(intel®)

Intel® Server Board S3420GP family
Intel® Server System SR1630GP family
Intel® Server Chassis SC5650UP
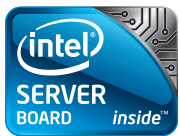
An entry-level family of general-purpose server products designed for small to medium-sized business applications, including 1U rack systems supporting advanced management features and rich I/O.

Key Features

- Supports Intel® Xeon® Processor 3400 series (including lower power processors)
- Highly-scalable DDR3 memory (up to 6 DIMMs)
- High-speed PCI Express* 2.0 I/O
- Highly-flexible storage configurations
- Highly-flexible network configurations
- Optional Intel® Remote Management Module supporting remote KVM for RX and LX models

Target Applications: *Small and medium-sized business applications including web servers, file and print servers, e-mail servers, storage servers and vertical-specific business applications. Also suitable for High Performance Computing (HPC) and embedded applications.*

Features and Benefits

- **Supports Intel® Xeon® Processor 3400 series** Delivers world-class performance as well as superior energy/power efficiency

- **Fast, scalable and energy-efficient DDR3 memory** Up to 6 DIMMs of registered or unbuffered DDR3 ensure ample capability and energy-efficient performance for any application

- **Expandable I/O architecture** Up to 7 I/O slots, including up to three high-speed PCI Express* 2.0 slots, provide flexible expansion with an optional Intel® I/O Expansion Module available for RX models

- **Rich I/O for rack deployment** Three mezzanine slots for external/internal and one PCI Express* 2.0 slot on RX systems provide excellent I/O capability for SAS and GbE

- **Flexible storage configurations** Six integrated SATA or SAS ports via optional external/internal Quad-port modules with either SAS or SAS RAID support maximize storage flexibility without consuming a PCI slot on LX and RX models

- **Flexible network configurations** Dual- to Penta- integrated NIC ports for Intel® Gigabit Controllers offered by baseboard, or up to nine NIC ports via optional external Quad-port GbE module on RX models only

- **Integrated manageability with optional Intel® Remote Management Module** An integrated baseboard management controller with IPMI 2.0 support helps lower IT operating costs while increasing system uptime; optional KVM support and dedicated NIC provide complete remote management upgrade paths for RX models

Technology that Defines Innovation

Intel server technologies provide powerful capabilities designed to make Intel® Server Products more reliable, more efficient, more available, and easier to service. These innovative technologies are seamlessly integrated into Intel® Server Products to complement the capabilities of the latest generation Intel® Xeon® processor and chipset technologies.

Intel SpeedStep® Technology Dynamically adjusts processor core frequency and voltages which can in turn reduce power consumption and reduce operating costs for data centers

Intel® Active Airflow Control Intel Active Airflow Control operates chassis fans at the minimum speed required to cool the system, resulting in lower power consumption and acoustic noise

Intel® Server Management Allows increased IT efficiency with a combination of hardware and software products that streamline the management and deployment of servers

Intel® Enabled Server Acceleration Alliance (Intel® ESAA)

Certified, pre-tested hardware and software configuration recipes from Intel® ESAA make it easy to deploy server solutions over a range of applications. For more information or to download validated software and hardware configuration recipes for Intel® Server Products go to: www.intel.com/go/esaa

