

Intel® Product Quick Reference Matrix

2H 2012 NON-NDA

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Your Membership

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Intel® vPro™ Technology Solution

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Symantec*

All products and dates specified are preliminary based on current expectations and are subject to change without notice. Availability in different channels may vary.



Your Membership

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MAKE INFORMED DECISIONS WITH EXPERT INSIGHT DIRECT FROM INTEL	LEAD CUSTOMER CONVERSATIONS WITH SOLUTION-SPECIFIC INFORMATION	ENHANCE YOUR COMPANY'S EXPERTISE THROUGH INCREASED KNOWLEDGE
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Intel® vPro™ Technology Solution



2012 INTEL® vPro™ TECHNOLOGY



Processor

Intel® Core™ i7 and Intel® Core™ i5 vPro™ Processors¹



Chipset

Intel® Q77, QM77, and QS77 Express Chipsets



Network

Intel® 82579LM Gigabit Network Adapter



SELL INTEL® CORE™ vPro™ TO MORE SMALL- AND MEDIUM-SIZE BUSINESSES INTERESTED IN MANAGED IT SERVICES

1 Intel® Core™ vPro™ processors deliver easy PC care		2 Intel® Core™ vPro™ processors enable smart security		3 Take advantage of money on the table by selling Intel® vPro™	
INTEL KVM REMOTE CONTROL ²	HOST-BASED SETUP	IDENTITY PROTECTION TECHNOLOGY	AES-NI ENCRYPTION	PARTNER AND DISTRIBUTION OPPORTUNITIES	SMALL- AND MEDIUM-SIZE BUSINESS RETURN ON INVESTMENT
<ul style="list-style-type: none"> Remote troubleshoot regardless of the operating system state No additional software or hardware is needed on the client PC No other solution on the market today can do this 	<ul style="list-style-type: none"> Activate Intel® vPro™ Technology in minutes As easy as deploying a patch 	<ul style="list-style-type: none"> Simple way for Web sites and enterprises to allow secure log-in Easy to use, extra layer of security to protect against online fraud attacks 	<ul style="list-style-type: none"> Encrypt important business data up to four times faster without slowing performance³ 	<ul style="list-style-type: none"> Up to a \$10 Intel® vPro™ activation rebate paid per board, directly to system integrators. Visit www.intel.com/go/activate for details. Recurring revenue by delivering remote PC support services Stronger customer relationships and repeat business 	<ul style="list-style-type: none"> Tangible return on investment via reduced support and energy costs⁴ Reduce the need for desk-side maintenance visits by 56%⁵

For more information, visit www.intel.com/go/vpro

¹ The following SKUs are Intel® vPro™ eligible:

Desktop—i7-3770, i7-3770S, i7-3770T, i5-3570, i5-3570T, i5-3550, i5-3550S, i5-3475S, i5-3470, i5-3470S, i5-3470T, i7-2600, i7-2600S, i5-2500, i5-2500S, i5-2500T, i5-2400, i5-2400S, i5-2390T.

Mobile—i7-3667U, i5-3427U, i7-3940XM, i7-3920XM, i7-3840QM, i7-3820QM, i7-3740QM, i7-3720QM, i7-3525M, i7-3520M, i5-3365M, i5-3360M, i5-3325M, i5-3320M, i7-2960XM, i7-2920XM, i7-2860QM, i7-2820QM, i7-2760QM, i7-2720QM, i7-2640M, i7-2620M, i7-2649, i7-2629, i7-2677, i7-2637, i5-2557, i5-2540M, i5-2520M.

² Intel KVM Remote Control Specifications:

a. These SKUs support Intel KVM Remote Control—i7-2960XM, i7-2920XM, i7-2860QM, i7-2820QM, i7-2760QM, i7-2720QM, i7-2640M, i7-2620M, i7-2649, i7-2629, i7-2677, i7-2637, i5-2557, i5-2540M, i5-2520M.

b. Intel® HD Graphics must be active to support Intel KVM Remote Control. KVM is not supported with discrete graphics installed. Systems must be using Intel® Active Management Technology 6.0 (Intel® AMT 6.0) or above.

c. Intel KVM Remote Control is only available on Intel® vPro™ platforms.

d. Other requirements are Intel vPro eligible LAN, and Intel vPro eligible chipsets (Q77, QM77, QS77, Q67, QM67, QS67), along with requisite BIOS enabling.

e. The client PC does not require additional software.

f. Remote consoles must be enabled with KVM protocol to remotely control Intel KVM Remote Control capable clients.

³ Intel® Advanced Encryption Standard-New Instructions (Intel® AES-NI) requires a computer system with an AES-NI enabled processor, as well as non-Intel software to execute the instructions in the correct sequence. For availability, consult your reseller or system manufacturer. For more information, see <http://software.intel.com/en-us/articles/intel-advanced-encryption-standard-instructions-aes-ni>.

⁴ For more details on the powerful ROI calculations to show end users the value of moving to Intel® vPro™ technology platforms, visit www3.intel.com/cd/channel/distributor/asm-na/eng/446248.htm

⁵ Results shown are from: the 2007 EDS Case Studies “An Analysis of Early Testing of Intel® vPro™ Technology in Large IT Departments,” by LeGrand and Salamasick; third-party audit commissioned by Intel, of various enterprise IT environments; and the 2007 Benefits of Intel vPro Technology in the Enterprise, Wipro Technologies study, commissioned by Intel. The EDS studies compare test environments of Intel vPro Technology-based PC environments vs. non-Intel® Core™ processor technology-based PC environments. Tested PCs were in multiple OS and power states to mirror a typical working environment. The Wipro study models projected ROI of deploying Intel vPro Technology. Actual results may vary and may not be representative of the results that can be expected for smaller businesses.

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ENHANCED BUILT-IN VISUALS¹—BUILT FOR MAINSTREAM DESKTOP AND MOBILE PC USERS

Intel® Built-In Visuals provide superb visual performance for sharper images, richer color, and lifelike video and audio. Watch movies and Internet videos in high definition, play popular casual and mainstream game titles, and get full support for Microsoft* Windows* 7 and Windows* 8. Enhanced Intel Built-In Visuals are available on the 3rd generation Intel® Core™ processor family.

		Processor	3rd generation Intel® Core™ processor family (Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3)	2nd generation Intel® Core™ processor family (Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3)
FEATURE	BENEFIT			
Intel® Quick Sync Video	Saves valuable time for PC users who want to create and edit video, sync it to other devices, and share it—at home and on the Internet. Intel® Quick Sync Video uses dedicated media processing to accelerate video encoding. Users can also create and edit 3-D videos and convert their 2-D videos into 3-D at blazing speed and enjoy premium HD video conferencing at high quality.		Yes (Faster ² , new support for stereoscopic 3-D videos)	Yes
Intel® InTru™ 3D	Enjoy the ultimate 3-D visual experience—seamlessly from your PC. Now you can watch your favorite 3-D Blu-ray* movies using passive glasses or active shutter glasses, all delivered in full 1080p resolution on your stereo 3-D over HDMI* 1.4.		Yes (New support for passive glasses)	Yes (Active shutter glasses only)
Intel® Clear Video HD Technology	Provides visual quality and color fidelity enhancements for spectacular 1080p HD playback and immersive Web browsing.		Yes (Quality enhancements)	Yes (Quality enhancements)
Intel® Wireless Display	Intel® Wireless Display lets you enjoy all of your personal content such as pictures, video, audio, and premium online content such as movies, TV, videos from YouTube*, Netflix*, and Hulu* on a big screen with a simple wireless connection.		Yes (Improved quality, video smoothness, and reduced latency. New support for 1080p stereoscopic content ³)	Yes (Full 1080p protected content support)
Intel® Insider™	Stream or download 1080p HD premium movies on your PC through participating distributor sites across the world. Enables users to purchase content and view later across multiple platforms using Ultraviolet* support.		Yes (New support for Ultraviolet* and view later. More content and storefronts)	Yes
Intel® HD Graphics	Intel® HD Graphics is built into the processor and delivers immersive mainstream gaming, 3-D experiences, and smooth and fast next-generation browser experience.		Yes (Intel® HD Graphics 2500 / 4000, support for DirectX* 11 games, a faster and smoother experience, and more games)	Yes (Intel® HD Graphics 3000 / 2000) ¹
Intel® Advanced Vector Extensions	Intel® Advanced Vector Extensions gives more computing power to application developers with a new 256-bit instruction set extensions to Intel® SSE.		Yes	Yes

INTEL® QUICK SYNC VIDEO

Intel® Quick Sync Video makes fast work of creating, editing, syncing, and sharing your videos—at home and online. Intel Quick Sync Video, built into 2nd and 3rd generation Intel® Core™ processors, delivers breakthrough hardware acceleration that lets you complete in minutes what used to take hours. Create DVDs or Blu-ray* discs, edit videos, convert video files for your portable media device, and convert videos for upload to your favorite social networking sites—all in a flash.

FEATURE	BENEFIT	Processor 3rd generation Intel® Core™ processor family (Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3)	2nd generation Intel® Core™ processor family (Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3)
AVC HW Encode / Decode	Saves valuable time when creating and editing Blu-ray* discs and other videos in H.264 format.	Yes	Yes
MPEG2 Encode / Decode	Saves valuable time when creating and editing DVDs and other videos in MPEG2 format.	Yes	Yes
MVC HW Encode / Decode	Saves valuable time when creating and editing stereoscopic 3-D videos.	Yes	No

INTEL® CLEAR VIDEO HD TECHNOLOGY

Intel® Clear Video HD Technology delivers seamless video and brings imagery to life with rich, accurate colors when you are browsing the Web, watching videos, and enjoying your favorite HD programs. Intel Clear Video HD Technology in 2nd and 3rd generation Intel® Core™ processors lets you view images as they were meant to be seen.

FEATURE	BENEFIT	Processor	3rd generation Intel® Core™ processor family (Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3)	2nd generation Intel® Core™ processor family (Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3)
Blu-ray* Disc Playback	High-density optical disc format designed for the storage of data and high-definition video.		Yes	Yes
Blu-ray Stereo 3-D Disc Playback	Playback of Blu-ray* stereo 3-D content on your PC.		Yes	Yes
Intel® Clear Video HD Technology	Delivers enhanced high-definition video playback, sharper images, and precise color control.		Yes	Yes
DVD Upscaling	Provides high-quality DVD upscaling through Windows* 7.		Yes	Yes
HD Hardware Acceleration				
AVC / H.264, MPEG2, VC1 Decode	Enables smoother playback and longer battery life when viewing H.264, MPEG2, or VC1 DVD, Blu-ray, or streaming content.		Yes	Yes
Dual Video Decode	Enables Blu-ray picture-in-picture hardware acceleration.		Yes	Yes
HW Decode MFTs	Enables faster Windows 7 drag and drop transcoding for MPEG2, VC1, and H.264 content.		Yes	Yes
Video Sharpness / Detail				
Skin Tone Enhancement	Enhances skin tones to look more real and natural.		Yes	Yes
Total Color Control	Enables adjustment of saturation levels per base color for brighter, richer colors.		Yes	Yes
Auto Contrast Enhancement	Fixes underexposed or overexposed areas of your videos.		Yes	Yes
De-interlacing	Reduces static and motion artifacts, improving the clarity and stability of the video picture.		Advanced	Advanced
Sharpness Detail	Sharpens the image to provide finer detail and improved image quality.		Yes	Yes
Noise Reduction	Filters out unwanted noise to provide finer detail and cleaner images.		Yes	Yes
Film Mode Detection	Detects film cadence and recovers original film content to improve image quality.		Yes	Yes
Video Scaling / Panel Scalar	Provides high-quality scaling to view content clearly in non-native resolution.		Yes (8x8 polyphase)	Yes (8x8 polyphase)
Vibrant Color				
Deep Color and x.v.Color	Together, Deep Color and x.v.Color enable future HDTVs to display more natural, accurate, and vivid colors.		Yes	Yes
ProcAmp / Color Control	Enhances fine detail of video playback and allows for user control over brightness, contrast, and saturation.		Yes	Yes

DISPLAY AND AUDIO FEATURES COMPARISON

Connect to a wide range of digital displays and resolutions, including the latest digital interfaces such as HDMI* and DisplayPort*. In addition, 2nd and 3rd generation Intel® Core™ processors support high-definition resolutions, including 720p, 1080i, and 1080p.

FEATURE	BENEFIT	Processor 3rd generation Intel® Core™ processor family (Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3)	2nd generation Intel® Core™ processor family (Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3)
New Control Panel	New look and feel, easier to use, with custom resolution settings.	Yes (Enhancements)	Yes
Maximum Display Resolution	Higher pixel resolutions allow the PC to show more image detail.	DisplayPort* 2560 x 1600, HDMI*, VGA	DisplayPort* 2560 x 1600, HDMI*, VGA
Display Support			
Independent Digital Displays	Allows a user to connect multiple displays to the PC.	3	2
HDMI* with HDCP	Provides a user-friendly, single-cable connector that enables transmission of superior, uncompressed digital video and audio, and 3-D Deep Color, premium audio, and auto lip-sync.	Version 1.4	Version 1.4
DisplayPort* with HDCP	Highly scalable and efficient display interface for the PC.	Version 1.1 (with audio)	Version 1.1 (with audio)
Embedded DisplayPort	Highly scalable and efficient display interface for notebooks.	Yes ⁴	Yes (Mobile only)
LVDS	Low-voltage digital display interface.	Yes	Yes ⁵
DVI with HDCP	Digital video interface that maximizes the visual quality of digital displays such as LCD displays and digital projectors.	Yes	Yes
VGA	Standard analog display interfaces, such as VGA, provide basic visual quality when connected to CRTs, LCDs, or HDTVs.	Yes	Yes
Audio Support			
Dolby* TrueHD, DTS* Premium Suite*	Supported on a significant number of Blu-ray* titles for the highest quality audio.	Yes	Yes

3-D FEATURES COMPARISON

Intel® Core™ processors with Intel® HD Graphics deliver a responsive, attractive 3-D visual experience for casual and mainstream PC games. When you buy a PC equipped with Intel HD graphics, you get a cost-effective solution with the performance for more gaming fun.

Processor	3rd generation Intel® Core™ processor family (Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3)	2nd generation Intel® Core™ processor family (Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3)	
FEATURE	BENEFIT		
Video Memory	Memory for use by Intel® HD Graphics for video and graphics applications.	Up to 1.70 GB	Up to 1.70 GB
DirectX* Support	Standardized programming interface used in games as an interface to the system's graphics through Microsoft* Windows*.	DirectX* 11	DirectX* 10.1
OpenGL* Support	Standardized programming interface used by 2-D and 3-D graphics applications.	3.3	3.1
OpenCL* Support	Standard programming interface for accessing compute units in CPU and GPU.	1.1	No
Shader Model	Enables complex animations and visual effects in games with realistic shading, lighting, and textures.	5.0	4.1

For more information, visit

www.intel.com/technology/visualtechnology/index.htm

www.intel.com/content/www/us/en/architecture-and-technology/quick-sync-video/quick-sync-video-consumer.html

www.intel.com/technology/graphics/intelhd.htm

www.intel.com/technology/graphics/ctv.htm

¹ Built-in Visuals available on select SKUs only.

