

# X7DVL-3

Products ▶ Motherboards ▶ Xeon Boards ▶ [ X7DVL-3 ]



■ Low Cost Xeon Dual-Core Blackford VS ServerBoard

### Key Features

1. Quad & Dual Core Intel® 64-bit Xeon® Support, 667 / 1066 / 1333MHz FSB
2. Intel® 5000V (Blackford VS) Chipset
3. Up to 24GB DDR2 667 & 533 SDRAM Fully Buffered DIMM (FB-DIMM)
4. Intel® (ESB2/Gilgal) 82563EB Dual-port Gigabit Ethernet Controller
5. 8x SAS Ports via LSI 1068E Controller
6. 6x SATA2 3.0Gbps Ports via ESB2 Controller
7. 1 Universal Slot Supporting:
  - 1 (x8) PCI-Express OR
  - 1x 64-bit 133MHz PCI-X,
  - 1x 64-bit 133MHz PCI-X,
  - 1x 32-bit 33MHz PCI
8. XGI Z7 On-board Graphics
9. IPMI 2.0 (SIMLC) Slot

### Links & Resources

- ▶ [Tested Memory List](#)
- ▶ [Motherboard Manual](#)
- ▶ [Update Your BIOS](#)
- ▶ [Download the Latest Drivers and Utilities](#)
- ▶ [SAS Cable Compatibility](#)



### Specifications

#### Product SKUs

- MBD-X7DVL-3-O** ■ X7DVL-3 (Standard Retail Pack)
- MBD-X7DVL-3-B** ■ X7DVL-3 (Bulk Pack)

#### Physical Stats

- Form Factor** ■ ATX
- Dimensions** ■ 12" x 10" (30.5cm x 25.4cm)

#### Processor/Cache

- Dual 771-pin LGA Sockets
- Supports up to two Intel® 64-bit Xeon® processor(s) of the same type below :
  - Quad-Core Intel® Xeon® Processor 5400/5300 sequence (Harpertown /Clovertown processor) up to 3.16 GHz
  - Dual-Core Intel® Xeon® Processor 5200/5100/5000 sequence (Wolfdale

#### CPU

#### Chassis ( Optimized for X7DVL-3 )

- 1U Chassis**
  - [CSE-512F-520B](#)
  - [CSE-512F-520LB](#)
  - [CSE-811i-410](#)
  - [CSE-811T-520](#)
  - [CSE-811TQ-520B](#)
- 2U Chassis**
  - [CSE-825MTQ-R700LPB](#)
  - [CSE-825TQ-560LPB](#)
  - [CSE-825TQ-700LP](#)
- Mid-Tower**
  - [CSE-733i-645](#)
  - [CSE-733T-645](#)
  - [CSE-733TQ-645](#)
- Tower / 4U Rackmount**
  - [CSE-743i-645](#)
  - [CSE-743T-645](#)
  - [CSE-743T-650](#)
  - [CSE-743T-R760](#)
  - [CSE-743TQ-865B](#)
  - [CSE-743TQ-R760](#)
- Important Chassis Notes**
  - To ensure system stability, a 500W (minimum) ATX power supply [8-pin (+12V) and 24-pin are required]