Intel® Server Board S3420GP Technical Specifications

Order Code	S3420GPRX	S3420GPLX	S3420GPLC	S3420GPV
Form Factor	ATX (12" x 9.6")	ATX (12" x 9.6")	ATX (12" x 9.6")	ATX (12" x 9.6")
Processors[1]	Intel® Xeon® processor 3400 series	Intel® Xeon® processor 3400 series	Intel® Xeon® processor 3400 series	Intel® Xeon® processor 3400 series
Chipset	Intel® 3420 chipset	Intel® 3420 chipset	Intel® 3420 chipset	Intel® 3420 chipset
Memory Capacity	Six DDR3 DIMM sockets (Registered or Unbuffered) • Two channel native (1066/1333MHz)	Six DDR3 DIMM sockets (Registered or Unbuffered) • Two channel native (1066/1333MHz)	Six DDR3 DIMM sockets (Registered or Unbuffered) • Two channel native (1066/1333MHz)	Four DDR3 DIMM sockets (Unbuffered only) • Two channel native (1066/1333MHz)
Storage	• Six SATA ports (3 Gbps) via Intel® 3420 chipset with Intel® Embedded Server RAID Technology / Intel® Matrix Storage Technology • Optional Quad-port SAS and SAS RAID module available[2]	• Six SATA ports (3 Gbps) via Intel® 3420 chipset with Intel® Embedded Server RAID Technology / Intel® Matrix Storage Technology • Optional Quad-port SAS and SAS RAID module available[2]	• Six SATA ports (3 Gbps) via Intel® 3420 chipset with Intel® Embedded Server RAID Technology / Intel® Matrix Storage Technology	• Six SATA ports (3 Gbps) via Intel® 3420 chipset with Intel® Embedded Server RAID Technology / Intel® Matrix Storage Technology
Intel® RAID Support *Validated with Intel® RAID Controllers*[3]	Integrated SATA: • Intel® Embedded Server RAID Technology with host-based SW RAID levels 0/1/10 • Intel® Matrix Storage RAID Technology with host-based SW RAID levels 0/1/10/5 Optional SAS modules available[2]	Integrated SATA: • Intel® Embedded Server RAID Technology with host-based SW RAID levels 0/1/10 • Intel® Matrix Storage RAID Technology with host-based SW RAID levels 0/1/10/5 Optional SAS modules available[2]	Integrated SATA: • Intel® Embedded Server RAID Technology with host-based SW RAID levels 0/1/10 • Intel® Matrix Storage RAID Technology with host-based SW RAID levels 0/1/10/5	Integrated SATA: • Intel® Embedded Server RAID Technology with host-based SW RAID levels 0/1/10 • Intel® Matrix Storage RAID Technology with host-based SW RAID levels 0/1/10/5
Expansion Slots	Three total I/O slots: • One PCI Express* 2.0 x8 slot (x16 mechanical) • One internal Mezzanine Connector (x4 lane) • Two external Mezzanine Connectors (x4 lane each)	Seven total I/O slots: • One PCI Express* 2.0 x8 slot (x16 mechanical) • One PCI Express* 2.0 x8 slot (x8 mechanical) • One PCI Express* 2.0 x4 slot (x8 mechanical) • One PCI Express* x4 slot (x8 mechanical) • One PCI Express* x1 slot (x1 mechanical) • One PCI 32/33 (5V) slot • One internal Mezzanine Connector (x4 lane)	Four total I/O slots: • One PCI Express* 2.0 x8 slot (x16 mechanical) • One PCI Express* 2.0 x8 slot (x8 mechanical) • One PCI Express* x4 slot (x8 mechanical) • One PCI 32/33 (5V) slot	Four total I/O slots: • One PCI Express* 2.0 x8 slot (x16 mechanical) • One PCI Express* 2.0 x8 slot (x8 mechanical) • One PCI Express* x4 slot (x8 mechanical) • One PCI 32/33 (5V) slot
Integrated LAN	Embedded Intel® Gigabit Controller (one port for 82574L and four ports for 82576EB) Optional external GbE modules available[2]	Embedded Intel® Dual Gigabit Controller 82574L and 82578DM	Embedded Intel® Dual Gigabit Controller 82574L and 82578DM	Embedded Intel® Dual Gigabit Controller 82574L and 82578DM
Integrated Graphics	Server Engine* LLC Pilot II* Controller with 64 MB DDR2 memory, 8MB allocated to graphics	Server Engine* LLC Pilot II* Controller with 64 MB DDR2 memory, 8MB alloc ated to graphics	Server Engine* LLC Pilot II* Controller with 64 MB DDR2 memory, 8MB allocated to graphics	SM712 Graphic Controller
Management Hardware	Integrated IPMI 2.0 baseboard management controller Optional Intel® Remote Management Module 3 Lite (RMM3-Lite)	Integrated IPMI 2.0 baseboard management controller Optional Intel® Remote Management Module 3 (RMM3)	Integrated IPMI 2.0 baseboard management controller	N/A
Management Software	Intel® Deployment Assistant Intel® Server Management Software	Intel® Deployment Assistant Intel® Server Management Software	Intel® Deployment Assistant Intel® Server Management Software	Intel® Deployment Assistant

