

Storage SuperServer SSG-640SP-DE2CR90 (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

90 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

SSG-640SP-DE2CR90	<ul style="list-style-type: none"> SuperServer SSG-640SP-DE2CR90 (Black)
--------------------------	---

Motherboard

Super X12DSC-6

Processor (per Node)

CPU	<ul style="list-style-type: none"> Dual Socket P+ (LGA-4189) 3rd Gen Intel® Xeon® Scalable processors Support CPU TDP 120-205W
Cores	<ul style="list-style-type: none"> Up to 36C/72T; Up to 54MB Cache

System Memory (per Node)

Memory	<ul style="list-style-type: none"> Memory Capacity: 16 DIMM slots Up to 4TB: 16x 256 GB DRAM Memory Type: 3200MHz ECC DDR4 RDIMM;LRDIMM
Memory Voltage	<ul style="list-style-type: none"> 1.2 V
Error Detection	<ul style="list-style-type: none"> ECC

On-Board Devices (per Node)

Chipset	<ul style="list-style-type: none"> Intel® C621A
Network Connectivity	<ul style="list-style-type: none"> 2x 10GbE BaseT with X550
IPMI	<ul style="list-style-type: none"> Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support

Input / Output (per Node)

LAN	<ul style="list-style-type: none"> 1 RJ45 Dedicated IPMI LAN port 2 RJ-45 10Gbase-T ports
USB	<ul style="list-style-type: none"> 2 USB 3.0 port(s) (2 Rear_USB)
Video	<ul style="list-style-type: none"> 1 VGA port(s)
Serial Port	<ul style="list-style-type: none"> 1 COM Port(s) (1 rear)
DOM	<ul style="list-style-type: none"> 2 SuperDOM (Disk on Module) port

System BIOS

BIOS Type	<ul style="list-style-type: none"> AMI 128MB SPI Flash EEPROM
------------------	--

Management

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

PC Health Monitoring

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

Chassis

Form Factor	<ul style="list-style-type: none"> 4U Rackmount
Model	<ul style="list-style-type: none"> CSV-947HTS-R2K63P

Dimensions and Weight

Height	<ul style="list-style-type: none"> 7"
Width	<ul style="list-style-type: none"> 17.6"
Depth	<ul style="list-style-type: none"> 42.1"
Package	<ul style="list-style-type: none"> 29.92" (H) x 35.82" (W) x 53.15" (D)
Weight	<ul style="list-style-type: none"> Net Weight: 150 lbs (68.04 kg) Gross Weight: 240 lbs (108.86 kg)
Available Color	<ul style="list-style-type: none"> Black

Expansion Slots (per Node)

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

Drive Bays / Storage (per Node)

Hot-swap	<ul style="list-style-type: none"> 90x 3.5" hot-swap SATA3/SAS3 drive bays 2x 2.5" 7mm drive bays
M.2	<ul style="list-style-type: none"> 2 M.2 NVMe

System Cooling

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

Power Supply

2600W Redundant Power Supplies with PMBus

Dimension (W x H x L)	<ul style="list-style-type: none"> 73.5 x 40 x 265 mm
AC Input	<ul style="list-style-type: none"> 2600W: 200-240Vac / 15A Max
DC Input	<ul style="list-style-type: none"> 2600W: 200-240Vdc For CQC Only/ 15A Max / 50-60Hz
+12V	<ul style="list-style-type: none"> Max: 216A / Min: 0A (11.4Vdc-12.6Vdc) (12V output)
Output Type	<ul style="list-style-type: none"> 25 Pairs Gold Finger Connector
Certification	<ul style="list-style-type: none">  Titanium Level

[[Test Report](#)]

Operating Environment

RoHS	<ul style="list-style-type: none"> RoHS Compliant
Environmental Spec.	<ul style="list-style-type: none"> Operating Temperature: 10°C ~ 35°C (50°F ~ 95°F) Non-operating Temperature: -40°C to 60°C (-40°F to 140°F) Operating Relative Humidity: 8% to 90% (Non-Condensing) Non-operating Relative Humidity: 5% to 95% (Non-Condensing)

Optional Parts List

	Part Number	Qty	Description
Network Cards	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
TPM Module	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