# X7DBR-8+

For OEMs Only - Minimum quantity required. Please contact your Supermicro Sales representative for additional details

16-DIMM Xeon Dual-Core Blackford SCSI / SATA ServerBoard

## Key Features

1. Quad & Dual Core Intel® 64-bit Xeon® Support, 667 / 1066 / 1333MHz FSB
2. Intel® 5000P (Blackford) Chipset
3. Up to 64GB DDR2 667 & 533 SDRAM Fully Buffered DIMM (FB-DIMM)
4. Intel® (ESB2/Gilgal) 82563EB Dual-port Gigabit Ethernet Controller
5. Adaptec AIC-7902 Dual Channel Ultra320 SCSI
6. 6x SATA 3.0Gbps Ports via ESB2 SATA Controller
7. Left Universal Slot:
   1 64-bit 133MHz PCI-X OR
   2 (x8) PCI-Express
8. Right Slot:
   1 (x8) PCI-Express Slot (for 2U Only)
9. Zero-Channel RAID Support
10. ATI ES1000 Graphics with 16MB video memory
11. IPMI 2.0 (SIMSO) Socket

### Links & Resources

▶ Tested Memory List
▶ Motherboard Manual
▶ Update Your BIOS
▶ Download the Latest Drivers and Utilities

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## Specifications

**Product SKUs** - Discontinued SKU (EOL). Please contact sales-rep for alternative options.

| MBD-X7DBR-8+-B | ▪ X7DBR-8+ (Bulk Pack) |
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### Physical Stats

| Form Factor | ▪ Enhanced Extended ATX |
|---|---|
| Dimensions | ▪ 13.68" x 13" (34.7cm x 33cm) |

### Processor/Cache

| CPU | ▪ Dual 771-pin LGA Sockets<br>▪ Supports up to two **Intel® 64-bit Xeon®** processor(s) of the same type below:<br>▪ **Quad-Core Intel® Xeon®Processor 5400/5300 sequence (Harpertown /Clovertown processor)** up to 3.16 GHz<br>▪ **Dual-Core Intel® Xeon®Processor 5200/5100/5000 sequence (Wolfdale /Woodcrest/Dempsey processor)** up to 3.40 GHz |
|---|---|
| System Bus | ▪ 1333 / 1066 / 667 MHz system bus |
| Operating System Software | ▪ Supports 64-bit Operating Systems<br>▪ Supports 32-bit Operating Systems |

### System Memory

| Memory Capacity | ▪ Sixteen 240-pin DIMM sockets<br>▪ Supports up to 64 GB 667 / 533MHz DDR2 ECC FB-DIMM memory<br>▪ Dual branch memory bus<br>▪ Memory must be populated in pairs<br>▪ Memory Mirroring supported |
|---|---|
| Memory Type | ▪ 667 / 533MHz FB-DIMM (Fully Buffered DIMM) ECC DDR2 SDRAM 72-bit, 240-pin gold-plated DIMMs |
| DIMM Sizes | ▪ 512 MB, 1GB, 2GB, 4GB |
| Memory Voltage | ▪ 1.8V only<br>▪ 1.5V(AMB) |
| Error Detection | ▪ Corrects single-bit errors<br>▪ Detects double-bit errors (using ECC memory)<br>▪ Supports Intel® x4 and x8 Single Device Data Correction (SDDC) |

### On-Board Devices

| Chipset | ▪ Intel® 5000P (Blackford) chipset<br>▪ MCH + PXH-V + ESB2 |
|---|---|
| SCSI | ▪ Adaptec AIC-7902 Controller<br>▪ Dual-Channel Ultra320 SCSI (Host RAID only supports 4 drives)<br>▪ Host RAID 0, 1, & 10 support |
| RAID | ▪ Support for Zero-Channel RAID with **Supermicro All-In-One-ZCR Card**: AOC-SOZCR1<br>▪ Optional: (Card not included)<br>▪ RAID 0, 1, 5, 10 |
| SATA | ▪ Intel ESB2 SATA 3.0Gbps Controller<br>▪ RAID 0, 1, 5, 10 support (Windows Only)<br>▪ RAID 0, 1, 10 support (Linux) |
| IPMI | ▪ Support for Intelligent Platform Management Interface v.2.0<br>▪ 200-pin IPMI SO-DIMM Socket (SIMSO)<br>▪ (Optional: AOC-SIMSO(+)) |
| Network Controllers | ▪ Intel® (ESB2/Gilgal) 82563EB Dual-Port Gigabit Ethernet Controller<br>▪ Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output<br>▪ **Intel® I/OAT** support for fast, scaleable, and reliable networking |
| Graphics | ▪ ATI ES1000 controller with 16 MB of video memory |
| Super I/O | ▪ Winbond 83627HG chip |

### Input / Output

| Serial ATA | ▪ Six Serial ATA ports<br>▪ Six SATA hard drives supported |
|---|---|
| IDE | ▪ Single EIDE channel supports up to two UDMA IDE devices (IDE-M, IDE-S) including CF(Compact Flash) Card<br>▪ Compact Flash (40-pin connector, IDE 1, single channel) slot |

