



**Integrated Board**



**Super X10DRW-i**

**Views: | [Angled View](#) | [Top View](#) |  
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## Key Features

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. 8x 3.5" Hot-swap SAS/SATA HDD bays for Customizable Storage
4. Riser card support up to:  
4x PCI-E 3.0 x8 (2 FHFL, 2 FHHL)  
2x PCI-E 3.0 (Low-profile) slots
5. Intel® i350 Dual port GbE LAN
6. Integrated IPMI 2.0 and KVM with Dedicated LAN
7. I/O ports: 2x SuperDOM, 1x VGA, 2x COM, TPM 1.2, 6x USB 3.0 (4 rear, 2 via header)
8. 740W Redundant Power Supplies **Platinum Level (94%<sup>+</sup>)**

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

# Specifications

## Product SKUs

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

## Motherboard

### Super X10DRW-i

## 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/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** ■ SATA3 (6Gbps); 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® i350 Dual Port Gigabit Ethernet Controller
  - Virtual Machine Device Queues reduce I/O overhead
  - Supports 1GBASE-T, RJ45 output
  - 1x Realtek RTL8211E PHY (dedicated IPMI)

- **Video** ■ ASPEED AST2400 BMC

## Input / Output

- **SAS/SATA** ■ Customizable storage

- **LAN** ■ 2x RJ45 Gigabit Ethernet LAN ports
  - 1x RJ45 Dedicated IPMI LAN port

- **USB** ■ 6x USB 3.0 ports (4 rear + 2 via header)

- **Video** ■ 1x VGA port

- **Serial Port / Header** ■ 1x Fast UART 16550 port / 1 Header

- **DOM** ■ 2x Super**DOM** (Disk on Module) ports

## Chassis

- **Form Factor** ■ 2U Rackmount

- **Model** ■ **CSE-825TQ-R740WB**

## Dimensions and Weight

- **Width** ■ 17.2" (437mm)

- **Height** ■ 3.5" (89mm)

- **Depth** ■ 25.5" (648mm)

- **Weight** ■ Net Weight: 35 lbs (15.9 kg)
  - Gross Weight: 62 lbs (28.1 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

## Expansion Slots

- **PCI-Express** ■ 4x PCI-E 3.0 x8 slots (2x Full-height Full-length, 2x Full-height Half-length)
  - 2x PCI-E 3.0 slots (Low -profile)
  - [UIO AOC Compatibility Matrix](#)  
**(Both CPUs need to be installed for full access to PCI-E slots and onboard controllers. See manual block diagram and AOC Support for details.)**

## Drive Bays

- **Hot-swap** ■ 8x 3.5" Hot-sw ap SAS / SATA HDD trays (ready for PCI-E storage controller card)

## Backplane

- 1x 2U SAS backplane w/ Enclosure Management (SAS support requires optional SAS controller)

## Peripheral Drives

- **DVD-ROM** ■ Slim DVD-ROM drive (optional)

## System Cooling

- **Fans** ■ 3x 80mm 7,000 RPM 4-pin 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

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- BIOS Features**
- Plug and Play (PhP)
  - APM 1.2
  - PCI 2.2
  - ACPI 1.0 / 2.0 / 3.0 / 4.0
  - BIOS resume hot keys
  - USB Keyboard support
  - SMBIOS 2.3
  - UEFI
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#### Operating Environment / Compliance

- RoHS** ■ RoHS Compliant
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- 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
<b>Motherboard / Chassis</b>	MBD-X10DRW-i	1	Super X10DRW-i Motherboard
	CSE-825TQ-R740WB	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-CDAT-0661	2	CBL,SGPIO,2X4F TO 2X4F,P2.54,ROUND CABLE,40CM,28AWG
<b>Cable 2</b>	CBL-0186L	2	SATA,INT,ROUND,SET OF 4,ST-RA 56/45.5/35/23CM,26AWG
<b>Label</b>	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
<b>Manual</b>	MNL-1636-QRG	1	6028R-WTR(T) QRG,HF
<b>Parts</b>	MCP-160-81504-0B	1	Add-on Card (AOC) Mylar Sheet for SC815
<b>Riser Card</b>	RSC-R2UW-4E8	1	2U LHS WIO Riser card with four PCI-E x4 slots
<b>Riser Card</b>	RSC-R2UW-2E8R	1	2U RHS WIO Riser card with two PCI-E x8 slots
<b>Heatsink / Retention</b>	SNK-P0048PS	1	2U Passive CPU Heat Sink for X9, X10 Generation Systems Equipped w / a Narrow ILM MB
<b>Heatsink / Retention</b>	SNK-P0048PSC	1	2U Passive CPU Heat Sink for X9, X10 2U WIO/WIO+ Series Servers
<b>Power Supply</b>	PWS-741P-1R	2	1U740W Platinum Redundant Single Output
<b>Rail Set</b>	MCP-290-00053-0N	1 set	Rail set, quick/quick, default for 2,3U 17.2"W

