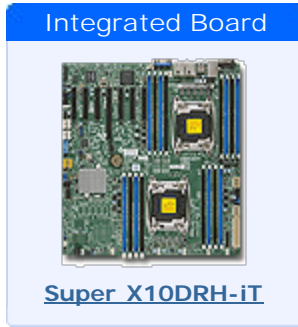


SuperStorage Server 2028R-ACR24H



3x LSI 3108 HW controller
Low Latency



Super X10DRH-iT

Available Colors:

Black



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 1-3 occupied by controllers)
4. Dual 10GBase-T LAN w/ Intel® X540
5. 24x 2.5" Hot-swap SAS3/SATA3 direct attached drive bays; 2x 2.5" optional hot-swap drive bays (rear)
6. SAS3 via 3x LSI 3108 AOC (HW RAID)
7. Server remote management: IPMI 2.0 / KVM over LAN / Media over LAN
8. 3x 8cm hot-swap redundant 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-2028R-ACR24H	■ SuperServer 2028R-ACR24H (Black)
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Motherboard

Super X10DRH-iT

Processor/Cache

CPU	<ul style="list-style-type: none"> ■ Intel® Xeon® processor E5-2600 v3 family (up to 145W TDP) * ■ Dual Socket R3 (LGA 2011)
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Cores / Cache	■ Up to 18 Cores / Up to 45MB Cache
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System Bus	■ QPI up to 9.6 GT/s
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Note * Please contact Supermicro Technical Support for additional information about frequency optimized CPUs and specialized system optimization.

System Memory

Memory Capacity	<ul style="list-style-type: none"> ■ 16x 288-pin DDR4 DIMM slots ■ Up to 1TB ECC LRDIMM, 512GB ECC RDIMM
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Chassis

Form Factor	■ 2U Rackmount
Model	■ CSE-216BAC-R920LPB

Dimensions

Width	■ 17.2" (437mm)
Height	■ 3.5" (89mm)
Depth	■ 24.8" (630mm)
Gross Weight	■ 61 lbs (27.7 kg)
Available Colors	■ Black

Front Panel

Buttons	<ul style="list-style-type: none"> ■ Power On/Off button ■ System Reset button
LEDs	<ul style="list-style-type: none"> ■ Power status LED ■ Hard drive activity LED ■ 2x Network activity LEDs ■ System Overheat LED ■ Power fail LED

Expansion Slots

- 1x PCI-E 3.0 x16 slot

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 3x LSI 3108 controller RAID 0, 1, 5, 6, 10, 50, 60
SATA	<ul style="list-style-type: none"> SATA3 (6Gbps); 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 10GBase-T Virtual Machine Device Queues reduce I/O overhead Supports 10GBase-T, 100BASE-TX, and 1000BASE-T, RJ45 output 1x Realtek RTL8201N PHY (dedicated IPMI)
Video	<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
Video	<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"> 6x PCI-E 3.0 x8 slots Slot 1-3 occupied by RAID controller
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Drive Bays

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

Backplane

SAS3 12Gb/s direct attached storage backplane, w/ 24x SAS3 2.5" drive slots

System Cooling

Fans	<ul style="list-style-type: none"> 3x 8cm hot-swap redundant PWM cooling fans
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Power Supply with Power Distributor

920W high-efficiency (94%+) 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

Certification	  Platinum Certified [Test Report]
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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-216BAC-R920LPB	1	2U Chassis
Add-on Card / Module	AOC-S3108L-H8IR-16DD	3	12Gb SAS3-Gen-3, RAID, 16DD w/ exp,HF,RoHS/REACH
Backplane	BPN-SAS3-216A-N4	1	2U 24 Ports Hybrid Backplane support up to 20 x 2.5" SAS3/SATA3 HDD/SSD and 4x2.5" NVMe/SAS3/SATA3 Storage Devices,HF,RoHS/REACH
Cable 1	CBL-SAST-0531	4	Internal Mini-SAS HD to Mini-SAS HD 80cm,30AWG,12Gb/s, HF,RoHS/REACH,PBF
Cable 2	CBL-SAST-0532	2	Internal Mini-SAS HD to Mini-SAS HD 50cm,30AWG,12Gb/s,HF,RoHS/REACH,PBF
Label	LBL-0108	1	CAUTION LABEL FOR REDUNDANT PWR SYSTEMS
Parts	MCP-260-00042-0N	1	STD I/O shield for X9 socket R server MB with Gasket.
Heatsink / Retention	SNK-P0048AP4	1	2U Active CPU Heat Sink for Intel R2/R3/B2/B3 and AMD C32
Heatsink / Retention	SNK-P0048PS	1	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
Drive Tray(s)	MCP-220-00047-0B	24	Black 3rd Gen hot-swap 2.5" HDD tray

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-220-82609-0N	1	2.5" Rear HDD Kit
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
Cable	CBL-0099	1	HDD Y-Split Cable
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)