#### Expansion Slots

- Universal** ■ 1x (x8) PCIe slot OR

(Woodcrest/Dempsey processor) up to 3.40 GHz

<b>System Bus</b>	<ul style="list-style-type: none"> <li>1333 / 1066 / 667 MHz system bus</li> </ul>
<b>Operating System Software</b>	<ul style="list-style-type: none"> <li>Supports 64-bit Operating Systems</li> <li>Supports 32-bit Operating Systems</li> </ul>
<b>System Memory</b>	
<b>Memory Capacity</b>	<ul style="list-style-type: none"> <li>Six 240-pin DIMM sockets</li> <li>Supports up to 24 GB 667 / 533MHz DDR2 ECC FB-DIMM memory</li> <li>Dual branch memory bus</li> <li>Memory must be populated in pairs</li> <li>No Memory Mirroring support</li> </ul>
<b>Memory Type</b>	<ul style="list-style-type: none"> <li>667 / 533MHz FB-DIMM (Fully Buffered DIMM) ECC DDR2 SDRAM 72-bit, 240-pin gold-plated DIMMs</li> </ul>
<b>DIMM Sizes</b>	<ul style="list-style-type: none"> <li>256 MB, 512 MB, 1GB, 2GB, 4GB</li> </ul>
<b>Memory Voltage</b>	<ul style="list-style-type: none"> <li>1.8V only</li> <li>1.5V (AMB)</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> <li>Supports Intel® x4 and x8 Single Device Data Correction (SDDC)</li> </ul>
<b>On-Board Devices</b>	
<b>Chipset</b>	<ul style="list-style-type: none"> <li>Intel® 5000V (Blackford VS) chipset</li> <li>MCH + ESB2</li> </ul>
<b>SAS</b>	<ul style="list-style-type: none"> <li>LSI 1068E PCI-E SAS Controller</li> <li>8 SAS Ports supporting up to 8 SAS HDD</li> <li>RAID 0, 1, 10 support</li> <li>(Optional: AOC-IButton68) RAID 5 support</li> </ul>
<b>SATA</b>	<ul style="list-style-type: none"> <li>Intel ESB2 SATA 3.0Gbps Controller</li> <li>RAID 0, 1, 5, 10 support (Windows Only)</li> </ul>
<b>IPMI</b>	<ul style="list-style-type: none"> <li>Support for Intelligent Platform Management Interface v.2.0</li> <li>200-pin IPMI slot</li> <li>(Optional: AOC-SIMLC)</li> </ul>
<b>Network Controllers</b>	<ul style="list-style-type: none"> <li>Two Intel® (ESB2/Gilgal) 82563EB Single-Port Gigabit Ethernet Controllers</li> <li>Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output</li> </ul>
<b>Graphics</b>	<ul style="list-style-type: none"> <li>XGI Volari™ Z7 PCI-E Graphics Processor</li> </ul>
<b>Clock Generator</b>	<ul style="list-style-type: none"> <li>ICS932S401EGLF</li> </ul>
<b>Super I/O</b>	<ul style="list-style-type: none"> <li>Winbond 83627HF chip</li> </ul>
<b>Input / Output</b>	
<b>SAS</b>	<ul style="list-style-type: none"> <li>Eight SAS ports</li> <li>Eight SAS hard drives supported</li> </ul>
<b>Serial ATA</b>	<ul style="list-style-type: none"> <li>Six Serial ATA ports</li> <li>Six SATA hard drives supported</li> </ul>
<b>IDE</b>	<ul style="list-style-type: none"> <li>Single EIDE channel supports up to two UDMA IDE devices (IDE-M, IDE-S)</li> <li>Supports UDMA Mode 5, PIO Mode 4, and ATA/100</li> </ul>
<b>Floppy</b>	<ul style="list-style-type: none"> <li>1 Floppy controller; 1.44 MB Support</li> </ul>
<b>LAN</b>	<ul style="list-style-type: none"> <li>2x RJ45 LAN ports</li> </ul>
<b>USB</b>	<ul style="list-style-type: none"> <li>2x USB rear ports</li> <li>2x USB internal headers for up to 4-ports</li> <li>Total 6 USB 2.0 Compliant / 1.1 Compliant</li> </ul>
<b>VGA</b>	<ul style="list-style-type: none"> <li>1x VGA Port</li> </ul>

<b>Slot</b>	<ul style="list-style-type: none"> <li>1x 64-bit 133MHz PCI-X Slot</li> </ul>
<b>PCI-X</b>	<ul style="list-style-type: none"> <li>1x 64-bit 133MHz PCI-X slot</li> </ul>
<b>PCI</b>	<ul style="list-style-type: none"> <li>1x 32-bit 33MHz PCI (5V) slots</li> </ul>

