

# SuperServer 6028R-TRT



## Integrated Board



## Super X10DRi-T

### Available Colors:

Black



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

## Key Features

**Cloud and Virtualization needs**  
**Compute Intensive Application**  
**Database Processing and Storage**  
**High Availability Storage**  
**Mission-critical Applications**

1. Dual socket R3 (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. 3 PCI-E 3.0 x16, 3 PCI-E 3.0 x8 slots
4. Intel® X540 Dual port 10GBase-T
5. Intel C612 controller for 8 SATA3 ports; RAID 0, 1, 5, 10
6. 8x 3.5" Hot-swap SATA3 HDD Bays
7. 740W Redundant Power Supplies **Platinum Level** (94% efficiency)

# Specifications

## Product SKUs

**SYS-6028R-TRT** ■ SuperServer 6028R-TRT (Black)

## Motherboard

**Super X10DRi-T**

## Processor/Cache

**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

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

**Chipset** ■ Intel® C612 chipset

**SATA** ■ SATA 3.0 (6Gbps) 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  
■ ASPEED AST2400 BMC

**Network Controllers** ■ Intel® X540 Dual Port 10GBase-T  
■ Virtual Machine Device Queues reduce I/O overhead  
■ Supports 10GBASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output  
■ 1x Realtek RTL8201N PHY (dedicated IPMI)

**Graphics** ■ ASPEED AST2400 BMC

## Input / Output

**Serial ATA** ■ 8x SATA3 (6Gbps) ports  
■ 2x SATA3 powered ports that support SATA DOM

**LAN** ■ 2x RJ45 10GBase-T LAN ports  
■ 1x RJ45 Dedicated IPMI LAN port

## Chassis

**Form Factor** ■ 2U Rackmount

**Model** ■ **CSE-825TQ-R740LPB**

## Dimensions and Weight

**Width** ■ 17.2" (437mm)

**Height** ■ 3.5" (89mm)

**Depth** ■ 25.5" (647mm)

**Package** ■ 26" (H) x 11" (W) x 34.5" (D)

**Weight** ■ Net Weight: 35.5 lbs (16 kg)  
■ Gross Weight: 69 lbs (31.2 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  
■ System information (overheat/UID) LED

## Expansion Slots

**PCI-Express** ■ 3x PCI-E 3.0 x16 (Low-profile)  
■ 3x PCI-E 3.0 x8 (Low-profile)

## Drive Bays

**Hot-swap** ■ 8x 3.5" Hot-swap SATA HDD trays

## Backplane

2U SAS/SATA backplane

## System Cooling

**Fans** ■ 3x 80x80x38mm Counter-rotating PWM fans

## Power Supply with Power Distributor

740W (1+1) Redundant high-efficiency power supply with PMBus

**AC Input** ■ 100-240 V, 50-60 Hz, 9-3.5 Amp

**DC Output** ■ 4 Amp @ +5V standby  
■ 61.7 Amp @ +12V

## Certification



**Platinum Certified**  
[ [Test Report](#) ]

## System BIOS

**BIOS Type** ■ 128Mb SPI Flash EEPROM with AMI® BIOS

<b>USB</b>	<ul style="list-style-type: none"> <li>■ Rear USB: 2x USB 3.0 + 2x USB 2.0</li> <li>■ Front USB: 2x USB 2.0</li> <li>■ USB Header: 2x 3.0, 2x 2.0, 1x Type A</li> </ul>
<b>VGA</b>	<ul style="list-style-type: none"> <li>■ 1x VGA port</li> </ul>
<b>Serial Port / Header</b>	<ul style="list-style-type: none"> <li>■ 2x Fast UART 16550 serial</li> <li>■ 2x COM Ports (1 rear, 1 header)</li> </ul>
<b>DOM</b>	<ul style="list-style-type: none"> <li>■ 2x SuperDOM (Disk on Module) ports</li> </ul>
<b>Management</b>	
<b>Software</b>	<ul style="list-style-type: none"> <li>■ <u>SuperDoctor® 5</u></li> <li>■ Watch Dog</li> <li>■ NMI, SPM, SUM</li> <li>■ IPMI 2.0</li> <li>■ Intel Node Manager</li> </ul>
<b>Power Configurations</b>	<ul style="list-style-type: none"> <li>■ ACPI / APM Power Management</li> <li>■ Power-on mode for AC power recovery</li> </ul>

