

# SuperServer 6028TP-HC0R-SIOM

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## Integrated Board



Super X10DRT-PS

## 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 v4<sup>†</sup>/ v3 family; QPI up to 9.6GT/s
2. Up to **2TB<sup>†</sup>** ECC 3DS LRDIMM , up to DDR4- **2400<sup>†</sup>**MHz ; 16x DIMM slots
3. 1 PCI-E 3.0 x16 (LP), 1 PCI-E 3.0 x8 (LP), 1 **SIOM** card support
4. 1 Dedicated IPMI LAN port
5. 3 Hot-swap 3.5" SAS/SATA HDD Bays
6. Broadcom 3008 SAS3 controller (8 ports); RAID 0, 1, 10
7. [Mini-mSATA](#) (half size) support
8. 2000W Redundant Power Supplies **Titanium Level (96%)**
9. 1 SATA DOM

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-HC0R-SIOM** ■ SuperServer 6028TP-HC0R-SIOM (Black)

### Motherboard (Four per System)

[Super X10DRT-PS](#)

### Processor/Cache (per Node)

**CPU** ■ Intel® Xeon® processor E5-2600 v4<sup>†</sup>/ v3 family (up to 145W TDP) \*  
■ Dual Socket R3 (LGA 2011)

**Cores / Cache** ■ Up to **22 Cores<sup>†</sup>** / Up to **55MB<sup>†</sup>** Cache

**System Bus** ■ QPI up to 9.6 GT/s

**Note** <sup>†</sup> BIOS version 2.0 or above is required

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

### System Memory (per Node)

**Memory Capacity** ■ 16x 288-pin DDR4 DIMM slots  
■ Up to 2TB<sup>†</sup> ECC 3DS LRDIMM, 512 ECC RDIMM

**Memory Type** ■ **2400<sup>†</sup>**/2133/1866/1600MHz ECC DDR4 SDRAM 72-bit

**DIMM Sizes** ■ RDIMM: 64GB, 32GB, 16GB, 8GB, 4GB  
■ LRDIMM: 64GB, 32GB  
■ 3DS LRDIMM: 128GB

**Memory Voltage** ■ 1.2 V

**Error Detection** ■ Corrects single-bit errors

### On-Board Devices (per Node)

**Chipset** ■ Intel® C612 chipset

**SAS** ■ Broadcom 3008 SAS3 (12Gbps) controller; RAID 0, 1, 10 support

**IPMI** ■ 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** ■ Barebones and Complete System must have at least one **SIOM** or **network** card installed per node

### Chassis

**Form Factor** ■ 2U Rackmount

**Model** ■ **CSE-827HQ+-R2K04B**

### 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

**LEDs** ■ Power status LED  
■ HDD activity LED  
■ Network activity LEDs  
■ Universal Information (UID) LED

### Expansion Slots (per Node)

**PCI-Express** ■ 1 PCI-E 3.0 (x16) Low-profile slot  
■ 1 PCI-E 3.0 (x8) Low-profile slot  
■ 1 SIOM card support

Note: Must bundle with Network Card

### Drive Bays (per Node)

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

### System Cooling

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

### Power Supply (76mm Width)



2000W Redundant Power Supplies with PMBus

**Total Output Power** ■ 1000W/1800W/1980W/2000W

**Dimension (W x H x L)** ■ 76 x 40 x 336 mm

**Input** ■ 1000W: 100-127 Vac / 12-9.5 A / 50-60 Hz  
■ 1800W: 200-220 Vac / 10-9.5 A / 50-60 Hz  
■ 1980W: 220-230 Vac / 10-9.8 A / 50-60 Hz  
■ 2000W: 230-240 Vac / 10-9.8 A / 50-60 Hz  
■ 2000W: 200-240 Vac / 11.8-9.8 A / 50-60 Hz (UL/cUL only)

<b>Graphics</b>	■ ASPEED AST2400 BMC
<b>Input / Output (per Node)</b>	
<b>SAS</b>	■ 3 SAS3 (12Gbps) ports
<b>LAN</b>	■ 1 RJ45 Dedicated IPMI LAN port
<b>USB</b>	■ 2 USB 3.0 ports total (rear)
<b>VGA</b>	■ 1 VGA port
<b>Serial Port / Header</b>	■ 1 Fast UART 16550 port / 1 Header (internal)
<b>Others</b>	■ 1 <a href="#">SATADOM</a> support on the motherboard