² Faster on select SKUs.

³ New features available after launch.

⁴ Supported on mobile and All-in-One desktop PCs.

⁵ For desktops, only supported with the Intel® A57 Express Chipset.

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Intel® SATA Solid-State Drives



INTEL® HIGH-PERFORMANCE SATA SOLID-STATE DRIVES (SSD)

Intel® Solid-State Drives represent a revolutionary breakthrough that delivers a giant leap in storage performance. Unlike traditional hard disk drives, Intel SSDs have no moving parts, resulting in a quiet, cool, highly rugged storage solution that also offers faster system responsiveness.

Drawing from decades of memory engineering experience, and industry-leading, compute-quality NAND Flash memory manufacturing processes, Intel SSDs are designed to deliver outstanding performance for a wide range of computing applications. Intel SSDs also feature low-write amplification and a unique wear-leveling design for higher reliability, meaning Intel SSDs not only perform better, they last longer.

INTEL® SOLID-STATE DRIVES FOR ENTERPRISE AND DATA CENTER APPLICATIONS

INTEL® SOLID-STATE DRIVE	INTEL® SSD 910 SERIES	INTEL® SSD 710 SERIES	INTEL® SSD 320 SERIES
Interface	PCI Express* gen 2 x8	SATA 3.0 Gb/s ATA-8	SATA 3.0 Gb/s ATA-8
Form Factor	Half-height, half-length	2.5" drive	2.5" / 1.8" drive
Capacities	800 GB / 400 GB	300 GB / 200 GB / 100 GB	600 GB / 300 GB / 160 GB / 120 GB / 80 GB / 40 GB
Random Performance ¹ (4 KB files)	Reads: up to 180K IOPs Writes: up to 75K IOPs	Reads: up to 38.5K IOPs Writes: up to 2.7K IOPs	Reads: up to 39.5K IOPs ³ Writes: up to 600 IOPs ³
Sustained Sequential Performance	Reads: up to 2 GB/s Writes: up to 1 GB/s	Reads: up to 270 MB/s Writes: up to 210 MB/s	Reads: up to 270 MB/s ⁴ Writes: up to 200 MB/s ⁴
Power	25 W max. / 8 W standby	3.7 W active / 700 mW standby	4 W active / 95 mW standby
Latency	Reads: <65µs Writes: <65µs	Reads: 75µs Writes: 85µs	Reads: 75µs Writes: 95µs
Endurance ¹	Up to 14 PB	Up to 1.8 PB	Up to 60 TB
Reliability	1 sector per 10 bits read, max. (UBER ²)	2 million hours Mean Time Between Failures (MTBF)	1.2 million hours Mean Time Between Failures (MTBF)
Security	No	AES 128-bit encryption	AES 128-bit encryption
Data Path Protection	Yes	LBA tag checking	LBA tag checking
Power Safe Write Cache	Yes	Yes	Yes
Temperature Sensor	Yes	Yes	No
Current In-Rush Limiter	Yes	Yes	Yes

INTEL® SOLID-STATE DRIVES FOR CLIENT APPLICATIONS

INTEL® SOLID-STATE DRIVE	INTEL® SSD 520 SERIES	INTEL® SSD 330 SERIES	INTEL® SSD 320 SERIES	INTEL® SSD 313 SERIES	INTEL® SSD 310 SERIES
Position vs. Other Intel® SSDs	Overall client performance	Mainstream client value	Mainstream client value, quality of service	Optimized for Intel® Smart Response Technology	Optimized for small form factor clients
Interface	SATA 6.0 Gb/s	SATA 6.0 Gb/s	SATA 3.0 Gb/s	SATA 3.0 Gb/s	SATA 3.0 Gb/s
Form Factor	2.5" drive	2.5" drive	2.5" / 1.8" drive	2.5" drive, mSATA	mSATA
Capacities	480 GB / 240 GB / 180 GB / 120 GB / 60 GB	180 GB / 120 GB / 60GB	600 GB / 300 GB / 160 GB / 120 GB / 80 GB / 40 GB	24 GB / 20 GB	80 GB / 40 GB
Max. Random Performance ⁵	Reads: up to 60K IOPs Writes: up to 80K ⁶ IOPs	Reads: up to 22.5K IOPs Writes: up to 33K IOPs	Reads: up to 39.5K IOPs Writes: up to 23K IOPs	Reads: up to 36K IOPs Writes: up to 4K IOPs	Reads: up to 35K IOPs Writes: up to 6.6K IOPs
Max. Sequential Performance	Reads: up to 550 MB/s Writes: up to 520 MB/s	Reads: up to 500 MB/s Writes: up to 450 MB/s	Reads: up to 270 MB/s Writes: up to 220 MB/s	Reads: up to 220 MB/s Writes: up to 115 MB/s	Reads: up to 200 MB/s Writes: up to 70 MB/s
AES Encryption	256 bit	No	128 bit	128 bit	No
Data Reliability	Surplus NAND array, end-to-end	Surplus NAND array	Surplus NAND array	No	No
Endurance ⁵ (Min. Useful Life)	5 years, up to 20 GB written per day	3 years, up to 20 GB written per day	5 years, up to 20 GB written per day	5 years, up to 20 GB written per day	5 years, up to 20 GB written per day
Warranty	5 year ⁷	3 year	5 year ⁷	3 year	3 year

INTEL® DATA MIGRATION SOFTWARE

- Transfer operating system, applications, and files from an old HDD or SSD to a new Intel® Solid-State Drive⁸
 - Easy to use
 - Free
- Download now at www.intel.com/go/ssdinstallation

INTEL® SSD TOOLBOX v3.0

- Update Intel® SSD firmware and Intel drivers on host PC
 - Optimize PC configuration for Intel SSDs, run drive diagnostics, and secure erase
 - View SMART attributes, such as host writes and media wear out
 - Supported in multiple languages
- Download now at www.intel.com/go/ssdtoolbox

NEW	PRODUCT NAME	CAPACITY	PRODUCT CODE	PRODUCT DESCRIPTION	PACKAGE TYPE	PACKAGE CONTENTS	QUANTITY PER BOX
✓	Intel® SSD 910 Series	800 GB	SSDPEDPX800G301	25nm HET MLC / PCIe	OEM box	SSD only	1
✓		400 GB	SSDPEDPX400G301	25nm HET MLC / PCIe	OEM box	SSD only	1
	Intel® SSD 710 Series	300 GB	SSDSA2BZ300G301	25nm HET MLC / 2.5" / 7mm	OEM box	SSD only	1
		200 GB	SSDSA2BZ200G301	25nm HET MLC / 2.5" / 7mm	OEM box	SSD only	1
		100 GB	SSDSA2BZ100G301	25nm HET MLC / 2.5" / 7mm	OEM box	SSD only	1
	Intel® SSD 520 Series	480 GB	SSDSC2CW480A310	25nm MLC / 2.5" / 9.5mm	OEM box	SSD only	1
			SSDSC2CW480A3K5	25nm MLC / 2.5" / 9.5mm	Reseller box	SSD with desktop installation kit ⁹	1
		240 GB	SSDSC2CW240A310	25nm MLC / 2.5" / 9.5mm	OEM box	SSD only	1
			SSDSC2CW240A3K5	25nm MLC / 2.5" / 9.5mm	Reseller box	SSD with desktop installation kit ⁹	1
		180 GB	SSDSC2CW180A310	25nm MLC / 2.5" / 9.5mm	OEM box	SSD only	1
			SSDSC2CW180A3K5	25nm MLC / 2.5" / 9.5mm	Reseller box	SSD with desktop installation kit ⁹	1
		120 GB	SSDSC2CW120A310	25nm MLC / 2.5" / 9.5mm	OEM box	SSD only	1
			SSDSC2CW120A3K5	25nm MLC / 2.5" / 9.5mm	Reseller box	SSD with desktop installation kit ⁹	1
		60 GB	SSDSC2CW060A310	25nm MLC / 2.5" / 9.5mm	OEM box	SSD only	1
			SSDSC2CW060A3K5	25nm MLC / 2.5" / 9.5mm	Reseller box	SSD with desktop installation kit ⁹	1
✓	Intel® SSD 330 Series	180 GB	SSDSC2CT180A3K5	25nm MLC / 2.5" / 9.5mm	Reseller box	SSD with desktop installation kit ⁹	1
✓		120 GB	SSDSC2CT120A3K5	25nm MLC / 2.5" / 9.5mm	Reseller box	SSD with desktop installation kit ⁹	1
✓		60 GB	SSDSC2CT060A3K5	25nm MLC / 2.5" / 9.5mm	Reseller box	SSD with desktop installation kit ⁹	1

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NEW	PRODUCT NAME	CAPACITY	PRODUCT CODE	PRODUCT DESCRIPTION	PACKAGE TYPE	PACKAGE CONTENTS	QUANTITY PER BOX
	Intel® SSD 320 Series	600 GB	SSDSA2CW600G310	25nm MLC / 2.5" / 9.5mm	OEM box	SSD only	1
			SSDSA2CW600G3K5	25nm MLC / 2.5" / 9.5mm	Reseller box	SSD with desktop installation kit ⁹	1
			SSDSA2CW600G3B5	25nm MLC / 2.5" / 9.5mm	Retail box	SSD with desktop and notebook installation kits ¹⁰	1
		300 GB	SSDSA2CW300G310	25nm MLC / 2.5" / 9.5mm	OEM box	SSD only	1
			SSDSA2CW300G3K5	25nm MLC / 2.5" / 9.5mm	Reseller box	SSD with desktop installation kit ⁹	1
			SSDSA2CW300G3B5	25nm MLC / 2.5" / 9.5mm	Retail box	SSD with desktop and notebook installation kits ¹⁰	1
		160 GB	SSDSA1NW300G301	25nm MLC / 1.8" / 5mm	OEM box	SSD only	1
			SSDSA2CW160G310	25nm MLC / 2.5" / 9.5mm	OEM box	SSD only	1
			SSDSA2CW160G3K5	25nm MLC / 2.5" / 9.5mm	Reseller box	SSD with desktop installation kit ⁹	1
		120 GB	SSDSA2CW160G3B5	25nm MLC / 2.5" / 9.5mm	Retail box	SSD with desktop and notebook installation kits ¹⁰	1
			SSDSA1NW160G301	25nm MLC / 1.8" / 5mm	OEM box	SSD only	1
			SSDSA2CW120G310	25nm MLC / 2.5" / 9.5mm	OEM box	SSD only	1
		80 GB	SSDSA2CW120G3K5	25nm MLC / 2.5" / 9.5mm	Reseller box	SSD with desktop installation kit ⁹	1
			SSDSA2CW120G3B5	25nm MLC / 2.5" / 9.5mm	Retail box	SSD with desktop and notebook installation kits ¹⁰	1
			SSDSA2CW080G310	25nm MLC / 2.5" / 9.5mm	OEM box	SSD only	1
		40 GB	SSDSA2CW080G3K5	25nm MLC / 2.5" / 9.5mm	Reseller box	SSD with desktop installation kit ⁹	1
			SSDSA2CW080G3B5	25nm MLC / 2.5" / 9.5mm	Retail box	SSD with desktop and notebook installation kits ¹⁰	1
			SSDSA1NW080G301	25nm MLC / 1.8" / 5mm	OEM box	SSD only	1
	Intel® SSD 313 Series	24 GB	SSDSA2CT040G310	25nm MLC / 2.5" / 9.5mm	OEM box	SSD only	1
			SSDSA2CT040G3K5	25nm MLC / 2.5" / 9.5mm	Reseller box	SSD with desktop installation kit ⁹	1
			SSDSA2CT040G3B5	25nm MLC / 2.5" / 9.5mm	Retail box	SSD with desktop and notebook installation kits ¹⁰	1
		20 GB	SSDMAEXC024G01	25nm SLC / mSATA	OEM Box	SSD only	1
			SSDSA2VP024G01	25nm SLC / 2.5" / 7mm	OEM Box	SSD only	1
	Intel® SSD 310 Series	80 GB	SSDMAEXC020G01	25nm SLC / mSATA	OEM Box	SSD only	1
			SSDSA2VP020G01	25nm SLC / 2.5" / 7mm	OEM Box	SSD only	1
		40 GB	SSDMAEMC080G2C1	34nm MLC / mSATA	OEM box	SSD only	1
			SSDMAEMC040G2C1	34nm MLC / mSATA	OEM box	SSD only	1

For more information, visit the Intel Reseller Center Web site at www.intel.com/go/channelssd

¹ IOPs and endurance specifications are for server-based workloads. Endurance claims are “up to” using 4 KB transfers.

² Uncorrectable Bit-Error Rate.

³ IOPs for 160 GB; other capacities may vary.

⁴ Transfer rate for 300 GB; other capacities may vary. Measurements are performed on 100 percent span of the drive (enterprise workload).

⁵ IOPS and endurance specifications are for client-based workloads.

⁶ Random 4 KB write performance measured using out-of-box SSD on compressible workloads.

⁷ Warranties for OEM box versions of 520 Series and 320 Series are subject to E9 attribute wear indication.

⁸ Designed to work with any Intel® Solid-State Drive as the target drive for cloning. Other brands of SSDs are not supported as target drives. Extra cables or other hardware items are required for complete data migration solution.

⁹ Desktop installation kit contents: SATA power and signal cables, 3.5-inch desktop drive bay to 2.5-inch SSD adapter bracket, screws, installation guide, and warranty documentation.

¹⁰ See footnote above for desktop installation kit contents. Notebook installation kit contents: USB to SATA adapter cable, protective drive sleeve, and screwdriver.

