



• Intel®
Server Board
SE7505VB2
Product Brief

Is there a board that provides high performance and versatility for both server and workstation applications?
Yes. The Intel® Server Board SE7505VB2 is capable of performing as both a powerful server and a high-end workstation.



Build high-performance servers and high-end workstations with the Intel® Server Board SE7505VB2. It supports dual Intel® Xeon™ processors with 512KB L2 cache and a 533MHz system bus, and has the Intel® E7505 chipset, with support for 8X AGP to bring Intel quality, reliability, and performance to dynamic businesses.



Intel® Server Board SE7505VB2

Deliver the performance, quality, and reliability that are vital for both server and workstation applications using the Intel® Server Board SE7505VB2. With dual Intel® Xeon™ processors, a 533MHz system bus, and the Intel® E7505 chipset, the powerful and versatile Server Board SE7505VB2 enables you to create a broad range of systems that deliver high-end processing to solutions ranging from entry-level to enterprise-critical.

The Intel® Server Board SE7505VB2 extends the bandwidth and performance-enhancing features of Intel® NetBurst™ microarchitecture and Hyper-Threading Technology in a package ideally suited to the unpredictable computing demands of growing businesses. In addition, dual integrated Intel® PRO Network Connections, three independent PCI buses, integrated Serial ATA, support for up to 8 GB of ECC DDR266 SDRAM¹ and support for 1.5V AGP 8X Pro50 cards provides the scalable networking, flexible storage options, and powerful graphics capabilities needed to meet a vast assortment of business challenges.

A highly versatile approach to growth

To make the most of the hardware, software, and technical expertise that goes into building and supporting dual-processing servers and workstations, integrators and designers need systems that can support a diverse set of applications and grow easily with businesses.

Systems built with the Intel® Server Board SE7505VB2 do both—exceptionally well—because the board is rigorously validated with an expansive selection of operating systems, third-party peripherals, add-in cards, and memory modules. In addition, the Intel® Server Board SE7505VB2 has been validated with the Intel Server Chassis SC5200 (base and redundant power models) and the Intel Server Chassis SC5250-E and is supported by a number of third-party reference chassis². For applications requiring SCSI-based storage, an optional single-channel Ultra320 SCSI adapter accessory is also available.



The Intel® Server Board SE7505VB2 enables you to build both general-purpose servers and high-end workstations capable of high performance and broad versatility.

For applications requiring SCSI-based storage, an optional single-channel Ultra320 SCSI adapter accessory is also available.



Features

Support for one or two Intel® Xeon™ processor(s) with up to a 512KB L2 cache and a 533 MHz system bus

Intel® E7505 chipset

Four DIMM sockets with support for up to 8 GB of registered ECC DDR266 memory¹

Support for Intel® x4 Single Device Data Correction³

Three independent PCI buses on five slots: two PCI-X 64-bit/100MHz, one PCI 64-bit/66MHz, two PCI 32-bit/33MHz

AGP connector supporting 1.5V AGP 8X Pro50 cards

Two integrated Intel® PRO Network Connections: one Intel PRO/100+ and one Intel PRO/1000

Two integrated Serial ATA channels with integrated RAID⁴

Integrated ATI® Rage® XL video controller with 8 MB of video memory

LANDesk® Client Manager-based management solution including integrated in-band management, event alerting, and more

Optional Ultra320 single-channel SCSI adapter accessory

Three-year limited warranty

Benefits

Innovative technology and performance for demanding server and workstation applications

High performance, quality, and improved memory reliability

Memory flexibility with the price/performance advantage of DDR to support a wide range of solutions

Memory fault tolerance

Elimination of data bottlenecks for the increased bandwidth necessary for intensive I/O, flexibility and scalability

High-performance graphics capability

Networking capabilities with widespread compatibility, scalable bandwidth, and redundant links

High-performance Serial ATA storage with the data protection of RAID

High-quality video without the need for a video adapter card

Simplified security, troubleshooting, problem resolution, and maintenance for greater reliability