SR1630HGP

SR1630GP

Intel® Server System SR1630HGP and SR1630GP Technical Specifications

| Order Code	SR1630HGP SR1630HGPNA	SR1630GP SR1630GPNA
Form Factor	1U Rack	1U Rack
Server Board	S3420GPLC	S3420GPLC
Drive Bays	Three hot-swap 3.5" SAS/SATA HDDs Optional slim-line optical drive	Two fixed 3.5" SATA HDDs Optional slim-line optical drive
System Cooling	Two fixed cooling blowers with duct	Two fixed cooling blowers with duct
Power Supply	350-watt non-redundant power supply	350-watt non-redundant power supply
Add-in Card Support	One low profile PCI Express* 2.0 x8 through riser card in slot 4	One low profile PCI Express* 2.0 x8 through riser card in slot 4
I/O Expansion Module Support	N/A	N/A
Dimensions (H x W x D)	11.70" x 16.9" x 25.51" (43mm x 430mm x 648mm)	11.70" x 16.9" x 20" (43mm x 430mm x 508mm)
Components Included *Heat sinks not included*	• Intel® Server Board S3420GPLC • Intel® Server Chassis SR1630H • 350-watt non-redundant power supply • One low profile PCI Express* riser card • Slim-line CD-ROM bay • Basic rail kit • Pre-routed cables • SATA/SAS backplane	• Intel® Server Board S3420GPLC • Intel® Server Chassis SR1630 • 350-watt non-redundant power supply • One low profile PCI Express* riser card • Slim-line CD-ROM bay • Basic rail kit • Pre-routed cables
Management Hardware	Integrated IPMI 2.0 baseboard management controller	Integrated IPMI 2.0 baseboard management controller
Management Software	Intel® Deployment Assistant Intel® Server Management Software	Intel® Deployment Assistant Intel® Server Management Software

SR1630HGPRX

SR1630GPRX

Intel® Server System SR1630HGPRX and SR1630GPRX Technical Specifications

Order Code	SR1630HGPRX SR1630HGPRXNA	SR1630GPRX SR1630GPRXNA
Form Factor	1U Rack	1U Rack
Server Board	S3420GPRX	S3420GPRX
Drive Bays	Three hot-swap 3.5" SAS/SATA HDDs Optional slim-line optical drive	Two fixed 3.5" SATA HDDs Optional slim-line optical drive
System Cooling	Three fixed cooling blowers with duct	Two fixed cooling blowers with duct
Power Supply	350-watt high efficiency non-redundant power supply	350-watt high efficiency non-redundant power supply
Add-in Card Support	One low profile PCI Express* 2.0 x8 through riser card	One low profile PCI Express* 2.0 x8 through riser card
I/O Expansion Module Support	External/Internal	External/Internal
Dimensions (H x W x D)	11.70" x 16.9" x 25.51" (43mm x 430mm x 648mm)	11.70" x 16.9" x 20" (43mm x 430mm x 508mm)
Components Included *Heat sinks not included*	• Intel® Server Board S3420GPRX • Intel® Server Chassis SR1630H • 350-watt high efficiency non-redundant power supply • One low profile PCI Express* riser card • Slim-line CD-ROM bay • Basic rail kit • Pre-routed cables • SATA/SAS backplane	• Intel® Server Board S3420GPRX • Intel® Server Chassis SR1630 • 350-watt high efficiency non-redundant power supply • One low profile PCI Express* riser card • Slim-line CD-ROM bay • Basic rail kit • Pre-routed cables
Management Hardware	Integrated IPMI 2.0 baseboard management controller Optional Intel® Remote Management Module 3 Lite (Intel® RMM3-Lite)	Integrated IPMI 2.0 baseboard management controller Optional Intel® Remote Management Module 3 Lite (Intel® RMM3-Lite)
Management Software	Intel® Deployment Assistant Intel® Server Management Software	Intel® Deployment Assistant Intel® Server Management Software