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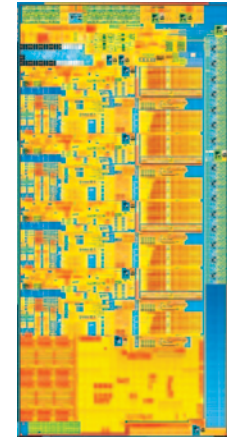
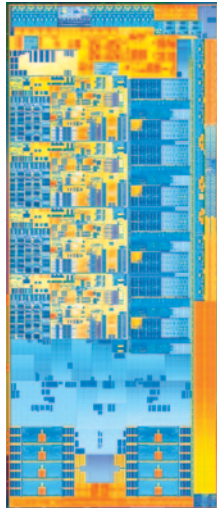


Desktop Highlights

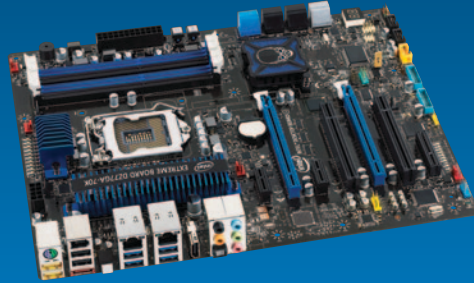


COMPARING THE INTEL® CORE™ PROCESSOR FAMILY FOR ENTHUSIASTS DECIDE WHAT'S IMPORTANT TO YOUR CUSTOMERS (AND TO YOU)

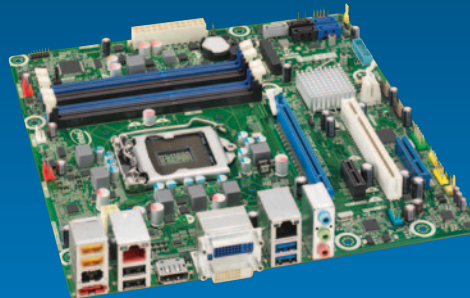
DESKTOP HIGHLIGHTS



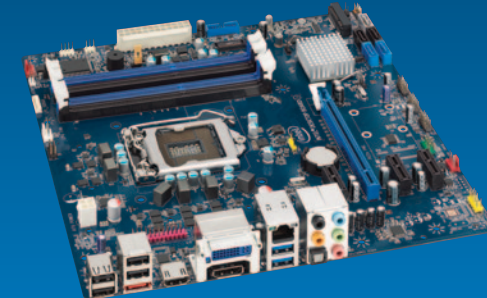
IVY BRIDGE ¹ 3RD GENERATION INTEL® CORE™ PROCESSOR	SANDY BRIDGE-E ¹ INTEL® CORE™ PROCESSOR
<p>Recommend Usages</p> <ul style="list-style-type: none"> ▪ Gaming and media transcoding with Intel® HD Graphics ▪ Mainstream overclocking² (K SKUs only) 	<p>Recommend Usages</p> <ul style="list-style-type: none"> ▪ Best discrete graphics option for gaming ▪ Heavily-threaded media editing
<p>Why?</p> <ul style="list-style-type: none"> ▪ Intel's best mainstream processor performance ▪ Intel® Quick Sync Video (transcoding acceleration) ▪ Potential for higher maximum air-cooled overclocking² frequency (K SKUs only) 	<p>Why?</p> <ul style="list-style-type: none"> ▪ 4 cores / 8 threads provide 6 cores / 12 threads upgrade path ▪ Full support for two PCI Express* x16 graphics cards ▪ Largest cache size of any Intel® processor ▪ Four-channel memory and larger maximum memory capacity
<p>Intel® Technology Provider Program Benefits</p> <ul style="list-style-type: none"> ▪ Offer Intel's newest microarchitecture ▪ Socket longevity (Sandy Bridge¹ + Ivy Bridge¹) 	<p>Intel® Technology Provider Program Benefits</p> <ul style="list-style-type: none"> ▪ Higher margin potential through system customization and premium MB offerings
<p>Processor</p> <p>Intel® Core™ i7-3770K processor² (4 cores / 8 threads) Intel Core i7-3770 processor (4 cores / 8 threads) Intel Core i7-3770S processor (4 cores / 8 threads) Intel® Core™ i5-3570K processor² (4 cores / 4 threads) Intel Core i5-3570 processor (4 cores / 4 threads) Intel Core i5-3550 processor (4 cores / 4 threads) Intel Core i5-3470 processor (4 cores / 4 threads) Intel Core i5-3450 processor (4 cores / 4 threads) Intel Core i5-3470S processor (4 cores / 4 threads) Intel Core i5-3450S processor (4 cores / 4 threads)</p>	<p>Processor</p> <p>Intel® Core™ i7-3960X processor² (6 cores / 12 threads) Intel Core i7-3930K processor² (6 cores / 12 threads) Intel Core i7-3820 processor (4 cores / 8 threads)</p>



Intel® Desktop Board DZ77GA-70K
Optimized performance for enthusiasts



Intel® Desktop Board DQ77MK
Helps small and medium businesses run smoothly



Intel® Desktop Board DH77EB
Offers options perfect for media and home entertainment

INTEL® DESKTOP BOARDS

The new 3rd generation of Intel® processors offer improved performance, with a cooler processor that requires less power. Supporting Intel® Desktop Boards allow you to overclock² with ease and include leading-edge technologies to provide a whole new user experience. Intel Desktop Boards optimized for the Intel® K SKU processors set a new standard when it comes to performance that gamers, overclockers, digital media enthusiasts, and ultimate multitaskers need the most. The Intel® Z77 Express Chipset-based product allows overclocking of the core, as well as the graphics and memory frequencies. It also supports Intel® Smart Response Technology, which dramatically increases system responsiveness while combining the performance benefits of a Solid-State Drive with the storage capacity of a traditional HDD in a single drive volume. In combination with Intel® Visual BIOS, these boards provide breakaway performance and flexibility. Intel Visual BIOS offers graphical interface and animated controls, allowing you to configure settings faster and take full advantage of your Intel K SKU processors. Selected bundled software applications for security, gaming and media, business and office, as well as built-in utilities to monitor board and PC health give you exceptional value for business or leisure.

For more information, visit www.intel.com/go/desktopprocessors and www.intel.com/desktopboards

¹ Ivy Bridge, Sandy Bridge-E, and Sandy Bridge are code names of Intel Corporation.

² Overclocking enabled. Warning: Altering clock frequency and/or voltage may (i) reduce system stability and useful life of the system and processor; (ii) cause the processor and other system components to fail; (iii) cause reductions in system performance; (iv) cause additional heat or other damage; and (v) affect system data integrity. Intel has not tested, and does not warranty, the operation of the processor beyond its specifications.

Please refer to the product quick reference matrix located on Intel® Reseller Center: www.intel.com/reseller

Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. See www.intel.com/products/processor_number for more information.

Intel® Desktop Boards may contain design defects or errors known as errata, which may cause the product to deviate from published specifications. Current characterized errata are available on request.

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Intel® Small Business Advantage



2012 INTEL® SMALL BUSINESS ADVANTAGE



Processor

Intel® Core™ i7, Intel® Core™ i5, or Intel® Core™ i3 processor



Desktop Chipset

Intel® B75 or Q77 Express Chipset

OR

Mobile Chipset

Intel® QM77, HM77, UM77, or QS77 Express Chipset



5 MB Firmware



SELL INTEL® SMALL BUSINESS ADVANTAGE TO MORE SMALL-SIZE BUSINESSES WITH NO FORMAL IT SUPPORT

1
Intel® Small Business Advantage addresses small business security concerns

USB BLOCKER ¹	SOFTWARE MONITOR	DATA BACKUP AND RESTORE ²
<ul style="list-style-type: none"> Prevent data theft via USB ports by blocking selected USB device types and/or create white list exceptions 	<ul style="list-style-type: none"> Monitor local security software or other mission-critical software Automatic e-mail notification when monitored software is disabled 	<ul style="list-style-type: none"> Reliable after hours³ backup—even if PC is powered off Simple UI guides user through configuration Alert business owner to warnings, errors, and missed backups

2
Intel® Small Business Advantage delivers free productivity tools

ENERGY SAVER	PC HEALTH CENTER
<ul style="list-style-type: none"> Reduce energy usage by scheduling automatic PC sleep time Schedule PC to power on before employee arrives to work 	<ul style="list-style-type: none"> Automate PC maintenance tasks to run after hours from powered off state Perform regular maintenance with no impact to employee productivity

For more information, visit www.intel.com/go/SBA-Reseller

¹ Requires an Intel® Small Business Advantage enabled system with USB Blocker and Microsoft Windows 7* or later. USB Blocker is a software-based USB device blocking solution that depends upon the device properly identifying itself. Consult your system manufacturer.

² Requires an Intel® Small Business Advantage enabled system and proper configuration. Data Backup and Restore may be replaced by your PC manufacturer. Consult your system manufacturer.

³ Requires an Intel® Small Business Advantage enabled system and a third party security application pre-configured by your PC manufacturer as long as the PC is on. Certain maintenance tasks require internet access. For after-hours feature to work, the PC must be connected to AC power.

Requires an Intel® Small Business Advantage enabled system and proper configuration. Availability of features will depend upon the setup and configuration by your PC manufacturer. Consult your system manufacturer. Visit www.intel.com/content/www/us/en/small-business/small-business-collection.html

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Intel® Desktop Processors



INTEL® DESKTOP PROCESSORS

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® TURBO BOOST TECHNOLOGY ¹	MEMORY SPEED	CACHE	PACKAGE
	Intel® Core™ i7-3960X processor Extreme Edition	BX80619I73960X	3.30 GHz	3.90 GHz	1600 MHz	15 MB L3 shared	LGA2011
NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® TURBO BOOST TECHNOLOGY ¹	MEMORY SPEED	CACHE	PACKAGE
	Intel® Core™ i7-3930K processor²	BX80619I73930K	3.20 GHz	3.80 GHz	1600 MHz	12 MB L3 shared	LGA2011
	Intel Core i7-3820 processor	BX80619I73820	3.60 GHz	3.80 GHz	1600 MHz	10 MB L3 shared	LGA2011
	Intel Core i7-3770K processor²	BX80637I73770K	3.50 GHz	3.90 GHz	1600 MHz	8 MB L3 shared	LGA1155
	Intel Core i7-3770 processor	BX80637I73770	3.40 GHz	3.90 GHz	1600 MHz	8 MB L3 shared	LGA1155
	Intel Core i7-2700K processor²	BX80623I72700K	3.50 GHz	3.90 GHz	1333 MHz	8 MB L3 shared	LGA1155
	Intel Core i7-2600K processor²	BX80623I72600K	3.40 GHz	3.80 GHz	1333 MHz	8 MB L3 shared	LGA1155
	Intel Core i7-2600 processor	BX80623I72600	3.40 GHz	3.80 GHz	1333 MHz	8 MB L3 shared	LGA1155
NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® TURBO BOOST TECHNOLOGY ¹	MEMORY SPEED	CACHE	PACKAGE
	Intel® Core™ i5-3570K processor²	BX80637I53570K	3.40 GHz	3.80 GHz	1600 MHz	6 MB L3 shared	LGA1155
✓	Intel Core i5-3570 processor	BX80637I53570	3.40 GHz	3.80 GHz	1600 MHz	6 MB L3 shared	LGA1155
	Intel Core i5-3550 processor	BX80637I53550	3.30 GHz	3.70 GHz	1600 MHz	6 MB L3 shared	LGA1155
✓	Intel Core i5-3470 processor	BX80637I53470	3.20 GHz	3.60 GHz	1600 MHz	6 MB L3 shared	LGA1155
	Intel Core i5-3450 processor	BX80637I53450	3.10 GHz	3.50 GHz	1600 MHz	6 MB L3 shared	LGA1155
	Intel Core i5-2500K processor²	BX80623I52500K	3.30 GHz	3.70 GHz	1333 MHz	6 MB L3 shared	LGA1155
	Intel Core i5-2500 processor	BX80623I52500	3.30 GHz	3.70 GHz	1333 MHz	6 MB L3 shared	LGA1155
	Intel Core i5-2400 processor	BX80623I52400	3.10 GHz	3.40 GHz	1333 MHz	6 MB L3 shared	LGA1155
	Intel Core i5-2320 processor	BX80623I52320	3 GHz	3.30 GHz	1333 MHz	6 MB L3 shared	LGA1155
	Intel Core i5-2310 processor	BX80623I52310	2.90 GHz	3.20 GHz	1333 MHz	6 MB L3 shared	LGA1155

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® TURBO BOOST TECHNOLOGY¹	MEMORY SPEED	CACHE	PACKAGE
	Intel® Core™ i3-2130 processor	BX80623I32130	3.40 GHz	N/A	1333 MHz	3 MB L3 shared	LGA1155
	Intel Core i3-2125 processor	BX80623I32125	3.30 GHz	N/A	1333 MHz	3 MB L3 shared	LGA1155
	Intel Core i3-2120 processor	BX80623I32120	3.30 GHz	N/A	1333 MHz	3 MB L3 shared	LGA1155
	Intel Core i3-2105 processor	BX80623I32105	3.10 GHz	N/A	1333 MHz	3 MB L3 shared	LGA1155
	Intel Core i3-2100 processor	BX80623I32100	3.10 GHz	N/A	1333 MHz	3 MB L3 shared	LGA1155
NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® TURBO BOOST TECHNOLOGY¹	MEMORY SPEED	CACHE	PACKAGE
✓	Intel® Pentium® processor G870	BX80623G870	3.10 GHz	N/A	1600 MHz	3 MB L3 shared	LGA1155
	Intel Pentium processor G860	BX80623G860	3 GHz	N/A	1333 MHz	3 MB L2 shared	LGA1155
	Intel Pentium processor G850	BX80623G850	2.90 GHz	N/A	1333 MHz	3 MB L2 shared	LGA1155
	Intel Pentium processor G840	BX80623G840	2.80 GHz	N/A	1333 MHz	3 MB L2 shared	LGA1155
✓	Intel Pentium processor G640	BX80623G640	2.80 GHz	N/A	1066 MHz	3 MB L3 shared	LGA1155
	Intel Pentium processor G630	BX80623G630	2.70 GHz	N/A	1066 MHz	3 MB L2 shared	LGA1155
	Intel Pentium processor G620	BX80623G620	2.60 GHz	N/A	1066 MHz	3 MB L2 shared	LGA1155
NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® TURBO BOOST TECHNOLOGY¹	MEMORY SPEED	CACHE	PACKAGE
✓	Intel® Celeron® processor G550	BX80623G550	2.60 GHz	N/A	1066 MHz	2 MB L3 shared	LGA1155
	Intel Celeron processor G540	BX80623G540	2.50 GHz	N/A	1066 MHz	2 MB L3 shared	LGA1155
	Intel Celeron processor G530	BX80623G530	2.40 GHz	N/A	1066 MHz	2 MB L3 shared	LGA1155
	Intel Celeron processor G460	BX80623G460	1.80 GHz	N/A	1066 MHz	2 MB L3 shared	LGA1155
	Intel Celeron processor G440	BX80623G440	1.60 GHz	N/A	1066 MHz	2 MB L3 shared	LGA1155

NEW	LOW-POWER PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® TURBO BOOST TECHNOLOGY¹	MEMORY SPEED	CACHE	PACKAGE
	Intel® Core™ i7-3770S processor	BX80637I73770S	3.10 GHz	3.90 GHz	1600 MHz	8 MB L3 shared	LGA1155
	Intel Core i7-2600S processor	BX80623I72600S	2.80 GHz	3.80 GHz	1333 MHz	8 MB L3 shared	LGA1155
✓	Intel® Core™ i5-3470S processor	BX80637I53470S	2.90 GHz	3.60 GHz	1600 MHz	6 MB L3 shared	LGA1155
	Intel Core i5-3450S processor	BX80637I53450S	2.80 GHz	3.50 GHz	1600 MHz	6 MB L3 shared	LGA1155
	Intel Core i5-2400S processor	BX80623I52400S	2.50 GHz	3.30 GHz	1333 MHz	6 MB L3 shared	LGA1155
✓	Intel® Pentium® processor G640T	BX80623G640T	2.40 GHz	N/A	1066 MHz	3 MB L3 shared	LGA1155
	Intel Pentium processor G630T	BX80623G630T	2.70 GHz	N/A	1066 MHz	3 MB L2 shared	LGA1155
	Intel Pentium processor G620T	BX80623G620T	2.60 GHz	N/A	1066 MHz	3 MB L2 shared	LGA1155

For more information, visit www.intel.com/go/desktopprocessors

¹ Intel® Turbo Boost Technology—maximum single-core turbo frequency (GHz). Intel Turbo Boost Technology requires a PC with a processor with Intel Turbo Boost Technology capability. Intel Turbo Boost Technology performance varies depending on hardware, software, and overall system configuration. Check with your PC manufacturer on whether your system delivers Intel Turbo Boost Technology. See www.intel.com/technology/turboboost for more information.