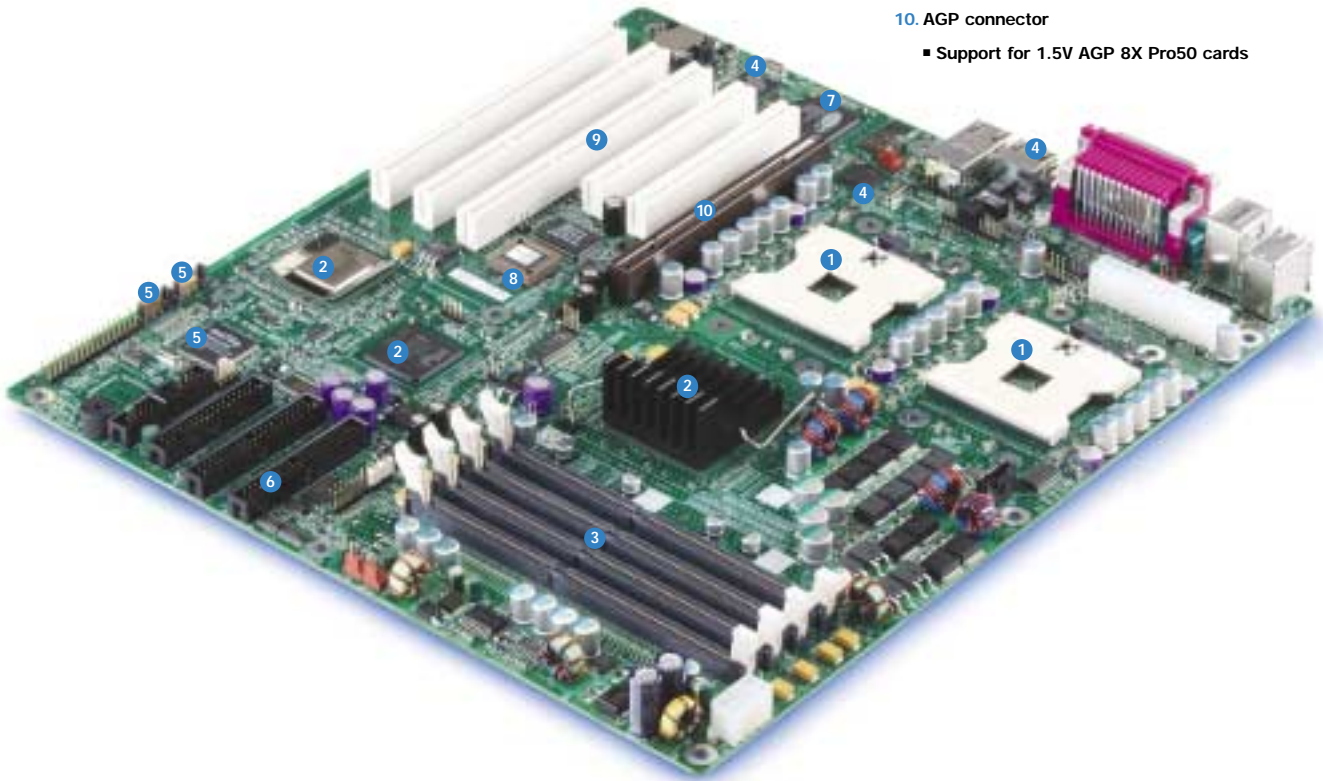
Flexible storage options

Peace of mind

Intel® Server Board SE7505VB2 for the Intel® Xeon™ Processor with 512KB Cache

Leading performance and flexibility in a value package including powerful and flexible graphics, network connections, and management capabilities.

1. Support for two Intel® Xeon processors with 512KB cache and a 533 MHz system bus
2. Intel® E7505 chipset
3. Up to 8 GB of registered ECC DDR266 SDRAM
 - Dual memory channels for high-speed data transfer
4. Two Intel® PRO Network Connections
 - One Intel® PRO/100+ (10/100 Intel® 82550PM Fast Ethernet controller)
 - One Intel® PRO/1000 (10/100/1000 Intel® 82540EM Gigabit Ethernet controller)
5. Integrated dual-channel Serial ATA controller with integrated RAID
 - Silicon Image® Si3112A controller
6. Two ATA/100 IDE channels
7. Integrated video
 - ATI® Rage® XL video controller with 8 MB of memory
8. Server hardware monitoring
9. Three independent PCI buses
 - Two PCI-X 64-bit/100MHz slots
 - One PCI 64-bit/66MHz slot
 - Two 32-bit/33MHz slots
10. AGP connector
 - Support for 1.5V AGP 8X Pro50 cards



The Intel® Xeon™ processor with 512KB L2 cache, Hyper-Threading Technology, and the Intel® NetBurst® microarchitecture provides unprecedented performance for growing businesses.



The Boxed Intel® Server Board SE7505VB2

Delivering the hardware, software, and documentation you need to build powerful and versatile solutions quickly and easily.

Included for easy integration:

1. One Intel® Server Board SE7505VB2
2. Quick Start User Guide
3. CD-ROM with LANDesk® Client Manager software, software drivers, configuration tools, Intel SMaRT tool software, and technical product information
4. Cable kit
5. I/O shield
6. Board stickers (reference, I/O, and warning)

Order code AU320SCSI is an optional accessory and includes a single-channel Ultra320 low-profile SCSI adapter and an Ultra320 SCSI cable with termination:

- Single-channel Ultra320 SCSI
- 64-bit/133MHz low-profile PCI-X
- LSI Logic® 53C1020 controller



Deliver the most advanced server technology with world-class customer support. With Intel, you can.