Special Quiet System Design for Office Environment

Intel® Server Chassis SC5650UP

- Air duct optimized for memory cooling
- Rear system fan updated to reduce noise
- Ultra quiet power supply
- Power supply ventilation designed to facilitate rear system fan
- HDD fan added to help air flow
- Embedded sensor of the Intel® 3420 chipset improves thermal control
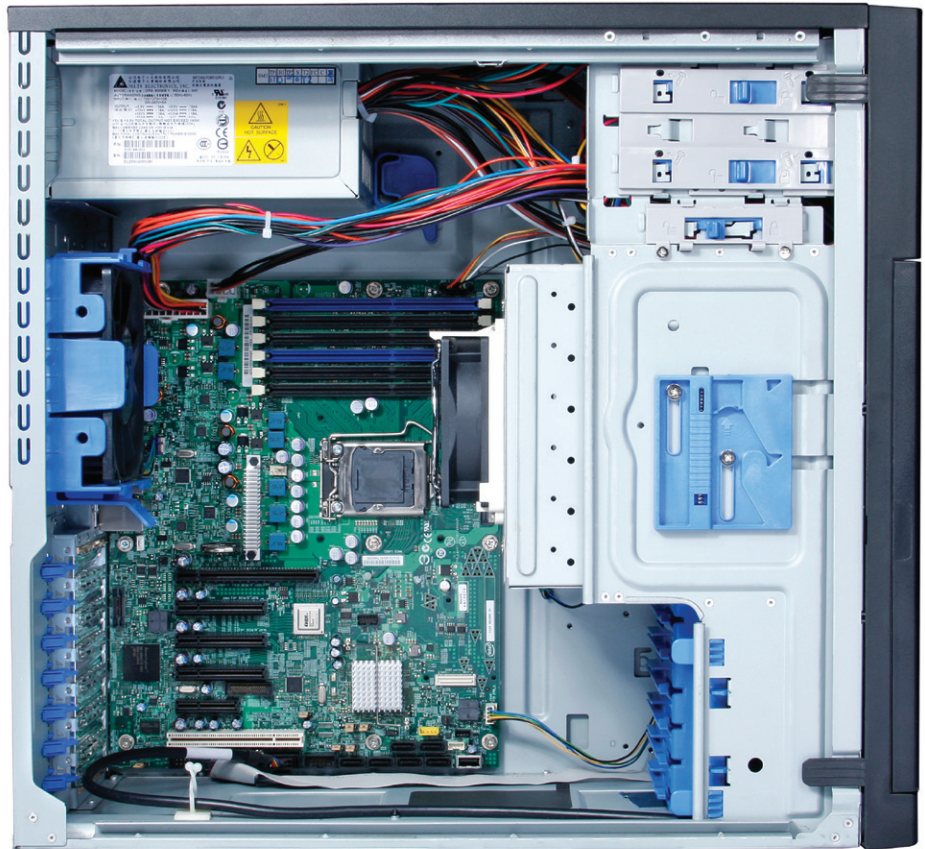
Intel® Server Chassis SC5650UP Technical Specifications

Order Code	SC5650UP SC5650UPNA
Form Factor	5U Pedestal or 6U Rack
Drive Bays	Support for up to six 3.5" fixed or hot-swap SAS/SATA drives
Peripheral Bay(s)	Media Bays (2 x 5.25") and (1 x 3.5")
System Cooling	One tool-less 120 mm chassis fan One tool-less 92 mm drive bay fan
Heat Sink (pre-installed)	Not included
Power Supply	400W high efficiency power supply
Redundant Power Capable	No
Tool-less Features	Peripherals bays, fixed hard drive bay, optional hot-swap bays, power supplies, system fan, PCI slots
Bezel Features	Lockable, optional support for Intel® Local Control Panel
Front Connectors	2 x USB
Pedestal Dimensions (H x W x D)	17.8" (452mm) x 9.256" (235mm) x 19" (483mm)
Rack Dimensions (H x W x D)	9.256" (235mm) x 17.6" (447mm) x 19" (483mm)
Energy Star* Compliant	Yes
Acoustic	Ultra quiet chassis design

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	(marking)
Australia (ACA) / New Zealand (MED)	C N232	
Belarus	Regulation N/A	TP BY
Canada	cULus	ETL
	ICES-003	
Europe (EU Directives) - LVD & EMC require CE mark; No mark required for RoHS; WEEE marking added voluntarily for end integrator convenience	CE	CE
		(WEEE marking)
Germany GS for Chassis Only; German Green Dot (Duales System Deutschland) for Board Packaging Only	(Green Dot)	Intertek 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	(text)
	(recycling marks)	Marking Not Required
Korea (KCC)	(KCC marking)	
Russia (GOSSTANDART)	Regulation N/A	PCT
Taiwan (BSMI)	D33025	R33025
	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	ETL
	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	

Build an Eco-Smart Environment with
Intel Server Products.
Worldwide Programs Supported Include:

Energy Star*

Climate Savers Computing*

RoHS — Restriction of Hazardous Substances Directive*

80 PLUS*

Take the next step:

Select compatible components for a complete server system: www.intel.com/go/serverconfigurator

Why choose Intel® Server Products? Quality, flexibility, support. Learn more: www.intel.com/go/serverproducts

[1] For all processor options go to http://www.intel.com/p/en_US/support/highlights/server/s3420gp

[2] For optional Intel® I/O Modules go to http://www.intel.com/products/server/io/index.htm

[3] For tested Intel® RAID Controller options go to http://support.intel.com/support/motherboards/server/compat_matrix.htm