² Overclocking enabled. Warning: Altering clock frequency and/or voltage may (i) reduce system stability and useful life of the system and processor; (ii) cause the processor and other system components to fail; (iii) cause reductions in system performance; (iv) cause additional heat or other damage; and (v) affect system data integrity. Intel has not tested, and does not warranty, the operation of the processor beyond its specifications.

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INTEL® CENTRINO® WIRELESS

Intel® Centrino® wireless networking solutions for desktop platforms enable network connectivity without wires. These traditional desktop-focused solutions are based on the PCI Express* form factor and include an external antenna. Intel® products provide uncompromising performance, enhanced security, and scalability for fast, flexible connectivity at work and home.



SEGMENT	MAINSTREAM CONSUMER	BUSINESS, EDUCATION, PERFORMANCE CONSUMER
Intel® Centrino® Wireless (Intel Code Name)	Wireless-N 2200 for Desktop (Marble Peak)	Advanced-N 6205 for Desktop (Taylor Peak)
Form Factor	PCI Express* x1	PCI Express* x1
Antenna	Included	Included
Speed Spatial Streams (Tx and Rx)	300 Mb/s (2x2)	300 Mb/s (2x2)
Bands	Single Band - 2.4 GHz	Dual Band - 2.4 GHz and 5 GHz
Enterprise / SMB Features	Intel® PROSet for Windows* 7 Cisco* CCXv4	Intel® PROSet for Windows* 7 Cisco* CCXv4
Intel® My WiFi Dashboard¹	✓	✓
Intel® Wireless Display²		
Laplink* PCsync* Software	✓	✓
Intel® Smart Connect Technology	✓	✓
Wi-Fi* Certification		
Order Codes 20 piece Bulk Pack, Full-Height Bracket 20 piece Bulk Pack, Half-Height Bracket 5 piece Retail Box, Full and Half-Height Brackets	2200BNHMWDTX1G 2200BNHMWDTX1H 2200BNHMWDTX1	62205ANHMWDTX1G 62205ANHMWDTX1H 62205ANHMWDTX1

For more information, visit www.intel.com/go/wireless

¹ Intel® My WiFi Technology is an optional feature and requires additional software and an Intel® Centrino® wireless adapter. Wi-Fi* devices must be certified by the Wi-Fi Alliance for 802.11b/g/a in order to connect. See www.intel.com/network/connectivity/products/wireless/mywifi.htm for more details.

² Requires an Intel® Wireless Display-enabled PC, compatible adapter, and TV. 1080p and Blu-ray* or other protected content playback available only on 2nd generation Intel® Core™ processor-based PCs with built-in visuals enabled. Consult your PC manufacturer. For more information, see www.intel.com/go/widi

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Intel® Boxed Thermal Solutions



Intel® Thermal Solution RTS2011AC

The Intel® Thermal Solution RTS2011AC (air cooling) is ideal if you are looking for performance while still meeting your budget. Targeted users include business, government, and entry workstation.

FEATURES

- Low cost
- Shock and vibrate compliant and keep out safe
- Supports the LGA2011 socket only
- Compatible with Sandy Bridge-E¹ and Ivy Bridge-E¹ processors
- 3 year limited warranty

MM# 918700

Product code: **BXRTS2011AC**



Intel® Thermal Solution RTS2011LC

If you are into extreme gaming and overclocking, the Intel® Thermal Solution RTS2011LC (liquid cooling) is the perfect fit. It is designed for all high-end desktop performance overclocking.

FEATURES

- Optimized performance
 - 120mm x 25mm fan
 - Updated cooler block
 - Redesigned radiators
 - Supports 130 W processors
 - Supports the LGA1366, LGA115X, and LGA2011 sockets
- Visual improvements
 - Low-profile pump
 - Blue LED lighting
- 3 year limited warranty

MM# 918092

Product code: **BXRTS2011LC**



Intel® Thermal Solution HTS1155LP

Intel now offers the new low-profile thin mini-ITX Intel® Thermal Solution HTS1155LP for All-In-One and tiny PC desktop systems.

FEATURES

- New low-profile All-in-One / Small Form Factor thermal solution
- Supports all 65 W processors in the LGA1155 socket (Sandy Bridge¹ and Ivy Bridge¹)
- Compatible with the Intel® Desktop Board DG61AG and all ODM thin mini-ITX H6X-based boards
- Multiple options for fan placement
- Available now from authorized Intel distributors
- 3 year limited warranty

MM# 917752

Product code: **BXHTS1155LP**



¹ Sandy Bridge-E, Ivy Bridge-E, Sandy Bridge, and Ivy Bridge are code names of Intel Corporation.

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Intel® Desktop Boards

INTEL® DESKTOP BOARDS—DESIGNED FOR PERFORMANCE



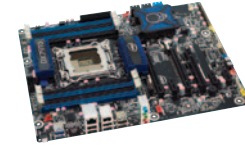
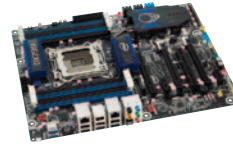
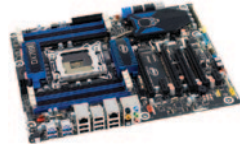
INTEL® DESKTOP BOARDS

Focus	Intel® Desktop Board	Form Factor	Package	Memory	Integrated Graphics Port ¹	PCIe* x16	Mini PCIe	PCIe x4	PCIe x1	PCI	SATA 3 6.0 Gb/s (eSATA)	SATA 2 3.0 Gb/s (eSATA)	RAID	Audio	USB 3 (ext+int)	USB 2 (ext+int)	1394 (ext+int)	2nd Gen	3rd Gen	2nd Gen	3rd Gen	2nd Gen	3rd Gen	2nd Gen	
Enthusiast Gaming	DX79SR	ATX	LGA2011	DDR3 2400+		3			2	1	4	4	▪	8-ch	4+2	6+8	1+1	▪		▪					
	DX79SI	ATX	LGA2011	DDR3 2400+		3			2	1	2	4	▪	8-ch	2+2	6+8	1+1	▪		▪					
	DX79TO	ATX	LGA2011	DDR3 1600+		2			3	1	2	4	▪	6-ch	2+0	6+8	1+1	▪		▪					
	DZ77RE-75K	ATX	LGA1155	DDR3 1600	HDMI*	2		1	2	2	4 (1)	4	▪	10-ch	4+4	4+6	1+1		▪	▪	▪	▪	▪	▪	▪
	DZ77GA-70K	ATX	LGA1155	DDR3 1600+	HDMI	2		1	2	2	4 (1)	4	▪	10-ch	4+4	4+6	1+1		▪	▪	▪	▪	▪	▪	▪
	DZ77BH-55K	ATX	LGA1155	DDR3 1333	DisplayPort**+HDMI	2			3	2	4	3 (1)	▪	10-ch	4+2	4+6	1+1		▪	▪	▪	▪	▪	▪	▪
	DZ77SL-50K	ATX	LGA1155	DDR3 1333	HDMI	1		1	1	3	2	3 (1)	▪	10-ch	2+2	4+4	1+1		▪	▪	▪	▪	▪	▪	▪
	DZ68BC	ATX	LGA1155	DDR3 1600	DisplayPort+HDMI+DVI-I	1			2	3	4	4 (1)	▪	8-ch	4	8+6	1+1		▪	▪	▪	▪	▪	▪	▪
DZ68ZV	ATX	LGA1155	DDR3 1600		1			3	2	2	4 (1)	▪	8-ch	2	8+6	1+1		▪	▪	▪	▪	▪	▪	▪	
Media Creation	DZ68DB	ATX	LGA1155	DDR3 1333	DisplayPort+HDMI+DVI-I	1			2	1	2	3 (1)	▪	10-ch	2	6+8	1+1		▪	▪	▪	▪	▪	▪	▪
	DH77DF	Mini-ITX	LGA1155	DDR3 1600	DisplayPort+HDMI+DVI-I	1	1				2	2 (1)	▪	10-ch	2+2	4+4	1+1		▪	▪	▪	▪	▪	▪	▪
	DH77KC	ATX	LGA1155	DDR3 1600	DisplayPort+HDMI+DVI-I	1	1	1	1	3	2	3 (1)	▪	10-ch	2+2	4+4			▪	▪	▪	▪	▪	▪	▪
	DH77EB	MicroATX	LGA1155	DDR3 1600	DisplayPort+HDMI+DVI-I	1	1		3		2	3 (1)	▪	10-ch	2+2	4+6			▪	▪	▪	▪	▪	▪	▪
	DH61AG	Thin Mini-ITX	LGA1155	DDR3 1333	eDisplayPort**+HDMI+DVI-I+LVDS		2	1				2 (1)	▪	10-ch	2	2+8			▪	▪	▪	▪	▪	▪	▪
	DH67CF	Mini-ITX	LGA1155	DDR3 1333	DisplayPort+HDMI+DVI-I	1					2	2 (1)	▪	10-ch	2	4+6			2	2	▪	▪	▪	▪	▪
	DH67GD	MicroATX	LGA1155	DDR3 1333	DisplayPort+HDMI+DVI-I	1			2	1	2	3 (1)	▪	10-ch	2	6+8	1+1		▪	▪	▪	▪	▪	▪	▪
	DH67BL	MicroATX	LGA1155	DDR3 1333	HDMI+DVI-I	1			2	1	2	3 (1)	▪	10-ch	2	6+8			▪	▪	▪	▪	▪	▪	▪
DH67CL	ATX	LGA1155	DDR3 1333	HDMI+DVI-I	1			2	3	2	3 (1)	▪	10-ch	2	6+8			▪	▪	▪	▪	▪	▪	▪	
SMB	DQ77KB	Thin Mini-ITX	LGA1155	DDR3 1600	eDisplayPort+DisplayPort+HDMI+LVDS	1	2	1			2	2	▪	4-ch	4+0	0+5			▪	▪	▪	▪	▪	▪	▪
	DQ77MK	MicroATX	LGA1155	DDR3 1600	DisplayPort+DVI-D+DVI-I	1	1	1	1	1	2	3 (1)	▪	8-ch	2+2	4+4	1+1		▪	▪	▪	▪	▪	▪	▪
	DB75EN	MicroATX	LGA1155	DDR3 1600	DVI-D+VGA	1			1	2	1	4 (1)	▪	8-ch	2+2	4+4			▪	▪	▪	▪	▪	▪	▪
	DQ675W	MicroATX	LGA1155	DDR3 1333	DisplayPort+DVI-D+DVI-I	1			2	1	2	2 (2)	▪	8-ch	2	4+8	1+1		▪	▪	▪	▪	▪	▪	▪
	DQ670W	MicroATX	LGA1155	DDR3 1333	DVI-D+VGA	1			2	1	2	2 (2)	▪	8-ch		6+8			▪	▪	▪	▪	▪	▪	▪
	DQ67EP	Mini-ITX	LGA1155	DDR3 1333	DisplayPort+DVI-D+DVI-I	1	1				2	2 (2)	▪	8-ch	2	4+6			2	2	▪	▪	▪	▪	▪
	DH61ZE	MicroATX	LGA1155	DDR3 1333	HDMI+VGA	1			2	1		4	▪	6-ch		4+6			▪	▪	▪	▪	▪	▪	▪
	DH61SA	MicroATX	LGA1155	DDR3 1333	VGA				1	1		2	▪	6-ch	2	4+2			▪	▪	▪	▪	▪	▪	▪
General Purpose	DH61HO	MicroATX	LGA1155	DDR3 1333	VGA	1			2			2	▪	6-ch		4+4			▪	▪	▪	▪	▪	▪	▪
	DH61BE	MicroATX	LGA1155	DDR3 1333	DVI-D+VGA	1			2	1	2	4	▪	8-ch	2	2+8			▪	▪	▪	▪	▪	▪	▪
	DH61CR	MicroATX	LGA1155	DDR3 1333	DVI-D+VGA	1			2	1		4	▪	6-ch		4+6			▪	▪	▪	▪	▪	▪	▪
	DH61DL	Mini-ITX	LGA1155	DDR3 1333	DVI-D+VGA		1		1			3	▪	6-ch	2	2+6			▪	▪	▪	▪	▪	▪	▪
Intel® Atom™	DN2800MT	Thin Mini-ITX		DDR3 SODIMM	eDisplayPort+HDMI+VGA+LVDS		2		1			2	▪	4-ch		4+4								▪	
	D2700DC	Mini-ITX		DDR3 SODIMM	HDMI+DVI		1			1		2	▪	6-ch		4+3								▪	
	D2700MUD	Mini-ITX		DDR3 SODIMM	DVI+VGA+LVDS		1			1		2	▪	6-ch		4+3								▪	
	D2500CC	Mini-ITX		DDR3 SODIMM	DVI-I+VGA+LVDS		1			1		2	▪	8-ch		4+3								▪	
D2500HN	Mini-ITX		DDR3 SODIMM	VGA					1		2	▪	4-ch		4+4									▪	

