



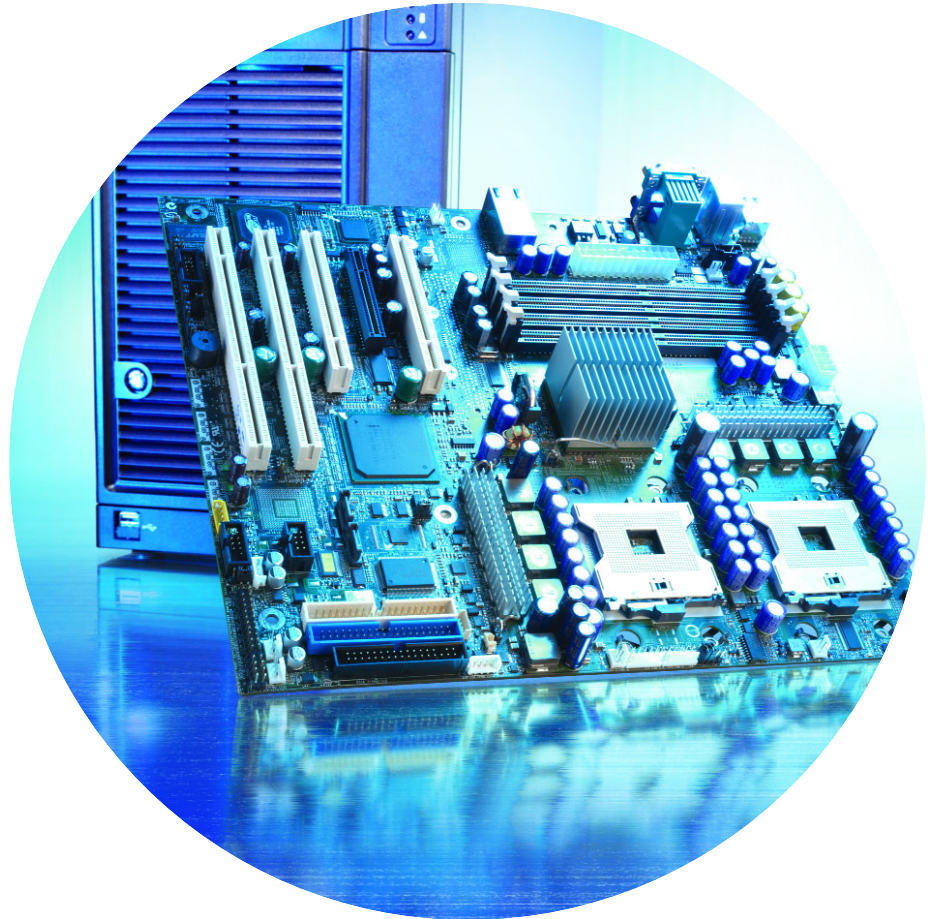
**Product Brief**

**Intel® Server Board SE7320SP2**

- Support for Dual Intel® Xeon™ Processors
- Intel® E7320 Chipset
- Intel® Server Management 8

## Intel® Server Board SE7320SP2

Real server features that provide room-to-grow  
for small business server solutions



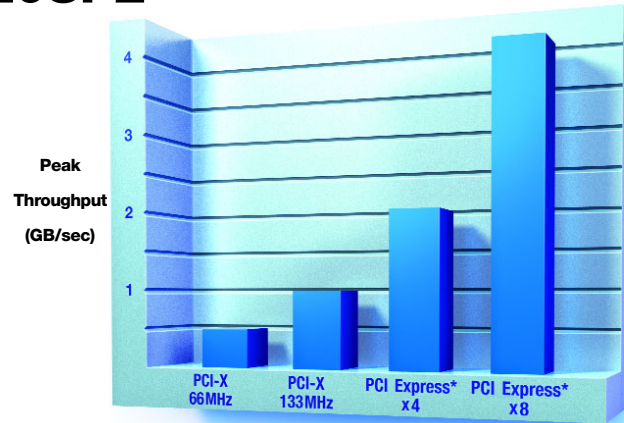
The Intel® Xeon™ processor, with up to 2MB Advanced Transfer Cache, Hyper-Threading Technology, and the Intel NetBurst® microarchitecture, provides remarkable levels of performance for growing businesses.

# Intel® Server Board SE7320SP2

Growing businesses and workgroups need a server solution combining performance, innovation, quality, and cost-effectiveness. Intel addresses this need with the Intel® Server Board SE7320SP2, a general-purpose board offering the processor support and chipset power, the memory capacity and bandwidth, and the comprehensive management capabilities that organizations rely on to survive and thrive in a keenly competitive marketplace.

