

# SuperStorage 6048R-DE2CR24L (Complete System Only)



High Availability Storage Appliance Platform



Super X10DRS-4U

## Coming Soon

### Key Features (per Node)

Two **hot-pluggable** systems (nodes) in a 4U form factor. Each node supports the following:

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 1TB<sup>†</sup> ECC 3DS LRDIMM , up to DDR4- 2400<sup>†</sup>MHz ; 8x DIMM slots
3. 3 PCI-E 3.0 x8 (1 FHHL, 2 LPHL) expansion slots per controller
4. Dual 10GBase-T LAN w/ Intel® X540; 100Mb private Ethernet between controller nodes
5. 24x 3.5" Hot-swap SAS drive bays with SES2
6. SAS3 via LSI 3008 controller
7. Server remote management: IPMI 2.0 / KVM over LAN / Media over LAN
8. 4x 8cm and 4x 4cm PWM cooling fans
9. 1600W Redundant Power Supplies Titanium Level (96%)

Due to the complexity of integration, this product is sold as completely assembled systems only (including 4 CPU, 4 DIMMs, 1 HDD). Please contact your Supermicro sales rep for special requirements.

▶ [Drivers & Utilities](#) ▶ [BIOS](#) ▶ [IPMI](#) ▶ [Tested Memory](#) ▶ [Manuals](#) ▶ [OS Certification Matrix](#) ▶ [Drive Options](#)

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

## Specifications

Product SKUs	
SSG-6048R-DE2CR24L	▪ SuperServer 6048R-DE2CR24L (Black)

Motherboard	
Super X10DRS-4U	

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
------	--

\* Please contact Supermicro Technical

Chassis	
Form Factor	▪ 4U Rackmount
Model	▪ CSE-947ETS-RONDBP

Front Panel	
Buttons	▪ Power On/Off button ▪ Power LED ▪ Heartbeat LED
LEDs	▪ 2 Network activity LEDs ▪ Power Fail LED ▪ Overheat/Fan Fail LED

Expansion Slots	
PCI-Express	▪ 3 PCI-E 3.0 x8 (1 FHHL, 2 LPHL) slots per controller

Drive Bays	
Hot-swap	▪ 24x 3.5" Hot-swap SAS drive bays with SES2

Note	Support for additional information about frequency optimized CPUs and specialized system optimization.
<b>System Memory</b>	
Memory Capacity	<ul style="list-style-type: none"> <li>8x 288-pin DDR4 DIMM slots</li> <li>Up to 1TB<sup>†</sup> ECC 3DS LRDIMM, 256GB ECC RDIMM</li> </ul>
Memory Type	<ul style="list-style-type: none"> <li>2400<sup>†</sup>/2133/1866/1600MHz ECC DDR4 SDRAM 72-bit</li> </ul>
DIMM Sizes	<ul style="list-style-type: none"> <li>RDIMM: 32GB, 16GB, 8GB, 4GB</li> <li>LRDIMM: 64GB, 32GB</li> <li>3DS LRDIMM: 128GB</li> </ul>
Memory Voltage	<ul style="list-style-type: none"> <li>1.2 V</li> </ul>
Error Detection	<ul style="list-style-type: none"> <li>Corrects single-bit errors</li> </ul>
NVDIMM	<ul style="list-style-type: none"> <li>NVDIMM support. (Not all vendor's NVDIMM are supported. Please contact your sales representative for details)</li> </ul>
<b>On-Board Devices</b>	
Chipset	<ul style="list-style-type: none"> <li>Intel® C612 chipset</li> </ul>
SAS	<ul style="list-style-type: none"> <li>SAS3 (12Gbps) via LSI 3008</li> </ul>
SATA	<ul style="list-style-type: none"> <li>SATA3 (6Gbps) with RAID 0, 1, 5, 10</li> </ul>
IPMI	<ul style="list-style-type: none"> <li>Support for Intelligent Platform Management Interface v.2.0</li> <li>IPMI 2.0 with virtual media over LAN and KVM-over-LAN support</li> <li>ASPEED AST2400 BMC</li> </ul>
Network Controllers	<ul style="list-style-type: none"> <li>Dual 10GBase-T LAN with Intel® X540 Ethernet Controller</li> <li>Virtual Machine Device Queues reduce I/O overhead</li> <li>Supports 10GBASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output</li> <li>Realtek RTL8201N PHY (dedicated IPMI)</li> </ul>
Graphics	<ul style="list-style-type: none"> <li>ASPEED AST2400 BMC</li> </ul>
Others	<ul style="list-style-type: none"> <li>PCI-E 3.0 x8 node to node/NTB connectivity</li> <li>PLX Technology PEX8717; PLX ExpressNIC SDK available from PLX. NDA required</li> </ul>
<b>Input / Output</b>	
SAS	<ul style="list-style-type: none"> <li>2 JBOD expansion ports per node (mini-SAS HD)</li> </ul>
LAN	<ul style="list-style-type: none"> <li>2 RJ45 10GBase-T LAN ports</li> <li>IPMI LAN shared port</li> </ul>
USB	<ul style="list-style-type: none"> <li>3 USB 3.0 ports (2 rear + 1 Type A)</li> </ul>
VGA	<ul style="list-style-type: none"> <li>1 VGA port</li> </ul>
Serial Port / Header	<ul style="list-style-type: none"> <li>1 COM port (rear)</li> </ul>