<b>+12V</b>	<ul style="list-style-type: none"> <li>■ Max: 83.3A / Min: 0A (100-127 Vac)</li> <li>■ Max: 150A / Min: 0A (200-220 Vac)</li> <li>■ Max: 165A / Min: 0A (220-230 Vac)</li> <li>■ Max: 166.7A / Min: 0A (230-240 Vac)</li> <li>■ Max: 166.7A / Min: 0A (200-240 Vac) (UL/cUL only)</li> </ul>
<b>+5Vsb</b>	■ Max: 1A / Min: 0A
<b>Output Type</b>	■ 27 Pairs Gold Finger Connector
<b>Certification</b>	<div>   <div>           UL/cUL/CB/BSMI/CE/CCC  <b>Titanium Level</b>            [ <a href="#">Test Report</a> ]         </div> </div>

<b>System BIOS</b>	
<b>BIOS Type</b>	■ 128Mb SPI Flash EEPROM with AMI BIOS
<b>BIOS Features</b>	<ul style="list-style-type: none"> <li>■ Plug and Play (PnP)</li> <li>■ APM 1.2</li> <li>■ PCI 2.2</li> <li>■ ACPI 1.0 / 2.0</li> <li>■ USB Keyboard support</li> <li>■ SMBIOS 2.3</li> <li>■ UEFI</li> </ul>
<b>Operating Environment / Compliance</b>	
<b>RoHS</b>	■ RoHS Compliant
<b>Environmental Spec.</b>	<ul style="list-style-type: none"> <li>■ Operating Temperature: 10°C to 35°C (50°F to 95°F)</li> <li>■ Non-operating Temperature: -40°C to 70°C (-40°F to 158°F)</li> <li>■ Operating Relative Humidity: 8% to 90% (non-condensing)</li> <li>■ Non-operating Relative Humidity: 5% to 95% (non-condensing)</li> </ul>

### Parts List

[See Parts List](#)

Parts List - (Items Included)			
	Part Number	Qty	Description
<b>Motherboard / Chassis</b>	MBD-X10DRT-PS	4	Super X10DRT-PS Motherboard
	CSE-827HQ+R2K04B	1	2U Chassis
<b>Air Shroud</b>	MCP-310-21703-0B	4	TwinPo 217HQ+/827HQ+ X10 plastic air shroud,RoHS/REACH
<b>Backplane</b>	BPN-SAS3-827HQ	1	12-port 2U TwinPro^2 SAS3 CSE-827HQ (3 drives per node) backplane, support up to 12x 3.5-inch SAS3/SATA3 HDD
<b>Backplane</b>	BPN-ADP-S3008L-L6IP	4	LSI 3008, SAS 12Gbs (X6 port inside)
<b>Cable 1</b>	CBL-PWCD-0578	2	PWCD,US,IEC60320 C14 TO C13,3FT,14AWG
<b>Label</b>	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
<b>Riser Card</b>	RSC-P-6	4	RSC-P-6 (1U LHS TwinPro RSC with 1 PCI-Ex16),RoHS
<b>Riser Card</b>	RSC-R1UTP-E16R	4	1U RHS TwinPro Riser card with one PCI-E x16 slot
<b>Heatsink / Retention</b>	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
<b>Heatsink / Retention</b>	SNK-P0057PS	4	1U High Performance Passive CPU Heat Sink for X9, X10 Systems Equipped w/ a Narrow ILM MB
<b>Power Supply</b>	PWS-2K04A-1R	2	AC-DC 2000W, Titanium Level, Redundancy, 1U, PMBus 1.2, +12V/+5Vsb, 360x76x40mm,HF,RoHS/REACH
<b>Air Shroud</b>	MCP-310-21703-0B or MCP-310-21702-0B	4	TwinPro 217HQ+/827HQ+ X10 plastic air shroud or TwinPro 217HQ+/827HQ+ X10 mylar air shroud
<b>Power Supply</b>	PWS-2K04A-1R or PWS-2K02P-1R	2	2000W Redundant Titanium Level Power Supplies or 2000W Redundant Platinum Level Power Supplies

Optional Parts List			
	Part Number	Qty	Description
<b>Hard Drive Carrier</b>	MCP-220-00043-0N	-	Black Hot-swap Gen4 3.5" to 2.5" HDD tray
<b>Global Services &amp; Support</b>	<a href="#">OS4HR3/2/1</a>	-	3/2/1-year onsite 24x7x4 service
	<a href="#">OSNBD3/2/1</a>	-	3/2/1-year onsite NBD service
<b>Software</b>	<a href="#">SFT-OOB-LIC</a> • <a href="#">eStore</a>	4	OOB Management Package (per node license)
<b>Software</b>	SFT-DCMS-Single	4	DataCenter Management Package (per node license)

[Hide Parts List](#)

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