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X9DR3-F

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Key Features

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

Links & Resources

[▶ Tested Memory List](#)
[▶ Tested HDD List](#)
[▶ Motherboard Manual](#)
[▶ Update Your BIOS](#)
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Specifications

| Product SKUs                         |                                                                                                                                                                                                                                                                           |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MBD-X9DR3-F -O</b>                | <ul style="list-style-type: none"> <li>X9DR3-F (Standard Retail Pack)</li> </ul>                                                                                                                                                                                          |
| <b>MBD-X9DR3-F -B</b>                | <ul style="list-style-type: none"> <li>X9DR3-F (Bulk Pack)</li> </ul>                                                                                                                                                                                                     |
| Physical Stats                       |                                                                                                                                                                                                                                                                           |
| <b>Form Factor</b>                   | <ul style="list-style-type: none"> <li>E-ATX</li> </ul>                                                                                                                                                                                                                   |
| <b>Dimensions</b>                    | <ul style="list-style-type: none"> <li>12" x 13" (30.5cm x 33.2cm)</li> </ul>                                                                                                                                                                                             |
| Processor/Cache                      |                                                                                                                                                                                                                                                                           |
| <b>CPU</b>                           | <ul style="list-style-type: none"> <li>Intel® Xeon® processor E5-2600</li> <li>Dual Socket R (LGA 2011)</li> </ul>                                                                                                                                                        |
| <b>Cache</b>                         | <ul style="list-style-type: none"> <li>Up to 20MB</li> </ul>                                                                                                                                                                                                              |
| <b>System Bus</b>                    | <ul style="list-style-type: none"> <li>QPI up to 8 GT/s</li> </ul>                                                                                                                                                                                                        |
| System Memory                        |                                                                                                                                                                                                                                                                           |
| <b>Memory Capacity</b>               | <ul style="list-style-type: none"> <li>16x 240-pin DDR3 DIMM sockets</li> <li>Supports up to 512 GB DDR3 ECC Registered memory (RDIMM)</li> <li>Supports up to 128 GB DDR3 ECC/non-ECC Un-Buffered memory (UDIMM)</li> </ul>                                              |
| <b>Memory Type</b>                   | <ul style="list-style-type: none"> <li>1600/1333/1066/800MHz ECC DDR3 SDRAM 72-bit, 240-pin gold-plated DIMMs</li> <li>Support ECC and non-ECC UDIMMs</li> </ul>                                                                                                          |
| <b>DIMM Sizes</b>                    | <ul style="list-style-type: none"> <li>32GB, 16GB, 8GB, 4GB, 2GB, 1GB</li> </ul>                                                                                                                                                                                          |
| <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>                                                                                                                                        |
| On-Board Devices                     |                                                                                                                                                                                                                                                                           |
| <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 G200eV</li> </ul>                                                                                                                                                                                                           |
| Input / Output                       |                                                                                                                                                                                                                                                                           |
| <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>                                                                                                                                                                                  |

| Chassis ( Optimized for X9DR3-F ) |                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>2U Chassis</b>                 | <ul style="list-style-type: none"> <li>CSE-825TQ-R740LPB</li> </ul>                                                                                                                                                                                                                                             |
| <b>3U Chassis</b>                 | <ul style="list-style-type: none"> <li>CSE-835TQ-R920B</li> </ul>                                                                                                                                                                                                                                               |
| <b>Tower / 4U Rackmount</b>       | <ul style="list-style-type: none"> <li>CSE-745TQ-R920B</li> </ul>                                                                                                                                                                                                                                               |
| <b>Important Chassis Notes</b>    | <ul style="list-style-type: none"> <li>To support the new generation Intel® Xeon® processor-based motherboards, <b>Revision M</b> chassis is recommended. Please talk to your sales representative for details.</li> <li>Please use optional I/O shield MCP-260-00041-0N in Supermicro 1U chassis</li> </ul>    |
| Expansion Slots                   |                                                                                                                                                                                                                                                                                                                 |
|                                   | <ul style="list-style-type: none"> <li>3 (x16) PCI-E 3.0 slots</li> <li>3 (x8) PCI-E 3.0 slots</li> </ul>                                                                                                                                                                                                       |
| <b>PCI-Express</b>                | (Both CPUs need to be installed for full access to PCI-E slots. See manual for details.)                                                                                                                                                                                                                        |
| System BIOS                       |                                                                                                                                                                                                                                                                                                                 |
| <b>BIOS Type</b>                  | <ul style="list-style-type: none"> <li>128Mb SPI Flash EEPROM with AMI BIOS</li> </ul>                                                                                                                                                                                                                          |
| <b>BIOS Features</b>              | <ul style="list-style-type: none"> <li>Plug and Play (PnP)</li> <li>APM 1.2</li> <li>PCI 2.3</li> <li>ACPI 1.0 / 2.0 / 3.0 / 4.0</li> <li>USB Keyboard support</li> <li>SMBIOS 2.7.1</li> <li>UEFI</li> </ul>                                                                                                   |
| Management                        |                                                                                                                                                                                                                                                                                                                 |
| <b>Software</b>                   | <ul style="list-style-type: none"> <li>IPMI (Intelligent Platform Management Interface) v1.5 / 2.0 with KVM support</li> <li>SuperDoctor® III</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>                                                                                                      |
| PC Health Monitoring              |                                                                                                                                                                                                                                                                                                                 |
| <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>1°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. |