<b>System BIOS</b>	
<b>BIOS Type</b>	<ul style="list-style-type: none"> <li>8Mb Flash EEPROM with Phoenix® BIOS</li> <li>Plug and Play (PnP)</li> <li>SMBIOS 2.3</li> <li>DMI 2.3</li> <li>PCI 2.2</li> </ul>
<b>BIOS Features</b>	<ul style="list-style-type: none"> <li>ACPI 1.0</li> <li>BIOS rescue hot keys</li> <li>USB Keyboard support</li> <li>Hardware BIOS Virus protection</li> </ul>

<b>Management</b>	
<b>Software</b>	<ul style="list-style-type: none"> <li>Optional IPMI (Intelligent Platform Management Interface) 2.0</li> <li>Super Doctor III</li> <li>Watch Dog</li> <li>NMI</li> </ul>
<b>Power Configurations</b>	<ul style="list-style-type: none"> <li>ACPI Power Management</li> <li>Main Switch Override Mechanism</li> <li>Wake-On-Ring (WOR) header</li> <li>Wake-On-LAN (WOL) header</li> <li>Power-on mode for AC power recovery</li> <li>Internal / External modem remote ring-on</li> </ul>

<b>PC Health Monitoring</b>	
<b>CPU</b>	<ul style="list-style-type: none"> <li>Monitors for CPU Cores, +3.3V, +5V, ±12V</li> <li>4-Phase-switching voltage regulator with auto-sense from 0.8375V-1.60V</li> <li>Adjustable CPU Clock Frequency Ratio</li> </ul>
<b>FAN</b>	<ul style="list-style-type: none"> <li>Total of six proprietary 4-pin fan headers supporting up to 6 fans</li> <li>6x fans with tachometer status monitoring</li> <li>Status monitor for speed control</li> <li>Status monitor for on/off control</li> <li>3-pin fan support</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 6x fan connectors</li> <li>PSU IC temperature sensing logic</li> <li>Thermal Monitor 2 (TM2) support</li> </ul>
<b>LED</b>	<ul style="list-style-type: none"> <li>CPU / System Overheat LED</li> <li>Suspend-State Indicator LED</li> <li>+5V Standby Alert 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>

Operating Environment / Compliance

<b>RoHS</b>	 <ul style="list-style-type: none"> <li>RoHS Compliant 5/6, Server Exemption</li> <li>Operating Temperature: 10°to 35°C (50°to 95°F)</li> <li>Non-operating Temperature: -40°to 70°C</li> </ul>
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<b>Keyboard / Mouse</b>	<ul style="list-style-type: none"> <li>PS/2 keyboard and mouse ports</li> </ul>
<b>Serial Port / Header</b>	<ul style="list-style-type: none"> <li>1 Fast UART 16550 serial port</li> <li>1 Fast UART 16550 serial header</li> </ul>
<b>Parallel Port</b>	<ul style="list-style-type: none"> <li>1 Header for ECP / EEP parallel port</li> </ul>

<b>Environmental Spec.</b>	<ul style="list-style-type: none"> <li>(-40° to 158°F)</li> <li>Operating Relative Humidity: 8% to 90% (non-condensing)</li> <li>Non-operating Relative Humidity: 5 to 95% (non-condensing)</li> </ul>
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#### OS Compatibility

- Please see our [OS Compatibility Chart](#)

#### Regulatory

<b>FCC</b>	<ul style="list-style-type: none"> <li>Passed to meet FCC standard requirement</li> </ul>
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### Parts List

#### Parts List

	Part Number	Qty	Description
<b>X7DVL-3</b>	MBD-X7DVL-3-O	1	X7DVL-3 Motherboard
<b>Manual(s)</b>	<a href="#">MNL-0891</a>	1	<a href="#">Motherboard Manual for X7DVL-3</a>
<b>I/O Cables</b>	<a href="#">CBL-0022L</a>	1	ATX Floppy Cable
	<a href="#">CBL-0036L-03</a>	1	ATA 66/100 IDE LP Cable
	<a href="#">CBL-0044L</a>	8	2ft. Amphenol, SATA Cable
<b>Driver Disk</b>	CDR-X7 1.10	1	Version 1.10 CD or later
<b>I/O Shield</b>	CSE-PT07L	1	Motherboard I/O Shield
<b>Retention</b>	SKT-0159L	1	CPU Retention Module

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

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