For specific processor compatibility, visit <http://processormatch.intel.com>

For more information, visit www.intel.com/desktopboards

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	Intel® Desktop Board DX79SR	Intel® Desktop Board DX79SI	Intel® Desktop Board DX79T0
Product Family	Intel® Desktop Board DX79SR	Intel® Desktop Board DX79SI	Intel® Desktop Board DX79T0
Form Factor	ATX	ATX	ATX
Product Code / UPC	BOXDX79SR / 00735858242851	BOXDX79SI / 00735858225168	BOXDX79T0 / 00735858225175
10-pack Product Code / UPC	N/A	BLKDX79SI / 00735858225151	BLKDX79T0 / 00735858225199
Processor Support	Intel® Core™ i7 processor Extreme Edition and Intel® Core™ i7 processors in the LGA2011 package	Intel® Core™ i7 processor Extreme Edition and Intel® Core™ i7 processors in the LGA2011 package	Intel® Core™ i7 processor Extreme Edition and Intel® Core™ i7 processors in the LGA2011 package
Chipset	Intel® X79 Express Chipset	Intel® X79 Express Chipset	Intel® X79 Express Chipset
Supports HT Technology ³	Yes	Yes	Yes
Integrated Graphics Core ¹	N/A	N/A	N/A
Discrete Graphics Connector	Three PCI Express* 3.0 x16 connectors ATI* CrossFireX* and NVIDIA* SLI* multi-GPU platform support	Three PCI Express* 2.0 x16 connectors ATI* CrossFireX* and NVIDIA* SLI* multi-GPU platform support	Two PCI Express* 2.0 x16 connectors ATI* CrossFireX* and NVIDIA* SLI* multi-GPU platform support
Memory Support	Quad-channel DDR3 with eight connectors for 2400 MHz memory (overclocked ⁵) (64 GB ⁶ max) Intel® Extreme Memory Profiles support	Quad-channel DDR3 with eight connectors for 2400 MHz memory (overclocked ⁵) (64 GB ⁶ max) Intel® Extreme Memory Profiles support	Quad-channel DDR3 with eight connectors for 1600+ MHz memory (64 GB ⁶ max) Intel® Extreme Memory Profiles support
Expansion Connectors	Two PCI Express x1 connectors and one PCI connector	Two PCI Express 2.0 x1 connectors and one PCI connector	Three PCI Express 2.0 x1 connectors and one PCI connector
Audio ⁴	Eight-channel Intel® High Definition Audio (four back panel analog ports and one optical port)	Eight-channel Intel® High Definition Audio (five back panel analog ports and one optical port)	Six-channel Intel® High Definition Audio (three back panel analog ports)
USB Ports	Fourteen Hi-Speed USB 2.0 ports (six external ports and eight additional ports via internal headers) and six USB 3.0 ports	Fourteen Hi-Speed USB 2.0 ports (six external ports and eight additional ports via internal headers) and four USB 3.0 ports	Fourteen Hi-Speed USB 2.0 ports (six external ports and eight additional ports via internal headers) and two USB 3.0 ports
1394 Ports	Two IEEE 1394a ports (one external port and one additional port via internal header)	Two IEEE 1394a ports (one external port and one additional port via internal header)	Two IEEE 1394a ports (one external port and one additional port via internal header)
Storage	Four SATA ports (3.0 Gb/s) and four SATA ports (6.0 Gb/s)	Four SATA ports (3.0 Gb/s) and two SATA ports (6.0 Gb/s)	Four SATA ports (3.0 Gb/s) and two SATA ports (6.0 Gb/s)
RAID	Intel® Rapid Storage Technology for RAID 0, 1, 5, and 10, Intel® Rapid Recovery Technology, and Matrix RAID	Intel® Rapid Storage Technology for RAID 0, 1, 5, and 10	Intel® Rapid Storage Technology for RAID 0, 1, 5, and 10
Onboard LAN	Dual Intel® PRO 10/100/1000 Network Connection Bluetooth* / Wi-Fi* module	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection
Trusted Platform Module	N/A	N/A	Yes
Lead Free	Yes	Yes	Yes
Software	Intel® Desktop Utilities Intel® Integrator Toolkit Intel® Visual BIOS ESET* Smart Security 4 Laplink* PCmover Express* McAfee* AntiVirus Plus Razerzone.com* Discount Splashtop* Remote Desktop Steam*	Intel® Desktop Utilities Intel® Extreme Tuning Utility ⁷ Intel® Integrator Assistant ESET* Smart Security 4 Laplink* PCmover Express* Razerzone.com* Discount Steam*	Intel® Desktop Utilities Intel® Extreme Tuning Utility ⁷ Intel® Integrator Assistant ESET* Smart Security 4 Laplink* PCmover Express* Razerzone.com* Discount Steam*
BIOS	N/A	SIX7910J.86A	SIX7910J.86A
Windows* and WHQL Support	Windows* WHQL certified	Windows* WHQL certified	Windows* WHQL certified
Warranty	3 year limited warranty	3 year limited warranty	3 year limited warranty

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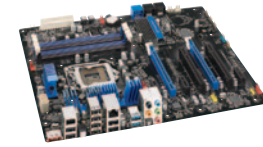
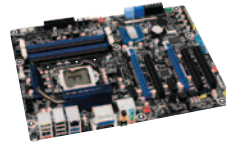
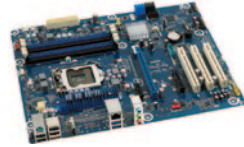


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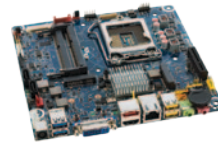


	Intel® Desktop Board DZ77RE-75K	Intel® Desktop Board DZ77GA-70K	Intel® Desktop Board DZ77BH-55K
Product Family	Intel® Desktop Board DZ77RE-75K	Intel® Desktop Board DZ77GA-70K	Intel® Desktop Board DZ77BH-55K
Form Factor	ATX	ATX	ATX
Product Code / UPC	BOXDZ77RE-75K / 00735858244251	BOXDZ77GA-70K / 00735858244275	BOXDZ77BH-55K / 00735858244305
10-pack Product Code / UPC	BLKDZ77RE-75K / 00735858244237	BLKDZ77GA-70K / 00735858244299	BLKDZ77BH-55K / 00735858244329
Processor Support	2nd and 3rd Gen Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3 processors in the LGA1155 package Highly optimized for the Intel® K SKU processors	2nd and 3rd Gen Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3 processors in the LGA1155 package Highly optimized for the Intel® K SKU processors	2nd and 3rd Gen Intel® Core™ i7 (95 W TDP), Intel® Core™ i5, and Intel® Core™ i3 processors in the LGA1155 package Highly optimized for the Intel® K SKU processors
Chipset	Intel® Z77 Express Chipset	Intel® Z77 Express Chipset	Intel® Z77 Express Chipset
Supports HT Technology ³	Yes	Yes	N/A
Integrated Graphics Core ¹	Intel® HD Graphics (HDMI*)	Intel® HD Graphics (HDMI*)	Intel® HD Graphics (DisplayPort* + HDMI*)
Discrete Graphics Connector	One PCI Express* 3.0 x16 connector or switchable to two PCI Express 2.0 x8 connectors ATI* CrossFireX* and NVIDIA* SLI* multi-GPU platform support	One PCI Express* 3.0 x16 connector or switchable to two PCI Express 2.0 x8 connectors ATI* CrossFireX* and NVIDIA* SLI* multi-GPU platform support	One PCI Express* 3.0 x16 connector or switchable to two PCI Express 2.0 x8 connectors ATI* CrossFireX* and NVIDIA* SLI* multi-GPU platform support
Memory Support	Dual-channel DDR3 with four connectors for 1600+ MHz memory (32 GB ⁶ max) Intel® Extreme Memory Profiles support	Dual-channel DDR3 with four connectors for 1600+ MHz memory (32 GB ⁶ max) Intel® Extreme Memory Profiles support	Dual-channel DDR3 with four connectors for 1333 / 1066 MHz memory (32 GB ⁶ max) 1.2 V to 1.8 V memory voltage control for max DIMM compatibility
Expansion Connectors	Thunderbolt* Connector, one PCI Express x4 connector, two PCI Express x1 connectors, and two PCI connectors	One PCI Express x4 connector, two PCI Express x1 connectors, and two PCI connectors	Three PCI Express 2.0 x1 connectors and two PCI connectors
Audio ⁴	Ten-channel Intel® High Definition Audio	Ten-channel Intel® High Definition Audio	Ten-channel Intel® High Definition Audio
USB Ports	Ten Hi-Speed USB 2.0 ports (six external ports and four additional ports via internal headers) and eight USB 3.0 ports	Ten Hi-Speed USB 2.0 ports (six external ports and four additional ports via internal headers) and eight USB 3.0 ports	Ten Hi-Speed USB 2.0 ports (four external ports and six additional ports via internal headers) and six USB 3.0 ports
1394 Ports	Two IEEE 1394a ports (one external port and one additional port via internal header)	Two IEEE 1394a ports (one external port and one additional port via internal header)	Two IEEE 1394a ports (one external port and one additional port via internal header)
Storage	Four SATA ports (3.0 Gb/s), four SATA ports (6.0 Gb/s), and one eSATA port (6.0 Gb/s)	Four SATA ports (3.0 Gb/s), four SATA ports (6.0 Gb/s), and one eSATA port (6.0 Gb/s)	Three SATA ports (3.0 Gb/s), four SATA ports (3.0 Gb/s), and one eSATA port (3.0 Gb/s)
RAID	Intel® Rapid Storage Technology for RAID 0, 1, 5, and 10	Intel® Rapid Storage Technology for RAID 0, 1, 5, and 10	Intel® Rapid Storage Technology for RAID 0, 1, 5, and 10
Onboard LAN	Dual Intel® PRO 10/100/1000 Network Connection	Dual Intel® PRO 10/100/1000 Network Connection	Integrated 10/100/1000 Network Connection Integrated NIC
Trusted Platform Module	N/A	N/A	N/A
Lead Free	Yes	Yes	Yes
Software	Intel® Desktop Utilities Intel® Integrator Toolkit 5 Intel® Visual BIOS ESET* Smart Security 4 Lucidlogix* Universal McAfee* AntiVirus Plus Razerzone.com* Discount Splashtop* Remote Desktop	Intel® Desktop Utilities Intel® Integrator Toolkit 5 Intel® Visual BIOS Dolby* Home Theater ESET* Smart Security 4 Lucidlogix* Universal McAfee* AntiVirus Plus Razerzone.com* Discount Splashtop* Remote Desktop	Intel® Desktop Utilities Intel® Integrator Toolkit 5 Intel® Visual BIOS Dolby* Home Theater ESET* Smart Security 4 Lucidlogix* Universal McAfee* AntiVirus Plus Razerzone.com* Discount Splashtop* Remote Desktop
BIOS	N/A	N/A	N/A
Windows* and WHQL Support	Windows* WHQL certified	Windows* WHQL certified	Windows* WHQL certified
Warranty	3 year limited warranty	3 year limited warranty	3 year limited warranty

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	Intel® Desktop Board DZ77SL-50K	Intel® Desktop Board DZ68BC	Intel® Desktop Board DZ68ZV
Product Family	Intel® Desktop Board DZ77SL-50K	Intel® Desktop Board DZ68BC	Intel® Desktop Board DZ68ZV
Form Factor	ATX	ATX	ATX
Product Code / UPC	BOXDZ77SL-50K / 00735858247900	BOXDZ68BC / 00735858221771	BOXDZ68ZV / 00735858224963
10-pack Product Code / UPC	BLKDZ77SL-50K / 00735858247924	BLKDZ68BC / 00735858221788	BLKDZ68ZV / 00735858224970
Processor Support	2nd and 3rd Gen Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3 processors in the LGA1155 package (95 W TDP) Highly optimized for the Intel® K SKU processors	Intel® Core™ i7 processor Extreme Edition, Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3 processors in the LGA1155 package (95 W TDP)	Intel® Core™ i7 processor Extreme Edition, Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3 processors in the LGA1155 package (95 W TDP)
Chipset	Intel® Z77 Express Chipset	Intel® Z68 Express Chipset	Intel® Z68 Express Chipset
Supports HT Technology ³	N/A		Yes
Integrated Graphics Core ¹	Intel® HD Graphics (HDMI*)	Intel® HD Graphics (DisplayPort* + HDMI* + DVI-I)	N/A
Discrete Graphics Connector	One PCI Express* 2.0 x16 connector	One PCI Express* 2.0 x16 connector or switchable to two PCI Express 2.0 x8 ATI* CrossFireX* and NVIDIA* SLI* multi-GPU platform support	One PCI Express* 2.0 x16 connector or switchable to two PCI Express 2.0 x8 connectors ATI* CrossFireX* and NVIDIA* SLI* multi-GPU platform support
Memory Support	Dual-channel DDR3 with four connectors for 1333 / 1066 MHz memory (32 GB ⁶ max) 1.2 V to 1.8 V memory voltage control for max DIMM compatibility	Dual-channel DDR3 with four connectors for 1600 / 1333 / 1066 MHz memory (32 GB ⁶ max) Intel® Extreme Memory Profiles support	Dual-channel DDR3 with four connectors for 1600 / 1333 / 1066 MHz memory (16 GB ⁶ max)
Expansion Connectors	One PCI Express x4 connector, one PCI Express 2.0 x1 connector, and three PCI connectors	Two PCI Express* 2.0 x1 connectors and three PCI connectors	Three PCI Express* 2.0 x1 connectors and two PCI connectors
Audio ⁴	Ten-channel Intel® High Definition Audio	Eight-channel Intel® High Definition Audio (three back panel analog ports)	Eight-channel Intel® High Definition Audio (six back panel analog ports)
USB Ports	Eight Hi-Speed USB 2.0 ports (four external ports and four additional ports via internal headers) and four USB 3.0 ports	Fourteen Hi-Speed USB 2.0 ports (eight external ports and six additional ports via internal headers) and four USB 3.0 ports	Fourteen Hi-Speed USB 2.0 ports (eight external ports and six additional ports via internal headers) and two USB 3.0 ports
1394 Ports	Two IEEE 1394a ports (one external port and one additional port via internal header)	Two IEEE 1394a ports (one external port and one additional port via internal header)	Two IEEE 1394a ports (one external port and one additional port via internal header)
Storage	Three SATA ports (3.0 Gb/s), two SATA ports (6.0 Gb/s), and one eSATA port	Four SATA ports (3.0 Gb/s), four SATA ports (6.0 Gb/s), and one eSATA port (3.0 Gb/s)	Four SATA ports (3.0 Gb/s), two SATA ports (6.0 Gb/s), and one eSATA port (3.0 Gb/s)
RAID	Intel® Rapid Storage Technology for RAID 0, 1, 5, and 10	Intel® Rapid Storage Technology for RAID 0, 1, 5, and 10	Intel® Rapid Storage Technology for RAID 0, 1, 5, and 10
Onboard LAN	Integrated 10/100/1000 Network Connection Integrated NIC	Integrated 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection
Trusted Platform Module	N/A	N/A	N/A
Lead Free	Yes	Yes	Yes
Software	Intel® Desktop Utilities Intel® Integrator Toolkit 5 Intel® Visual BIOS ESET* Smart Security 4 Lucidlogix* Universal McAfee* AntiVirus Plus Razerzone.com* Discount Splashtop* Remote Desktop	Intel® Core Utilities Bundle ⁸ Intel® Desktop Utilities Intel® Extreme Tuning Utility ⁷ ESET* Smart Security 4 Laplink* PCmover Express* Lucidlogix* Virtu*	Intel® Core Utilities Bundle ⁸ Intel® Desktop Utilities Intel® Extreme Tuning Utility ⁷ Intel® Integrator Assistant ESET* Smart Security 4 Laplink* PCmover Express* Razerzone.com* Discount Steam*
BIOS	N/A	BCZ6810H.86A	BGP6710J.86A
Windows* and WHQL Support	Windows* WHQL certified	Windows* WHQL certified	Windows* WHQL certified
Warranty	3 year limited warranty	3 year limited warranty	3 year limited warranty



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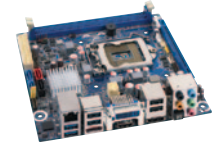


