

Supermicro X7DBE



• Xeon Dual-Core Blackford ServerBoard

Key Features

1. Quad & Dual Core Intel® 64-bit Xeon® Support, 667 / 1066 / 1333MHz FSB
2. Intel® 5000P (Blackford) Chipset
3. Up to 32GB 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. 2 (x8) & 1 (x4) PCI-Express, 2x 64-bit 133MHz PCI-X, 1x 64-bit 100MHz PCI-X
7. ATI ES1000 Graphics with 16MB video memory
8. SIMPLP IPMI 2.0

Product SKUs

- MBD-X7DBE-O • **X7DBE (Standard Retail Pack)**
- MBD-X7DBE-B • **X7DBE (Bulk Pack)**

Physical Stats

- Form Factor • **Extended ATX**
- Dimensions • **12" x 13.05" (30.5cm x 33.2cm)**

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 5300 sequence (Clovertown processor) up to 2.66 GHz**
 - **Dual-Core Intel® Xeon® Processor 5100/5000 sequence (Woodcrest/Dempsey processor) up to 3.73 GHz**
 - **NOTE: Motherboard PCB revision 2.0 or above is required to support Xeon® 5100 (Woodcrest) processors**
 - **1333 / 1066 / 667 MHz system bus**
 - **Supports 64-bit Operating Systems**
- CPU
- System Bus
- Operating System Software

Chassis (Optimized for X7DBE)

- [CSE-825TQ-R700LPV](#)
 - [CSE-825TQ-560LPV](#)
 - [CSE-825TQ-560RCV](#)
 - [CSE-825TQ-R700RCV](#)
 - [CSE-823T-550LP](#)
 - [CSE-823i-550LP](#)
- 2U Chassis
- [CSE-833T-R760](#)
 - [CSE-833T-550](#)
- 3U Chassis
- [CSE-745TQ-R800](#)
 - [CSE-745TQ-800](#)
 - [CSE-743TQ-R760](#)
 - [CSE-743T-R760](#)
 - [CSE-743i-R760](#)
 - [CSE-743T-650](#)
 - [CSE-743i-650](#)
 - [CSE-743T-645](#) (FAN-0091 Required)
 - [CSE-743i-645](#) (FAN-0091 Required)
- Tower / 4U Rackmount
- Important Chassis Notes
- **To ensure system stability, a 500W (minimum) ATX power supply [4-pin (+12V), 8-pin (+12V) and 24-pin are required]**

Expansion Slots

- 2 (x8) PCI-e slots
 - 1 (x4) PCI-e (using x8) slot
 - 1 SEPC (Supermicro PCI-e Power Connector) slot for 2U active riser cards with a power extension (i.e. CSE-RR2UE-AX)
- PCI-Express
- 2x 64-bit 133MHz PCI-X (3.3V) slots
 - 1x 64-bit 100MHz PCI-X (3.3V) slot
- PCI-X

- Supports 32-bit Operating Systems

System Memory

Memory Capacity	<ul style="list-style-type: none"> • Eight 240-pin DIMM sockets • Supports up to 32 GB 667 / 533MHz DDR2 ECC FB-DIMM memory • Dual branch memory bus • Memory must be populated in pairs • Memory Mirroring supported
Memory Type	<ul style="list-style-type: none"> • 667 / 533MHz FB-DIMM (Fully Buffered DIMM) ECC DDR2 SDRAM 72-bit, 240-pin gold-plated DIMMs
DIMM Sizes	<ul style="list-style-type: none"> • 512 MB, 1GB, 2GB, 4GB
Memory Voltage	<ul style="list-style-type: none"> • 1.8 V only • 1.5V(AMB)
Error Detection	<ul style="list-style-type: none"> • Corrects single-bit errors • Detects double-bit errors (using ECC memory) • Supports Intel® x4 and x8 Single Device Data Correction (SDDC)

