

## Storage SuperServer SSG-640SP-DE2CR60 (Complete System Only )



### Key Applications

- Big Data & Analytics, Data Lake
- HPC and AI/ML Workloads
- Telco & Cloud Service Providers
- Financial Services & Healthcare Image Archives
- Content Repositories
- Government Data Protection

### Key Features

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

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

---

16 ECC DDR4-3200: LRDIMM/RDIMM

---

3 x PCI-E 4.0 x16 HHL PCI-E slots

---

60 3.5"/2.5" Hot-swap SAS3 drives, 2x Fixed slim SATA SSD, 2x NVMe M.2 (form factor: 2280 and 22110)

---

6x 8cm hot-swap counter-rotate redundant PWM cooling fans

---

2600W Redundant Power Supplies Titanium Level (96%)

---

HBA Controller support via Broadcom® 3616

Server remote management: IPMI 2.0 / KVM over LAN / Media over LAN

---

Dedicated node to node connectivity featuring high performance NTB PCI-E 4.0 x16 , 1G private Ethernet, and IPMI for robust node fail-over support

---

## Product SKUs

<b>SSG-640SP-DE2CR60</b>	<ul style="list-style-type: none"> <li>SuperServer SSG-640SP-DE2CR60 (Black)</li> </ul>
--------------------------	---

## Motherboard

**Super X12DSC-6**

## Processor (per Node)

<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 120-205W</li> </ul>
<b>Cores</b>	<ul style="list-style-type: none"> <li>Up to 36C/72T; Up to 54MB Cache</li> </ul>

## System Memory (per Node)

<b>Memory</b>	<ul style="list-style-type: none"> <li>Memory Capacity: 16 DIMM slots</li> <li>Up to 4TB: 16x 256 GB DRAM</li> <li>Memory Type: 3200MHz ECC DDR4 RDIMM;LRDIMM</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 (per Node)

<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 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 (per Node)

<b>LAN</b>	<ul style="list-style-type: none"> <li>1 RJ45 Dedicated IPMI LAN port</li> <li>2 RJ-45 10Gbase-T ports</li> </ul>
<b>USB</b>	<ul style="list-style-type: none"> <li>2 USB 3.0 port(s) (2 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>
------------------	--

## 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 Rackmount</li> </ul>
<b>Model</b>	<ul style="list-style-type: none"> <li>CSV-947STS-R2K63P</li> </ul>

## Dimensions and Weight

<b>Height</b>	<ul style="list-style-type: none"> <li>7"</li> </ul>
<b>Width</b>	<ul style="list-style-type: none"> <li>17.6"</li> </ul>
<b>Depth</b>	<ul style="list-style-type: none"> <li>34.1"</li> </ul>
<b>Package</b>	<ul style="list-style-type: none"> <li>29.92" (H) x 31.89" (W) x 44.88" (D)</li> </ul>
<b>Weight</b>	<ul style="list-style-type: none"> <li>Net Weight: 118 lbs (53.5 kg)</li> <li>Gross Weight: 170.5 lbs (77.3 kg)</li> </ul>
<b>Available Color</b>	<ul style="list-style-type: none"> <li>Black</li> </ul>

## Expansion Slots (per Node)

<b>PCI-Express (PCI-E)</b>	<ul style="list-style-type: none"> <li>Slot 1: PCI-E 4.0 x16 LP</li> <li>Slot 2: PCI-E 4.0 x16 LP</li> <li>Slot 3: PCI-E 4.0 x16 LP</li> </ul>
----------------------------	--

## Drive Bays / Storage (per Node)

<b>Hot-swap</b>	<ul style="list-style-type: none"> <li>60x 3.5" hot-swap SATA3/SAS3 drive bays</li> <li>2x 2.5" 7mm drive bays</li> </ul>
<b>M.2</b>	<ul style="list-style-type: none"> <li>2 M.2 NVMe</li> </ul>

## System Cooling

<b>Fans</b>	<ul style="list-style-type: none"> <li>6 Heavy Duty 8cm Fan(s)</li> </ul>
-------------	---

## Power Supply

2600W Redundant Power Supplies with PMBus

<b>Dimension (W x H x L)</b>	<ul style="list-style-type: none"> <li>73.5 x 40 x 265 mm</li> </ul>
<b>AC Input</b>	<ul style="list-style-type: none"> <li>2600W: 200-240Vac / 15A Max</li> </ul>
<b>DC Input</b>	<ul style="list-style-type: none"> <li>2600W: 200-240Vdc For CQC Only/ 15A Max / 50-60Hz</li> </ul>
<b>+12V</b>	<ul style="list-style-type: none"> <li>Max: 216A / Min: 0A (11.4Vdc-12.6Vdc) (12V output)</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>  <b>Titanium Level</b> </li> </ul>

[ [Test Report](#) ]

## 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>Network Cards</b>	AOC-S25G-M2S	-	Standard LP, 2x 25GbE SFP28, Mellanox ConnectX-4 LX EN
	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
<b>TPM Module</b>	AOM-TPM-9671V	-	SPI capable TPM 1.2 with Infineon 9670 controller with vertical form factor
	AOM-TPM-9670V	-	SPI capable TPM 2.0 with Infineon 9670 controller with vertical form factor