Intel® Server Board S5520SC
Intel® Server Chassis SC5600BASE
Intel® Server Chassis SC5650WS

A workstation-optimized product family designed with world-class performance and flexible expandability for graphics-intensive applications

Key Features

- Supports up to two Intel® Xeon® Processor 5500 series on Intel® Microarchitecture, codenamed Nehalem
- Highly scalable DDR3 memory (12 DIMMs)
- High-speed PCI Express* 2.0 I/O (Two PCIe 2.0 x 16 slots)
- High-speed IEEE1394a port
- HD 7.1 channel audio support

Target Applications: *Graphics-intensive applications, including CAD, CAM, industrial design, AEC, DCC, Web design, oil and gas exploration, financial services, EDA and CAE.*
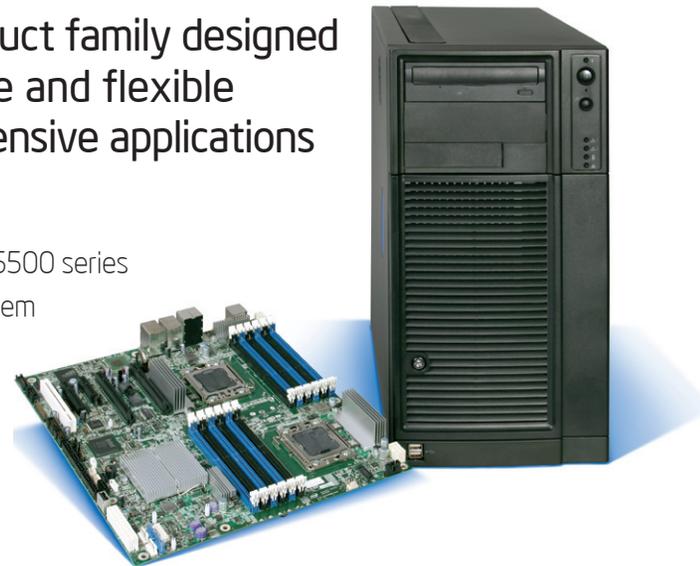
Features and Benefits

- **Supports up to two Intel® Xeon® Processor 5500 series on Intel® Microarchitecture, codenamed Nehalem** Increase server performance with no increase in power consumption

- **Highly scalable, energy-efficient memory** 12 DIMMs of registered or unbuffered DDR3 ensure ample capacity and energy-efficient performance for any application

- **High-performance I/O architecture** 6 total expansion slots, including two fast PCI Express* 2.0 x16 slots, provide I/O flexibility for the most demanding, high-bandwidth workstation applications

- **Highly flexible storage architecture** 5 SATA ports plus an optional four-port SAS expansion module provide versatile storage configurations, from 6 fixed SATA drives to your choice of four, six or ten hot-swap SATA or SAS devices

- **IEEE 1394a port** A high-performance IEEE 1394a serial bus provides sustained high-throughput connectivity and control for external storage, cameras and other high-definition audio-visual devices

Intel® Server Chassis Information

Intel® Server Chassis SC5600 & Intel Server Chassis SC5650
Maximum reliability, scalability, and manageability in a highly versatile pedestal chassis

Configuration	Base	WS
Chassis Order Code	SC5600BASE SC5600BASENA	SC5650WS SC5650WSNA
Form Factor	Pedestal, convertible to 5U rack[1]	Pedestal, convertible to 6U rack[2]
Drive Bays	Support for up to a total of six 3.5" fixed or hot swap SAS/SATA drives	Support for up to a total of six 3.5" fixed or hot swap SAS/SATA drives
Peripheral bay(s)	Media Bays (3 x 5.25")	Media Bays (2 x 5.25") & (1 x 3.5")
System Cooling	Three fixed, non-redundant chassis fans: Two 120 mm and one 92 mm	Three non-redundant cooling fans: one 120 mm chassis fan, one 120 mm PCI fan, and one 92 mm drive bay fan
Heat Sink	Not Included	Not Included
Power Supply	Non-redundant 670-watt PFC power supply with integrated cooling fan	Non-redundant 1000-watt high-efficiency PFC power supply with integrated cooling fan
Pedestal Dimensions (H x W x D)	17" (43.2 cm) x 8.6" (21.8 cm) x 28.4" (70.9 cm)	17.8" (45.2 cm) x 9.256" (23.5 cm) x 19" (48.3 cm)
Rack Dimensions (H x W x D)	8.6" (21.8 cm) x 16.6" (42.2 cm) x 27.4" (69.6 cm)	9.256" (23.5 cm) x 17.6" (44.7 cm) x 19" (48.3 cm)

