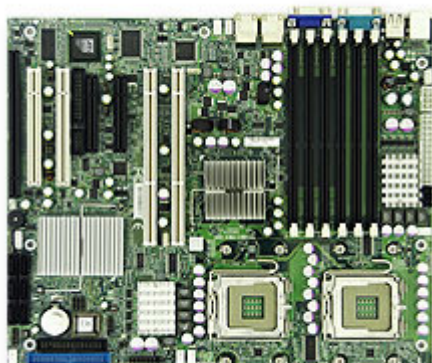


# Supermicro X7DVL-E



## Key Features

1. Dual Intel® 64-bit Xeon® Quad-Core or Dual-Core, with 667 / 1066 / 1333 MHz FSB
2. Intel® 5000V (Blackford VS) Chipset
3. Up to 16GB DDR2 667 & 533 SDRAM Fully Buffered DIMM (FB-DIMM)
4. Intel® (ESB2/Gilgal) 82563EB Dual-port Gigabit Ethernet Controller
5. 6x SATA 3.0Gbps Ports via ESB2 Controller
6. 1 (x8) & 1 (x4) in (x8) PCI-Express, 2x 64-bit 133/100MHz PCI-X, 2x 32-bit 33MHz PCI
7. ATI ES1000 Graphics with 16MB video memory
8. IPMI 2.0 (SIMLC) Slot

- **Low Cost Xeon Dual-Core Blackford VS ServerBoard**

## Product SKUs

- |               |                                  |
|---------------|----------------------------------|
| MBD-X7DVL-E-O | • X7DVL-E (Standard Retail Pack) |
| MBD-X7DVL-E-B | • X7DVL-E (Bulk Pack)            |

## Physical Stats

- |             |                               |
|-------------|-------------------------------|
| Form Factor | • ATX                         |
| Dimensions  | • 12" x 10" (30.5cm x 25.4cm) |

## Processor/Cache

- |            |   |
|------------|---|
| CPU        | <ul style="list-style-type: none"> <li>• Dual 771-pin LGA Sockets</li> <li>• Supports up to two Intel® 64-bit Xeon® processor(s) of the same type below: <ul style="list-style-type: none"> <li>○ <b>Quad-Core Intel® Xeon® Processor 5300 sequence (Clovertown processor) up to 2.66 GHz</b></li> <li>○ <b>Dual-Core Intel® Xeon® Processor 5100/5000 sequence (Woodcrest/Dempsey processor) up to 3.73 GHz</b></li> </ul> </li> </ul> |
| System Bus | • 1333 / 1066 / 667 MHz system bus  |

## System Memory

## Chassis ( Optimized for X7DVL-E )

- |                         |   |
|-------------------------|---|
| 1U Chassis              | <ul style="list-style-type: none"> <li>• <a href="#">CSE-813MTQ-520C</a></li> <li>• <a href="#">CSE-811TQ-520</a></li> <li>• <a href="#">CSE-811i-520</a></li> <li>• <a href="#">CSE-512F-520L</a></li> <li>• <a href="#">CSE-512F-520</a> (Mini 1U)</li> </ul> |
| Tower / 4U Rackmount    | <ul style="list-style-type: none"> <li>• <a href="#">SC743TQ-R760</a></li> <li>• <a href="#">SC743T-650</a></li> <li>• <a href="#">SC743T-645</a> (FAN-0091 required)</li> <li>• <a href="#">SC743i-645</a> (FAN-0091 required)</li> </ul>                      |
| Important Chassis Notes | • To ensure system stability, a 500W (minimum) ATX power supply [8-pin (+12V) and 24-pin are required]  |

## Expansion Slots

- |             |   |
|-------------|---|
| PCI-Express | <ul style="list-style-type: none"> <li>• 1 (x8) PCI-e slot</li> <li>• 1 (x4) PCI-e (using x8) slot</li> </ul> |
| PCI-X       | • 2x 64-bit 133/100MHz PCI-X (3.3V) slots   |
| PCI         | • 2x 32-bit 33MHz PCI (3.3V) slots  |

## Management

- |          |   |
|----------|---|
| Software | <ul style="list-style-type: none"> <li>• Optional IPMI (Intelligent Platform Management Interface) 2.0</li> <li>• <a href="#">Super Doctor III</a></li> </ul> |
|----------|---|

Memory Capacity	<ul style="list-style-type: none"> <li>• Six 240-pin DIMM sockets</li> <li>• Supports up to 16 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>
Memory Type	<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>
DIMM Sizes	<ul style="list-style-type: none"> <li>• 512 MB, 1GB, 2GB, 4GB</li> </ul>
Memory Voltage	<ul style="list-style-type: none"> <li>• 1.8 V only</li> <li>• 1.5V(AMB)</li> </ul>
Error Detection	<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>

Power Configurations	<ul style="list-style-type: none"> <li>• Watch Dog</li> <li>• NMI</li> <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>
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### On-Board Devices

