



Product Brief

Intel® Server Chassis SC5300

- Support for Dual Intel® Xeon™ Processors
- Extensive Storage Capacity
- Intel® Power and Thermal Headroom

Intel® Server Chassis SC5300

Maximum reliability, scalability, and manageability
in a highly versatile Intel® server chassis



The Intel® Xeon™ processor, with up to 2MB Advanced Transfer Cache, Hyper-Threading Technology, Intel® Extended Memory 64 Technology (Intel® EM64T)¹, the Intel NetBurst® microarchitecture, and Enhanced Intel SpeedStep® technology², provides remarkable levels of performance for growing businesses.

Intel® Server Chassis SC5300

Intel technology leadership has taken performance and availability to the next level for customers seeking a solid, cost-effective server chassis solution. The Intel® Server Chassis SC5300 combines outstanding reliability, extensive scalability, and superior manageability in a versatile chassis designed to meet diverse needs. This chassis offers an ideal foundation for a range of environments, from multipurpose servers for small businesses to workgroup database servers and departmental Exchange* servers. Configurable in a pedestal or rack-mount form factor, the Intel Server Chassis SC5300 includes an assortment of options to effectively handle current and future storage and performance requirements.



Designed for High Availability

The Intel Server Chassis SC5300 is built for environments that demand continuous server operation. It delivers the performance advantages of dual Intel® Xeon™ processors and is rigorously validated with multiple Intel server boards for assured dependability. Hot-swap drives options help to maintain high availability and hot-swap redundant power and cooling configurations³ add robustness and reliability. The Intel Server Chassis SC5300 is engineered with ample power and thermal capacity to optimize performance and minimize support needs. The chassis also supports an optional Intel® Local Control Panel⁴ for easy server monitoring and control.

Highly Flexible Configuration

A generous array of configuration options makes the Intel Server Chassis SC5300 easily adaptable. Its highly flexible storage system supports fixed and hot-swap Serial ATA (SATA) or SCSI devices (see specifications for limitations). The Server Chassis SC5300 also comes in two power configurations: a 600W fixed power supply and a redundant-capable 730W PFC 1+1 power supply⁵. Versatile system cooling capacity is achieved by a choice of two high-flow cooling fans in the SC5300BASE and SC5300BRP configurations or four redundant high-flow system fans in the SC5300LX configuration. *(Note that full cooling redundancy requires the purchase and installation of an optional Intel® Management Module upgrade; see the complete product specifications for details.)* In addition, all three configurations can be converted from a pedestal to a rack-mount form factor with an optional conversion kit accessory.

Support for an optional Intel® Local Control Panel⁴ enables administrators and support personnel to monitor operations and manage the server directly from a server-attached front panel.

Intel® Server Chassis SC5300 Features and Benefits

Features	Benefits
Specifically designed for and validated with Intel® Server Boards SE7320SP2 ¹ , SE7525GP2 ² , SE7520BD2, and SE7520AF2	Scalable performance advantages from Intel® Xeon™ processor-based server boards; enhanced reliability and ease of integration
Available in a pedestal form factor and convertible to a 5U rack-mount form factor	Reconfigurable for diverse applications and settings
Support for up to six fixed or hot-swap drives ⁷ in the SC5300BASE chassis and 10 in the following SC5300BRP and SC5300LX chassis configurations: <ul style="list-style-type: none">• Four- and six-drive fixed hard-disk drive bays• Six-drive hot-swap SATA drive bay• Four- and six-drive hot-swap SCSI drive bays <i>(Visit www.intel.com/go/serverconfigurator to see all configuration options.)</i>	Up to 3 terabytes of storage capacity to handle current and future storage needs; configuration flexibility to meet diverse server and application environments
Intel® Power and Thermal Headroom: <ul style="list-style-type: none">• 600W fixed power supply (SC5300BASE configuration) per power supply (SC5300BASE and SC5300BRP configurations)• 730W PFC 1+1 redundant power supply⁵ (SC5300BRP and SC5300LX configurations)• Two high-flow system fans and one power-supply fan per power supply (SC5300BASE and SC5300BRP configurations)• Four high-flow redundant system fans³ and one power-supply fan per power supply (SC5300LX configuration) <i>(Note that full cooling redundancy requires the purchase and installation of an optional Intel® Management Module upgrade; see the complete product specifications for details.)</i>	Power sufficient to meet current and future application needs Protection against heat-related performance degradation or thermal-related system failure
Support for add-in cards and peripherals	System expandability
Support for Intel® Local Control Panel ⁴	Ability to monitor server operations and manage server directly from an optional server-attached control panel
Tool-less assembly and installation of fixed and hot-swap drive bays, fixed drives in fixed-drive bay, 5.25-inch bay peripherals, hot-swap fans, side-access cover, and hot-swap power supply	Simplified maintenance for lower service and support costs

