

## Storage SuperServer SSG-640P-E1CR24L

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### Key Applications

- Enterprise Server
- iSCSI SAN
- HPC, Data Center
- Database Processing & Storage
- Corporate Database
- Appliance Optimized Storage Building Blocks

### Key Features

Dual socket 3rd Gen Intel® Xeon® Scalable processors, up to 72 Cores Per Node

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16 ECC DDR4-3200: LRDIMM/RDIMM + 2 Intel® Optane™ Persistent Memory Dedicated Slots

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2x 10Gbe  
Server remote management: IPMI 2.0 / KVM over LAN / Media over LAN per node

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24 3.5"/2.5" Hot-swap SAS3/SATA3 drives, 2x Rear SATA Slots, 1x SATA/NVMe M.2 (form factor: 2280 and 22110)

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5x 8cm hot-swap counter-rotate redundant PWM cooling fans

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1200W Redundant Power Supplies Titanium Level (96%)

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HBA Controller support via Broadcom® 3808

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## Product SKUs

<b>SSG-640P-E1CR24L</b>	<ul style="list-style-type: none"> <li>SuperServer SSG-640P-E1CR24L (Black)</li> </ul>
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## Motherboard

<b>Super X12DPi-NT6</b>
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## Processor

<b>CPU</b>	<ul style="list-style-type: none"> <li>Dual Socket P+ (LGA-4189)</li> <li>3rd Gen Intel® Xeon® Scalable processors</li> <li>Support CPU TDP 120-270W</li> </ul>
<b>Cores</b>	<ul style="list-style-type: none"> <li>Up to 38C/76T; Up to 57MB Cache</li> </ul>

## System Memory

<b>Memory</b>	<ul style="list-style-type: none"> <li>Memory Capacity: 16 DIMM slots</li> <li>Up to 4TB: 16x 256 GB DRAM and 8x 512 GB PMem</li> <li>Memory Type: 3200MHz ECC DDR4 RDIMM;LRDIMM;DCPMM</li> <li>Intel® Optane™ persistent memory 200 series</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>ECC</li> </ul>

## On-Board Devices

<b>Chipset</b>	<ul style="list-style-type: none"> <li>Intel® C621A</li> </ul>
<b>Network Connectivity</b>	<ul style="list-style-type: none"> <li>2x 10GbE BaseT with Intel® X550</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> </ul>

## Input / Output

<b>LAN</b>	<ul style="list-style-type: none"> <li>1 RJ45 Dedicated IPMI LAN port</li> </ul>
<b>USB</b>	<ul style="list-style-type: none"> <li>4 USB 3.0 port(s) (4 Rear_USB)</li> </ul>
<b>Video</b>	<ul style="list-style-type: none"> <li>1 VGA port(s)</li> </ul>
<b>Serial Port</b>	<ul style="list-style-type: none"> <li>1 COM Port(s) (1 rear)</li> </ul>
<b>DOM</b>	<ul style="list-style-type: none"> <li>2 SuperDOM (Disk on Module) port</li> </ul>

## System BIOS

<b>BIOS Type</b>	<ul style="list-style-type: none"> <li>AMI 128MB SPI Flash EEPROM</li> </ul>
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## Management

<b>Software</b>	<ul style="list-style-type: none"> <li>IPMI 2.0</li> <li>SUM</li> <li>NMI</li> <li>Watch Dog</li> <li>SuperDoctor® 5</li> </ul>
<b>Power Configurations</b>	<ul style="list-style-type: none"> <li>ACPI Power Management</li> <li>Power-on mode for AC power recovery</li> </ul>

## PC Health Monitoring

<b>CPU</b>	<ul style="list-style-type: none"> <li>4+1 Phase-switching voltage regulator</li> <li>Monitors for CPU Cores, Chipset Voltages, Memory</li> </ul>
<b>FAN</b>	<ul style="list-style-type: none"> <li>Fans with tachometer monitoring</li> <li>Pulse Width Modulated (PWM) fan connectors</li> <li>Status monitor for speed control</li> </ul>
<b>Temperature</b>	<ul style="list-style-type: none"> <li>Monitoring for CPU and chassis environment</li> <li>Thermal Control for fan connectors</li> </ul>

## Chassis

<b>Form Factor</b>	<ul style="list-style-type: none"> <li>4U</li> </ul>
<b>Model</b>	<ul style="list-style-type: none"> <li>CSE-846BE1C-R1K23B</li> </ul>