Chipset	<ul style="list-style-type: none"> <li>• Intel® 5000V (Blackford VS) chipset</li> <li>• MCH + ESB2</li> </ul>
SATA	<ul style="list-style-type: none"> <li>• Intel ESB2 SATA 3.0Gbps Controller</li> <li>• RAID 0, 1, 5, 10 support</li> </ul>
IPMI	<ul style="list-style-type: none"> <li>• Support for Intelligent Platform Management Interface v.2.0</li> <li>• 200-pin IPMI slot (SIM1U)</li> <li>• (Optional: AOC-SIMLC, AOC-SIM1U)</li> </ul>
Network Controllers	<ul style="list-style-type: none"> <li>• Intel® (ESB2/Gilgal) 82563EB Dual-Port Gigabit Ethernet Controller</li> <li>• Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output</li> <li>• Intel® I/OAT support for fast, scaleable, and reliable networking</li> </ul>
Graphics	<ul style="list-style-type: none"> <li>• ATI ES1000 controller with 16 MB of video memory</li> </ul>
Super I/O	<ul style="list-style-type: none"> <li>• Winbond 83627HG</li> </ul>

### PC Health Monitoring

CPU	<ul style="list-style-type: none"> <li>• Monitors for CPU Cores, +3.3V, +5V, ±12V</li> <li>• 5-Phase-switching voltage regulator with auto-sense from 0.8375V-1.60V</li> </ul>
FAN	<ul style="list-style-type: none"> <li>• Total of six 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>• Low noise fan speed control</li> <li>• Pulse Width Modulated (PWM) fan connectors</li> </ul>
Temperature	<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 I<sup>2</sup>C temperature sensing logic</li> <li>• Thermal Monitor 2 (TM2) support</li> </ul>
LED	<ul style="list-style-type: none"> <li>• CPU / System Overheat LED</li> </ul>
Other Features	<ul style="list-style-type: none"> <li>• Chassis intrusion detection</li> <li>• Chassis intrusion header</li> <li>• SDDC Support</li> </ul>

### Operating Environment / Compliance

RoHS	 <ul style="list-style-type: none"> <li>• <a href="#">RoHS Compliant 5/6, Server Exemption</a></li> </ul>
Environmental Spec.	<ul style="list-style-type: none"> <li>• Operating Temperature: 10° to 35° C (50° to 95° F)</li> <li>• Non-operating Temperature: -40° to 70° C (-40° to 158° F)</li> <li>• Operating Relative Humidity: 8% to 90% (non-condensing)</li> <li>• Non-operating Relative Humidity: 5</li> </ul>

chip

to 95% (non-condensing)

## Input / Output

Serial ATA	<ul style="list-style-type: none"><li>• Six Serial ATA ports</li><li>• Six SATA hard drives supported</li></ul>
IDE	<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>
Floppy	<ul style="list-style-type: none"><li>• 1 Floppy controller; 1.44 MB, 2.88 MB</li></ul>
LAN	<ul style="list-style-type: none"><li>• 2x RJ45 LAN ports</li></ul>
USB	<ul style="list-style-type: none"><li>• 2x USB rear ports</li><li>• 2x USB internal headers</li><li>• Total 6 USB 2.0 Compliant / 1.1 Compliant</li></ul>
VGA	<ul style="list-style-type: none"><li>• 1x VGA Port</li></ul>
Keyboard / Mouse	<ul style="list-style-type: none"><li>• PS/2 keyboard and mouse ports</li></ul>
Serial Port / Header	<ul style="list-style-type: none"><li>• 1 Fast UART 16550 serial port</li><li>• 1 Fast UART 16550 serial header</li></ul>
Parallel Port	<ul style="list-style-type: none"><li>• 1 Header for ECP / EEP parallel port</li></ul>

## System BIOS

BIOS Type	<ul style="list-style-type: none"><li>• 8Mb Flash EEPROM with Phoenix® BIOS</li></ul>
BIOS Features	<ul style="list-style-type: none"><li>• Plug and Play (PnP)</li><li>• SMBIOS 2.3</li><li>• DMI 2.1</li><li>• PCI 2.2</li><li>• ACPI 1.0</li><li>• USB Keyboard support</li><li>• Hardware BIOS Virus protection</li></ul>

## OS Compatibility

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

## Parts List

### Parts List

	<b>Part Number</b>	<b>Qty</b>	<b>Description</b>
<b>X7DVL-E</b>	MBD-X7DVL-E-O	1	X7DVL-E Motherboard
<b>Manual(s)</b>	<a href="#">MNL-0860</a>	1	<a href="#">Motherboard Manual for X7DVL-E</a>
<b>I/O Cables</b>	CBL-0022L	1	ATX Floppy Cable
	CBL-0036L-02	1	ATA 66/100 IDE LP Cable
	CBL-0044L	6	2ft. Amphenol, SATA Cable
<b>Driver Disk</b>	CDR-X7 1.02	1	Version 1.02 CD or later
<b>I/O Shield</b>	CSE-PT07L	1	Motherboard I/O Shield
<b>Retention</b>	SKT-0159	1	CPU Retention Module