## Optional Parts List

	Part Number	Qty	Description
<b>2.5" to 3.5" Converter Tray</b>	MCP-220-00043-0N	-	Black Hot-sw ap Gen-4 2.5" to 3.5" HDD tray
<b>DVD-ROM / DVD-RW</b>	DVM-TEAC-DVD-SBT4	1	TEAC SLIM DVD ROM SATA DRIVE, HF, RoHS/REACH
	DVM-TEAC-DVDRW-SBT4	1	TEAC SLIM DVD-RW SATA DRIVE, RoHS
	DVM-PLDS-DVDRW-SBT5	1	PHILIPS SLIM BLACK DVD-RW SATA DRIVE, HF, RoHS/REACH
<b>DVD-ROM Accessory</b>	MCP-220-81502-0N	1	Slim SATA DVD mounting kit
<b>Internal 2.5" HDD Tray (COM slot) Included</b>	MCP-220-00023-01	1	Black USB dummy tray support 1x 2.5" slim HDD
<b>Internal 2.5" HDD Tray (DVD Slot)</b>	MCP-290-00036-0B	1	Black DVD dummy tray support 1x 2.5" slim HDD
<b>USB/COM Port Tray (DVD Slot)</b>	MCP-220-00114-0N	1	Black 2x USB 3.0/COM port tray in slim DVD bay
<b>Cable for internal HDD</b>	CBL-0489L	2	SATA,INT,ROUND,ST-RA,70CM,30AWG
	CBL-0082L	1	Y split , big 4 pin to two RA SATA power extension 15cm, 18AWG
<b>CacheVault(s)</b>	BTR-TFM8G-LSICV M02 & BKT-BBU-BRACKET-05	-	CacheVault for Broadcom 3108; SuperCap mounting bracket for PCI-E location
	BTR-TFM8G-LSICV M02 & MCP-240-00127-0N	-	CacheVault for Broadcom 3108; SuperCap mounting bracket for 2.5" HDD location
<b>SuperCap for AOC-S2208L-H8IR</b>	BTR-0024LH-LSI00297 & BKT-BBU-BRACKET-05	-	SuperCap TFM to be used w / Supermicro AOC-S2208L-H8IR; SuperCap mounting bracket for PCI-E location
	BTR-0024LH-LSI00297 & MCP-240-00127-0N	-	SuperCap TFM to be used w / Supermicro AOC-S2208L-H8IR; SuperCap mounting bracket for 2.5" HDD location

<b>Storage Controller Card(s) &amp; Cables(s)</b>	AOM-S3108M-H8 & 2x CBL-SAST-0556	-	Supermicro Low Profile 12Gb/s Eight-Port SAS Internal Mezzanine RAID Adapter; RAID 0, 1, 5, 6, 10, 50, 60
	AOC-S3108L-H8iR-16DD & 2x CBL-SAST-0556		Standard LP, 8 internal ports (12Gb/s) Gen-3, 16HDD; RAID 0, 1, 5, 6, 10, 50, 60
	AOC-S3008L-L8i & 2x CBL-SAST-0556		Standard LP, 8 internal ports (12Gb/s) Gen-3, 63HDD; RAID 0, 1, 10
	AOC-S3008L-L8e & 2x CBL-SAST-0556		Standard LP, 8 internal ports (12Gb/s) Gen-3, 122HDD; HBA
	AOC-S2308L-L8e & 2x CBL-SAST-0388L-02		Standard LP, 8 internal ports (6Gb/s) Gen-3, 122HDD; HBA
	AOC-S2308L-L8i & 2x CBL-SAST-0388L-02		Standard LP, 8 internal ports (6Gb/s) Gen-3, 63HDD; RAID 0, 1, 10
	AOC-S2208L-H8iR & 2x CBL-SAST-0388L-02		Standard LP, 8 internal ports (6Gb/s) Gen-3, 240HDD; RAID 0, 1, 5, 6, 10, 50, 60
	<b>Network Card(s)</b>	AOC-SGP-i2	-
AOC-SGP-i4			Standard LP, 4x GbE RJ45, PCI-E x4, Intel® i350
AOC-SG-i2			Standard LP, 2x GbE RJ45, PCI-E x4, Intel® 82575EB
AOC-SG-i4			Standard LP, 4x GbE RJ45, PCI-E x8, Intel® 82576EB
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-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
<b>Front Bezel</b>	MCP-210-82503-0B	1	Black SC825 front bezel
<b>Global Services &amp; Support</b>	<u>OS4HR3/2/1</u>	-	3/2/1-year onsite 24x7x4 service
	<u>OSNBD3/2/1</u>	-	3/2/1-year onsite NBD service
<b>Software</b>	<u>SFT-OOB-LIC</u> • <a href="#">e5Store</a>	1	OOB Management Package (per node license)
<b>Software</b>	<u>SFT-DCMS-Single</u>	1	DataCenter Management Package (per node license)