## Dimensions and Weight

<b>Height</b>	<ul style="list-style-type: none"> <li>7" (178mm)</li> </ul>
<b>Width</b>	<ul style="list-style-type: none"> <li>17.2" (437mm)</li> </ul>
<b>Depth</b>	<ul style="list-style-type: none"> <li>26" (660mm)</li> </ul>
<b>Package</b>	<ul style="list-style-type: none"> <li>26.5" (H) x 34.3" (W) x 13.5" (D)</li> </ul>
<b>Weight</b>	<ul style="list-style-type: none"> <li>Net Weight: 86 lbs (39 kg)</li> <li>Gross Weight: 118 lbs (53.52 kg)</li> </ul>
<b>Available Color</b>	<ul style="list-style-type: none"> <li>Black</li> </ul>

## Front Panel

<b>Buttons</b>	<ul style="list-style-type: none"> <li>Power On/Off</li> </ul>
<b>LEDs</b>	<ul style="list-style-type: none"> <li>HDD activity</li> <li>Network activity</li> <li>Power status</li> <li>System information (overheat/UID)</li> </ul>

## Expansion Slots

<b>PCI-Express (PCI-E)</b>	<ul style="list-style-type: none"> <li>Slot 3: PCI-E 4.0 x16 LP</li> <li>Slot 4: PCI-E 4.0 x16 LP</li> <li>Slot 5: PCI-E 4.0 x16 LP</li> <li>Slot 6: PCI-E 4.0 x8 LP</li> </ul>
<b>Note</b>	<ul style="list-style-type: none"> <li>PCIe slot 1/2 is occupied by the JBOD Expansion/Storage Controller</li> </ul>

## Drive Bays / Storage

<b>Hot-swap</b>	<ul style="list-style-type: none"> <li>24x 3.5" hot-swap SATA3/SAS3 drive bays</li> </ul>
<b>M.2</b>	<ul style="list-style-type: none"> <li>1 M.2 NVMe</li> </ul>

## System Cooling

<b>Fans</b>	<ul style="list-style-type: none"> <li>5 Heavy Duty 8cm Fan(s)</li> </ul>
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## Power Supply

AC 1200W, Titanium Level, Redundancy,PMBUS 1.2, +12V/+5Vsb, 360x76x40 mm,HF,RoHS/REACH

<b>Dimension (W x H x L)</b>	<ul style="list-style-type: none"> <li>76 x 40 x 336 mm</li> </ul>
<b>Output Type</b>	<ul style="list-style-type: none"> <li>Gold Finger</li> </ul>

<b>Certification</b>	 <ul style="list-style-type: none"> <li>Titanium Level</li> </ul>
	<ul style="list-style-type: none"> <li><a href="#">[ Test Report ]</a></li> </ul>

## Operating Environment

<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 ~ 35°C (50°F ~ 95°F)</li> <li>Non-operating Temperature: -40°C to 60°C (-40°F to 140°F)</li> <li>Operating Relative Humidity: 8% to 90% (Non-Condensing)</li> <li>Non-operating Relative Humidity: 5% to 95% (Non-Condensing)</li> </ul>

## Optional Parts List

	Part Number	Qty	Description
<b>Bezel</b>	MCP-210-84601-0B •eStore	-	Black Front Bezel For SC846 Chassis
<b>Converter Tray</b>	MCP-220-00043-0N •eStore	-	Black hot-swap gen 4 3.5 to 2.5 HDD tray
<b>External SAS Cable (FOR JBOD)</b>	CBL-SAST-0573 •eStore	-	1m External Mini SAS HD to External Mini SAS HD.28AWG
<b>IPASS Cable</b>	CBL-SAST-0388L-02 •eStore	-	30AWG Ipass to 4SATA 90/90/70/70CM W/ 90CM SB
<b>Network Cards</b>	More	-	AOC Compatibility Matrix (Select Storage & X12)
	AOC-SGP-I2	-	Standard LP 2-port GbE, Intel 82575
	AOC-S40G-I2Q	-	Standard LP 2-port 40GbE controller, Intel Fortville XL710
	AOC-S25G-M2S	-	Standard LP, 2x 25GbE SFP28, Mellanox ConnectX-4 LX EN
<b>Power Cord</b>	CBL-PWCD-0579	-	Power Cord Type IEC (C14 to C13) 6 ft (14AWG), 15A, 250V
	CBL-PWCD-0579-1	-	Power Cord Type IEC (C14 to C13) 6 ft (14AWG), 15A, 250V
	CBL-PWCD-0300-IS	-	PWCD,US,IEC60320 C14 TO C13,6FT,18AWG,RoHS/REACH
<b>Toolless Converter Tray</b>	MCP-220-00118-0B •eStore	-	Black gen-5.5 tool-less 3.5-to-2.5 converter drive tray,RoHS/REACH
<b>TPM Module</b>	AOM-TPM-9670V	-	SPI capable TPM 2.0 with Infineon 9670 controller with vertical form factor
	AOM-TPM-9671V	-	SPI capable TPM 1.2 with Infineon 9670 controller with vertical form factor