

Storage SuperServer SSG-640SP-DE1CR60 (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 HHHL PCI-E slots

60 3.5"/2.5" Hot-swap SAS3/SATA3 drives (Each node controls 30 drives)

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

2600W Redundant Power Supplies Titanium Level (96%)

Drive Controller support via Broadcom® 3916 or 3616
Server remote management: IPMI 2.0 / KVM over LAN / Media over LAN

Product SKUs

SSG-640SP-DE1CR60	<ul style="list-style-type: none"> SuperServer SSG-640SP-DE1CR60 (Black)
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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
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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-947STS-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"> 34.1"
Package	<ul style="list-style-type: none"> 29.92" (H) x 31.89" (W) x 44.88" (D)
Weight	<ul style="list-style-type: none"> Net Weight: 118 lbs (53.5 kg) Gross Weight: 170.5 lbs (77.3 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
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Drive Bays / Storage (per Node)

Hot-swap	<ul style="list-style-type: none"> 60x 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)
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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	 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
HBA option	AOM-S3616-S-O	2	Storage 3616 controller for serviceable 60/90 bay systems. This has two 3616 controller chips, PCI switch, 2x NVMe M.2 (Form factors: 2280 and 22110), RoHS (One per Node)
HW RAID option	CBL-SAST-1301-100	2	Slimline x8 (STR) to 2x SLL x8 STR,14/14CM,100 Ohm,RoHS (One per Node)
	AOM-SADPT-S	2	Bypass card for 60/90 bay systems (One per Node)
	AOC-S3908L-H8IR	2	AOC with Gen4 SAS3908 controller (U3) and 240PD RAID Key (U39) (One per Node)
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-S40E-I2C	-	Standard LP 2 port 40GbE controller, Intel E810C, X1 710

	AOC-3400-120	-	Standard LF 2-port 40GbE controller, Intel Fortville AL710
SuperCap Kit (Need Both items)	BTR-CVPM05	2	Broadcom 05-50039-00 CacheVault w/ 24" Remote Extender(Optional)(One per Node)
	MCP-240-94711-0N	2	SC947 MB Node Supercap holder module,RoHS (Optional) (One per Node)
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