For the performance to run diverse solutions cost-effectively, the Intel Server Board SE7320SP2 supports one or two Intel® Xeon™ processors with an 800MHz system bus and the innovative Intel® E7320 chipset. The board also provides up to 8 GB of dual-channel ECC DDR 266/333 SDRAM along with four independent PCI buses and five total slots supporting not only PCI-X but also the next-generation PCI Express\* I/O interconnect technology—delivering the memory and I/O scalability vital to an expanding enterprise.

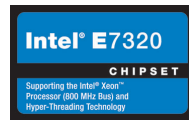
Equally essential are server reliability and manageability, which the Server Board SE7320SP2 provides through integrated dual-channel Serial ATA supporting RAID 0 and 1, Intel® Server Management 8, and a number of sophisticated Intel server technologies. These pioneering technologies help to enhance reliability, streamline monitoring and servicing, and minimize the costs of management and maintenance. Other advantages include support for multiple operating systems and third-party add-in cards, memory modules, and reference chassis so that solutions based on the Intel Server Board SE7320SP2 can grow alongside the business.



### PCI Express\* Offers Outstanding Data Throughput

In the Intel® Server Board SE7320SP2, the PCI Express\* x4 slot provides up to four times the throughput of PCI-X 66MHz. Calculations are based on maximum theoretical throughput. Individual results may vary.

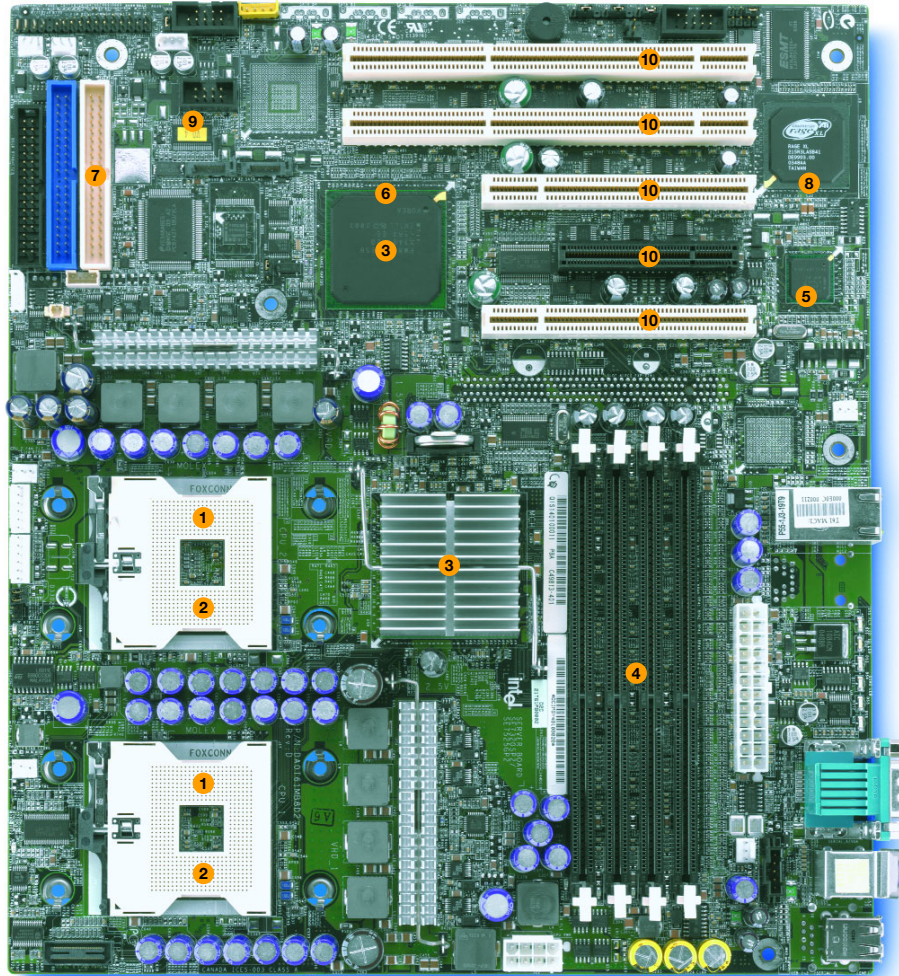
Through support for the Intel® E7320 chipset, the Intel® Server Board SE7320SP2 can provide impressive levels of overall performance and memory reliability.



In the Intel® Server Board SE7320SP2, an integrated video controller with 8 MB of memory provides high-end video without the loss of a PCI slot or the need to add a graphic card.

