pro^2 Series Servers
Power Supply	PWS-2K04A-1R	2	AC-DC 2000W, Titanium Level, Redundancy, 1U, PMBus 1.2, +12V/+5Vsb, 360x76x40mm,HF,RoHS/REACH
Power Supply	PWS-2K02P-1R	2	2000W redundant platinum power supply

Optional Parts List

	Part Number	Qty	Description
SuperCap Kit	BTR-CV3108-TP1	-	LSI 3108 CacheVault kit for TwinPro
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)