Intel® Server Chassis SC5300 – Base Configuration



SC5300BASE Configuration Front View

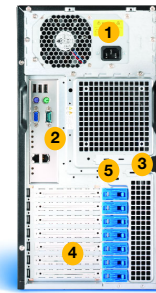
1. Front-access USB and serial ports
2. Tool-less side-panel removal
3. Three 5.25-inch bays
4. Support for up to six fixed or hot-swap devices*
5. Support for optional Intel® Local Control Panel†



(Server board not included)

SC5300BASE Configuration Side View

1. Locking front bezel (also locks side panel)
2. Two high-flow system fans
3. Air duct for improved thermal performance
4. Access to server board without the need to remove drives or fans
5. Tool-less drive-bay installation and removal



SC5300BASE Configuration Rear View

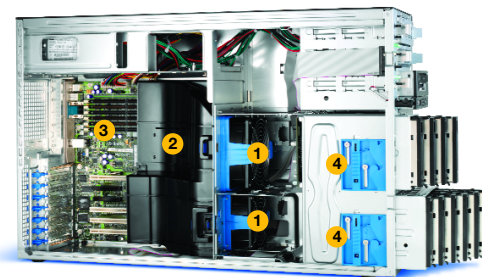
1. 600W PFC power supply containing one high-flow fan
2. ATX-compatible cutout for I/O shield installation
3. Lock loop
4. Expansion-card access panels
5. Intelligent chassis management bus knock-out

Intel® Server Chassis SC5300 – BRP Configuration



SC5300BRP Configuration Front View

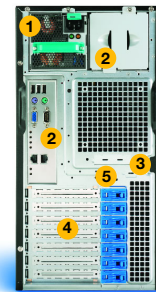
1. Front-access USB and serial ports
2. Tool-less side-panel removal
3. Three 5.25-inch bays
4. Support for up to 10 fixed or hot-swap devices (shown with optional AXX6SCSIDB drive-bay accessory)
5. Support for optional Intel® Local Control Panel†



(Server board not included)

SC5300BRP Configuration Side View

1. Two high-flow system fans
2. Air duct for improved thermal performance
3. Access to server board without the need to remove drives or fans
4. Tool-less drive-bay installation and removal (shown with optional AXX4SCSIDB and AXX6SCSIDB drive-bay accessories)



SC5300BRP Configuration Rear View

1. 730W PFC 1+1 redundant-power-capable supply; each power-supply module contains one high-flow fan
2. ATX-compatible cutout for I/O shield installation
3. Lock loop
4. Expansion-card access panels
5. Intelligent chassis management bus knock-out



In its SC5300BRP and SC5300LX configurations, the Intel® Server Chassis SC5300 provides a 730W PFC 1+1* redundant power supply module for highly dependable solutions in diverse environments.

