Storage SuperServer SSG-641E-E1CR36L
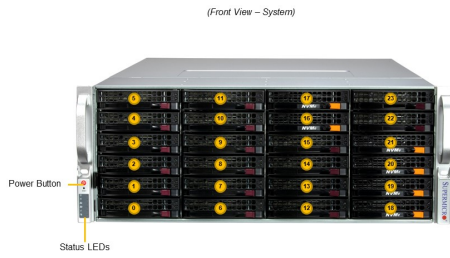
Key Applications

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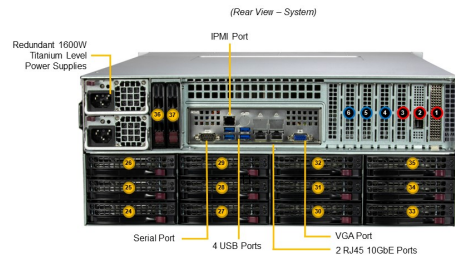
Key Features

- Dual Socket E (LGA-4677) 5th/4th Gen Intel® Xeon® Scalable processors;
- Up to 4TB 3DS ECC RDIMM, DDR5-5600MT/s(1DPC) in 16 DIMM slots;
- 1x GbE Dedicated LAN for server remote management: IPMI 2.0 / KVM over LAN / Media over LAN; 2x 10 GbE onboard via Broadcom BCM57416;
- 36x 3.5"/2.5" Hot-swap SAS3/SATA3 drives, 2x Rear 2.5" SATA Slots, 2x NVMe M.2 (form factor: 2280 and 22110);
- 7x 8cm hot-swap counter-rotate redundant PWM cooling fans;
- 1600W Redundant Power Supplies Titanium Level (96%);
- HBA Controller support via Broadcom® 3808;

Form Factor	4U Rackmount Enclosure: (17.2" x 7" x 27.5") Package: (27" x 15" x 39")
Processor	Dual Socket E (LGA-4677) 5th Gen Intel® Xeon®/4th Gen Intel® Xeon® Scalable processors
System Memory	Slot Count: 16 DIMM slots Max Memory (1DPC): Up to 4TB 5600MT/s ECC DDR5 RDIMM
Drive Bays	36x 3.5" hot-swap SATA3/SAS3 drive bays (6x 2.5" NVMe hybrid)(2x 2.5" hot-swap SATA3 rear drive bays) 2 M.2 NVMe M-Key, 2280 and 22110
Expansion Slots	2 PCIe 5.0 x8 LP slot(s) 4 PCIe 5.0 x16 LP slot(s) Note: PCIe slot 1 & 2 are occupied by the Storage Controller/JBOD Expansion Module
On-Board Devices	Chipset: Intel® C741 Network Connectivity: 2x 10GbE BaseT with Broadcom BCM57416 IPMI: Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Input / Output	LAN: 1 RJ45 Dedicated IPMI LAN port 2 Onboard 10 GbE LAN Ports USB: 4 USB 3.0 port(s) (4 Rear_USB) Video: 1 VGA port(s) Serial Port: 1 COM Port(s) (1 rear) DOM: 2 SuperDOM (Disk on Module) port

(Front View – System)

(Rear View – System)

Location	Description
0 - 23	24 Hot-swap 3.5" SATA3/SAS3 Drive Bays
16 - 21	6 NVMe Drive Bays (optional)

Location	Description
1	PCIe 5.0 x8 (occupied by 3908 or 3808 SAS controller)
2	PCIe 5.0 x16 (occupied by AOM for external SAS)
3	PCIe 5.0 x16
4 - 5	PCIe 5.0 x16
6	PCIe 5.0 x8

Location	Description
24 - 35	12 Hot-swap 3.5" SATA3/SAS3 Drive Bays
36 - 37	2 Hot-swap 2.5" SATA3 Drive Bays