<b>Backplane</b>	
SAS3 12Gbps passive backplane, redundant architecture with single expander on each motherboard. Motherboard also support 2x mini-SAS HD connectors for JBOD expansion	
<b>System Cooling</b>	
Fans	<ul style="list-style-type: none"> <li>4x 8cm and 4x 4cm PWM cooling fans</li> <li>Redundant cooling</li> </ul>
<b>Power Supply (76mm Width)</b>	
1600W Redundant Power Supplies with PMBus	
Total Output Power	<ul style="list-style-type: none"> <li>800W/1600W</li> </ul>
Dimension (W x H x L)	<ul style="list-style-type: none"> <li>76 x 40.4 x 336 mm</li> </ul>
Input	<ul style="list-style-type: none"> <li>100-140Vac / 10-7A / 50-60Hz</li> <li>180-240Vac / 11-8A / 50-60Hz</li> </ul>
+12V	<ul style="list-style-type: none"> <li>Max: 66A / Min: 0A (100-127Vac)</li> <li>Max: 133A / Min: 0A (200-240Vac)</li> </ul>
+5Vsb	<ul style="list-style-type: none"> <li>Max: 1A / Min: 0A</li> </ul>
Output Type	<ul style="list-style-type: none"> <li>27 Pairs Gold Finger Connector</li> </ul>
Certification	  <ul style="list-style-type: none"> <li>UL/cUL/CB/BSMI/CE/CCC Titanium Level [ <a href="#">Test Report</a> ]</li> </ul>
<b>System BIOS</b>	
BIOS Type	<ul style="list-style-type: none"> <li>128Mb SPI Flash EEPROM with AMI BIOS</li> </ul>
BIOS Features	<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>	
RoHS	<ul style="list-style-type: none"> <li>RoHS Compliant</li> </ul>
Environmental Spec.	<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-X10DRS-4U	1	Super X10DRS-4U Motherboard
	CSE-947ETS-R0NDBP	1	4U Chassis
<b>Add-on Card / Module</b>	AOM-S3008-L8-SB-P	2	AOM-S3008-L8-SB
<b>Backplane</b>	BPN-SAS3-947	1	24-port 4U SBB SAS3 12Gbps midplane, support up to 24x 3.5-inch SAS3/SATA3 HDD/SSD
<b>Label</b>	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
<b>Riser Card</b>	RSC-R2US-3E8R	2	RSC-R2US-3E8R
<b>Heatsink / Retention</b>	SNK-P0048PS	4	2U Passive CPU Heat Sink for X9, X10 Generation Systems Equipped w/ a Narrow ILM MB
<b>Cable</b>	CBL-0218L	2	11.5CM KVM/SUUI 36 PIN TO 9 PIN/15 PIN 2USB, 30/28AWG
<b>Cable</b>	CBL-PWCD-0160-IS	2	PWCD,US,NEMA5-15P TO IEC60320 C13,6FT,16AWG,RoHS/REACH
<b>Air Shroud</b>	MCP-310-94701-0N	1	Two set plastic air shroud for SC947
<b>Drive Tray</b>	MCP-220-93703-0B	24	SC937 SBB SATA/SAS HDD tray with LSI Interposer Bracket
<b>Power Supply</b>	PWS-1K68A-1R	2	1600W Redundant Titanium Power Supply 76m width 27Pair,PBF

### Optional Parts List

	Part Number	Qty	Description
<b>Converter Tray</b>	MCP-220-93707-0B	-	Hot-swap 3.5" to 2.5" converter drive 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>	SFT-OOB-LIC	1	OOB Management Package (per node license)