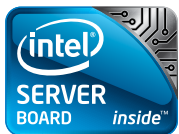


Product Brief

Intel® Server Board S1200BT family  
Intel® Server System R1304BT family  
Intel® Server System P4304BT family  
Intel® Server Chassis P4304 family



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 E3 1200 product family (including lower power processors)
- Highly-scalable DDR3 memory (up to 4 DIMMs)
- Up to 5 slots high-speed PCI Express\* 2.0 I/O (optional I/O module for 6 total I/O slots)
- Highly-flexible network and storage configurations
- Upgradable Intel® Remote Management Module supporting remote KVM, and dedicated NIC module



**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 E3 1200 product family** Delivers increased, intelligent and energy-efficient performance on demand
- **Fast, scalable and energy-efficient DDR3 memory** Up to 4 DIMMs unbuffered DDR3 ensure ample capability and energy-efficient performance for any application

### For S1200BTL models

- **Expandable I/O architecture** Up to 5 I/O slots, including up to four high-speed PCI Express\* 2.0 slots, provide flexible expansion with optional Intel® I/O SAS Module available
- **Rich I/O for rack deployment** Mezzanine slot for internal SAS module provides excellent upgradeability
- **Flexible storage configurations** Six integrated SAS or SATA ports via chipset, optional internal quad-port modules with either SAS and/or SAS RAID support maximize storage flexibility without consuming a PCI slot
- **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 module provide a complete remote management upgrade path

## 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® Turbo Boost 2.0 Technology** Dynamically delivers intelligent and energy efficient performance on demand —Speed when you need it, energy efficiency when you don't

**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® Intelligent Power Node Manager** Improves data center efficiency by providing real time data to enable power based dynamic workload placement / migration & close coupled cooling solutions

**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 Solutions 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](http://www.intel.com/go/esaa)



## Intel® Server Board S1200BT Technical Specifications



<b>Order Code</b>	<b>S1200BTL</b>	<b>S1200BTS</b>
<b>Form Factor</b>	ATX (12" x 9.6")	uATX (9.6" x 9.6")
<b>Processors</b>	Intel® Xeon® processor E3 1200 product family	Intel® Xeon® processor E3 1200 product family
<b>Chipset</b>	Intel® C204 chipset	Intel® C202 chipset
<b>Memory Capacity</b>	Four DDR3 DIMM sockets (Unbuffered only) • Two channel native (1066/1333MHz)	Four DDR3 DIMM sockets (Unbuffered only) • Two channel native (1066/1333MHz)
<b>Storage</b>	Six SATA ports (2x6 Gbps, and 4x3 Gbps) via Intel® C204 chipset with Intel® Embedded Server RAID Technology / Intel® Rapid Storage Technology	Six SATA ports (3 Gbps) via Intel® C202 chipset with Intel® Embedded Server RAID Technology / Intel® Rapid Storage Technology
<b>Intel® RAID Support</b> <i>Validated with Intel® RAID Controllers<sup>1</sup></i>	Integrated SATA: • Intel® Embedded Server RAID Technology with host-based SW RAID levels 0/1/10 • Intel® Rapid Storage 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® Rapid Storage Technology with host-based SW RAID levels 0/1/10/5
<b>Expansion Slots</b>	Five total I/O slots: • One PCI Express* 2.0 x8 slot (x16 mechanical) • Three PCI Express 2.0 x4 slot (x8 mechanical) • One PCI 32/33 (5V) slot • One SAS Mezzanine slot for optional SAS module	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 2.0 x4 slot (x8 mechanical) • One PCI 32/33 (5V) slot
<b>Integrated LAN</b>	Dual Gigabit NICs (Intel® 82574 and 82579 Gigabit Ethernet Controllers)	Embedded Intel® Dual Gigabit Controller 82574L and 82579
<b>Integrated Graphics</b>	128MB DDR3 memory, 8MB usable by graphics plus shared system memory	SM712 Graphic Controller
<b>Management Hardware</b>	Integrated IPMI 2.0 baseboard management controller Intel® Remote Management Module 4 or Intel® RMM 4 Lite	Fan Speed Control via Super I/O chip
<b>Management Software</b>	Intel® Deployment Assistant Intel® Multi-Server Manager Intel® Active System Console Intel® Intelligent Node Manager	Intel® Deployment Assistant
<b>Integrated Security</b>	Header for optional Intel® Trusted Platform Module (Intel® TPM Module)	Header for optional Intel® TPM Module