<b>BIOS Features</b>	<ul style="list-style-type: none"> <li>■ Plug and Play (PnP)</li> <li>■ APM 1.2</li> <li>■ PCI 2.3</li> <li>■ ACPI 1.0 / 2.0 / 3.0 / 4.0</li> <li>■ USB Keyboard support</li> <li>■ SMBIOS 2.7.1</li> <li>■ UEFI 2.3.1</li> </ul>
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#### Operating Environment / Compliance

<b>RoHS</b>	<ul style="list-style-type: none"> <li>■ RoHS Compliant</li> </ul>
<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

### Parts List - (Items Included)

	Part Number	Qty	Description
<b>Motherboard / Chassis</b>	MBD-X10DRI-T	1	Super X10DRI-T Motherboard
	CSE-825TQ-R740LPB	1	2U Chassis
<b>Backplane</b>	BPN-SAS-825TQ	1	8-port 2U TQ (W/ AMI 9072) backplane, support up to 8x 3.5-inch SAS/SATA HDD
<b>Cable 1</b>	CBL-0473L	2	SATA,INT,ROUND,ST-ST,21CM,30AWG
<b>Cable 2</b>	CBL-0484L	4	SATA,INT,ROUND,ST-ST,55CM,30AWG
<b>Cable 3</b>	CBL-CDAT-0661	2	CBL,SGPIO,2X4F TO 2X4F,P2.54,ROUND CABLE,40CM,28AWG
<b>Cable 4</b>	CBL-0483L	2	SATA,INT,ROUND,ST-ST,29CM,30AWG
<b>Label</b>	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
<b>Manual</b>	MNL-1575-QRG	1	SYS-6028R-TR/SYS-6028R-TRT, QRG,HF,RoHS/REACH,PBF
<b>Parts</b>	MCP-260-00042-0N	1	STD I/O shield for X9 socket R server MB with Gasket.
<b>Heatsink / Retention</b>	SNK-P0048PS	2	2U Passive CPU Heat Sink for X9, X10 Generation Systems Equipped w/ a Narrow ILM MB
<b>Drive Tray(s)</b>	MCP-220-00007-01	1	Black USB/COM port tray for SC825, 836
<b>Power Supply</b>	PWS-741P-1R	2	1U740W Platinum Redundant Single Output

### Optional Parts List

	Part Number	Qty	Description
<b>Storage Controller Card(s) &amp; Cables(s)</b>	AOC-S3008L-L8i & 2x CBL-SAST-0699	-	Standard LP, 8 internal ports (12Gb/s) Gen-3, 63HDD; RAID 0, 1, 10
	AOC-S3008L-L8e & 2x CBL-SAST-0699	-	Standard LP, 8 internal ports (12Gb/s) Gen-3, 122HDD; HBA
	AOC-S3108L-H8IR & 2x CBL-SAST-0699	-	Standard LP, 8 internal ports (12Gb/s) 8x Gen3; RAID 0, 1, 5, 6, 10, 50, 60
	AOC-S3108L-H8IR-16DD & 2x CBL-SAST-0699	-	Standard LP, 8 internal ports (12Gb/s) Gen-3, 16HDD; RAID 0, 1, 5, 6, 10, 50, 60
<b>SLIM DVD ROM SATA DRIVE</b>	-	-	SLIM DVD ROM SATA DRIVE
<b>Cable 1</b>	CBL-0341L	-	USB 2.0,INT,LCD,DVD,1X4/P2.54 TO 2X5/P2.54,70CM,28/24AWG
<b>Cable 2</b>	CBL-0210L	-	FDD, DVD, 4 pin power adapter cable, 8cm. 24AWG
<b>Peripheral Drive 1</b>	CDM-USATA-G	-	mini-SATA to USB adapter for slim DVD
<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>	1	OOB Management Package (per node license)
<b>Software</b>	<a href="#">SFT-DCMS-Single</a>	1	DataCenter Management Package (per node license)