

SuperStorage Server 6048R-E1CR24H



HW SAS3 Controller Storage Expandable

Integrated Board



Super X10DRH-iT

Key Features

1. Dual socket R3 (LGA 2011) supports Intel® Xeon® processor E5-2600 v3 family; QPI up to 9.6GT/s
2. Up to 1TB ECC DDR4 2133MHz; 16x DIMM slots
3. 1 PCI-E 3.0 x16, 6 PCI-E 3.0 x8 (slot 1 & 2 occupied by controller and JBOD expansion port)
4. Dual 10GBase-T LAN w/ Intel® X540
5. 24x 3.5" Hot-swap SAS3 (with LSI expander) / SATA3 drive bays; 2x 2.5" optional Hot-swap drive bays (rear)
6. SAS3 via LSI 3108 AOC (HW RAID)
7. Server remote management: IPMI 2.0 / KVM over LAN / Media over LAN
8. 2x 80mm hot-swap rear exhaust PWM fans
9. 920W Redundant Power Supplies **Platinum Level (94%)**

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

Specifications

Product SKUs

- SSG-6048R-E1CR24H** ■ SuperServer 6048R-E1CR24H (**Black**)

Motherboard

Super X10DRH-iT

Processor/Cache

- CPU** ■ Intel® Xeon® processor E5-2600 v3 family (up to 145W TDP) *
■ Dual Socket R3 (LGA 2011)

- Cores / Cache** ■ Up to 18 Cores / Up to 45MB Cache

- System Bus** ■ QPI up to 9.6 GT/s

Note * Please contact Supermicro Technical Support for additional information about frequency optimized CPUs and specialized system optimization.

System Memory

- Memory Capacity** ■ 16x 288-pin DDR4 DIMM slots
■ Up to 1TB ECC LRDIMM, 512GB ECC RDIMM

Chassis

- Form Factor** ■ 4U Rackmount

- Model** ■ **CSE-846BE1C-R920B**

Dimensions and Weight

- Width** ■ 17.2" (437mm)

- Height** ■ 7" (178mm)

- Depth** ■ 26.5" (673mm)

- Weight** ■ Gross Weight: 92 lbs (41.7 kg)
■ Net Weight: 55 lbs (24.9 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 Overheat LED
■ Power fail LED

Expansion Slots

Memory Type	<ul style="list-style-type: none"> 2133/1866/1600MHz ECC DDR4 SDRAM 72-bit
DIMM Sizes	<ul style="list-style-type: none"> RDIMM: 32GB, 16GB, 8GB, 4GB LRDIMM: 64GB, 32GB
Memory Voltage	<ul style="list-style-type: none"> 1.2 V
Error Detection	<ul style="list-style-type: none"> Corrects single-bit errors

On-Board Devices

Chipset	<ul style="list-style-type: none"> Intel® C612 chipset
SAS	<ul style="list-style-type: none"> SAS3 (12Gbps) via LSI 3108 AOC; HW RAID
SATA	<ul style="list-style-type: none"> SATA3 (6Gbps) with RAID 0, 1, 5, 10
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 ASPEED AST2400 BMC
Network Controllers	<ul style="list-style-type: none"> Intel® X540 Dual Port Gigabit Ethernet Virtual Machine Device Queues reduce I/O overhead Supports 10GBASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output 1x Realtek RTL8201N PHY (dedicated IPMI)
Graphics	<ul style="list-style-type: none"> ASPEED AST2400 BMC

Input / Output

LAN	<ul style="list-style-type: none"> 2x RJ45 10GBase-T LAN ports 1x RJ45 Dedicated IPMI LAN port
USB	<ul style="list-style-type: none"> 2x USB 3.0 ports (rear) 2x USB 2.0 ports (rear) 1x Type A
VGA	<ul style="list-style-type: none"> 1x VGA port
Serial Port / Header	<ul style="list-style-type: none"> 1x Fast UART 16550 port / 1 Header