Intel® Server Board S1200BTL Rear I/O Layout



## Value priced 1U system with features previously found only on higher end servers

- BMC fully supporting IPMI 2.0 with Remote Management option
- Upgrades for SAS and Intel® TPM modules available
- Supports up to 4 Hot Swap HDDs



R1304BTL SHBN

### Intel® Server System R1304BTL SHBN Technical Specifications

<b>Order Code</b>	R1304BTL SHBN R1304BTL SHB NNA
<b>Form Factor</b>	1U Rack
<b>Server Board</b>	S1200BTL
<b>Drive Bays</b>	Four hot-swap 2.5" or 3.5" SATA HDDs (Supports SAS with optional add-in) Optional slim-line optical drive
<b>System Cooling</b>	3 x 40mm fixed fans with duct
<b>Power Supply</b>	350-watt non-redundant power supply
<b>Add-in Card Support</b>	One full height PCI Express* 2.0 x8 through riser card in slot 6
<b>I/O Expansion Module Support</b>	Optional SAS Module
<b>Dimensions (H x W x D)</b>	17.24" x 1.75" x 21.8" (438mm x 45mm x 553mm)
<b>Components Included</b> <i>*Heat sinks not included</i>	<ul style="list-style-type: none"> <li>• Intel® Server Board S1200BTL</li> <li>• Intel® Server Chassis R1304</li> <li>• 350-watt non-redundant power supply</li> <li>• One low profile PCI Express* riser card</li> <li>• Slim-line CD-ROM bay</li> <li>• Pre-routed cables</li> <li>• SATA/SAS backplane</li> </ul>
<b>Management Hardware</b>	Integrated IPMI 2.0 baseboard management controller Optional: Intel® Remote Management Module 4 or Intel® RMM 4 Lite Intel® Trusted Platform Module
<b>Management Software</b>	Intel® Deployment Assistant Intel® System Management Software

## 1U servers that are the lowest priced rack systems ever offered by Intel

- Optional SAS or Remote Management module for R1304BTL model only
- Supports up to 4 fixed HDDs



R1304BTLFAN



R1304BTSSFAN

### Intel® Server System R1304BTLFAN/ R1304BTSSFAN Technical Specifications

Order Code	R1304BTLFAN R1304BTLFANNA	R1304BTSSFAN R1304BTSSFANNA
Form Factor	1U Rack	1U Rack
Server Board	S1200BTL	S1200BTS
Drive Bays	Four fixed 2.5" or 3.5" SATA HDDs Optional slim-line optical drive	Four fixed 2.5" or 3.5" SATA HDDs Optional slim-line optical drive
System Cooling	3 x 40mm fixed fans with duct	3 x 40mm fixed fans with duct
Power Supply	250-watt non-redundant power supply	250-watt non-redundant power supply
Add-in Card Support	One full height PCI Express* 2.0 x8 through riser card in slot 6	One full height PCI Express* 2.0 x8 through riser card in slot 4
I/O Expansion Module Support	Optional SAS Module	NA
Dimensions (H x W x D)	17.24" x 1.75" x 21.8" (438mm x 45mm x 553mm)	17.24" x 1.75" x 21.8" (438mm x 45mm x 553mm)
Components Included <i>*Heat sinks not included</i>	<ul style="list-style-type: none"> <li>• Intel® Server Board S1200BTL</li> <li>• Intel® Server Chassis R1304</li> <li>• 250-watt non-redundant power supply</li> <li>• One low profile PCI Express* riser card</li> <li>• Slim-line CD-ROM bay</li> <li>• Pre-routed cables</li> </ul>	<ul style="list-style-type: none"> <li>• Intel® Server Board S1200BTS</li> <li>• Intel® Server Chassis R1304</li> <li>• 250-watt non-redundant power supply</li> <li>• One low profile PCI Express* riser card</li> <li>• Slim-line CD-ROM bay</li> <li>• Pre-routed cables</li> </ul>
Management Hardware	Integrated IPMI 2.0 baseboard management controller Optional: Intel® Remote Management Module 4 or Intel® RMM 4 Lite Intel® Trusted Platform Module	Fan Speed Control via Super I/O chip
Management Software	Intel® Deployment Assistant Intel® System Management Software	Intel® Deployment Assistant

## Entry pedestal servers designed for small businesses

- Preconfigured options save time and money
- Server efficiency and reliability improve performance over desktop platforms