Intel® Server Chassis SC5300 – LX Configuration



SC5300LX Configuration Front View

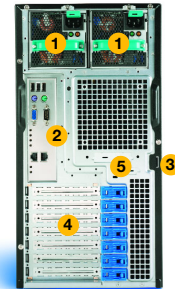
1. Front-access USB and serial ports
2. Tool-less side-panel removal
3. Three 5.25-inch bays (shown with optional slimline CD/floppy bracket and accessories)
4. Support for up to 10 fixed or hot-swap devices; see specifications for limitations (shown with optional AXX4SCSIDB and AXX6SCSIDB drive-bay accessories)
5. Support for optional Intel® Local Control Panel⁴



(Server board not included)

SC5300LX Configuration Side View

1. Locking front bezel, also locks side panel
2. Four high-flow redundant-capable system fans³ (full cooling redundancy requires the purchase and installation of an optional Intel® Management Module upgrade)
3. Air duct for improved thermal performance
4. Access to server board without the need to remove drives or fans
5. Tool-less drive bay installation and removal



SC5300LX Configuration Rear View

1. 730W PFC 1+1 redundant-power-capable supply²; each power-supply module contains one high-flow fan (shown with optional FXX730WPSU power-supply accessory)
2. ATX-compatible cutout for I/O shield installation
3. Lock loop
4. Expansion-card slot covers
5. Intelligent chassis management bus knock-out

Intel® Server Chassis SC5300 Rack-Mount Form Factor

All Intel® Server Chassis SC5300 configurations—SC5300BASE, SC5300BRP, and SC5300LX—can be converted from pedestal to rack-mount form factor with an optional conversion kit accessory.



Intel® Server Chassis SC5300 – Rack-Mount Form Factor Front View

1. Front-access USB and serial ports
2. Tool-less top-panel removal
3. Three 5.25-inch bays
4. Support for up to 10 fixed or hot-swap devices⁷; see specifications for limitations (shown with optional AXX4SCSIDB and AXX6SCSIDB drive-bay accessories)
5. Support for optional Intel® Local Control Panel⁴ (shown with optional slimline CD/floppy bracket and accessories)



Intel® Server Chassis SC5300 – Rack-Mount Form Factor Rear View

1. ARIGRACK accessory enables conversion of SC5300BASE, SC5300BRP, and SC5300LX configurations to rack-mount form factor
2. High-quality tool-less rail kit
3. Optional cable-management arm

Compatible Products for Comprehensive Solutions

The following table provides a list of key compatible products for the Intel® Server Chassis SC5300. Please see <http://support.intel.com/support/motherboards/server/chassis/sc5300> for the most recent and comprehensive product compatibility list.

Intel Building Block	Product Name(s)	Product Order Code(s)
Intel® Server Chassis	Intel® Server Chassis SC5300	SC5300BASE SC5300BASENA SC5300BRP SC5300BRPNA SC5300LX SC5300LXNA
Intel® Server Boards	Intel® Server Board SE7320SP2 ^o Intel® Server Board SE7525GP2 ^o Intel® Server Board SE7520BD2 Intel® Server Board SE7520AF2	SE7320SP2 SE7525GP2 SE7520BD2 SE7520BD2V SE7520BD2SCSI SE7520AF2
Intel® PRO Server Adapter	Intel® PRO/1000 MT Server Adapter	PWLA8490MT
Intel® RAID Controllers	Intel® RAID Controller SRCU42E Intel® RAID Controller SRCU42X Intel® RAID Controller SRCS16	SRCU42E SRCU42X SRCS16
Intel® Management Modules	Intel® Management Module Professional Edition Intel® Management Module Advanced Edition	AXXIMMPRO AXXIMMADV
Intel® Server Accessories	SC5300 Rack Conversion Kit Four-Drive Fixed Drive Bay Six-Drive SATA Hot-Swap Drive Bay Four-Drive SCSI Hot-Swap Drive Bay Six-Drive SCSI Hot-Swap Drive Bay Maintenance Kit 730W Power Supply Module Cable-Management Arm Customizable Bezel Panels Intel® Local Control Panel ⁴	ARIGRACK AXX4FIXDB AXX6SATADB AXX4SCSIDB AXX6SCSIDB ARIGPMKIT FXX730WPSU AXX3U7UCMA ARIGBEZPNL AXXLCPPED