Technology leadership. Take advantage of Intel's 20 years of experience designing and engineering industry-leading server building blocks such as the Intel® Xeon™ processor.

Unsurpassed quality. Intel spends 10,000+ hours testing and validating every piece of an Intel server stack. Uncompromising quality standards translate into higher reliability, fewer repairs, and greater customer satisfaction.

World-class technical support. Intel offers phone and Web-based technical support, Advanced Warranty Replacement, a three-year limited warranty, spares kits, and extensive technical training. Integrators also receive a wealth of sales and marketing support in the form of sales tools, videos, and high-quality images for advertising. For more information on Intel's added-value server offerings please visit: www.intel.com/go/serverbuilder

With Intel, you can give your customers access to the latest server technologies, the highest quality, and the most responsive technical support.



intel®

Complete Your Intel® Server Board SE7505VB2 with Intel® Server Building Blocks

Add the following Intel building blocks to your Intel Server Board SE7505VB2 to ensure a highly reliable, available, and scalable server or workstation⁵:

Intel® Server Chassis SC5200 is a 5U pedestal server chassis that supports Intel Server Board SE7505VB2 with a Base option and a Base Redundant Power option. A rack-conversion kit is available to enable easy rack installation and a drive-bay accessory upgrade supports up to five hot-swap Ultra320 SCSI drives.⁶

Intel® Server Chassis SC5250-E is a 5.5U reduced-depth pedestal chassis that is designed for entry-level servers and workstations. A drive-bay accessory upgrade is available that supports up to five hot-swap Ultra320 SCSI drives.⁶



Intel® Xeon® Processors based on Intel® NetBurst™ microarchitecture and Hyper-Threading Technology, can slice through the toughest business problems facing dynamic start-ups, growing enterprises, and everything in between.



Intel® RAID Controllers are designed to protect data, applications, and the server operating system from disk failures. Intel offers an affordable high-performance line of RAID products, which are tested and validated for easy integration with Intel server building blocks.



Intel® PRO Server Adapters, including Fast Ethernet and Gigabit Ethernet server adapters, help to reduce bottlenecks and improve availability with industry-leading performance and advanced server features.



Intel® Server Chassis SC5200



Intel® Server Chassis SC5250-E

Intel server building blocks are validated to work together seamlessly, saving you R&D, validation, and support expenses—and minimizing time to market.

The Intel® Server Chassis SC5200 and SC5250-E are tuned to the Intel® Server Board SE7505VB2, providing flexible options for server and workstation applications.



Intel® Server Board SE7505VB2 Specifications

Processor/Cache	
Processors Supported	One or two Intel® Xeon™ processor(s) with 512KB of integrated L2 cache and a 400/533MHz system bus; for the latest processor support information, visit http://support.intel.com/support/motherboards/server

System Memory ¹	
Memory Capacity	Four DIMM sockets for up to 8 GB of registered ECC DDR266 memory ¹ (memory must be populated in pairs of equal-size DIMMs)

Memory Type	DDR266 registered SDRAM 72-bit ECC, 184-pin gold-plated DIMMs
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DIMM Sizes	128MB, 256MB, 512MB, 1GB, 2GB ¹
Memory Voltage	2.5 V only

Error Detection	Corrects single-bit errors, detects double-bit errors (using ECC memory), and provides Intel® x4 Single Device Data Correction support (using x4 DRAM devices only) ³
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Integrated On-Board	
Chipset	Intel® E7505

Serial ATA Controller	Silicon Image® Si3112A, provides two channels of Serial ATA and integrated RAID ⁴
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Intel® PRO Server Network Connections	Two Intel® PRO/100+ Network Connection (10/100 Intel, 82550PM Fast Ethernet controller) and one Intel® PRO/1000 (10/100/1000 Intel® 82540EM Gigabit Ethernet controller)
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Video	ATI® Rage™ XL SVGA PCI video controller with 8 MB of video memory
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Super I/O Controller	National Semiconductor® PC87417
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Input/Output	
PCI	Three independent PCI buses, 5 total slots: two PCI-X 64-bit/100MHz, one PCI 64-bit/66MHz, and two PCI 32-bit/33MHz

IDE	Two Serial ATA/100 EIDE channels for a total of four IDE devices backward-compatible to provide CD-ROM drive support
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USB	Four USB ports: three stacked USB connectors on I/O rear panel, one via 10-pin internal header
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Serial Ports	Two serial ports: one asynchronous 9-pin RS-232C, one via 10-pin internal header
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Floppy Controller	1.44MB and 2.88MB, 3-mode support
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Keyboard/Mouse	PS/2, 8240A-compatible
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Intel® Server Management Solution	
Hardware	Winbond® 83627HF controller

