

SuperStorage 5028R-E1CR12L



Integrated Board



Super X10SRH-CLN4F

Available Colors:

Black



► [Drivers & Utilities](#) ► [BIOS](#) ► [IPMI](#) ► [Tested Memory](#) ►
[Manuals](#) ► [OS Certification Matrix](#) ► [Quick-References Guide](#)
► [Drive Options](#)

Note: Image above may show a varied configuration of optional parts. Please refer to parts list for standard parts included.

Key Features

1. Single socket R3 (LGA 2011) supports Intel® Xeon® processor E5-2600 v4[†]/ v3 family; QPI up to 9.6GT/s
2. Up to **1TB[†]** ECC 3DS LRDIMM , up to DDR4- **2400[†]**MHz ; 8x DIMM slots
3. 1 PCI-E 3.0 x4 (in x8), 2 PCI-E 3.0 x8, 1 PCI-E 3.0 x8 (in x16), 1 PCI-E 2.0 x2 (in x4), 1 PCI-E 2.0 x4 (in x8)
4. Intel® i350-AM4 Quad port GbE LAN
5. 12x 3.5" Hot-swap SAS3 HDD bays; Opt. 2x 2.5" Hot-swap HDD bays (rear)
6. SAS3 via Broadcom 3008 controller; IR mode
7. Server remote management: IPMI 2.0 / KVM over LAN / Media over LAN
8. 3x 8cm high-performance PWM fans
9. 920W Redundant Power Supplies **Platinum Level (94%)**
10. Dual JBOD expansion ports

Specifications

Product SKUs

- SSG-5028R-E1CR12L** ■ SuperStorage 5028R-E1CR12L (**Black**)

Motherboard

Super X10SRH-CLN4F

Processor

- CPU** ■ Intel® Xeon® processor E5-2600 v4[†]/ v3, E5-1600 v4[†]/ v3 family (up to 145W TDP ^{**})
- Single Socket R3 (LGA 2011)

- Core / Cache** ■ Up to **22 Cores**[†] / Up to **55MB**[†] Cache

- Note** [†] BIOS version 2.0 or above is required

- Note** ^{**} Motherboard supports this maximum TDP. Please verify your system can thermally support

System Memory

- Memory Capacity** ■ 8x 288-pin DDR4 DIMM slots
- Up to 1TB ECC 3DS LRDIMM
- Up to 512GB ECC LRDIMM
- Up to 256GB ECC RDIMM

- Memory Type** ■ **2400**[†]/ 2133/1866/1600MHz ECC DDR4 SDRAM 72-bit, 288-pin (RDIMM / LRDIMM) / 284-pin gold-plated DIMMs

- DIMM Sizes** ■ 3DS LRDIMM: 128GB
- LRDIMM: 64GB, 32GB
- RDIMM: 32GB, 16GB, 8GB, 4GB

- Memory Voltage** ■ 1.2 V

- Error Detection** ■ Corrects single-bit errors
- Detects double-bit errors (using ECC memory)

On-Board Devices

- Chipset** ■ Intel® C612 chipset

- SAS** ■ SAS3 (12Gbps) via Broadcom 3008 (IR mode)
- SW RAID 0, 1, 10

- IPMI** ■ Support for Intelligent Platform Management Interface v.2.0
- IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
- ASPEED AST2400 BMC

- Network Controllers** ■ Intel® i350-AM4 Quad Port Gigabit Ethernet
- Virtual Machine Device Queues reduce I/O overhead
- Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output
- 1 Realtek RTL8201N PHY (dedicated IPMI)

- Graphics** ■ ASPEED AST2400 BMC

Input / Output

- LAN** ■ 4 RJ45 Gigabit Ethernet LAN ports
- 1 RJ45 Dedicated IPMI LAN port

Chassis

- Form Factor** ■ 2U Rackmount

- Model** ■ **CSE-826BE1C-R920LPB**

Dimensions

- Width** ■ 17.2" (437mm)

- Height** ■ 3.5" (89mm)

- Depth** ■ 25.6" (648mm)

- Package** ■ 11.5" (H) x 26.5" (W) x 34" (D)

- Weight** ■ Gross Weight: 58 lbs (26.3 kg)
- Net Weight: 34 lbs (15.4 kg)

- Available Colors** ■ Black

Front Panel

- Buttons** ■ Power On/Off button
- System Reset button

- LEDs** ■ Power status LED
- Hard drive activity LED
- 2x Network activity LEDs
- System Information LED
- Power fail LED

Expansion Slots

- PCI-Express** ■ 1 PCI-E 3.0 x4 (in x8) slot
- 1 PCI-E 3.0 x8 (in x16) slot
- 2 PCI-E 3.0 x8 slots
- 1 PCI-E 2.0 x2 (in x4) slot
- 1 PCI-E 2.0 x4 (in x8) slot

Drive Bays

- Hot-swap** ■ 12x 3.5" Hot-swap SAS3 HDD bays

- Optional** ■ 2x 2.5" Hot-swap HDD bays (rear)

Backplane

SAS3 Backplane: SAS3 12Gbps single expander backplane, w/ LSISAS3x28 expander, support 12x 3.5" drives, with 4x mini-SAS HD connectors, 2 for uplink and another 2 for downlink

