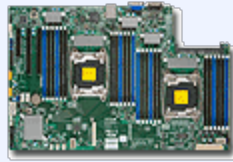


# SuperStorage Server 6028R-E1CR24N (Complete System)



SAS3 HW RAID controller Storage Expandable

## Integrated Board



Super X10DSC+

Due to the complexity of integration, this product is sold as completely assembled systems only (with minimum 12 HDDs and 1 NIC or SIOM card).

[▶ Drivers & Utilities](#)
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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 **3TB<sup>†</sup>** ECC 3DS LRDIMM , up to DDR4- **2400<sup>†</sup>**MHz ; 24x DIMM slots
3. 2 PCI-E 3.0 x16, 1 PCI-E 3.0 x8
4. SIOM for flexible networking options
5. 24x 3.5" Hot-swap SAS3/SATA3 drive bays; optional 2x 2.5" Hot-swap rear SATA drive bays
6. Onboard LSI 3108 SAS3 Hardware RAID RAID 0, 1, 5, 6, 10, 50, 60
7. Server remote management: IPMI 2.0 / KVM over LAN / Media over LAN
8. 5x 8cm hot-swap redundant PWM fans
9. 1600W Redundant Power Supplies **Titanium Level (96%)**

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

## Specifications

Product SKUs	
<b>SSG-6028R-E1CR24N</b>	▪ SuperServer 6028R-E1CR24N ( <b>Black</b> )
Motherboard	
	<b>Super X10DSC+</b>
Processor/Cache	
<b>CPU</b>	<ul style="list-style-type: none"> <li>▪ Intel® Xeon® processor E5-2600 v4<sup>†</sup>/ v3 family (up to 145W TDP) *</li> <li>▪ Dual Socket R3 (LGA 2011)</li> </ul>
<b>Cores / Cache</b>	▪ Up to <b>22 Cores<sup>†</sup></b> / Up to <b>55MB<sup>†</sup></b> Cache
<b>System Bus</b>	▪ QPI up to 9.6 GT/s
<b>Note</b>	<sup>†</sup> BIOS version 2.0 or above is required
<b>Note</b>	* Please contact Supermicro Technical Support for additional information about frequency optimized CPUs and specialized system optimization.

Chassis	
<b>Form Factor</b>	▪ 2U Rackmount
<b>Model</b>	▪ <b>CSE-826SE1C4-R1K62</b>
Dimensions	
<b>Width</b>	▪ 17.2" (437mm)
<b>Height</b>	▪ 3.5" (89mm)
<b>Depth</b>	<ul style="list-style-type: none"> <li>▪ 34" (863.6mm)</li> <li>▪ With Cable Management Arm Installed: 41" (1041.4mm)</li> </ul>
<b>Available Colors</b>	▪ Black
Front Panel	
<b>Buttons</b>	<ul style="list-style-type: none"> <li>▪ Power On/Off button</li> <li>▪ System Reset button</li> </ul>
<b>LEDs</b>	<ul style="list-style-type: none"> <li>▪ Power status LED</li> <li>▪ Hard drive activity LED</li> <li>▪ 2 Network activity LEDs</li> <li>▪ System Overheat LED</li> <li>▪ Power fail LED</li> </ul>

System Memory	
<b>Memory Capacity</b>	<ul style="list-style-type: none"> <li>24x 288-pin DDR4 DIMM slots</li> <li>Up to 3TB<sup>†</sup> ECC 3DS LRDIMM, 512GB ECC RDIMM</li> </ul>
<b>Memory Type</b>	<ul style="list-style-type: none"> <li>2400<sup>†</sup>/2133/1866/1600MHz ECC DDR4 SDRAM 72-bit</li> </ul>
<b>DIMM Sizes</b>	<ul style="list-style-type: none"> <li>RDIMM: 64GB, 32GB, 16GB, 8GB, 4GB</li> <li>LRDIMM: 64GB, 32GB</li> <li>3DS LRDIMM: 128GB</li> </ul>
<b>Memory Voltage</b>	<ul style="list-style-type: none"> <li>1.2 V</li> </ul>
<b>Error Detection</b>	<ul style="list-style-type: none"> <li>Corrects single-bit errors</li> </ul>

On-Board Devices	
<b>Chipset</b>	<ul style="list-style-type: none"> <li>Intel® C612 chipset</li> </ul>
<b>SAS3</b>	<ul style="list-style-type: none"> <li>LSI 3108 SAS3 onboard</li> <li>Hardware RAID 0, 1, 5, 6, 10, 50, 60</li> </ul>
<b>SATA</b>	<ul style="list-style-type: none"> <li>SATA3 (6Gbps); RAID 0, 1, 5, 10</li> </ul>
<b>IPMI</b>	<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>
<b>Network Controllers</b>	<ul style="list-style-type: none"> <li>SIOM support for flexible networking options</li> </ul>
<b>Graphics</b>	<ul style="list-style-type: none"> <li>ASPEED AST2400 BMC</li> </ul>

Input / Output	
<b>LAN</b>	<ul style="list-style-type: none"> <li>LAN ports via SIOM Add-On-Card: (See <a href="#">SIOM Compatibility Matrix</a>)</li> </ul>
<b>USB</b>	<ul style="list-style-type: none"> <li>3 USB 3.0 ports (2 rear + 1 Type A)</li> </ul>
<b>Video</b>	<ul style="list-style-type: none"> <li>1 VGA port</li> </ul>
<b>Serial Port / Header</b>	<ul style="list-style-type: none"> <li>1 Fast UART 16550 port / 1 Header</li> </ul>