Intel® Server Board S5520SC Technical Specifications

Form Factor	Extended ATX (12" x 13")
Processor	Supports up to two Intel® Xeon® Processor 5500 series on Intel® Microarchitecture, codenamed Nehalem
Chipset	Intel® 5520 chipset with Intel ICH10R
Memory Capacity	Twelve DDR3 DIMM sockets (Registered or Unbuffered) • Six channel native (800/1066/1333MHz)
Memory RAS Features	Channel-Independent Mode Channel-Mirroring Mode Demand Scrubbing Mode Patrol Scrubbing Mode
Storage	Six SATA ports (3 Gbps) via ICH10R with Intel® Embedded Server RAID Technology Modular SAS RAID solution via Intel® I/O Expansion Module Options
Intel® RAID Support	Integrated • Intel® Embedded Server RAID Technology with host-based SW RAID levels 0/1/10. Optional SW RAID 5 with activation key Optional • Intel® SAS Entry RAID Module AXX4SASMOD with RAID 0, 1, 1E, or Intel® Integrated RAID Module ROMBSASMR with RAID 0,1,5,6 and striping capability for spans 10, 50, 60 offering value above a traditional add-in card • Validated Intel® RAID Controllers[3]
Expansion Slots	Six total expansion slots • 2 PCI Express 2.0 x16 slot (x16 mechanical) • 1 PCI Express 1.0 x4 slot (x8 mechanical shared w/ optional SAS module) • 1 PCI Express 1.0 x1 slot (x4 mechanical) • 1 PCI 32/33 5V slot
Integrated LAN	Embedded Intel® Dual Gigabit Controller 82575EB with Intel® Virtualization Technology[4]
Integrated Graphics	Server Engine* LLC Pilot II* with 64 MB DDR2 memory, 8MB allocated to graphics

Management Hardware	Integrated IPMI 2.0 baseboard management controller • Fan speed control • Diagnostic LED's • Temperature monitoring and recovery • SMASH CLP (command line interface) • Email alerting • Power management with Intel® Intelligent Power Node Manager Optional Intel® Remote Management Module (RMM3) • KVM & Virtual Media redirection • Dedicated 3rd NIC • Remote Power on/off • Embedded Web UI • Event log and configuration
Management Software	Intel® Deployment Assistant 3.0 • Wizard based UI to deploy, configure and update server • BIOS, BMC and RAID array configuration • Unattended OS install • Online patch updates Intel® Server Management Software 3.X • View critical or warning events • Power on/off/reset • View sensor (fan speeds, temperature, power) • Full IPMI 2.0 interface • Chassis Intrusion detection • Serial Over LAN (Text Console Redirection)

Safety and EMC Regulatory Compliance

Regulatory compliance for an Intel host system is based on the use of an Intel server base board that was tested in the host chassis and found compliant. Intel server base boards and host chassis are tested to Class A EMC requirements. Intel server products comply with RoHS (Restriction of Hazardous Substances).

Region (Compliance Obtained)	Board Markings	Host Chassis Markings
Argentina (IRAM)	Regulation N/A	⟨marks⟩
Australia (ACA) / New Zealand (MED)	C N232	
Belarus	Regulation N/A	TP BY
Canada	cULus	cULus
	ICES-003	
China	Regulation N/A	CCC
		声明 此为A级产品，在生活环境中，该产品可能会造成无线电干扰。在这种情况下，可能需要用户对其干扰采取切实可行的措施。
	⟨20⟩	⟨20⟩
Europe (EU Directives) - LVD & EMC require CE mark; No mark required for RoHS; WEEE marking added voluntarily for end integrator convenience)	CE	CE
		⟨WEEE mark⟩
Germany GS for Chassis Only; German Green Dot (Duales System Deutschland) for Board Packaging Only	⟨Green Dot⟩	GS
International Compliance (CB Report & CISPR Emission & Immunity)	Marking Not Required	
Japan (VCCI for chassis only) & Japan Recycling Marks on Board Retail Packaging Only	Regulation N/A	⟨VCCI statement⟩
	紙 ♻	Marking Not Required
Korea (KCC)	⟨KCC mark⟩	
Russia (GOSSTANDART)	Regulation N/A	PCT
Taiwan (BSMI)	⟨BSMI mark⟩ D33025	⟨BSMI mark⟩ D33025
	警告使用者：這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。	
Ukraine (UKRTEST)	Regulation N/A	Marking Not Required
United States NRTL & FCC (For Board Products FCC Notation May Be in Documentation)	cULus	cULus
	This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation	

To build your system and get more details on server configurations from Intel visit:

www.intel.com/go/serverconfigurator

For more information on Intel® Server Products, visit:

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Build an Eco-Smart IT Environment with Intel® Server Products

ENERGY STAR · climate savers smart computing · 80 PLUS

[1] Requires rack conversion kit ARIGRACK
[2] Requires rack conversion kit APP3RACKIT
[3] For tested Intel RAID Controller options go to http://support.intel.com/support/motherboards/server/compat_matrix.htm
[4] Intel® Virtualization Technology requires a computer system with an enabled Intel® processor, BIOS, virtual machine monitor (VMM) and, for some uses, certain computer system software enabled for it. Functionality, performance or other benefits will vary depending on hardware and software configurations and may require a BIOS update. Software applications may not be compatible with all operating systems. Please check with your application vendor.

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