CPU1 ■ CPU2 ■

System Cooling	Fans: 7 Heavy Duty 8cm Fan(s)
Power Supply	1600W Redundant Titanium Level power supplies
System BIOS	BIOS Type: AMI 32MB SPI Flash EEPROM
Management	Redfish API; Supermicro Server Manager (SSM); Supermicro Power Manager (SPM); Supermicro Update Manager (SUM); SuperDoctor® 5; Super Diagnostics Offline ; KVM with dedicated LAN ; IPMI 2.0

PC Health Monitoring	CPU: Monitors for CPU Cores, Chipset Voltages, Memory
	    7+1 Phase-switching voltage regulator
	FAN: Fans with tachometer monitoring
	    Status monitor for speed control
	    Pulse Width Modulated (PWM) fan connectors
	Temperature: Monitoring for CPU and chassis environment
	        Thermal Control for fan connectors

Dimensions and Weight	Height: 7" Width: 17.2" Depth: 27.5" Gross Weight: 102.5 lbs (46.4 kg) Net Weight: 65.5 lbs (29.7 kg) Packaging: 15" x 27" x 39" Available Color: Silver
Operating Environment	ROHS: RoHS Compliant 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)
Motherboard	Super X13DEI-T
Chassis	CSE-847BTS-R1K68LPBP5

Parts List

Standard Parts (Parts Included)

Motherboard / Chassis

Part Number	MBD-X13DEI-T	CSE-847BTS-R1K68LPBP5
Qty	1	1
Description	Super X13DEI-T Motherboard	4U Chassis

Add-on Card / Module

Part Number	AOC-S3808L-L8IT-P	AOM-SAS3-8I8E-LP
Qty	1	1
Description	8 int 12Gb/s SAS3 ports, x8 Gen4, HBA - LP,122HDDw/exp,R	8-port Mini SAS HD Int-to-Ext Cable Adapter W/LP Bracket

Backplane

Part Number	BPN-SAS3-826EL1-N4-1	BPN-SAS3-846EL1-N8-1
Qty	1	1
Description	2U 12-slot SAS3/SATA3 LFF Expander BPN, 4 of the 12-slots are hybrid ports also support NVMe Gen 4.,RoHS	4U 24-Port LFF Expander Backplane support up to 16 SAS3/SATA3 and 8 SAS3/SATA3/NVMe Gen 4 Storage Media

Cable

Part Number	CBL-0296L	CBL-SAST-1281-100	CBL-SAST-1285-100	CBL-SAST-1286-100
	CBL-0071L	CBL-CDAT-0728	CBL-PWEX-1079	
		CBL-0160L		
Qty	2	1	2	2
	1	1	1	
		2	7	
Description	9" 4 PIN FAN PWS EXTENSION CORD, PBF	4 Pin to 4 Pin I2C Cable, 65cm, 26AWG, 4 Wires, Pinout 1-1	Slimline x8 (STR) to 2x Slimline x4 (STR),80CM,100 OHM,	Slimline x4 (STR) to MiniSAS HD (STR) x4,85CM,100 OHM,R	Slimline x4 (STR) to Slimline x4 (STR),INT,85CM,100 OHM,
	ROUND 16 TO 16 PIN RIBBON FP CABLE 30"L, LF	US POWER CORD 16AWG, PB FREE	PWEX,FAN,1X4/P2.5 TO 1X4/P2.54,37CM,22AWG,5A/pin,RoHS		

Parts

Part Number	MCP-260-00042-3N
Qty	1
Description	STD I/O shield for X13 server MB with venting holes

Software

Part Number	SFT-OOB-LIC
Qty	1
Description	License key for enabling OOB BIOS management

Heatsink / Retention

Part Number	SNK-P0088AP4	SNK-P0088P
Qty	1	1
Description	2U Active CPU Heat Sink for X13 Gen. Building Block Solution	2U Passive CPU HS for X13 Intel Eagle Stream Platform

*Power Supply

Part Number	PWS-1K68A-1R
Qty	2
Description	1U 1600W Redundant Titanium Power Supply 76mm width 27Pair,PBF

*Power Distributor

Part Number	PDB-PT847-H8824
Qty	1
Description	4U support redundancy input powers and output over 2.6KW PDB