For a complete list of spares and accessories, see the Intel® Server Board SE7320SP2, Intel® Server Board SE7525GP2, and Intel® Server Board SE7520BD2 Configuration Guides at <http://support.intel.com/>

To take full advantage of Intel's 20 years of design and engineering experience, integrate the Intel® Server Chassis

SC5300 with an Intel® Server Board

SE7320SP2, SE7525GP2,

SE7520BD2, or SE7520AF2.



The Intel® Server Chassis SC5300 Supports Technologies That Define Innovation⁹

Throughout the Intel® Server Chassis SC5300 is support for features and components designed to deliver exceptionally high levels of reliability, scalability, and manageability to workgroups, departments, and businesses. Complementing and strengthening these features and components are a number of powerful Intel server technologies. To reinforce the system reliability offered by the chassis' hot-swap redundant power and cooling configurations is a technology known as **Intel® Active Airflow Control**, which monitors temperatures and adjusts fans accordingly to keep servers cool and quiet for effective long-term operation. (Note that full cooling redundancy requires the purchase and installation of an optional Intel® Management Module upgrade.) For hard-drive reliability, the chassis includes **Intel® Drive Stabilization Technology**, which reduces hard-drive vibration and minimizes head-skip to improve drive longevity and performance.

Scalability features, such as the Intel Server Chassis SC5300's support for up to 10 hard-disk drives and support for redundant power, are bolstered by **Intel® Power and Thermal Headroom**. This server technology provides ample power and thermal capacity to maximize performance and minimize validation and support costs while providing a cost-effective path for growth.

Manageability in the Server Chassis SC5300 is particularly well-supported. **Intel® Light-Guided Diagnostics**, for example, simplifies troubleshooting and minimizes the cost of system recovery by directing technicians to the precise server and component needing attention. The optional **Intel® Local Control Panel**⁴ enables easy monitoring and control of the server through an innovative optional control panel located in the front panel. And **Intel® Cable Reduction Technology** reduces cabling complexity and costs by eliminating up to three cables while providing powerful server-management capabilities.

Note that features may vary depending on chassis configuration.



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.



Intel® Active Airflow Control



Intel® Drive Stabilization Technology



Intel® Power and Thermal Headroom



Intel® Light Guided Diagnostics



Intel® Local Control Panel



Intel® Cable Reduction Technology

For more information on these technologies, please see the complete product specifications at: <http://developer.intel.com/design/servers/technologies/>

Intel® Server Chassis SC5300 Specifications

Form Factor

Pedestal or 5U Rack-Mount Server—SSI Entry E-Bay
3.5-compatible

Dimensions and Color

Pedestal	Height 16.9", Width 8.6", Depth 27.9" (429 mm x 218 mm x 709 mm) Black (Intel Color Standard GE 701)
Rack-Mount Server	5U Height 8.6", Width 16.7", Depth 27.4" (218 mm x 424 mm x 696 mm) Black (Intel Color Standard GE 701)

