

Specifications

Product SKUs		Chassis	
SSG-520P- ACTR12H	<ul style="list-style-type: none"> SuperServer SSG-520P-ACTR12H (Black) 	Form Factor	<ul style="list-style-type: none"> 2U Rackmount
		Model	<ul style="list-style-type: none"> CSE-826BTS-R802LPB
Motherboard		Dimensions and Weight	
Super X12SPI-TF		Height	<ul style="list-style-type: none"> 3.5" (89mm)
		Width	<ul style="list-style-type: none"> 17.2" (437mm)
		Depth	<ul style="list-style-type: none"> 25.6" (650mm)
		Package	<ul style="list-style-type: none"> 11.5" (H) x 26.5" (W) x 34" (D)
		Weight	<ul style="list-style-type: none"> Net Weight: 34 lbs (15.4 kg) Gross Weight: 58 lbs (26.3 kg)
		Available Color	<ul style="list-style-type: none"> Black
Processor		Front Panel	
CPU	<ul style="list-style-type: none"> Single Socket P+ (LGA-4189) 3rd Gen Intel® Xeon® Scalable processors Support CPU TDP 270W 	Buttons	<ul style="list-style-type: none"> Power On/Off System Reset
		LEDs	<ul style="list-style-type: none"> Device Activity LAN 1 Activity LAN 2 Activity Power Failure LED Power status System information
System Memory		Expansion Slots	
Memory	<ul style="list-style-type: none"> Memory Capacity: 8 DIMM slots Up to 2TB: 8x 256 GB DRAM Up to 3TB: 4x 256 GB DRAM and 4x 512 GB PMem Memory Type: 3200/2933/2666MHz ECC DDR4 RDIMM;LRDIMM Intel® Optane™ persistent memory 200 series 	PCI-Express (PCI-E)	<ul style="list-style-type: none"> Slot 2: PCI-E 4.0 x8 LP Slot 4: PCI-E 4.0 x16 LP Slot 6: PCI-E 4.0 x16 LP Slot 7: PCI-E 4.0 x8 LP
Memory Voltage	<ul style="list-style-type: none"> 1.25 V 	Drive Bays / Storage	
Error Detection	<ul style="list-style-type: none"> Yes 	Hot-swap	<ul style="list-style-type: none"> 12x 3.5" hot-swap SATA/SAS drive bays
On-Board Devices		M.2	<ul style="list-style-type: none"> 1x PCI-E 3.0 x4 and SATA Form Factor: 2280, 22110 Key: M-key
SATA	<ul style="list-style-type: none"> SATA3 (6Gbps) via C621A Chipset; RAID 0, 1, 5, 10 support 	Peripheral Bays	<ul style="list-style-type: none"> 2x 2.5" SATA or NVMe drive bays (optional)
SAS	<ul style="list-style-type: none"> SAS3 (12Gbps) via Broadcom 3916; RAID 0, 1, 5, 6, 10, 50, 60 support 	System Cooling	
Chipset	<ul style="list-style-type: none"> Intel® C621A 	Fans	<ul style="list-style-type: none"> 3x (8cm x8cm x3.8cm) heavy duty fans with optimal fan speed control
Network Connectivity	<ul style="list-style-type: none"> 2x 10GbE BaseT with Intel® X550 	Air Shroud	<ul style="list-style-type: none"> 1 Air Shroud(s)
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 	Power Supply	
Input / Output		AC 800W, Titanium Level, 100-240Vac/47-63Hz, and DC240 input	
LAN	<ul style="list-style-type: none"> 1 RJ45 Dedicated IPMI LAN port 2 RJ45 10GBase-T LAN ports 	Dimension (W x H x L)	<ul style="list-style-type: none"> 76 x 40 x 336 mm
USB	<ul style="list-style-type: none"> 4 USB 2.0 port(s) (2 headers; 2 rear) 5 USB 3.2 Gen 1 port(s) (2 headers; 2 rear; 1 Type A) 		
Video	<ul style="list-style-type: none"> 1 VGA port(s) 		
Serial Port	<ul style="list-style-type: none"> 1 COM Port(s) (1 header) 		

DOM	<ul style="list-style-type: none"> 2 SuperDOM (Disk on Module) port with built-in power
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System BIOS

BIOS Type	<ul style="list-style-type: none"> AMI 32MB SPI Flash EEPROM
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Management