*Fan

Part Number	FAN-0166L4
Qty	7
Description	80x80x38 mm, 13.5K RPM, Optional Middle Cooling Fan for 2U Ultra Series Servers (Hot-swappable Version of FAN-0162L4)

*Front Panel

Part Number	FPB-TB826-T
Qty	1
Description	Chassis transfer board for SC826

*Drive Tray(s)

Part Number	MCP-220-00075-0B	MCP-220-84708-ASM
Qty	36	1
Description	Black gen 5.5 hot-swap 3.5" HDD tray	SC847B LP MB Tray assembly,HF,RoHS/REACH

*Rail Set

Part Number	MCP-290-00057-0N	MCP-410-00007-0N
Qty	1 set	1
Description	Rail set, quick/quick, default for 4U 17.2" W	Rail screw bag

*Air Shroud

Part Number	MCP-310-49004-0N
Qty	1
Description	SC847/417 DP X9 universal PC air shroud 1368x13/12x13MB

Notes:
1. Parts with * are inside the chassis
2. Excessive parts might not be shipped, including but not limited to excessive drive trays, fans, riser brackets, air shrouds, IO shields, cables.....etc.

Optional Parts List

Cable - for NVMe in main drive bay

Part Number	CBL-MCIO-1260M5 *e*Store (https://store.supermicro.com/mcio-x8-str-to-x8-str-60cm-30awg-85ohm-rohs.html)
Qty	-
Description	MCIO (x8 STR to x8 STR),60CM,30AWG,85OHM,RoHS

Converter Tray

Part Number	MCP-220-00043-0N *e*Store (https://store.supermicro.com/mcp-220-00043-0n.html)
Qty	-
Description	2.5" HDD TRAY IN 4TH GENERATION 3.5" HOT SWAP TRAY

Converter Tray - orange NVMe tab

Part Number	MCP-220-00138-0B eStore (https://store.supermicro.com/mcp-220-00138-0b.html)				
Qty	-				
Description	Black gen-5.5 tool-less NVMe 3.5-to-2.5 drive tray, Orange tab				

Network Cards

Part Number	AOC-STGS-i2T-O	AOC-STG-b2T-O	AOC-S25G-M2S-O eStore (https://store.supermicro.com/aoc-s25g-m2s-o-1013.html)	AOC-S25G-i2S-O	AOC-S25G-b2S-O
Qty	-	-	-	-	-
Description	Std LP 2-port 10G RJ45, Intel X550	Standard LP 2-port 10Gbase-T, Broadcom 57416,HF,RoHS	Std LP 2-port 25G SFP28, Mellanox ConnectX-4 LX EN	Std. Low Profile 25G dual port SFP28, based on Intel XXV710	Std LP 2-port 25G SFP28, Broadcom BCM57414

Power Cord

Part Number	CBL-PWCD-0579-1	CBL-PWCD-0300-IS	CBL-PWCD-0579
Qty	-	-	-
Description	Power Cord Type IEC (C14 to C13) 6 ft (14AWG), 15A, 250V	PWCD,US,IEC60320 C14 TO C13,6FT,18AWG,RoHS/REACH	Power Cord Type IEC (C14 to C13) 6 ft (14AWG), 15A, 250V

TPM

Part Number	AOM-TPM-9671V-O	AOM-TPM-9670V-O
Qty	1	1
Description	TPM 1.2, vertical form factor, provisioned for server	TPM 2.0, vertical form factor, provisioned for server

VROC

Part Number	AOC-VROCSTNMOD (/products/accessories/addon/AOC-VROCxxxMOD.php) eStore (https://store.supermicro.com/supermicro-vroc-standard-module-1.html)	AOC-VROCPREMOD (/products/accessories/addon/AOC-VROCxxxMOD.php) eStore (https://store.supermicro.com/supermicro-vroc-premium-module.html)
Qty	-	-
Description	Intel VROC HW key (RSTe) standard upgrade module,HF,RoHS	Intel VROC Premium, RAID0,1,5,10,HF,RoHS