Hard-Drive-Bay Support

	SC5300BASE	SC5300BRP	SC5300LX
Shipping Configuration	Up to six ⁷ fixed SATA, Ultra320 SCSI ¹⁰ , or IDE (one-inch height)	Up to six fixed SATA, Ultra320 SCSI ¹⁰ , or IDE (one-inch height)	Up to six fixed SATA, Ultra320 SCSI ¹⁰ , or IDE (one-inch height)
Drive-Bay Upgrade Support	Upgradable to support six SATA or Ultra320 SCSI (one-inch height) hot-swap hard drives ⁷	Upgradable to support an additional four fixed hard drives or a combination of a six-drive hot-swap SATA drive bay, a six-drive hot-swap Ultra320 SCSI drive bay, and a four-drive hot-swap Ultra320 SCSI drive bay for a total of 10 fixed or hot-swap hard drives (hot-swap drive bays support one-inch hot-swap hard drives) ⁷	Upgradable to support an additional four fixed hard drives or a combination of a six-drive hot-swap SATA drive bay, a six-drive hot-swap Ultra320 SCSI drive bay, and a four-drive hot-swap Ultra320 SCSI drive bay for a total of 10 fixed or hot-swap hard drives (hot-swap drive bays support one-inch hot-swap hard drives) ⁷
SCSI Backplane	LVD with SAF-TE	LVD with SAF-TE	LVD with SAF-TE
External Peripheral Bays	Up to three at 5.25" (1.75" height)	Up to three at 5.25" (1.75" height)	Up to three at 5.25" (1.75" height)

System Cooling

SC5300BASE	One 120mm and one 92mm fan positioned for main chassis cooling that can be monitored by Intel® Server Management 8; both system fans instrumented to provide RPM data for fan-failure prediction and detection; one 80mm fan for power-supply cooling
SC5300BRP	One 120mm and one 92mm fan positioned for main chassis cooling that can be monitored by Intel® Server Management 8; both system fans instrumented to provide RPM data for fan-failure prediction and detection; one 80 mm fan per power supply module for power-supply cooling
SC5300LX	Two 120 mm and two 92 hot-swap redundant ¹¹ fans providing cooling for the processors, hard drives, and add-in cards that can be monitored by Intel® Server Management 8 for fail-over capability; all system fans instrumented to provide RPM data for fan-failure prediction and detection; one 80 mm fan per power supply module for power-supply cooling

Power Delivery

	SC5300BASE	SC5300BRP	SC5300LX
DC Power Supply	600W PFC	730W PFC, dual-line cord 1+1 redundant-power-capable ⁸	730W PFC, dual-line cord 1+1 redundant-power-capable ⁸
AC Voltage	100–127/200–240 V~; 6.0/3A ¹¹	100–127/200–240 V~; 6.0/3A ¹¹	100–127/200–240 V~; 6.0/3A ¹¹
+5V	24A maximum	24A maximum	24A maximum
+5V Standby	2A maximum	2A maximum	2A maximum
+12V	43A maximum continuous	48A maximum continuous	48 maximum continuous
+3.3V	20A maximum	24A maximum	24A maximum
–12V	0.5A maximum	0.5A maximum	0.5A maximum

Front Panel

Buttons and Switches	Power on/off (momentary) button, system-reset button, ACPI sleep ¹² switch, tool-activated NMI switch
LEDs	Power, hard-drive activity, network activity (two), system ID, general system status
Connectors	Two USB ports, one serial port
Intel® Local Control Panel ⁴ (optional)	For monitoring and control of the server from the front panel

Security

A mechanical lock on the front bezel that, when locked, prevents access via the side panel and front bezel, removable padlock loop to prevent removal of the system-access cover (for rack security), a lock hole at rear of chassis, and two intrusion switches that can be monitored by Intel® Server Management 8

Environment

Ambient Temperature	Operating: +10°C to +35°C; Non-operating: –40°C to +70°C
Relative Humidity	Non-operating: 95% @ +30°C non-condensing
Acoustics	Please see http://support.intel.com/support/motherboards/server/chassis/sc5300
Electrostatic Discharge	15kV per Intel test specification

Safety and EMC Regulatory Compliance (Class A)

(EMC regulatory compliance is based on integration with a validated Intel server board and configuration as outlined in the Intel® Server Chassis SC5300 subassembly guide.)