System Cooling

- Fans** ■ 3x 8cm 9.5K RPM, 4-pin PWM fans

Power Supply with Power Distributor

920W high-efficiency (94%+) AC-DC Redundant power supplies with PMBus and I2C

- AC Input** ■ 100-240 V, 50-60 Hz, 11-4.5 Amp

- DC Output** ■ 4 Amp @ +5V standby
- 75 Amp @ +12V

Certification



Platinum Certified

[[Test Report](#)]

System BIOS

USB	■ 2 USB 3.0 ports (rear) ■ 2 USB 2.0 ports (rear)
VGA	■ 1 VGA port
Serial Port / Header	■ 1 Fast UART 16550 port / 1 Header

BIOS Type	■ 128Mb SPI Flash EEPROM w ith AMI BIOS
BIOS Features	■ Plug and Play (PhP) ■ APM 1.2 ■ PCI 2.2 ■ ACPI 1.0 / 2.0 ■ USB Keyboard support ■ SMBIOS 2.3 ■ UEFI

Operating Environment / Compliance

RoHS	■ RoHS Compliant
Environmental Spec.	■ Operating Temperature: 10°C to 35°C (50°F to 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)

Parts List

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X10SRH-CLN4F	1	Super X10SRH-CLN4F Motherboard
	CSE-826BE1C-R920LPB	1	2U Chassis
Backplane	BPN-SAS3-826EL1	1	12-port 2U SAS3 12Gbps single-expander backplane, support up to 12x 3.5-inch SAS3/SATA3 HDD/SSD
Cable 1	CBL-SAST-0550	2	MINI SAS HD, 12G, INT, 25CM, 30AWG
Cable 2	CBL-SAST-0568	2	MINI SAS HD, 12G, INT, 35CM, 30AWG
Label	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
Manual	MNL-1607-QRG	1	SSG-5028R-E1CR12L, QRG, HF, RoHS/REACH
Parts	MCP-260-00042-0N	1	STD I/O shield for X9 socket R server MB w/ith Gasket.
Heatsink / Retention	SNK-P0048PS	1	2U Passive CPU Heat Sink for X9, X10 Generation Systems Equipped w/ a Narrow ILM MB
Add-on Card / Module	AOM-SAS3-818E-LP	1	8-port Mini SAS HD Int-to-Ext cable adapter w/ LP bracket, HF, RoHS/REACH
Power Supply	PWS-920P-SQ	1	920W 1U Redundant PWS W/ Quiet Mode
Drive Tray(s)	MCP-220-00075-0B	12	Black 3.5" HDD tray

Optional Parts List

	Part Number	Qty	Description
2.5" to 3.5" Converter Tray	MCP-220-00043-0N	-	Black Hot-sw ap Gen-4 2.5" to 3.5" HDD tray
Peripheral Drives	MCP-220-82616-0N	1	Rear Window 12G 2x 2.5" HDD Module
Storage Controller card & cable	AOC-S3108L-H8iR & 2x CBL-SAST-0532	-	Standard LP, 8 Internal ports (12Gb/s) PCI-E 3.0 x8, RAID controller, RAID 0, 1, 5, 6, 10, 50, 60
CacheVault	BTR-TFM8G-LSICVM02 & BKT-BBU-BRACKET-05	-	CacheVault for Broadcom 3108 w/ith SuperCap mounting bracket for PCI-E location
Network Card(s)	AOC-SGP-i2	-	Standard LP, 2x GbE RJ45, PCI-E x4, Intel i350-AM2
	AOC-SGP-i4	-	Standard LP, 4x GbE RJ45, PCI-E x4, Intel i350
	AOC-STGN-i2S	-	Standard Lp, 2x 10GbE SFP+, PCI-E x8, Intel 82599ES
	AOC-STGF-i2S	-	Standard Lp, 2x 10GbE SFP+, PCI-E x8, Intel X710-BM2
	AOC-STG-B4S	-	Standard Lp, 4x 10GbE SFP+, PCI-E x8, Broadcom BCM57840S
	AOC-STGS-i2T	-	Standard Lp, 2x 10GbE RJ45, PCI-E x8, Intel X550-AT2
	AOC-S25G-b2S	-	Standard LP, 2x 25GbE SFP28, PCI-E x8, Broadcom BCM57414
	AOC-S25G-m2S	-	Standard LP, 2x 25GbE SFP28, PCI-E x8, Mellanox CX-4 LX
Front Bezels	MCP-210-82601-0B	1	Black front bezels
TPM security module	AOM-TPM-9665V	1	TPM 2.0, vertical form factor
	AOM-TPM-9655V	1	TPM 1.2, vertical form factor
Global Services & Support	<u>OS4HR3/2/1</u>	-	3/2/1-year onsite 24x7x4 service
	<u>OSNBD3/2/1</u>	-	3/2/1-year onsite NBD service
Software	<u>SFT-OOB-LIC</u> • eStore	1	OOB Management Package (per node license)
Software	<u>SFT-DCMS-Single</u>	1	DataCenter Management Package (per node license)