

SuperStorage Server 2027R-AR24



Integrated Board



Super X9DRH-7TF

Key Features

1. Intel® Xeon® processor E5-2600 and E5-2600 v2 family†
2. Up to 512GB DDR3 1600MHz ECC Registered DIMM; 16x DIMM sockets
3. 1 PCI-E 3.0 x16 & 4 PCI-E 3.0 x8 slots
4. Intel® x540 Dual 10GBase-T LAN
5. 24x 2.5" Hot-swap SAS2/SATA3 HDD Bays with direct attached backplane (6Gb/s per bay)
6. Onboard LSI 2208 SAS HW RAID (BBU optional); 2x LSI 2208 SAS AOC
7. Server remote management: IPMI 2.0 / KVM over LAN / Media over LAN
8. 3x Heavy duty 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-2027R-AR24	■ SuperServer 2027R-AR24 (Black)
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Motherboard

Super X9DRH-7TF

Processor/Cache

CPU	<ul style="list-style-type: none"> ■ Dual Socket R (LGA 2011) ■ Intel® Xeon® processor E5-2600 and E5-2600 v2 family† (up to 130W TDP)
Note	† BIOS version 3.0 or above is required
Cache	■ Up to 30MB

System Bus

- QPI up to 8 GT/s

System Memory

Memory Capacity	<ul style="list-style-type: none"> ■ 16x 240-pin DDR3 DIMM sockets ■ Up to 1TB DDR3 ECC LRDIMM ■ Up to 512 GB DDR3 ECC Registered memory (RDIMM) ■ Up to 128 GB DDR3 ECC Un-Buffered memory (UDIMM) ■ 1866/1600/1333/1066/800MHz ECC
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Chassis

Form Factor	■ 2U Rackmount
Model	■ <u>CSE-216BA-R920LPB</u>

Dimensions

Width	■ 17.2" (437mm)
Height	■ 3.5" (89mm)
Depth	■ 25.5" (647.7mm)
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

PCI-Express	<ul style="list-style-type: none"> ■ 1x PCI-E 3.0 x16 slot ■ 4x PCI-E 3.0 x8 slots
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Memory Type	DDR3 SDRAM 72-bit, 240-pin gold-plated DIMMs
DIMM Sizes	<ul style="list-style-type: none"> 32GB, 16GB, 8GB, 4GB, 2GB, 1GB
Memory Voltage	<ul style="list-style-type: none"> 1.5 V, 1.35 V
Error Detection	<ul style="list-style-type: none"> Corrects single-bit errors Detects double-bit errors (using ECC memory)

On-Board Devices

Chipset	<ul style="list-style-type: none"> Intel® C602 Chipset
AHCI SATA	<ul style="list-style-type: none"> SATA 2.0 3Gbps with RAID 0, 1, 5, 10 SATA 3.0 6Gbps with RAID 0, 1
SCU SATA	<ul style="list-style-type: none"> SATA 2.0 3Gbps with RAID 0, 1, 10
SAS	<ul style="list-style-type: none"> SAS2 via LSI 2208 (1GB cache) HW RAID 0, 1, 5, 6, 10, 50, 60 support
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 Nuvoton WPCM450 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)
Graphics	<ul style="list-style-type: none"> Matrox G200eW

Input / Output

AHCI SATA	<ul style="list-style-type: none"> 2x SATA 3.0 ports (6Gbps) 4x SATA 2.0 ports (3Gbps)
SCU SATA	<ul style="list-style-type: none"> 4x SATA 2.0 ports (3Gbps)
SAS	<ul style="list-style-type: none"> 24x SAS2 ports (6Gbps)
LAN	<ul style="list-style-type: none"> 2x RJ45 10GBase-T ports 1x RJ45 Dedicated IPMI LAN port
USB	<ul style="list-style-type: none"> 7x USB 2.0 ports total (4 rear + 2 via header + 1 Type A)
VGA	<ul style="list-style-type: none"> 1x VGA port
Serial Port / Header	<ul style="list-style-type: none"> 2x Fast UART 16550 serial COM port (1 rear & 1 header)

Drive Bays

Hot-swap	<ul style="list-style-type: none"> 24x Hot-swap 2.5" SAS2/SATA3 HDD Bays with direct attached backplane
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Backplane

SAS2 / SATA3 direct attached backplane
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System Cooling

Fans	<ul style="list-style-type: none"> 3x 8cm 9.5K RPM, 4-pin PWM 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
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DC Output	<ul style="list-style-type: none"> 4 Amp @ +5V standby 75 Amp @ +12V
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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
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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
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Operating Environment / Compliance

RoHS	<ul style="list-style-type: none"> RoHS Compliant
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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)
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Parts List

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-X9DRH-7TF	1	Super X9DRH-7TF Motherboard
	CSE-216BA-R920LPB	1	2U Chassis
Backplane	BPN-SAS-216A	1	Sup 24x2.5
Cable 1	CBL-0281L	4	IPASS TO IPASS 75CM PBF. 26AWG
Cable 2	CBL-0421L	2	55CM IPASS TO IPASS PBF. 26AWG
CD	CDR-X9	1	Driver CD for X9 series
Heatsink / Retention	SNK-P0048AP4	1	2U Active CPU HS for Socket R, B2, and Socket C32 Servers
Heatsink / Retention	SNK-P0048PS	1	2U Passive CPU Heat Sink for X9 Generation Motherboards w/ Narrow ILM
Power Distributor	PDB-PT216-2824	1	PDB with 23pairs input connectors for SC216B
Air Shroud	MCP-310-29001-0N	1	SC825/826/216/213 Intel DP X9,X8 PC air shroud 1368x13/12x13
Cable 3	CBL-0071L	1	ROUND 16 pin TO 16 PIN RIBBON FP CABLE 30
Cable 4	CBL-0088	3	10.5", 4 PIN MIDDLE FAN POWER EXTENSION (PWM)
Cable 5	CBL-0160L	2	NEMA5-15P to C13 US power cord 16AWG 6ft, PBF (default for high watt)
Cable 6	CBL-0182L	1	4 pin to 4 pin power extension .HDD to RA,40cm. 20AWG
Cable 7	CBL-0217L	1	16 pin control panel converter cable for SC826,846, 22cm, PBF
Fan 1	FAN-0126L4	3	80x80x38 mm 7K RPM Chassis Middle Fan w/ Housing
Power Supply	PWS-920P-SQ	2	920W 1U Redundant PWS W/ Quiet Mode
Add On Card	AOC-S2208L-H8IR	2	STD Gen-3 PCI-E @8Gb/s,6Gb/s SAS,8 internal ports,low profile,RAID 0,1,5,6,10, 50,60, BBU, 1GB RAM

Optional Parts List

	Part Number	Qty	Description
BBU (Battery Backup Unit)	BTR-0022L-LSI00279	3	LSI00279 iBBU09 BATTERY BKUP FOR SAS2208
Mounting Kit	MCP-450-00001-0N	3	LSI iBBU09 extension kit (to installed at 2.5" HDD location)