Software	LANDesk® Client Manager software
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Server Troubleshooting	SE7505VB2 Platform Confidence test software provided on CD
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Operating Systems	Windows® 2000, Windows XP®, Supported by LANDesk® Windows .NET Server® Client Manager
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System BIOS	
BIOS Type	4Mb Flash EEPROM with Phoenix® BIOS, Multiboot BBS (BIOS Boot Specification), 1.4-compliant

Special Features	Plug and Play, IDE drive autoconfigure, SMBIOS 2.3, ECC/Parity support, multilingual support
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Jumpers and Front-Panel Connectors	
Jumpers	CMOS clear, password clear, BIOS recovery

Front-Panel Connectors	Two switches: power on/off and reset; four LEDs: power, HDD activity, and NIC activity (two)
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Mechanical	
Server Board Style	SSI EEB 3.0 (fits in many ATX-compliant tower chassis)

Server Board Size	12" x 13"
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Power Requirements	
+5V	13.00 A maximum continuous current
+5V Standby	1.00 A minimum continuous current
+12V	17.30 A maximum continuous current
+3.3V	7.20 A maximum continuous current
-5V	0.00 A maximum continuous current
-12V	0.20 A maximum continuous current

Environment	
Ambient Temperature ⁷	Operating (system): 10°C to 35°C; non-operating/storage (system): -40°C to +70°C ambient

Relative Humidity	Non-operating 95%, non-condensing at 30°C
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Safety	
Class A EMC regulatory compliance (based on board configured in a compatible ⁸ Intel host system)	

Australia/New Zealand	Verified to AS/NZS 3548, Class A (C-tick Mark)
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Canada	CSA 950 / Verified to ICES-003, Class A
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Europe	EN60 950 / Verified to EN55022 (Class A) and EN55024 (CE Mark—EU Directive 89/336/EEC)
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International	IEC60950 / CISPR 22
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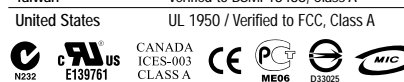
Japan	Verified to CISPR-22/VCCI, Class A
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Korea	RRL Certification to MIC Notices 1997-41 & 1997-42
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Russia	GOSTR 50377-92 / Verified to GOSTR 29216-91, GOSTR 50628-95
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Taiwan	Verified to BSMI 13438, Class A
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United States	UL 1950 / Verified to FCC, Class A
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Order Codes

Item	Product Order Code
Intel® Server Board SE7505VB2	SE7505VB2
Intel® Server Chassis SC5200 Base Configuration (pedestal)	KHD3BASE450 ²
Intel® Server Chassis SC5200 Base Redundant Power Configuration (beige pedestal)	KHD3RP450
Intel® Server Chassis SC5250-E Base Configuration (beige pedestal)	KPTBASE450
Intel® Server Chassis SC5250-E Base Configuration (black pedestal)	KPTBASE450BLK
Intel® Server Chassis SC5200 Rack Conversion Kit	AHD2RACK ⁹
Intel® Server Chassis SC5200 Spares Kit	FHD3SPRS
Intel® Server Chassis SC5200 Hot Swap SCSI Drive Bay Accessory	AXX2HSDRVUG
Intel® PRO/1000 XT Server Adapter	PWLA8490XT
Intel® RAID Controllers	Please visit http://support.intel.com for a complete list of validated Intel RAID cards
Single-Channel Ultra320 SCSI Adapter	AU320SCSI

¹ The Server Board SE7505VB2 has been designed to support up to 8GB of memory using 2GB memory modules. At publication, 2GB memory validation was not completed. Please see <http://support.intel.com/support/motherboards/server/se7505vb2> for updates to the support of this feature and the latest version of the tested memory list.

² See <http://support.intel.com> for a complete list of Intel and third-party compatible chassis.

³ In a x4 DDR memory device, provides error detection and correction for 1, 2, 3 or 4 data bits within that single device.

⁴ See <http://support.intel.com/support/motherboards/server/se7505vb2> for details on which operating systems have drivers that support this feature.

⁵ See <http://support.intel.com> for a complete list of Intel server building blocks.

⁶ Peripheral bay support is dependent on chassis configuration and thermal loading. Please refer to the Intel® Server Chassis SC5200 and Intel® Server Chassis SC5250-E Technical Product Specifications for full details.

⁷ Environment ambient temperature is the system-intake measurement for an Intel® Server Board SE7505VB2 installed in an Intel® Server Chassis SC5200.

⁸ Compatible host system denotes the system(s) with which Intel tested the board and found it compliant.

⁹ Intel® Server Chassis SC5200 Base and Base Redundant Power configurations are also compatible with AHD3RACK.

For the most current product information on Intel server building blocks, visit: www.intel.com/go/serverbuilder



All products, dates, and figures specified are preliminary based on current expectations, provided for planning purposes only, and are subject to change without notice. Availability in different channels may vary.

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