

# X9DR3-F

Products ▶ Motherboards ▶ Xeon® Boards ▶ [ X9DR3-F ]



### Key Features

1. Dual socket R (LGA 2011) supports Intel® Xeon® processor E5-2600
2. Intel® C606 chipset; QPI up to 8.0GT/s
3. Up to 512GB DDR3 1600MHz ECC Registered DIMM; 16x DIMM sockets
4. Expansion slots:  
3 x16 PCI-E 3.0 and 3 x8 PCI-E 3.0
5. Intel® i350 Dual port GbE LAN
6. 4x SATA2 and 2x SATA3 ports
7. 8x SAS ports from C606
8. Integrated IPMI 2.0 and KVM with Dedicated LAN
9. 11x USB 2.0 ports  
(4 rear, 6 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](#)
- ▶ [Heat Sink Compatibility](#)



### Specifications

#### Product SKUs

- MBD-X9DR3-F -O** ■ X9DR3-F (Standard Retail Pack)
- MBD-X9DR3-F -B** ■ X9DR3-F (Bulk Pack)

#### Physical Stats

- Form Factor** ■ E-ATX
- Dimensions** ■ 12" x 13" (30.5cm x 33.2cm)

#### Processor/Cache

- CPU** ■ Intel® Xeon® processor E5-2600 (up to 135W TDP \*\*)
- Dual Socket R (LGA 2011)

- Cache** ■ Up to 20MB

- System Bus** ■ QPI up to 8 GT/s

\*\* Motherboard supports this maximum TDP. Please verify your system can thermally support.

#### System Memory

- Memory Capacity**
  - 16x 240-pin DDR3 DIMM sockets
  - Supports up to 512 GB DDR3 ECC Registered memory (RDIMM)
  - Supports up to 128 GB DDR3 ECC/non-ECC Un-Buffered memory (UDIMM)
- Memory Type**
  - 1600/1333/1066/800MHz ECC DDR3 SDRAM 72-bit, 240-pin gold-plated DIMMs
  - Support ECC and non-ECC UDIMMs
- DIMM Sizes** ■ 32GB, 16GB, 8GB, 4GB, 2GB, 1GB

#### Chassis ( Optimized for X9DR3-F )

- 2U Chassis** ■ [CSE-825TQ-R740LPB](#)
- 3U Chassis** ■ [CSE-835TQ-R920B](#)
- Tower / 4U Rackmount** ■ [CSE-745TQ-R920B](#)

- 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.
  - Please use optional I/O shield MCP-260-00041-0N in Supermicro 1U chassis

#### Expansion Slots

- 3 (x16) PCI-E 3.0 slots
- 3 (x8) PCI-E 3.0 slots

#### PCI-Express

(Both CPUs need to be installed for full access to PCI-E slots. See manual 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

