

X9DRH-7F

Products ▶ Motherboards ▶ Xeon® Boards ▶ [X9DRH-7F]



Key Features

1. Dual socket R (LGA 2011) supports Intel® Xeon® processor E5-2600 and **E5-2600 v2 family**[†]
2. Intel® C602 chipset; QPI up to 8.0GT/s
3. Up to 1TB ECC DDR3, up to 1866MHz; 16x DIMM slots
4. Expansion slots:
1 PCI-E 3.0 x16 and 6 PCI-E 3.0 x8
5. Intel® i350 Dual port GbE LAN
6. 8x SATA2 and 2x SATA3 ports
7. 8x SAS2 ports from LSI 2208
8. Integrated IPMI 2.0 and KVM with Dedicated LAN
9. 7x USB 2.0 ports
(4 rear, 2 via header + 1 Type A)

Links & Resources

- ▶ [Tested Memory List](#)
- ▶ [Tested HDD / SSD List](#)
- ▶ [Motherboard Manual](#)
- ▶ [Update Your BIOS](#)
- ▶ [IPMI Firmware](#)
- ▶ [Download the Latest Drivers and Utilities](#)
- ▶ [Download Driver CD](#)
- ▶ [Heat Sink Compatibility](#)
- ▶ [OS Compatibility](#)



Specifications

Product SKUs	
MBD-X9DRH-7F - O	X9DRH-7F (Standard Retail Pack)
MBD-X9DRH-7F - B	X9DRH-7F (Bulk Pack)
Physical Stats	
Form Factor	Extended ATX
Dimensions	12.1" x 13" (30.7cm x 33.2cm)
Processor/Cache	
CPU	- Dual Socket R (LGA 2011) - Intel® Xeon® processor E5-2600 and E5-2600 v2 family[†] (up to 135W TDP^{**})
Note	[†] BIOS version 3.0 or above is required
Note	^{**} Motherboard supports this maximum TDP. Please verify your system can thermally support.
Cache	Up to 30MB
System Bus	QPI up to 8 GT/s
System Memory	
Memory Capacity	16x 240-pin DDR3 DIMM slots - Up to 1TB DDR3 ECC LRDIMM - Up to 512GB DDR3 ECC RDIMM - Up to 128GB DDR3 ECC/non-ECC UDIMM
Memory Type	1866/1600/1333/1066/800MHz* ECC DDR3 SDRAM 72-bit, 240-pin gold-plated DIMMs - Support ECC and non-ECC UDIMMs * Maximum memory speed may be capped by CPU. Please verify that the chosen CPU can support desired memory speed.
DIMM Sizes	32GB, 16GB, 8GB, 4GB, 2GB, 1GB, 64GB LRDIMM
Memory Voltage	1.5 V, 1.35 V
Error Detection	- Corrects single-bit errors - Detects double-bit errors (using ECC memory)
On-Board Devices	
Chipset	Intel® C602 chipset
AHCI SATA	- SATA 2.0 3Gb/s with RAID 0, 1, 5, 10 - SATA 3.0 6Gb/s with RAID 0, 1
SCU SATA	SATA 2.0 3Gb/s with RAID 0, 1, 10
SAS	- SAS2 from LSI 2208 (1GB cache) - HW RAID 0, 1, 5, 6, 10, 50, 60 support - Supports up to 16 devices as default, more HDD devices support is also available as an option * * For special sku, please contact your Supermicro Sales.
IPMI	- 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	- Intel® i350 Dual Port Gigabit Ethernet - Virtual Machine Device Queues reduce I/O overhead - Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output 1x Realtek RTL8201N PHY (dedicated IPMI)
Video	Matrox G200eW
Input / Output	
AHCI SATA	2 SATA 3.0 ports (6Gb/s) 4 SATA 2.0 ports (3Gb/s)
SCU SATA	4 SATA 2.0 ports (3Gb/s)
SAS	8 SAS2 ports (6Gb/s)
LAN	2 RJ45 Gigabit Ethernet LAN ports 1 RJ45 Dedicated IPMI LAN port
USB	7 USB 2.0 ports total (4 rear + 2 via header + 1 Type A)
Video	1 VGA port
Serial Port / Header	2 Fast UART 16550 serial COM port (1 rear & 1 header)
DOM	1 DOM (Disk on Module) power connector
TPM	1 TPM 1.2 20-pin Header