Software	<ul style="list-style-type: none"> IPMI2.0 Redfish API SSM Intel® Node Manager SPM KVM with dedicated LAN SUM NMI
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Power Configurations	<ul style="list-style-type: none"> ACPI/APM Power Management
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PC Health Monitoring

CPU	<ul style="list-style-type: none"> 7+1 Phase-switching voltage regulator module (VRM) Monitors for CPU Cores, Chipset Voltages, Memory
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FAN	<ul style="list-style-type: none"> Fans with tachometer monitoring Pulse Width Modulated (PWM) fan connectors Status monitor for speed control
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Temperature	<ul style="list-style-type: none"> Monitoring for CPU and chassis environment Thermal Control for fan connectors
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Output Type	<ul style="list-style-type: none"> Gold Finger
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Certification	 	Titanium Level [Test Report]
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Operating Environment

Environmental Spec.	<ul style="list-style-type: none"> Operating Temperature: 10°C ~ 35°C (50°F ~ 95°F) Non-operating Temperature: -40°C to 70°C (-40°F to 158°F) Operating Relative Humidity: 8% to 90% (non-condensing) Non-operating Relative Humidity: 5% to 95% (non-condensing)
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Parts List

Parts List - (Items Included)			
	Part Number	Qty	Description
Motherboard / Chassis	MBD-X12SPI-TF	1	Super X12SPI-TF Motherboard
	CSE-826BTS-R802LPB	1	2U Chassis
Add-on Card / Module	AOC-S3916L-H16IR-32DD-P	1	16 int 12Gb/s ports, x8 Gen4, ROC - LP, 32 HDD w/ exp,RoHS
Backplane	BPN-SAS3-LA26A-N12	1	2U 12-Slot LFF Backplane Supports 12 x SAS3/SATA3/NVMe4 Storage Devices with 1x(2x4) + 4x(1x4) power connectors, co-lay with BPN-SAS3-LA26A-N12,HF,RoHS
Cable 1	CBL-CDAT-0728	1	4 Pin to 4 Pin I2C Cable, 65cm, 26AWG, 4 Wires, Pinout 1-1
Cable 2	CBL-SAST-1249-100	1	Slimline x8 (STR) to 2x Slimline x4 (STR),50CM,100 OHM,
Cable 3	CBL-SAST-1281-100	1	Slimline x8 (STR) to 2x Slimline x4 (STR),80CM,100 OHM,
Parts	MCP-260-00042-1N	1	Standard I/O Shield for X12SPi with EMI Gasket
Manual	MNL-2361-QRG	1	520P-ACTR12L/H Quick Reference Guide
Software	SFT-OOB-LIC	1	License key for enabling OOB BIOS management
Heatsink / Retention	SNK-P0078P	1	2U Passive CPU Heat Sink for X12 Generation Intel Whitley and Cedar Island Platforms
*Power Supply	PWS-802A-1R	2	1U 800W 100-240Vac/47-63Hz, and DC240 input
*Power Distributor	PDB-PT826-8824	1	PDB with longer 24pin for SC826B

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			
	Part Number	Qty	Description
2x 2.5" NVMe Cage (Rear)	MCP-220-82619-0N + 1x CBL-SAST-1264-85	1	Rear hot-swap 2x 2.5" NVMe drive kit
2x 2.5" SATA/SAS Cage (Rear)	<u>MCP-220-82616-0N</u> • eStore	1	Rear hot-swap 2x 2.5" SATA/SAS drive kit
3.5" to 2.5" Converter Tray(s)	MCP-220-00043-0N • eStore	-	Hot-swap Gen-4 3.5" to 2.5" HDD tray, Black
CacheVault	BTR-CVPM05 & BKT-BBU-BRACKET-05 (For S3916)	1	CacheVault for Broadcom 3916 with SuperCap mounting bracket for PCI-E location
Intel VROC RAID Key for NVMe	<u>AOC-VROCPREMOD</u>	1	Premium Upgrade module (Intel + 3rd party Vendor SSD); RAID 0/1/10/5
	<u>AOC-VROCSTNMOD</u>	1	Standard Upgrade module (Intel + 3rd party Vendor SSD); RAID 0/1/10
	<u>AOC-VROCINTMOD</u>	1	Intel SSD Only Upgrade module; RAID 0/1/10/5
Software	<u>SFT-DCMS-Single</u>	1	DataCenter Management Package (per node license)
TPM	AOM-TPM-9670V-O	1	TPM 2.0, vertical form factor, provisioned for server
	AOM-TPM-9671V-O	1	TPM 1.2, vertical form factor, provisioned for server