## Intel® Server Board SE7320SP2 Features and Benefits

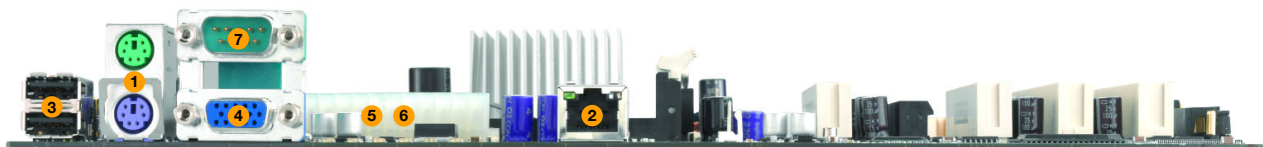
Features	Benefits
Support for one or two Intel® Xeon™ processors with an 800MHz system bus	Innovative technology for high-performance workloads
Intel® E7320 chipset	High performance and memory reliability in a purpose-built chipset
Support for up to 8 GB of Registered ECC DDR 266/333 SDRAM through four DIMM sockets	Memory capacity to support diverse server tasks, dual-interleaved for improved performance
Four independent PCI buses and five total slots: one PCI Express* x4, two PCI-X 66MHz, and two PCI 32-bit/33MHz	The bandwidth needed for current and next-generation server applications
PCI Express I/O interconnect technology	Next-generation connectivity for servers, workstations, mobile devices, and other communications platforms
Support for multiple operating system and third-party add-in cards, memory modules, and reference chassis	Configuration flexibility essential for growing businesses
Intel® Server Management 8	Remote monitoring and proactive notification for availability and serviceability
Integrated ATI® RAGE® XL SVGA PCI video controller with 8 MB of video memory	High-end video without the loss of a PCI slot or the need to add a graphic card



## Intel® Server Board SE7320SP2

1. Support for two Intel® Xeon™ processors with an 800MHz system bus
2. Support for Intel® Extended Memory 64 Technology<sup>1</sup>
3. Intel® E7320 chipset
4. Up to 8 GB of Registered ECC DDR 266/333 SDRAM
  - Dual-interleaved memory channels for high-speed data transfer
5. Integrated Intel® PRO/1000 Server Network Connection
6. Integrated dual-channel Serial ATA controller supporting RAID 0 and 1
7. Dual-channel EIDE for a total of four devices
8. Integrated graphics
  - ATI® RAGE™ XL SVGA PCI video controller with 8 MB of video memory
9. Integrated hardware management
  - National Semiconductor® PC87431M mini-Baseboard Management Controller
10. Four independent buses and six adapter slots:
  - One PCI Express® x4
  - Two PCI-X 66MHz
  - Two PCI 32-bit/33MHz

## Intel® Server Board SE7320SP2 – I/O Panel Features



1. Keyboard/mouse connector
2. RJ45 Ethernet connectors
3. USB connectors
4. Video connector
5. Status LEDs
6. System-ID LED
7. Serial connector

# The Intel® Server Board SE7320SP2 Supports Technologies That Define Innovation<sup>2</sup>

Two sophisticated Intel server technologies work together in the Intel Server Board SE7320SP2 to reinforce the board's ability to provide room-to-grow for small-business server solutions. For scalability, **Intel® Power and Thermal Headroom** provides sufficient power supply and thermal protection to maintain performance levels in current and next-generation servers. And the **Intel® Validation Stress Test Suite** ensures that the Server Board SE7320SP2 has passed some of the industry's most rigorous and extensive testing to optimize time-to-market, maximize data integrity, and minimize support costs—vital for growing businesses.



Intel® Power and Thermal Headroom



Intel® Validation Stress Test Suite



Intel server technologies provide powerful capabilities designed to make server systems more reliable, more available, and easier to service. Seamlessly integrated into the latest generation of Intel® Server Products, these technologies work in concert to complement the capabilities of the most current Intel processor and chipset technologies.

For more information on these technologies, please visit:  
<http://developer.intel.com/design/servers/technologies/>

## Intel® Server Board SE7320SP2 Boxed Contents

The Intel Server Board SE7320SP2 comes with all the board components required to help build a general-purpose server.

1. One Intel Server Board SE7320SP2
2. Quick Start User Guide
3. Intel® Server Management 8 CD Pack containing:
  - Intel® Server Deployment Toolkit with Intel® Express Installer, Intel® Server Maintenance and Reference Training (SMaRT) Tool Software, server product information, technical documentation, customer support information, drivers and utilities, and Web links
  - CD-ROM with Intel® Server Manager 8 family of software
4. Cable kit
5. I/O shield
6. Board-configuration label



# Compatible Products for Comprehensive Solutions

The following table provides a list of key compatible products for the Intel® Server Board SE7320SP2. Please see <http://support.intel.com/support/motherboards/server/se7320sp2> for the most recent and comprehensive product compatibility list.