### Chassis ( Optimized for X7DBR-8+ )

| 1U Chassis | ▪ CSE-815S-700V<br>▪ CSE-815S-560 |
|---|---|
| Important Chassis Notes | ▪ To ensure system stability, a 560W (minimum) ATX power supply [4-pin (+12V), 8-pin (+12V) and 24-pin are required] |

### Expansion Slots (For 1U Systems)

| Left Universal Slot | ▪ 1 64-bit 133MHz PCI-X OR<br>▪ 1 (x8) PCI-e Slot |
|---|---|

### Expansion Slots (For 2U Systems)

| Left Universal Slot | ▪ 1 64-bit 133MHz PCI-X OR<br>▪ 2 (x8) PCI-e Slots OR<br>▪ 3 64-bit 133MHz PCI-X |
|---|---|
| Right Slot | ▪ 1 (x8) PCI-e Slot (For 2U Only) |

### System BIOS

| BIOS Type | ▪ 8Mb Flash EEPROM with Phoenix® BIOS |
|---|---|
| BIOS Features | ▪ Plug and Play (PnP)<br>▪ SMBIOS 2.3<br>▪ DMI 2.1<br>▪ PCI 2.2<br>▪ PCI-X 1.0<br>▪ ACPI 1.0<br>▪ USB Keyboard support<br>▪ Hardware BIOS Virus protection |

### Management

| Software | ▪ Optional IPMI (Intelligent Platform Management Interface) 2.0<br>▪ SuperDoctor® III<br>▪ Watch Dog<br>▪ NMI |
|---|---|
| Power Configurations | ▪ ACPI Power Management<br>▪ Main Switch Override Mechanism<br>▪ Wake-On-Ring (WOR) header<br>▪ Wake-On-LAN (WOL) header<br>▪ Power-on mode for AC power recovery<br>▪ Internal / External modem remote ring-on |

### PC Health Monitoring

| Voltage | ▪ Monitors for CPU Cores, +3.3V, +5V, ±12V, +1.2V, 1.5V, +5V Standby, VBAT<br>▪ 5-Phase-switching voltage regulator with auto-sense from 0.8375V-1.60V |
|---|---|
| FAN | ▪ Total of five 3-pin fan headers supporting up to 5 fans<br>▪ 5x fans with tachometer status monitoring<br>▪ Status monitor for speed control<br>▪ Low noise fan speed control |
| Temperature | ▪ Monitoring for CPU and chassis environment<br>▪ CPU thermal trip support<br>▪ Thermal Control for 5x fan connectors<br>▪ PSU I²C temperature sensing logic<br>▪ Thermal Monitor 2 (TM2) support |
| LED | ▪ CPU / System Overheat LED |
| Other Features | ▪ Chassis intrusion detection<br>▪ Chassis intrusion header<br>▪ SDDC Support |

### Operating Environment

| Environmental Spec. | ▪ Operating Temperature: 10°to 35°C (50°to 95°F)<br>▪ Non-operating Temperature: -40°to 70°C (-40°to 158°F)<br>▪ Operating Relative Humidity: 8% to 90% (non-condensing)<br>▪ Non-operating Relative Humidity: 5 to 95% (non-condensing) |
|---|---|

### OS Compatibility

• Please see our OS Compatibility Chart

### Regulatory

| FCC | ▪ Passed to meet FCC standard requirement |
|---|---|

| | | | |
|---|---|---|---|
| | ▪ Supports UDMA Mode 5, PIO Mode 4, and ATA/100 | | |
| **Floppy** | ▪ 1 Floppy controller; 1.44 MB, 2.88 MB | | |
| **LAN** | ▪ 2x RJ45 LAN ports | | |
| **USB** | ▪ 2x USB rear ports<br>▪ 2x USB internal headers<br>▪ Total 6 USB 2.0 Compliant / 1.1 Compliant | | |
| **VGA** | ▪ 1x VGA Port | | |
| **Keyboard / Mouse** | ▪ PS/2 keyboard and mouse ports | | |
| **Serial Port / Header** | ▪ 1 Fast UART 16550 serial port<br>▪ 1 Fast UART 16550 serial header | | |

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

## Parts List

| Standard Bulk Package | | | |
|---|---|---|---|
| | **Part Number** | **Qty** | **Description** |
| **X7DBR-8+** | MBD-X7DBR-8+-B | 1 | X7DBR-8+ Motherboard |
| **Manual(s)** | MNL-0863 | 1 | Motherboard Manual for X7DBR-8+ |
| **I/O Cables** | CBL-0022L | 1 | ATX Floppy Cable |
| | CBL-0036L-03 | 1 | ATA 66/100 IDE LP Cable |
| **Driver Disk** | CDR-X7 1.01 | 1 | Version 1.01 CD or later |

**Note:** Items in a Standard Retail Package may differ from items in a Standard Bulk Package.