### Intel® Server System P4304BT Technical Specifications

Order Code	P4304BTL5FCN	P4304BTL5HCN	P4304BTL5SSFCN
<b>Form Factor</b>	4U Pedestal	4U Pedestal	4U Pedestal
<b>Server Board</b>	S1200BTL	S1200BTL	S1200BTS
<b>Drive Bays</b>	Up to four 2.5" or 3.5" fixed SATA HDDs	Up to four 2.5" or 3.5" hot-swap SATA HDDs (Supports SAS with optional add-in)	Up to four 2.5" or 3.5" fixed SATA HDDs
<b>Peripheral Bay(s)</b>	Media Bays (3 x 5.25")	Media Bays (3 x 5.25")	Media Bays (3 x 5.25")
<b>System Cooling</b>	One 92mm rear chassis fan	One 92mm rear chassis fan	One 92mm rear chassis fan
<b>Power Supply</b>	365W high efficiency non-redundant power supply, 80Plus Silver	365W high efficiency non-redundant power supply, 80Plus Silver	365W high efficiency non-redundant power supply, 80Plus Silver
<b>Add-in Card Support</b>	Five full height, full length slots	Five full height, full length slots	Four full height, full length slots
<b>I/O Expansion Module Support</b>	Optional SAS Module	Optional SAS Module	NA
<b>Tool-less features</b>	Peripherals bays, optional hot-swap bays, power supplies, PCI slots	Peripherals bays, optional hot-swap bays, power supplies, PCI slots	Peripherals bays, optional hot-swap bays, power supplies, PCI slots
<b>Bezel Features</b>	Customizable panel options	Customizable panel options Lockable	Customizable panel options
<b>Front Connectors</b>	2 x USB	2 x USB	2 x USB
<b>Pedestal Dimensions (H x W x D)</b>	17.24" (438mm) x 6.81" (173mm) x 21.5" (546mm)	17.24" (438mm) x 6.81" (173mm) x 21.5" (546mm)	17.24" (438mm) x 6.81" (173mm) x 21.5" (546mm)
<b>Management Hardware</b>	Integrated IPMI 2.0 baseboard management controller Optional: Intel® Remote Management Module 4 or Intel® RMM 4 Lite Intel® Trusted Platform Module	Integrated IPMI 2.0 baseboard management controller Optional: Intel® Remote Management Module 4 or Intel® RMM 4 Lite Intel® Trusted Platform Module	Fan Speed Control via Super I/O chip
<b>Management Software</b>	Intel® Deployment Assistant Intel® System Management Software	Intel® Deployment Assistant Intel® System Management Software	Intel® Deployment Assistant
<b>Acoustic</b>	Ultra quiet chassis design	Ultra quiet chassis design	Ultra quiet chassis design

## Designed for office environments

- Variable fan speed control enables ultra quiet system
- Flexible and expandable chassis options



### Intel® Server Chassis P4304 Technical Specifications

Order Code	P4304XXSFCN	P4304XXSHCN
Form Factor	4U Pedestal	
Drive Bays	Up to four 3.5" fixed SAS/SATA HDDs	Up to four 3.5" hot-swap SAS/SATA HDDs
Peripheral Bay(s)	Media Bays (3 x 5.25")	
System Cooling	One 92mm rear chassis fan	
Power Supply	365W high efficiency non-redundant power supply, 80Plus Silver	
Tool-less features	Peripherals bays, optional hot-swap bays, power supplies, PCI slots	
Bezel Features	Customizable panel options	Customizable panel options Lockable
Front Connectors	2 x USB	
Pedestal Dimensions (H x W x D)	17.24" (438mm) x 6.81" (173mm) x 21.5" (546mm)	
Rack Dimensions (H x W x D)	6.81" (173mm) x 17.24" (438mm) x 21.5" (546mm)	
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	
Australia (ACA) / New Zealand (MED)		
Belarus	Regulation N/A	
Canada		
	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
Germany GS for Chassis Only; German Green Dot (Duales System Deutschland) for Board Packaging Only		
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	
		Marking Not Required
Korea (KCC)		
Russia (GOSSTANDART)	Regulation N/A	
Taiwan (BSMI)		
Ukraine (UKRTEST)	Regulation N/A	Marking Not Required
United States NRTL & FCC (For Board Products FCC Notation May Be in Documentation)		
	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](http://www.intel.com/go/serverconfigurator)

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

<sup>1</sup> For tested Intel® RAID Controller options go to [http://support.intel.com/support/motherboards/server/compat\\_matrix.htm](http://support.intel.com/support/motherboards/server/compat_matrix.htm)

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