Intel Building Block	Product Name(s)	Product Order Code(s)
Intel® Server Board	Intel® Server Board SE7320SP2	SE7320SP2
Intel® Server Chassis	Intel® Entry Server Chassis SC5275-E	SC5275E SC5275ENA
	Intel® Server Chassis SC5300	SC5300BASE SC5300BASENA
Intel® RAID Controller	Intel® RAID Controller SRCS16	SRCS16



## The Intel® Server Board SE7320SP2 is Part of a Family of Server Boards<sup>3</sup> for Pedestal Solutions and Supporting the Intel® Xeon™ Processor with an 800MHz System Bus.

Product	Market	Positioning	PCI Configuration	Integrated Storage	Integrated Networking	Memory Support	Management Solution
SE7520AF2	Business-critical database and departmental applications	Outstanding performance, excellent data protection, and advanced management for departmental servers	Seven independent PCI buses and five total slots: 1 PCI Express* x8 1 PCI Express x4 2 PCI-X 133MHz 1 PCI-X 100MHz	Dual-channel Ultra320 SCSI with optional integrated Intel® RAID supporting RAID 0, 1, 5, 10, and 50 and support for the Intel® Portable Cache Module; also includes dual-channel SATA with support for RAID 0 and 1, single-channel IDE	Dual Intel® PRO/1000 Server Network Connections	Eight DIMMs, up to 16 GB of ECC DDR2 400	Intel® Server Management 8: Support for Intel® Management Module upgrade (Professional and Advanced Editions)
SE7520BD2	Workgroup application, file, and messaging servers	Powerful processing, high bandwidth, and scalable management for general-purpose servers	Six independent PCI buses and six total slots: 1 PCI Express x8 1 PCI Express x4 1 PCI-X 133MHz 2 PCI-X 100MHz 1 PCI 32-bit/33MHz (x8 not included on SE7520BD2V)	Dual-channel Ultra320 SCSI (SE7520BD2SCSI), also available with single-channel Ultra320 SCSI (SE7520BD2V) and without SCSI (SE7520BD2); all board models include dual-channel SATA with support for RAID 0 and 1 and dual-channel IDE	Dual Gigabit Ethernet connections	Six DIMMs, up to 12 GB of ECC DDR 266/333	Intel Server Management 8: Support for Intel Management Module upgrade (Professional and Advanced Editions)
SE7525GP2	Workstations	Extreme I/O and graphics bandwidth support with flexibility for servers and workstations	Four independent PCI buses and six total slots: 1 PCI Express x16 1 PCI Express x4 2 PCI-X 66MHz 2 PCI 32-bit/33MHz	Dual-channel SATA with support for RAID 0 and 1, dual-channel IDE	Single Intel PRO/1000 Server Network Connection	Four DIMMs, up to 8 GB of ECC DDR 266/333	Intel Server Management 8
SE7320SP2	Entry-level general-purpose, file/print, and Web servers	Real server features that provide room-to-grow for small business server solutions	Four independent PCI buses and five total slots: 1 PCI Express x4 2 PCI-X 66MHz 2 PCI 32-bit/33MHz	Dual-channel SATA with support for RAID 0 and 1, dual-channel IDE	Single Gigabit Ethernet connection	Four DIMMs, up to 8 GB of ECC DDR 266/333	Intel Server Management 8

See <http://www.intel.com/go/serverbuilder> for details on specific Intel® Server Board configurations.

# Intel® Server Board SE7320SP2 Specifications

## Processor

One or two Intel® Xeon™ processors with an 800MHz system bus; for the latest processor support information, visit <http://support.intel.com/support/motherboards/server/se7320sp2>

## System Memory

For the latest information on memory support, visit <http://support.intel.com/support/motherboards/server/se7320sp2>

**Capacity** Four DIMM sockets for up to 8 GB of Registered ECC DDR 266/333 memory (memory must be populated in pairs of equal-size DIMMs)

**Type** Registered ECC DDR 266/333 SDRAM 72-bit, 184-pin gold-plated DIMMs

**Reliability Features** Corrects single-bit errors, detects double-bit errors (using ECC memory), and supports Intel® Single Device Data Correction (SDCC)