Expansion Slots	
<b>PCI-Express</b>	<ul style="list-style-type: none"> <li>2 PCI-E 3.0 x16 slots</li> <li>1 PCI-E 3.0 x8 slots</li> </ul>

Drive Bays	
<b>Hot-swap</b>	<ul style="list-style-type: none"> <li>24x 3.5" Hot-swap SAS3/SATA3 drive bays</li> <li>Optional 2x 2.5" rear Hot-swap SATA drive bays</li> </ul>

Backplane	
	Two 12 port SAS3 12G expander backplanes, each supporting up to 12x 2.5" SAS3 drives

System Cooling	
<b>Fans</b>	<ul style="list-style-type: none"> <li>5x 8cm hot-swap redundant PWM cooling fans</li> </ul>

Power Supply	
	1600W Redundant Power Supplies with PMBus
<b>Total Output Power</b>	<ul style="list-style-type: none"> <li>1000W/1600W</li> </ul>
<b>Dimension (W x H x L)</b>	<ul style="list-style-type: none"> <li>73.5 x 40 x 203 mm</li> </ul>
<b>Input</b>	<ul style="list-style-type: none"> <li>100-127Vac / 13 - 9A / 50-60Hz</li> <li>200-240Vac / 10 - 8A / 50-60Hz</li> </ul>
<b>+12V</b>	<ul style="list-style-type: none"> <li>Max: 83.3A / Min: 0A (100-127Vac)</li> <li>Max: 133A / Min: 0A (200-240Vac)</li> </ul>
<b>12Vsb</b>	<ul style="list-style-type: none"> <li>Max: 2.1A / Min: 0A</li> </ul>
<b>Output Type</b>	<ul style="list-style-type: none"> <li>25 Pairs Gold Finger Connector</li> </ul>

<b>Certification</b>	  <ul style="list-style-type: none"> <li>UL/cUL/CB/BSMI/CE/CCC Titanium Level [ Test Report ]</li> </ul>
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System BIOS	
<b>BIOS Type</b>	<ul style="list-style-type: none"> <li>128Mb SPI Flash EEPROM with AMI BIOS</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 2.2</li> <li>ACPI 1.0 / 2.0</li> <li>USB Keyboard support</li> <li>SMBIOS 2.3</li> <li>UEFI</li> </ul>

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-X10DSC+	1	Super X10DSC+ Motherboard
	CSE-826SE1C4-R1K62	1	2U Chassis
<b>Add-on Card / Module</b>	AOM-S3108M-H8L-P	1	sas3 roc mez for X10dsc
<b>Backplane</b>	BPN-SAS3-826SEL1-N4	2	12-port 2U Simply-Double SAS3 12Gbps single-expander backplane, support up to 8x 3.5-inch SAS3/SATA3 HDD and 4x NVMe/SAS3/SATA3 storage devices
<b>Cable 1</b>	CBL-PWEX-0702	1	8 pin female to RA(Right Angle) big 4 pin female power, 32cm, 18AWG, pinout 5-1, 3-2, 4-3, 7-4,RoHS/REACH
<b>Cable 2</b>	CBL-SAST-0835	2	SLIMLINE SAS to MiniSAS HD, INT, 100CM, 32AWG
<b>Cable 3</b>	CBL-SAST-0836	2	MINI SAS HD,INT,SAS3 SSD,48CM,no sidebend,32AWG
<b>Label</b>	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
<b>Heatsink / Retention</b>	SNK-P0047PS	2	1U Passive CPU Heat Sink for X9, X10 Systems Equipped w/ a Narrow ILM MB
<b>Parts</b>	MCP-220-82609-0N	1	Rear 2.5 x 2 Hot swap HDD kit for 216B/826B/417B/846X/847B
<b>Drive Tray(s)</b>	MCP-220-00133-0B	24	Black gen 8 hot-swap 3.5" HDD tray

### Optional Parts List

	Part Number	Qty	Description
<b>Converter Tray</b>	MCP-220-00136-0B	-	Hot-swap 3.5" to 2.5" converter tray
<b>2x 2.5" rear SATA drive bay to support (2+2) drive bays</b>	CBL-PWEX-0650	1	8-pin female to 2 Right Angle big 4-pin female power, 47/62cm
	MCP-240-22603-0N	1	2U Rear Window support (2 + 2) 2.5 HDD
	MCP-240-22604-0N	1	2U Rear plate support (2 + 2) 2.5 HDD
	MCP-220-82609-0N	1	Rear 2.5 x 2 Hot swap HDD kit
<b>3108 Cache Protection</b>	BTR-CV3108-FT1	-	LSI 3108 CacheVault kit (ROHS, Reach)
<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)
<b>Software</b>	SFT-DCMS-Single	1	DataCenter Management Package (per node license)
<b>SIOM Network Card(s)</b>	<a href="#">AOC-MGP-I2</a>	-	SIOM 2-port GbE, Intel i350-AM2
	<a href="#">AOC-MGP-I4</a>	-	SIOM 4-port GbE, Intel i350-AM4
	<a href="#">AOC-MTG-I2T</a>	-	SIOM 2-port 10GBase-T, Intel X550
	<a href="#">AOC-MTG-I4T</a>	-	SIOM 4-port 10GBase-T, Intel X550
	<a href="#">AOC-MTGN-I2S</a>	-	SIOM 2-port 10G SFP+, Intel 82599ES
	<a href="#">AOC-MTG-I4S</a>	-	SIOM 4-port 10G SFP+, Intel XL710