	Intel® Desktop Board DZ68DB	Intel® Desktop Board DH61AG	Intel® Desktop Board DH77DF
Product Family	Intel® Desktop Board DZ68DB	Intel® Desktop Board DH61AG	Intel® Desktop Board DH77DF
Form Factor	ATX	Thin Mini-ITX	Mini-ITX
Product Code / UPC	BOXDZ68DB / 00735858221351	BOXDH61AG / 00735858220255	BOXDH77DF / 00735858241861
10-pack Product Code / UPC	BLKDZ68DB / 00735858221344	BLKDH61AG / 00735858220262	BLKDH77DF / 00735858241885
Processor Support	Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3 processors in the LGA1155 package	Intel® Core™ i7 (65 W TDP), Intel® Core™ i5, and Intel® Core™ i3 processors in the LGA1155 package	2nd and 3rd Gen Intel® Core™ i7, Intel® Core™ i5, and other Intel® processors in the LGA1155 package
Chipset	Intel® Z68 Express Chipset	Intel® H61 Express Chipset	Intel® H77 Express Chipset
Supports HT Technology³	Yes	Yes	Yes
Integrated Graphics Core¹	Intel® HD Graphics (DisplayPort* + HDMI* + DVI-I)	Intel® HD Graphics (Embedded DisplayPort* + HDMI* + DVI-I + LVDS)	Intel® HD Graphics (DisplayPort* + HDMI* + DVI-I)
Discrete Graphics Connector	One PCI Express* x16 connector	N/A	One PCI Express* 3.0 x16 connector
Memory Support	Dual-channel DDR3 with four connectors for 1333 / 1066 / 800 MHz memory (32 GB ⁶ max)	Dual-channel SODIMM DDR3 with two connectors for 1333 / 1066 / 800 MHz memory (16 GB ⁶ max)	Dual-channel DDR3 with two connectors for 1600 / 1333 MHz memory (16 GB ⁶ max)
Expansion Connectors	Two PCI Express 2.0 x1 connectors and one PCI connector	One PCI Express* 2.0 x1 connector and two PCI Express Mini Card connectors (one full length, one half length)	One PCI Express Mini Card connector with support for mSATA Solid-State Drive and dual-channel TV tuner card
Audio⁴	Ten-channel Intel® High Definition Audio	Ten-channel Intel® High Definition Audio	Ten-channel Intel® High Definition Audio with 110dB DAC SNR
USB Ports	Fourteen Hi-Speed USB 2.0 ports (six external ports and eight additional ports via internal headers) and two USB 3.0 ports	Ten Hi-Speed USB 2.0 ports (two external ports and eight additional ports via internal headers) and two USB 3.0 ports	Ten Hi-Speed USB 2.0 ports (four external ports, four additional ports via internal headers, and two ports via PCI Express Mini Card connector) and four USB 3.0 ports
1394 Ports	Two IEEE 1394a ports (one external port and one via internal header)	N/A	Two IEEE 1394a ports (one external port and one via internal header)
Storage	Three SATA ports (3.0 Gb/s) with one port compatible with eSATA extension, two SATA ports (6.0 Gb/s), and one eSATA back panel port (3.0 Gb/s)	Two SATA ports (3.0 Gb/s) and one eSATA back panel port (3.0 Gb/s)	Two SATA ports (3.0 Gb/s), two SATA ports (6.0 Gb/s), and one eSATA back panel port (3.0 Gb/s)
RAID	Intel® Rapid Storage Technology for RAID 0, 1, 5, and 10	N/A	Intel® Rapid Storage Technology for RAID 0, 1, 5, and 10
Onboard LAN	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection Integrated NIC
Trusted Platform Module	N/A	N/A	N/A
Lead Free	Yes	Yes	Yes
Software	Intel® Core Utilities Bundle ⁸ Intel® Desktop Utilities ESET* Smart Security 4 Laplink* PCmover Express* LucidLogix* Virtu* GPU Virtualization	Intel® Core Utilities Bundle ⁸ Intel® Desktop Utilities ESET* Smart Security 4 Laplink* PCmover Express*	Intel® Desktop Utilities Intel® Integrator Toolkit 5 Intel® Visual BIOS Dolby® Home Theater ESET* Smart Security McAfee* AntiVirus Plus Splashtop* Remote Desktop
BIOS	BIOS Vault Technology	BIOS Vault Technology	N/A
Windows* and WHQL Support	Windows Vista* Premium Windows* 7	Windows Vista* Premium Windows* 7	Windows* 7
Warranty	3 year limited warranty	3 year limited warranty	3 year limited warranty

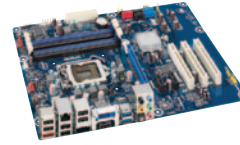
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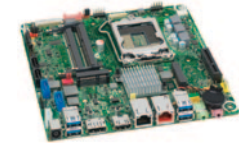
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	Intel® Desktop Board DH77KC	Intel Desktop Board DH77EB	Intel® Desktop Board DH67CF
Product Family	Intel® Desktop Board DH77KC	Intel Desktop Board DH77EB	Intel® Desktop Board DH67CF
Form Factor	ATX	MicroATX	Mini-ITX
Product Code / UPC	BOXDH77KC / 00735858241830	BOXDH77EB / 00735858241793	BOXDH67CF / 00735858216999
10-pack Product Code / UPC	BLKDH77KC / 00735858241854	BLKDH77EB / 00735858241816	BLKDH67CF / 00735858216944
Processor Support	2nd and 3rd Gen Intel® Core™ i7, Intel® Core™ i5, and other Intel® processors in the LGA1155 package	2nd and 3rd Gen Intel® Core™ i7, Intel® Core™ i5, and other Intel® processors in the LGA1155 package	Intel® Core™ i7², Intel® Core™ i5, and Intel® Core™ i3 processors in the LGA1155 package
Chipset	Intel® H77 Express Chipset	Intel® H77 Express Chipset	Intel® H67 Express Chipset
Supports HT Technology ³	Yes	Yes	Yes
Integrated Graphics Core ¹	Intel® HD Graphics (DisplayPort* + HDMI* + DVI-I)	Intel® HD Graphics (DisplayPort* + HDMI* + DVI-I)	Intel® HD Graphics (DisplayPort* + HDMI* + DVI-I)
Discrete Graphics Connector	One PCI Express* 3.0 x16 connector	One PCI Express* 3.0 x16 connector	One PCI Express* 2.0 x16 connector
Memory Support	Dual-channel DDR3 with four connectors for 1600 / 1333 MHz memory (32 GB ⁶ max)	Dual-channel DDR3 with four connectors for 1600 / 1333 MHz memory (32 GB ⁶ max)	Dual-channel DDR3 with two connectors for 1333 / 1066 MHz memory (16 GB ⁶ max) 1.2 V to 1.8 V memory voltage control for max DIMM compatibility
Expansion Connectors	One PCI Express Mini Card connector with support for mSATA Solid-State Drive and dual-channel TV tuner card, one PCI Express 2.0 x1 connector, one PCI Express 2.0 x4 connector, and three PCI connectors	One PCI Express Mini Card connector with support for mSATA Solid-State Drive and three PCI Express 2.0 x1 connectors	N/A
Audio ⁴	Ten-channel Intel® High Definition Audio	Ten-channel Intel® High Definition Audio	Ten-channel Intel® High Definition Audio
USB Ports	Ten Hi-Speed USB 2.0 ports (four external ports, four additional ports via internal headers, and two ports via PCI Express Mini Card connector) and four USB 3.0 ports	Ten Hi-Speed USB 2.0 ports (four external ports and six additional ports via internal headers) and four USB 3.0 ports	Ten Hi-Speed USB 2.0 ports (four external ports and six additional ports via internal headers) and two USB 3.0 ports
1394 Ports	N/A	N/A	N/A
Storage	Three SATA ports (3.0 Gb/s) (one port shared with PCI Express Mini Card connector), two SATA ports (6.0 Gb/s), and one eSATA back panel port (3.0 Gb/s)	Three SATA ports (3.0 Gb/s) (one port shared with PCI Express Mini Card connector), two SATA ports (6.0 Gb/s), and one eSATA back panel port (3.0 Gb/s)	Two SATA ports (3.0 Gb/s) with one port compatible with eSATA extension, two SATA ports (6.0 Gb/s), and one eSATA back panel port (3.0 Gb/s)
RAID	Intel® Rapid Storage Technology for RAID 0, 1, 5, and 10	Intel® Rapid Storage Technology for RAID 0, 1, 5, and 10	Intel® Rapid Storage Technology for RAID 0, 1, 5, and 10
Onboard LAN	Intel® PRO 10/100/1000 Network Connection Integrated NIC	Intel® PRO 10/100/1000 Network Connection Integrated NIC	Intel® PRO 10/100/1000 Network Connection Integrated NIC
Trusted Platform Module	N/A	N/A	N/A
Lead Free	Yes	Yes	Yes
Software	Intel® Desktop Utilities Intel® Integrator Toolkit 5 Intel® Visual BIOS ESET® Smart Security LucidLogix® Universal McAfee® AntiVirus Plus Splashtop® Remote Desktop	Intel® Desktop Utilities Intel® Integrator Toolkit 5 Intel® Visual BIOS ESET® Smart Security LucidLogix® Universal McAfee® AntiVirus Plus Splashtop® Remote Desktop	Intel® Core Utilities Bundle ⁸ Intel® Desktop Utilities ESET® Smart Security 4 Laplink® PCmover Express*
BIOS	N/A	N/A	N/A
Windows® and WHQL Support	Windows® 7	Windows® 7	Windows Vista® Premium
Warranty	3 year limited warranty	3 year limited warranty	3 year limited warranty



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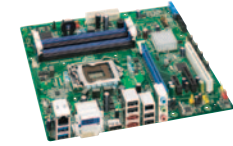


	Intel® Desktop Board DH67BL	Intel® Desktop Board DH67CL	Intel® Desktop Board DQ77KB
Product Family	Intel® Desktop Board DH67BL	Intel® Desktop Board DH67CL	Intel® Desktop Board DQ77KB
Form Factor	MicroATX	ATX	Thin Mini-ITX
Product Code / UPC	BOXDH67BL / 00735858216975	BOXDH67CL / 00735858217019	BOXDQ77KB / 00735858240796
10-pack Product Code / UPC	BLKDH67BL / 00735858216937	BLKDH67CL / 00735858216951	BLKDQ77KB / 00735858240819
Processor Support	Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3 processors in the LGA1155 package	Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3 processors in the LGA1155 package	Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3 processors in the LGA1155 package
Chipset	Intel® H67 Express Chipset	Intel® H67 Express Chipset	Intel® Q77 Express Chipset
Supports HT Technology³	Yes	Yes	Yes
Integrated Graphics Core¹	Intel® HD Graphics (HDMI* + DVI-I)	Intel® HD Graphics (HDMI* + DVI-I)	Intel® HD Graphics (eDisplayPort* + DisplayPort* + HDMI* + LVDS)
Discrete Graphics Connector	One PCI Express* 2.0 x16 connector	One PCI Express* 2.0 x16 connector	One PCI Express* 3.0 x16 connector
Memory Support	Dual-channel DDR3 with four connectors for 1333 / 1066 MHz memory (32 GB ⁶ max) 1.2 V to 1.8 V memory voltage control for max DIMM compatibility	Dual-channel DDR3 with four connectors for 1333 / 1066 MHz memory (32 GB ⁶ max) 1.2 V to 1.8 V memory voltage control for max DIMM compatibility	Dual-channel DDR3 with two connectors for 1600 / 1333 MHz memory (16 GB ⁶ max)
Expansion Connectors	Two PCI Express 2.0 x1 connectors and one PCI connector	Two PCI Express 2.0 x1 connectors and three PCI connectors	One PCI Express 2.0 x4 connector and two PCI Express Mini Card connectors
Audio⁴	Ten-channel Intel® High Definition Audio	Ten-channel Intel® High Definition Audio	Four-channel Intel® High Definition Audio codec with multi-streaming support
USB Ports	Fourteen Hi-Speed USB 2.0 ports (six external ports and eight additional ports via internal headers) and two USB 3.0 ports	Fourteen Hi-Speed USB 2.0 ports (six external ports and eight additional ports via internal headers) and two USB 3.0 ports	Five Hi-Speed USB 2.0 ports (via internal headers) and four USB 3.0 ports (back panel ports)—two ports support high current
1394 Ports	N/A	N/A	
Storage	Three SATA ports (3.0 Gb/s) with one port compatible with eSATA extension, two SATA ports (6.0 Gb/s), and one eSATA back panel port (3.0 Gb/s)	Three SATA ports (3.0 Gb/s) with one port compatible with eSATA extension, two SATA ports (6.0 Gb/s), and one eSATA back panel port (3.0 Gb/s)	Two SATA ports (6.0 Gb/s) and two SATA ports (3.0 Gb/s)
RAID	Intel® Rapid Storage Technology for RAID 0, 1, 5, and 10	Intel® Rapid Storage Technology for RAID 0, 1, 5, and 10	Intel® Rapid Storage Technology for RAID 0, 1, 5, and 10
Onboard LAN	Intel® PRO 10/100/1000 Network Connection Integrated NIC	Intel® PRO 10/100/1000 Network Connection Integrated NIC	Dual Intel® PRO 10/100/1000 Network Connection
Trusted Platform Module	N/A	N/A	Yes (discrete)
Lead Free	Yes	Yes	Yes
Software	Intel® Core Utilities Bundle ⁸ Intel® Desktop Utilities ESET® Smart Security 4 Laplink® PCmover Express* LucidLogix® Virtu® GPU Virtualization	Intel® Core Utilities Bundle ⁸ Intel® Desktop Utilities ESET® Smart Security 4 Laplink® PCmover Express* LucidLogix® Virtu® GPU Virtualization	Intel® Desktop Utilities Intel® Identity Protection Technology Intel® Integrator Toolkit 5 Intel® Visual BIOS ESET® Smart Security Laplink® PCmover Professional* McAfee® AntiVirus Plus RealVNC® Viewer Plus Spiceworks® IT Desktop Splashtop® Remote Desktop
BIOS	N/A	N/A	N/A
Windows* and WHQL Support	Windows Vista* Premium Windows* 7	Windows Vista* Premium Windows* 7	Windows* 7 WHQL certified with plans to support Windows* 8
Warranty	3 year limited warranty	3 year limited warranty	3 year limited warranty