#### Management

<b>Memory Voltage</b>	<ul style="list-style-type: none"> <li>1.5 V, 1.35 V</li> </ul>
<b>Error Detection</b>	<ul style="list-style-type: none"> <li>Corrects single-bit errors</li> <li>Detects double-bit errors (using ECC memory)</li> </ul>
<b>On-Board Devices</b>	
<b>Chipset</b>	<ul style="list-style-type: none"> <li>Intel® C606 chipset</li> </ul>
<b>AHCI SATA</b>	<ul style="list-style-type: none"> <li>SATA 2.0 3Gbps with RAID 0, 1, 5, 10</li> <li>SATA 3.0 6Gbps with RAID 0, 1, 5, 10</li> </ul>
<b>SCU SATA (Storage Controller)</b>	<ul style="list-style-type: none"> <li>SATA 2.0 3Gbps with RAID 0, 1, 10</li> </ul>
<b>SAS</b>	<ul style="list-style-type: none"> <li>SAS from C606</li> <li>RAID 0, 1, 10 support</li> </ul>
<b>IPMI</b>	<ul style="list-style-type: none"> <li>Support for Intelligent Platform Management Interface v.2.0</li> <li>IPMI 2.0 with virtual media over LAN and KVM-over-LAN support</li> <li>Nuvoton WPCM450 BMC</li> </ul>
<b>Network Controllers</b>	<ul style="list-style-type: none"> <li>Intel® i350 Dual Port Gigabit Ethernet</li> <li>Virtual Machine Device Queues reduce I/O overhead</li> <li>Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output</li> <li>1x Realtek RTL8201N PHY (dedicated IPMI)</li> </ul>
<b>Video</b>	<ul style="list-style-type: none"> <li>Matrox G200eW</li> </ul>
<b>Input / Output</b>	
<b>SATA</b>	<ul style="list-style-type: none"> <li>2x SATA 3.0 ports (6Gbps)</li> <li>4x SATA 2.0 ports (3Gbps)</li> </ul>
<b>SAS</b>	<ul style="list-style-type: none"> <li>8x SAS/SATA ports</li> </ul>
<b>LAN</b>	<ul style="list-style-type: none"> <li>2x RJ45 Gigabit Ethernet LAN ports</li> <li>1x RJ45 Dedicated IPMI LAN port</li> </ul>
<b>USB</b>	<ul style="list-style-type: none"> <li>11x USB 2.0 ports total (4x rear + 6x via header + 1x Type A)</li> </ul>
<b>Video</b>	<ul style="list-style-type: none"> <li>1x VGA port</li> </ul>
<b>Serial Port / Header</b>	<ul style="list-style-type: none"> <li>2x Fast UART 16550 ports: 1 rear and 1 header</li> </ul>
<b>DOM</b>	<ul style="list-style-type: none"> <li>1 DOM (Disk on Module) power connector</li> </ul>

<b>Software</b>	<ul style="list-style-type: none"> <li>IPMI (Intelligent Platform Management Interface) v1.5 / 2.0 with KVM support</li> <li><a href="#">SuperDoctor® III</a></li> <li>Watch Dog</li> <li>NMI</li> <li>Optional IPMI 1.5 / 2.0</li> </ul>
<b>Power Configurations</b>	<ul style="list-style-type: none"> <li>ACPI / APM Power Management</li> <li>Main Switch Override Mechanism</li> <li>CPU Fan auto-off in sleep mode</li> <li>Power-on mode for AC power recovery</li> </ul>
<b>PC Health Monitoring</b>	
<b>Voltage</b>	<ul style="list-style-type: none"> <li>Monitors for CPU Cores, +1.1V, +1.5V, +3.3V, +5V, +12V, +3.3V Standby, +5V Standby, VBAT, 4 Memory Voltages.</li> <li>5+1 Phase-switching voltage regulator</li> </ul>
<b>FAN</b>	<ul style="list-style-type: none"> <li>8x 4-pin fan headers (up to 8 fans)</li> <li>8x fans with tachometer monitoring</li> <li>Status monitor for speed control</li> <li>Status monitor for on/off control</li> <li>Low noise fan speed control</li> <li>Pulse Width Modulated (PWM) fan connectors</li> </ul>
<b>Temperature</b>	<ul style="list-style-type: none"> <li>Monitoring for CPU and chassis environment</li> <li>CPU thermal trip support</li> <li>Thermal Control for 8x Fan Connectors</li> <li>I<sup>2</sup>C temperature sensing logic</li> <li>Thermal Monitor 2 (TM2) support</li> <li>PECI</li> </ul>
<b>LED</b>	<ul style="list-style-type: none"> <li>CPU / System Overheat LED</li> </ul>
<b>Other Features</b>	<ul style="list-style-type: none"> <li>Chassis intrusion detection</li> <li>Chassis intrusion header</li> <li>SDDC Support</li> </ul>

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
<b>X9DR3-F</b>	MBD-X9DR3-F	1	X9DR3-F Motherboard
<b>I/O Cables</b>	CBL-0044L	2	SATA CABLE 61CM FLAT S-S PBF
<b>I/O Cables</b>	CBL-0097L-03	2	30AWG 50CM Ipass to 4 SATA, W/50cm SB, S
<b>I/O Shield</b>	MCP-260-00042-0N	1	STD I/O shield for X9 socket R server MB with Gasket.
<b>Heat Sink (optional, not included)</b>	-	-	<a href="#">CPU Heat Sink reference</a>

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