## Integrated Onboard

**Chipset** Intel® E7320 chipset

**Intel® Server Network Connections** One Intel® PRO/1000 Server Network Connection via RJ45 connector (Intel® 82541GB controller), supporting 10BASE-T, 100BASE-TX, and 1000BASE-T

**Super I/O Controller** National Semiconductor® PC87427

**Integrated Management Controller** National Semiconductor PC87431M mini-Baseboard Management Controller

**Graphics** ATI® RAGE® XL SVGA PCI video controller with 8 MB of video memory

## Integrated Storage Support

**Serial ATA** Dual-channel SATA controller supporting RAID 0 and 1

## Input/Output

**PCI** Four independent PCI buses and five adapter slots: one PCI Express® x4, two PCI-X 66MHz, and two PCI 32-bit/33MHz

**IDE** Dual-channel EIDE; dual-channel SATA for a total of two SATA devices

**USB** Two USB connectors (optional header for two more)

**Serial Ports** External DB9 serial port and onboard internal serial header

**Floppy Controller** 1.44 MB, 3-mode support

**Keyboard/Mouse** Two PS/2 ports, 8240A-compatible

## Intel® Server Management

**Integrated Management Type** Onboard Platform Instrumentation

**Software Support** Intel® Server Manager 8 family of software

## Fully Validated Operating Systems

Microsoft® Windows® Server 2003 Enterprise Edition, Microsoft Windows 2000 Advanced Server, Red Hat® Linux® Enterprise, SUSE® LINUX® Enterprise Server, and Novell® NetWare®

## System BIOS

**Type** 8Mb Flash EEPROM with AMI® 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, enabled for rolling/online BIOS updates

**Configuration Utilities** Server Configuration Wizard for system setup of initial Intel Server Management 8 configuration

## Jumpers

CMOS clear, password clear, BIOS recovery, BMC boot block write protect, BIOS code page selection

## Front-Panel Support

Power LED, hard-drive activity LED, system-fault LED, power/sleep switch, network connection LED, reset switch, NMI switch

## Mechanical

**Board Style** ATX

**Board Size** 12" x 10.6" (305 mm x 269 mm)

## Power Requirements

**+5V** 3.0A maximum continuous current

**+5V Standby** 1.6A minimum continuous current

**+12V** 19A maximum continuous current

**+3.3V** 8.4A maximum continuous current

**-5V** 0.0A maximum continuous current

**-12V** 0.0A maximum continuous current

## Environment

**Ambient Temperature** 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

## Safety and EMC Regulatory Compliance (Class A)

(EMC Regulatory Compliance is based on a board configured in an Intel host system in which Intel tested the board and found it compliant.)

Country	Certification Safety and/or EMC	Regulatory Mark Safety and/or EMC
Australia/ New Zealand	ACA, MED	C-Tick
Canada	UL / Industry Canada	cURus / ICES
Europe	European Directives	CE
International	CB Report / CISPR	Not applicable
Japan	VCCI (Verification only)	Not applicable
Korea	RRL	MIC
Russia	GOST	GOST
Taiwan	BSMI DOC	BSMI
United States	UL / FCC (Verification only)	cURus

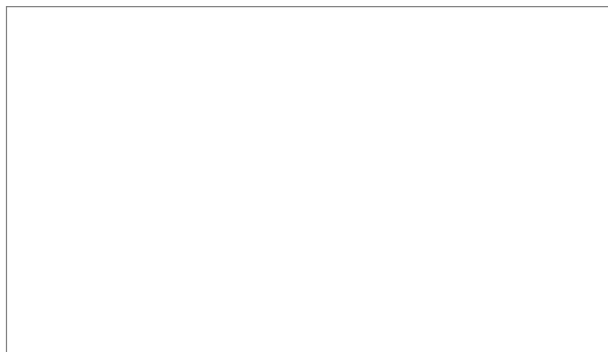


<sup>1</sup> Intel® Extended Memory 64 Technology (Intel® EM64T) requires a computer system with a processor, chipset, BIOS, OS, device drivers and applications enabled for Intel EM64T. **Processor will not operate (including 32-bit operation) without an Intel EM64T-enabled BIOS.** Performance will vary depending on your hardware and software configurations. **Intel EM64T-enabled OS, BIOS, device drivers and applications may not be available.** Check with your vendor for more information.

<sup>2</sup> Features may vary depending on system configuration.

<sup>3</sup> Feature sets may vary by board model. See <http://www.intel.com/go/serverbuilder> for more detail.

**For more information on how to make the Intel® Server Board SE7320SP2 part of your server environment, please contact an Intel® Channel Membership Programs participant.**



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