On-Board Devices

Chipset	<ul style="list-style-type: none"> • Intel® 5000P (Blackford) chipset • MCH + PXH + ESB2
SATA	<ul style="list-style-type: none"> • Intel ESB2 SATA 3.0Gbps Controller • RAID 0, 1, 5, 10 support
IPMI	<ul style="list-style-type: none"> • Support for Intelligent Platform Management Interface v.2.0 • 200-pin IPMI slot (SIMLP) • (Optional: AOC-SIMLP)
Network Controllers	<ul style="list-style-type: none"> • Intel® (ESB2/Gilgal) 82563EB Dual-Port Gigabit Ethernet Controller • Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output • Intel® I/OAT support for fast, scaleable, and reliable networking
Graphics	<ul style="list-style-type: none"> • ATI ES1000

Management

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

PC Health Monitoring

CPU	<ul style="list-style-type: none"> • Monitors for CPU Cores, +3.3V, +5V, +5V Standby, & ±12V • 5-Phase-switching voltage regulator with auto-sense from 0.8375V-1.60V
FAN	<ul style="list-style-type: none"> • Total of four 3-pin and four 4-pin fan headers supporting up to 8 fans • 8x fans with tachometer status monitoring • Status monitor for speed control • Status monitor for on/off control • Low noise fan speed control • Pulse Width Modulated (PWM) fan connectors
Temperature	<ul style="list-style-type: none"> • Monitoring for CPU and chassis environment • CPU thermal trip support • Thermal Control for 8x fan connectors • PSU I²C temperature sensing logic • Thermal Monitor 2 (TM2) support
LED	<ul style="list-style-type: none"> • CPU / System Overheat LED
Other Features	<ul style="list-style-type: none"> • Chassis intrusion detection • Chassis intrusion header • SDDC Support

Operating Environment / Compliance

RoHS	 <ul style="list-style-type: none"> • RoHS Compliant 5/6, Server Exemption
Environmental	<ul style="list-style-type: none"> • Operating Temperature: 10° to 35° C

	controller with 16 MB of video memory
Super I/O	<ul style="list-style-type: none"> Winbond 83627HG chip

Spec.	(50° to 95° F)
	<ul style="list-style-type: none"> Non-operating Temperature: -40° to 70° C (-40° to 158° F) Operating Relative Humidity: 8% to 90% (non-condensing) Non-operating Relative Humidity: 5 to 95% (non-condensing)

Input / Output

Serial ATA	<ul style="list-style-type: none"> Six Serial ATA ports Six SATA hard drives supported
IDE	<ul style="list-style-type: none"> Single EIDE channel supports up to two UDMA IDE devices (IDE-M, IDE-S) including CF(Compact Flash) Card Compact Flash (40-pin connector, IDE 1, single channel) slot Supports UDMA Mode 5, PIO Mode 4, and ATA/100
Floppy	<ul style="list-style-type: none"> 1 Floppy controller; 1.44 MB, 2.88 MB
LAN	<ul style="list-style-type: none"> 2x RJ45 LAN ports
USB	<ul style="list-style-type: none"> 2x USB rear ports 3x USB internal headers Total 5 USB 2.0 Compliant / 1.1 Compliant
VGA	<ul style="list-style-type: none"> 1x VGA Port
Keyboard / Mouse	<ul style="list-style-type: none"> PS/2 keyboard and mouse ports
Serial Port / Header	<ul style="list-style-type: none"> 1 Fast UART 16550 serial port 1 Fast UART 16550 serial header
Parallel Port	<ul style="list-style-type: none"> 1 ECP / EEP parallel port

OS Compatibility

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

System BIOS

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

Parts List

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	Part Number	Qty	Description
X7DBE	MBD-X7DBE-O	1	X7DBE Motherboard
Manual(s)	MNL-0832	1	Motherboard Manual for X7DBE
	CBL-0010L-01	1	9-pin Serial Port Cable
	CBL-0022L	1	ATX Floppy Cable
I/O Cables	CBL-0036L-02	1	ATA 66/100 IDE LP Cable
	CBL-0044L	6	2ft. Amphenol, SATA Cable
	CBL-0083L	1	2-Port USB Cable
Driver Disk	CDR-X7 1.02	1	Version 1.02 CD or later
I/O Shield	CSE-PT07L	1	Motherboard I/O Shield