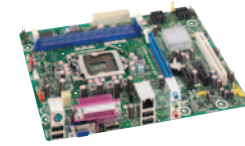
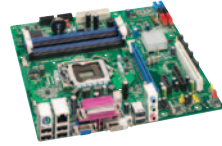
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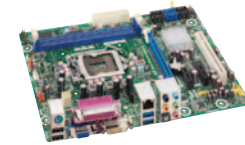
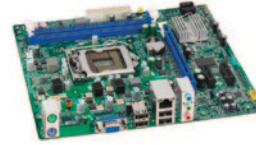
	Intel® Desktop Board DQ77MK	Intel® Desktop Board DB75EN	Intel® Desktop Board DQ67SW
Product Family	Intel® Desktop Board DQ77MK	Intel® Desktop Board DB75EN	Intel® Desktop Board DQ67SW
Form Factor	MicroATX	MicroATX	MicroATX
Product Code / UPC	BOXDQ77MK / 00735858240727	BOXDB75EN / 00735858240536	BOXDQ67SWB3 / 00735858221177
10-pack Product Code / UPC	BLKDQ77MK / 00735858240734	BLKDB75EN / 00735858240550	BLKDQ67SWB3 / 00735858221184
Processor Support	Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3 processors in the LGA1155 package	Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3 processors in the LGA1155 package	Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3 processors in the LGA1155 package
Chipset	Intel® Q77 Express Chipset	Intel® B75 Express Chipset	Intel® Q67 Express Chipset
Supports HT Technology ³	Yes	Yes	Yes
Integrated Graphics Core ¹	Intel® HD Graphics (DisplayPort* + DVI-D + DVI-I)	Intel® HD Graphics (DVI-D + VGA)	Intel® HD Graphics (DisplayPort* + DVI-D + DVI-I)
Discrete Graphics Connector	One PCI Express* 3.0 x16 connector	One PCI Express* 3.0 x16 connector	One PCI Express* x16 connector
Memory Support	Dual-channel DDR3 with four connectors for 1600 / 1333 MHz memory (32 GB ⁶ max)	Dual-channel DDR3 with four connectors for 1600 / 1333 MHz memory (32 GB ⁶ max)	Dual-channel DDR3 with four connectors for 1333 / 1066 / 800 MHz memory (32 GB ⁶ max)
Expansion Connectors	One Mini PCI Express connector, one PCI Express 2.0 x4 connector, one PCI Express 2.0 x1 connector, and one PCI connector	One PCI Express 2.0 x1 connector and two PCI connectors	One PCI Express 2.0 x4 connector, one PCI Express 2.0 x1 connector, and one PCI connector
Audio ⁴	Eight-channel Intel® High Definition Audio Codec with multi-streaming support	Eight-channel Intel® High Definition Audio	Eight-channel Intel® High Definition Audio
USB Ports	Eight Hi-Speed USB 2.0 ports (four external ports; two support high power, four ports via internal header) and four USB 3.0 ports	Eight Hi-Speed USB 2.0 ports (four external ports and four additional ports via internal headers) and four USB 3.0 ports	Twelve Hi-Speed USB 2.0 ports (four external ports and eight additional ports via internal headers) and two USB 3.0 ports
1394 Ports	Two IEEE 1394a ports (one external port and one via internal header)	N/A	Two IEEE 1394a ports (one external port and one via internal header)
Storage	Two SATA ports (6.0 Gb/s), three SATA (3.0 Gb/s), and one eSATA back panel port (3.0 Gb/s)	One SATA port (6.0 Gb/s), three SATA ports (3.0 Gb/s), and one eSATA port (3.0 Gb/s)	Two SATA ports (3.0 Gb/s), two SATA ports (6.0 Gb/s), and two eSATA back panel ports (3.0 Gb/s)
RAID	Intel® Rapid Storage Technology for RAID 0, 1, 5, and 10	N/A	Intel® Rapid Storage Technology for RAID 0, 1, 5, and 10
Onboard LAN	Dual Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection
Trusted Platform Module	Yes (discrete)	Yes (discrete)	Yes (discrete)
Lead Free	Yes	Yes	Yes
Software	Intel® Desktop Utilities Intel® Identity Protection Technology Intel® Integrator Toolkit 5 Intel® Visual BIOS ESET® Smart Security Laplink® PCmover Professional* McAfee® AntiVirus Plus RealVNC® Viewer Plus Spiceworks® IT Desktop SplashTop® Remote Desktop	Intel® Desktop Utilities Intel® Integrator Toolkit 5 Intel® Visual BIOS ESET® Smart Security Laplink® PCmover Professional* McAfee® AntiVirus Plus RealVNC® Viewer Plus Spiceworks® IT Desktop SplashTop® Remote Desktop	Intel® Core Utilities Bundle ⁹ Intel® Desktop Utilities ESET® Smart Security 4 Laplink® PCmover Professional* RealVNC® Viewer Plus Spiceworks® IT Desktop Wave® EMBASSY® Security Center
BIOS	N/A	N/A	BIOS Vault Technology
Windows® and WHQL Support	Windows® 7 WHQL certified with plans to support Windows® 8	Windows® 7 WHQL certified with plans to support Windows® 8	Windows Vista® Premium Windows® 7
Warranty	3 year limited warranty	3 year limited warranty	3 year limited warranty



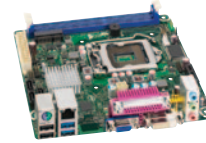
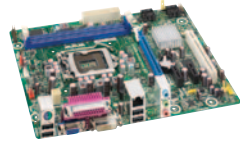
	Intel® Desktop Board DQ670W	Intel® Desktop Board DQ67EP	Intel® Desktop Board DH61ZE
Product Family	Intel® Desktop Board DQ670W	Intel® Desktop Board DQ67EP	Intel® Desktop Board DH61ZE
Form Factor	MicroATX	Mini-ITX	MicroATX
Product Code / UPC	BOXDQ670WB3 / 00735858221221	BOXDQ67EPB3 / 00735858221269	BOXDH61ZE / 00735858224710
10-pack Product Code / UPC	BLKDQ670WB3 / 00735858221238	BLKDQ67EPB3 / 00735858221276	BLKDH61ZE / 00735858224727
Processor Support	Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3 processors in the LGA1155 package	Intel® Core™ i5 and Intel® Core™ i3 processors in the LGA1155 package	Intel® Core™ i7, Intel® Core™ i5, and other Intel® processors in the LGA1155 package
Chipset	Intel® Q67 Express Chipset	Intel® Q67 Express Chipset	Intel® H61 Express Chipset
Supports HT Technology³	Yes	Yes	Yes
Integrated Graphics Core¹	Intel® HD Graphics (DVI-D + VGA)	Intel® HD Graphics (DisplayPort* + DVI-D + DVI-I)	Intel® HD Graphics (HDMI* + VGA)
Discrete Graphics Connector	One PCI Express* x16 connector	One PCI Express* x16 connector	One PCI Express* x16 connector
Memory Support	Dual-channel DDR3 with four connectors for 1333 / 1066 / 800 MHz memory (32 GB ⁶ max)	Dual-channel DDR3 with four connectors for 1333 / 1066 / 800 MHz memory (32 GB ⁶ max)	Dual-channel DDR3 with four connectors for 1333 / 1066 / 800 MHz memory (8 GB ⁶ max)
Expansion Connectors	One PCI Express 2.0 x4 connector, one PCI Express 2.0 x1 connector, and one PCI connector	One PCI Express* 2.0 x1 connector and one PCI Express Mini Card connector (half length)	Two PCI Express 2.0 x1 connectors and one PCI connector
Audio⁴	Eight-channel Intel® High Definition Audio	Eight-channel Intel® High Definition Audio	Six-channel Intel® High Definition Audio
USB Ports	Fourteen Hi-Speed USB 2.0 ports (six external ports and eight additional ports via internal headers)	Ten Hi-Speed USB 2.0 ports (four external ports and six additional ports via internal headers) and two USB 3.0 ports	Ten Hi-Speed USB 2.0 ports (four external ports and six additional ports via internal headers)
1394 Ports	N/A	N/A	N/A
Storage	Two SATA ports (3.0 Gb/s) with two ports compatible with eSATA extension, and two SATA ports (6.0 Gb/s)	Two SATA ports (3.0 Gb/s), two SATA ports (6.0 Gb/s), and two eSATA back panel ports (3.0 Gb/s)	Four SATA ports (3.0 Gb/s)
RAID	Intel® Rapid Storage Technology for RAID 0, 1, 5, and 10	Intel® Rapid Storage Technology for RAID 0, 1, 5, and 10	N/A
Onboard LAN	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection
Trusted Platform Module	Yes (discrete)	Yes (discrete)	N/A
Lead Free	Yes	Yes	Yes
Software	Intel® Core Utilities Bundle ⁸ Intel® Desktop Utilities ESET* Smart Security 4 Laplink* PCmover Professional* RealVNC* Viewer Plus Spiceworks* IT Desktop Wave* EMBASSY* Security Center	Intel® Core Utilities Bundle ⁸ Intel® Desktop Utilities ESET* Smart Security 4 Laplink* PCmover Professional* RealVNC* Viewer Plus Spiceworks* IT Desktop Wave* EMBASSY* Security Center	Intel® Desktop Utilities Intel® Identity Protection Technology Intel® Integrator Assistant ESET* Smart Security 4 Laplink* PCmover Express*
BIOS	BIOS Vault Technology	BIOS Vault Technology	BEH6110H.86A
Windows* and WHQL Support	Windows Vista* Premium Windows* 7	Windows Vista* Premium Windows* 7	Windows* WHQL certified
Warranty	3 year limited warranty	3 year limited warranty	3 year limited warranty



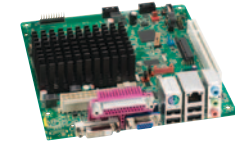
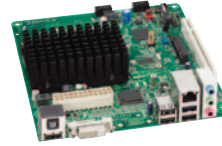
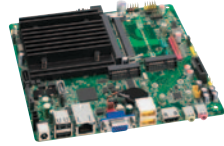
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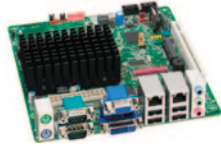
	Intel® Desktop Board DH61SA	Intel® Desktop Board DH61HO	Intel® Desktop Board DH61BE
Product Family	Intel® Desktop Board DH61SA	Intel® Desktop Board DH61HO	Intel® Desktop Board DH61BE
Form Factor	MicroATX	MicroATX	MicroATX
Product Code / UPC	BOXDH61SA / 00735858223638	BOXDH61HO / 00735858247870	BOXDH61BEB3 / 00735858220910
10-pack Product Code / UPC	BLKDH61SA / 00735858223645	BLKDH61HO / 00735858247894	BLKDH61BEB3 / 00735858220927
Processor Support	Intel® Core™ i7, Intel® Core™ i5, and other Intel® processors in the LGA1155 package	2nd and 3rd Gen Intel® Core™ i7, Intel® Core™ i5, and other Intel® processors in the LGA1155 package (65 W TDP)	Intel® Core™ i7, Intel® Core™ i5, and other Intel® processors in the LGA1155 package
Chipset	Intel® H61 Express Chipset	Intel® H61 Express Chipset	Intel® H61 Express Chipset
Supports HT Technology ³	Yes	Yes	Yes
Integrated Graphics Core ¹	Intel® HD Graphics (VGA)	Intel® HD Graphics (VGA)	Intel® HD Graphics (DVI-D + VGA)
Discrete Graphics Connector	N/A	One PCI Express* x16 connector	One PCI Express* x16 connector
Memory Support	Dual-channel DDR3 with two connectors for 1333 / 1066 MHz memory (8 GB ⁵ max)	Dual-channel DDR3 with two connectors for 1333 / 1066 / 800 MHz memory (16 GB ⁵ max)	Dual-channel DDR3 with two connectors for 1333 / 1066 / 800 MHz memory (16 GB ⁵ max)
Expansion Connectors	One PCI Express* 2.0 x1 connector and one PCI connector	Two PCI Express 2.0 x1 connectors	Two PCI Express 2.0 x1 connectors and one PCI connector
Audio ⁴	Six-channel Intel® High Definition Audio (three back panel analog ports)	Six-channel Intel® High Definition Audio	Eight-channel Intel® High Definition Audio
USB Ports	Six USB 2.0 ports (four external ports and two additional ports via internal headers) and two USB 3.0 ports	Eight Hi-Speed USB 2.0 ports (four external ports and four additional ports via internal headers)	Ten Hi-Speed USB 2.0 ports (two external ports and eight additional ports via internal headers) and two USB 3.0 ports
1394 Ports	N/A	N/A	N/A
Storage	Two SATA ports (3.0 Gb/s)	Two SATA ports (3.0 Gb/s)	Four SATA ports (3.0 Gb/s) and two SATA ports (6.0 Gb/s)
RAID	N/A	N/A	N/A
Onboard LAN	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection
Trusted Platform Module	N/A	N/A	N/A
Lead Free	Yes	Yes	Yes
Software	Intel® Core Utilities Bundle ⁶ Intel® Desktop Utilities ESET* Smart Security 4 Laplink* PCmover Express*	Intel® Desktop Utilities Intel® Identity Protection Technology Intel® Integrator Assistant Intel® Integrator Toolkit ESET* Smart Security LapLink* PCmover Express* McAfee* AntiVirus Plus Splashtop* Remote Desktop	Intel® Core Utilities Bundle ⁶ Intel® Desktop Utilities ESET* Smart Security 4 Laplink* PCmover Express*
BIOS	BEH6110H.86A	N/A	BIOS Vault Technology
Windows* and WHQL Support	Windows* WHQL certified	Windows* 7	Windows Vista* Premium Windows* 7
Warranty	3 year limited warranty	3 year limited warranty	3 year limited warranty



	Intel® Desktop Board DH61CR	Intel® Desktop Board DH61DL	Intel® Desktop Board DH61WW
Product Family	Intel® Desktop Board DH61CR	Intel® Desktop Board DH61DL	Intel® Desktop Board DH61WW
Form Factor	MicroATX	Mini-ITX	MicroATX
Product Code / UPC	BOXDH61CRB3 / 00735858220880	BOXDH61DLB3 / 00735858220941	BOXDH61WWB3 / 00735858220859
10-pack Product Code / UPC	BLKDH61CRB3 / 00735858220897	BLKDH61DLB3 / 00735858220958	BLKDH61WWB3 / 00735858220866
Processor Support	Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3 processors in the LGA1155 package	Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3 processors in the LGA1155 package	Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3 processors in the LGA1155 package
Chipset	Intel® H61 Express Chipset	Intel® H61 Express Chipset	Intel® H61 Express Chipset
Supports HT Technology³	Yes	Yes	Yes
Integrated Graphics Core¹	Intel® HD Graphics (DVI-D + VGA)	Intel® HD Graphics (DVI-D + VGA)	Intel® HD Graphics (VGA)
Discrete Graphics Connector	One PCI Express* x16 connector	N/A	One PCI Express* x16 connector
Memory Support	Dual-channel DDR3 with two connectors for 1333 / 1066 / 800 MHz memory (16 GB ⁵ max)	Dual-channel DDR3 with two connectors for 1333 / 1066 / 800 MHz memory (16 GB ⁵ max)	Dual-channel DDR3 with two connectors for 1333 / 1066 / 800 MHz memory (16 GB ⁵ max)
Expansion Connectors	Two PCI Express 2.0 x1 connectors and one PCI connector	One PCI Express* 2.0 x1 connector and one PCI Express Mini Card connector (full length)	One PCI Express 2.0 x1 connector and one PCI connector
Audio⁴	Six-channel Intel® High Definition Audio	Six-channel Intel® High Definition Audio	Six-channel Intel® High Definition Audio
USB Ports	Ten Hi-Speed USB 2.0 ports (four external ports and six additional ports via internal headers)	Eight Hi-Speed USB 2.0 ports (two external ports and six additional ports via internal headers) and two USB 3.0 ports	Six Hi-Speed USB 2.0 ports (four external ports and two additional ports via internal headers)
1394 Ports	N/A	N/A	N/A
Storage	Four SATA ports (3.0 Gb/s)	Three SATA ports (3.0 Gb/s)	Four SATA ports (3.0 Gb/s)
RAID	N/A	N/A	N/A
Onboard LAN	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection
Trusted Platform Module	N/A	N/A	N/A
Lead Free	Yes	Yes	Yes
Software	Intel® Core Utilities Bundle ⁶ Intel® Desktop Utilities ESET* Smart Security 4 Laplink* PCmover Express*	Intel® Core Utilities Bundle ⁶ Intel® Desktop Utilities ESET* Smart Security 4 Laplink* PCmover Express*	Intel® Core Utilities Bundle ⁶ Intel® Desktop Utilities ESET* Smart Security 4 Laplink* PCmover Express*
BIOS	BIOS Vault Technology	BIOS Vault Technology	BIOS Vault Technology
Windows* and WHQL Support	Windows Vista* Premium Windows* 7	Windows Vista* Premium Windows* 7	Windows Vista* Premium Windows* 7
Warranty	3 year limited warranty	3 year limited warranty	3 year limited warranty