PCI-Express	<ul style="list-style-type: none"> 1x PCI-E 3.0 x16 slot 6x PCI-E 3.0 x8 slots Slot 1 & 2 occupied by controller and JBOD Expansion Port
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Drive Bays

Hot-swap	<ul style="list-style-type: none"> 24x 3.5" Hot-swap SAS3/SATA3 drive bays
Optional	<ul style="list-style-type: none"> 2x 2.5" Hot-swap HDD bays (rear)

Backplane

SAS3/SATA3 single expander per backplane

System Cooling

Fans	<ul style="list-style-type: none"> 2x 80mm hot-swap rear exhaust cooling fans Redundant cooling
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Power Supply with Power Distributor

920W high-efficiency AC-DC Redundant power supplies with PMBus and I2C

AC Input	<ul style="list-style-type: none"> 100-240 V, 50-60 Hz, 11-4.5 Amp
DC Output	<ul style="list-style-type: none"> 4 Amp @ +5V standby 75 Amp @ +12V
With Power Distributor	<ul style="list-style-type: none"> +5V: 45 Amp +3.3V: 24 Amp -12V: 0.6 Amp

Certification



Platinum Certified
[[Test Report](#)]

System BIOS

BIOS Type	<ul style="list-style-type: none"> 128Mb SPI Flash EEPROM with AMI BIOS
BIOS Features	<ul style="list-style-type: none"> Plug and Play (PnP) APM 1.2 PCI 2.2 ACPI 1.0 / 2.0 USB Keyboard support SMBIOS 2.3 UEFI

Operating Environment / Compliance

RoHS	<ul style="list-style-type: none"> RoHS Compliant
Environmental Spec.	<ul style="list-style-type: none"> 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-X10DRH-iT	1	Super X10DRH-iT Motherboard
	CSE-846BE1C-R920B	1	4U Chassis
Backplane	BPN-SAS3-846EL1	1	SAS 12G single expander backplane, with LSI SAS3 expander, support 24x 3.5
Cable 1	CBL-SAST-0531-01	4	Internal Mini-SAS HD to Mini-SAS HD 80cm,30AWG,12Gb/s [FCI],RoHS/REACH
Cable 2	CBL-PWEX-0645	2	big 4 pin male to big 4 pin female, power extension 15cm, 20AWG,RoHS/REACH
Cable 3	CBL-0296L	3	4 pin to 4 pin fan extension cord, for PWM fan. 23cm. 24AWG
Heatsink / Retention	SNK-P0048PS	2	2U Passive CPU Heat Sink for X9, X10 Generation Systems Equipped w/ a Narrow ILM MB
Power Supply	PWS-920P-SQ	2	920W 1U Redundant PWS W/ Quiet Mode
Add On Card	AOC-S3108L-H8IR-O-P	1	SAS-3, GEN-3 RAID card. Supports 12Gb and RAID 0, 1, 5, 6, 10, 50, and 60. Includes 2GB memory
Add On Module	AOM-SAS3-818E-LP	1	8-port Mini SAS HD Int-to-Ext cable adapter w/ LP bracket

Optional Parts List			
	Part Number	Qty	Description
3108 Cache Protection	BTR-TFM8G-LSICVM02	1	SuperCap Module
	BKT-BBU-BRACKET-05	1	Mounting PCIe Card
HDD bracket	MCP-220-82611-0N	1	Dual 2.5" fixed HDD tray
	CBL-0289L	1	HDD Power Cable
	CBL-0473L	2	HDD SATA Cable
Peripheral Drives	MCP-220-84606-0N	-	Rear 2 X 2.5" HDD kit (cables & backplane included)
Onsite Service Program	OS4HR3/2/1	-	3/2/1-year onsite 24x7x4 service
Onsite Service Program	OSNBD3/2/1	-	3/2/1-year onsite NBD service
Software	SFT-OOB-LIC	1	OOB Management Package (per node license)
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)