Chassis (Optimized for X9DRH-7F)				
2U Chassis	▪ CSE-825TQ-R740LPB ▪ CSE-826BA-R1K28LPB ▪ CSE-826BA-R920LPB ▪ CSE-826BE16-R1K28LPB ▪ CSE-826BE16-R920LPB ▪ CSE-826BE26-R1K28LPB ▪ CSE-826BE26-R920LPB			
	3U Chassis	▪ CSE-835TQ-R920B ▪ CSE-836BA-R1K28B ▪ CSE-836BE16-R1K28B ▪ CSE-836BE26-R1K28B		
		Tower / 4U Rackmount	▪ CSE-846BA-R1K28B ▪ CSE-846BE16-R1K28B ▪ CSE-846BE26-R1K28B ▪ CSE-847A-R1400B ▪ CSE-847A-R1K28LPB ▪ CSE-847E16-R1400B ▪ CSE-847E16-R1K28LPB ▪ CSE-847E26-R1400B ▪ CSE-847E26-R1K28LPB	
			Important Chassis Notes	▪ To support the new generation Intel® Xeon® processor-based motherboards, Revision M chassis is recommended. Please talk to your sales representative for details.
			SuperServer(s) with X9DRH-7F	
	Model(s)		▪ SYS-6027R-72RF ▪ SYS-6037R-72RF ▪ SYS-7047R-72RF	
	Expansion Slots			
PCI-Express	▪ 1 PCI-E 3.0 x16 ▪ 6 PCI-E 3.0 x8 (Both CPUs need to be installed for full access to PCI-E slots and onboard controllers. See manual block diagram for details.)			
System BIOS				
BIOS Type	▪ 128Mb SPI Flash EEPROM with AMI BIOS			
BIOS Features	▪ Plug and Play (PnP) ▪ APM 1.2 ▪ PCI 2.3 ▪ ACPI 1.0 / 2.0 / 3.0 / 4.0 ▪ USB Keyboard support ▪ SMBIOS 2.7.1 ▪ UEFI 2.3.1			
Management				
Software	▪ SuperDoctor® III ▪ Watch Dog ▪ NMI ▪ IPMI 1.5 / 2.0			
Power Configurations	▪ ACPI / APM Power Management ▪ Power-on mode for AC power recovery			
PC Health Monitoring				
Voltage	▪ Monitors for CPU Cores, +1.1V, +1.5V, +3.3V, +5V, +12V, +3.3V Standby, +5V Standby, VBAT, Memory Voltages. ▪ 5+1 Phase-switching voltage regulator			
FAN	▪ 8x 4-pin fan headers (up to 8 fans) ▪ 8x fans with tachometer monitoring ▪ Status monitor for speed control ▪ Pulse Width Modulated (PWM) fan connectors			
Temperature	▪ Monitoring for CPU and chassis environment ▪ CPU thermal trip support ▪ Thermal Control for 8x Fan Connectors ▪ Thermal Monitor 2 (TM2) support ▪ PECI			
LED	▪ CPU / System Overheat LED			
Other Features	▪ Chassis intrusion detection ▪ Chassis intrusion header ▪ RoHS, Halogen Free ▪ Dual Cooling Zones			
Operating Environment				
Operating Temperature Range	▪ 10°C - 35°C (50°F - 95°F)			
Non-Operating Temperature Range	▪ -40°C - 70°C (-40°F - 158°F)			
Operating Relative Humidity Range	▪ 8% - 90% (non-condensing)			
Non-Operating Relative Humidity Range	▪ 5% - 95% (non-condensing)			

Note: For optimized or compatible chassis, additional parts may be required, please check with Supermicro sales rep

Parts List

Parts List (retail)			
	Part Number	Qty	Description
X9DRH-7F	MBD-X9DRH-7F	1	X9DRH-7F Motherboard
I/O Cables	CBL-0044L	2	SATA CABLE 61CM FLAT S-S PBF
I/O Cables	CBL-0097L-03	2	30AWG 50CM 1pass to 4 SATA, W/50cm SB, S
Quick Reference Guide	MNL-1306-QRG	1	X9DRH-7F Quick Reference Guide

Optional Parts List			
	Part Number	Qty	Description
Heat Sink (optional, not included)	-	-	CPU Heat Sink reference
TPM security module (optional, not included)	AOM-TPM-9655V AOM-TPM-9655H	-	TPM module with Infineon 9655, RoHS/REACH,PBF; Vertical or Horizontal depends on the server
SuperDOM	-	-	Supermicro SATA DOM Solutions [Details]