Country	Certification Safety and/or EMC	Regulatory Mark Safety and/or EMC
Argentina	IRAM	Not applicable
Australia/ New Zealand	ACA, MED	C-Tick
Belarus	Bellis	Not applicable
Canada	UL / Industry Canada	cULus / ICES
China	CNCA	CCC
Europe	European Directives	CE
Germany	GS	GS
International	CB Report / CISPR	Not applicable
Japan	VCCI	VCCI
Korea	RRL	MIC
Russia	GOST	GOST
Taiwan	BSMI RPC	BSMI
Ukraine	Ukraine	Not applicable
United States	UL / FCC	cULus / FCC

¹ 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.

² Enhanced Intel SpeedStep® technology is available on Intel® Xeon™ processors with an 800MHz system bus at operating frequencies of 3.40 GHz and above.

³ Full cooling redundancy requires the purchase and installation of an optional Intel® Management Module upgrade.

⁴ The Intel® Local Control Panel requires the purchase and installation of an optional Intel® Management Module upgrade.

⁵ The SC5300BASE configuration includes a 600W fixed power supply. The SC5300BRP and SC5300LX configurations include a 730W 1+1 redundant power supply. Full redundancy requires the purchase of an optional second power supply, order code FXX730WPSU.

⁶ This board is supported only in the SC5300BASE and SC5300BRP chassis configurations and not in the SC5300LX chassis configuration.

⁷ SC5300BASE configuration support for more than six drives depends on other peripheral choices including the number of add-in cards and 5.25-inch devices. Please consult the power budget tool available at <http://support.intel.com/support/motherboards/server/sb/CS-010758.htm> to confirm the total number of drives supported in a given configuration.

⁸ Full redundancy requires the purchase of an optional second power supply, order code FXX730WPSU.

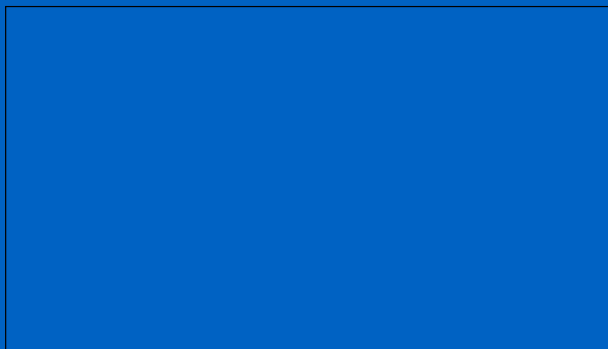
⁹ Features may vary depending on system configuration and may require the purchase and installation of an optional Intel® Management Module upgrade.

¹⁰ The Ultra320 SCSI drive bays are compatible with Ultra2 SCSI.

¹¹ The maximum amperage represents the value at which the chassis is rated.

¹² The ACPI sleep switch requires the purchase and installation of an optional Intel® Management Module upgrade.

For more information on how to make the Intel® Server Chassis SC5300 part of your server environment, please contact an Intel® Channel Membership Programs participant.



INFORMATION IN THIS DOCUMENT IS PROVIDED IN CONNECTION WITH INTEL® PRODUCTS. NO LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE, TO ANY INTELLECTUAL PROPERTY RIGHTS IS GRANTED BY THIS DOCUMENT. EXCEPT AS PROVIDED IN INTEL'S TERMS AND CONDITIONS OF SALE FOR SUCH PRODUCTS, INTEL ASSUMES NO LIABILITY WHATSOEVER, AND INTEL DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY, RELATING TO SALE AND/OR USE OF INTEL PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. Intel products are not intended for use in medical, life saving, life sustaining applications.

Intel may make changes to specifications and product descriptions at any time, without notice. Availability in different channels may vary.

Intel, the Intel logo, Intel Xeon, Intel NetBurst, and Intel SpeedStep are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

*Other names and brands may be claimed as the property of others.

Copyright © 2004, Intel Corporation.
1104/JJL/MM/DMW/MAN/PP/10K

Intel Literature Center: 1-800-548-4725
ORDER NUMBER 300588-003US