	Intel® Desktop Board DN2800MT	Intel® Desktop Board D2700DC	Intel® Desktop Board D2700MUD
Product Family	Thin Mini-ITX	Mini-ITX	Mini-ITX
Form Factor			
Product Code / UPC	BOXDN2800MT / 00735858240376	BOXD2700DC / 00735858221672	BOXD2700MUD / 00735858221610
10-pack Product Code / UPC	BLKDN2800MT / 00735858240383	BLKD2700DC / 00735858221689	BLKD2700MUD / 00735858221627
Processor Support	Intel® Atom™ processor N2800 integrated	Intel® Atom™ processor D2700 integrated	Intel® Atom™ processor D2700 integrated
Chipset	Intel® NM10 Express Chipset	Intel® NM10 Express Chipset	Intel® NM10 Express Chipset
Supports HT Technology³	Yes	Yes	Yes
Integrated Graphics Core¹	Intel® Graphics Media Accelerator 3650 (Embedded DisplayPort* + HDMI* + VGA + LVDS)	Intel® Graphics Media Accelerator 3650 (HDMI* + DVI)	Intel® Graphics Media Accelerator 3650 (DVI + VGA)
Discrete Graphics Connector	N/A	N/A	N/A
Memory Support	DDR3 with two SODIMM connectors for 1066 / 800 MHz memory (4 GB ⁵ max)	DDR3 with two SODIMM connectors for 1066 / 800 MHz memory (4 GB ⁵ max)	DDR3 with two SODIMM connectors for 1066 / 800 MHz memory (4 GB ⁵ max)
Expansion Connectors	One PCI Express* 2.0 x1 connector and two PCI Express Mini Card connectors	One PCI connector and one PCI Express* Mini Card connector	One PCI connector and one PCI Express* Mini Card connector
Audio⁴	Four-channel Intel® High Definition Audio	Six-channel Intel® High Definition Audio	Six-channel Intel® High Definition Audio
USB Ports	Eight Hi-Speed USB 2.0 ports (four external ports and four additional ports via internal headers)	Seven Hi-Speed USB 2.0 ports (four external ports and three additional ports via internal headers)	Seven Hi-Speed USB 2.0 ports (four external ports and three additional ports via internal headers)
1394 Ports	N/A	N/A	N/A
Storage	Two SATA ports (3.0 Gb/s)	Two SATA ports (3.0 Gb/s)	Two SATA ports (3.0 Gb/s)
RAID	N/A	N/A	N/A
Onboard LAN	Integrated 10/100/1000 Network Connection	Integrated 10/100/1000 Network Connection	Integrated 10/100/1000 Network Connection
Trusted Platform Module	N/A	N/A	Yes
Lead Free	Yes	Yes	Yes
Software	Intel AppUp™ Intel® Integrator Assistant ESET* Smart Security 4 Laplink* PCmover Express* Spiceworks* System Manageability*	Intel AppUp™ Intel® Integrator Assistant ESET* Smart Security 4 Laplink* PCmover Express* Spiceworks* System Manageability*	Intel AppUp™ Intel® Integrator Assistant ESET* Smart Security 4 Laplink* PCmover Express* Spiceworks* System Manageability*
BIOS	Intel® Easy Update Intel® Fast Boot Intel® Smart Recovery Unified Firmware Interface (UEFI)	Intel® Easy Update Intel® Fast Boot Intel® Smart Recovery Unified Firmware Interface (UEFI)	Intel® Easy Update Intel® Fast Boot Intel® Smart Recovery Unified Firmware Interface (UEFI)
Windows* and WHQL Support	Windows* WHQL certified	Windows* WHQL certified	Windows* WHQL certified
Warranty	3 year limited warranty	3 year limited warranty	3 year limited warranty



	Intel® Desktop Board D2500CC	Intel® Desktop Board D2500HN
Product Family	Intel® Desktop Board D2500CC	Intel® Desktop Board D2500HN
Form Factor	Mini-ITX	Mini-ITX
Product Code / UPC	N/A	BOXD2500HN / 00735858221733
10-pack Product Code / UPC	BLKD2500CC / 00735858223935	BLKD2500HN / 00735858221740
Processor Support	Intel® Atom™ processor D2500 integrated	Intel® Atom™ processor D2500 integrated
Chipset	Intel® NM10 Express Chipset	Intel® NM10 Express Chipset
Supports HT Technology ³	N/A	N/A
Integrated Graphics Core ¹	Intel® Graphics Media Accelerator 3600 (DVI-I + VGA + LVDS)	Intel® Graphics Media Accelerator 3600 (VGA)
Discrete Graphics Connector	N/A	N/A
Memory Support	DDR3 with two SODIMM connectors for 1066 / 800 MHz memory (4 GB ⁶ max)	DDR3 with two SODIMM connectors for 1066 / 800 MHz memory (4 GB ⁶ max)
Expansion Connectors	One PCI connector and one PCI Express* Mini Card connector	One PCI connector
Audio ⁴	Eight-channel Intel® High Definition Audio	Four-channel Intel® High Definition Audio
USB Ports	Seven Hi-Speed USB 2.0 ports (four external ports and three additional ports via internal headers)	Eight Hi-Speed USB 2.0 ports (four external ports and four additional ports via internal headers)
1394 Ports	N/A	N/A
Storage	Two SATA ports (3.0 Gb/s)	Two SATA ports (3.0 Gb/s)
RAID	N/A	N/A
Onboard LAN	Dual Integrated 10/100/1000 Network Connection	Integrated 10/100/1000 Network Connection
Trusted Platform Module	Yes	N/A
Lead Free	Yes	Yes
Software	Intel AppUp™ Intel® Integrator Assistant ESET* Smart Security 4 Laplink* PCmover Express* Spiceworks* System Manageability*	Intel AppUp™ Intel® Integrator Assistant ESET* Smart Security 4 Laplink* PCmover Express* Spiceworks* System Manageability*
BIOS	Intel® Easy Update Intel® Fast Boot Intel® Smart Recovery Unified Firmware Interface (UEFI)	Intel® Easy Update Intel® Fast Boot Intel® Smart Recovery Unified Firmware Interface (UEFI)
Windows* and WHQL Support	Windows* WHQL certified	Windows* WHQL certified
Warranty	3 year limited warranty	3 year limited warranty

For more information, visit www.intel.com/desktopboards

¹ Requires a processor with Intel® HD Graphics.

² Requires a custom thermal solution—Pairing a mini-ITX chassis with the thermal solution supplied with an Intel® Core™ i7 processor will not meet the thermal requirements of an Intel Core i7 processor. Therefore, before pairing the Intel® Desktop Board DH67CF or Intel® Desktop Board DQ67EP with an Intel Core i7 processor, verify that your thermal solution and chassis will meet the necessary thermal requirements. Failing to do so will cause the processor to throttle, significantly decreasing system performance.

³ Intel® Hyper-Threading Technology requires a computer system with a processor supporting HT Technology and an HT Technology-enabled chipset, BIOS, and operating system. Performance will vary depending on the specific hardware and software you use. For more information including details on which processors support HT Technology, see www.intel.com/info/hyperthreading

⁴ Intel® High Definition Audio requires a system with an appropriate Intel® chipset and a motherboard with an appropriate codec and the necessary drivers installed. System sound quality will vary depending on actual implementation, controller, codec, drivers, and speakers. For more information about Intel® HD Audio, refer to www.intel.com/design/chipsets/hdaudio.htm

⁵ Warning: Altering clock frequency and/or voltage may (i) reduce system stability and useful life of the system and processor; (ii) cause the processor and other system components to fail; (iii) cause reductions in system performance; (iv) cause additional heat or other damage; and (v) affect system data integrity. Intel has not tested, and does not warranty, the operation of the processor beyond its specifications.

⁶ System resources and hardware (such as PCI and PCI Express*) require physical memory address locations that can reduce available addressable system memory. This could result in a reduction of as much as 1 GB or more of physical addressable memory being available to the operating system and applications, depending on the system configuration and operating system.

⁷ Intel® Extreme Tuning Utility is only compatible with Intel® Desktop Boards based on the Intel® X38 Express Chipset and newer. Auto-tuning capabilities may not be available for all Extreme Series Desktop Boards.

⁸ The Intel® Core Utilities Bundle includes Intel® Integrator Assistant, Intel® Integrator Toolkit, Intel® Express Installer, and Intel® Express BIOS Update.

Intel® Desktop Boards may contain design defects or errors known as errata, which may cause the product to deviate from published specifications. Current characterized errata are available on request. All products and dates specified are preliminary based on current expectations and are subject to change without notice. Availability in different channels may vary.

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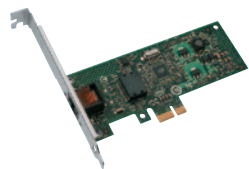
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Intel® Ethernet Desktop Adapters

Intel offers an award-winning line of Ethernet, Fast Ethernet, and Gigabit Ethernet desktop adapters. Choose from a variety of adapters designed to extend Gigabit Ethernet performance to the desktop, enhance desktop management, and provide flexible connectivity for your legacy PCs.

10/100/1000 Mb/s-OVER-COPPER



Intel® Gigabit CT Desktop Adapter



Intel® PRO/1000 GT Desktop Adapter

10/100 Mb/s-OVER-COPPER



Intel® PRO/100 M Desktop Adapter

	Intel® Gigabit CT Desktop Adapter	Intel® PRO/1000 GT Desktop Adapter	Intel® PRO/100 M Desktop Adapter
Product Code—Singles	EXPI9301CT	PWLA8391GT	PILA8460M
Product Code—Bulk Twenty Packs (Full-Height End Brackets)	EXPI9301CTBLK ¹	PWLA8391GTBLK	PILA8460MBLK20
Product Code—Bulk Twenty Packs (Low-Profile End Brackets)	EXPI9301CTBLK ¹	PWLA8391GTLBLK	N/A
Connector	1 RJ-45	1 RJ-45	1 RJ-45
Ethernet Controllers	Intel® 82574L	Intel® 82541PI	Intel® 82551QM
Bus Width and Type	PCI Express* x1	32-bit PCI 2.3	32-bit PCI 2.2

For more information, visit the Intel Web site at: www.intel.com/go/ethernet

¹ Full-height bracket installed, low-profile bracket added in package.

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Unlock your on-the-go computing experience with mobile-optimized processor technologies from Intel. Providing revolutionary levels of performance, long battery life, and expansive connectivity, along with enhanced security and manageability for business, Intel® technologies enable a powerful computing experience in sleek, thin, and light notebook designs.

INTEL® TURBO BOOST TECHNOLOGY 2.0¹

NEW	PROCESSOR NAME	PRODUCT CODE	BASE FREQ. (GHz)	MAX. SINGLE CORE TURBO (GHz)	MAX. DUAL CORE TURBO (GHz)	MAX. QUAD CORE TURBO (GHz)	GRAPHICS	GRAPHICS BASE / MAX. FREQ. (MHz)	DDR3 MEMORY (MHz)	DDR3L MEMORY (MHz)	L3 CACHE	TDP	PACKAGE / TYPE
INTEL® CORE™ i7 – EXTREME EDITION PROCESSORS													
✓	i7-3920XM	AW8063801009606	2.90	3.80	3.70	3.60	Intel® HD Graphics 4000	650 / 1300	1600	1600	8 MB	55 W	rPGA
INTEL® CORE™ i7 – QC PERFORMANCE PROCESSORS													
✓	i7-3820QM	BX80638I73820QM	2.70	3.70	3.60	3.50	Intel HD Graphics 4000	650 / 1250	1600	1600	8 MB	45 W	rPGA, BGA 1224
✓	i7-3720QM	BX80638I73720QM	2.60	3.60	3.50	3.40	Intel HD Graphics 4000	650 / 1250	1600	1600	6 MB	45 W	rPGA, BGA 1224
INTEL® CORE™ i7 – QC PROCESSORS													
✓	i7-3612QM	AV8063801130704	2.10	3.10	3	2.80	Intel HD Graphics 4000	650 / 1100	1600	1600	6 MB	35 W	rPGA, BGA 1224
✓	i7-3610QM	AW8063801013511	2.30	3.30	3.20	3.10	Intel HD Graphics 4000	650 / 1100	1600	1600	6 MB	45 W	rPGA 1224
✓	i7-3615QM	AV8063801013608	2.30	3.30	3.20	3.10	Intel HD Graphics 4000	650 / 1200	1600	1600	6 MB	45 W	BGA 1224
INTEL® CORE™ i7 – DC POWER-OPTIMIZED PERFORMANCE PROCESSORS													
✓	i7-3520M	AW8063801028703	2.90	3.60	3.40	N/A	Intel HD Graphics 4000	650 / 1250	1600	1600	4 MB	35 W	rPGA, BGA
INTEL® CORE™ i5 – DC POWER-OPTIMIZED PERFORMANCE PROCESSORS													
✓	i5-3360M	AW8063801031002	2.80	3.50	3.30	N/A	Intel HD Graphics 4000	650 / 1200	1600	1600	3 MB	35 W	rPGA, BGA
✓	i5-3320M	AW8063801031700	2.60	3.30	3.10	N/A	Intel HD Graphics 4000	650 / 1200	1600	1600	3 MB	35 W	rPGA, BGA
INTEL® CORE™ i5 – DC PROCESSORS													
✓	i5-3210M	AW8063801032301	2.50	3.10	2.90	N/A	Intel HD Graphics 4000	650 / 1100	1600	1600	3 MB	35 W	rPGA, BGA

NEW	PROCESSOR NAME	PRODUCT CODE	BASE FREQ. (GHz)	INTEL® TURBO BOOST TECHNOLOGY 2.0 ¹			GRAPHICS	GRAPHICS BASE / MAX. FREQ. (MHz)	DDR3 MEMORY (MHz)	DDR3L MEMORY (MHz)	L3 CACHE	TDP	PACKAGE / TYPE
				MAX. SINGLE CORE TURBO (GHz)	MAX. DUAL CORE TURBO (GHz)	MAX. QUAD CORE TURBO (GHz)							
INTEL® CORE™ i3 – DC PROCESSORS													
✓	i3-3110M	AV8063801032700	2.40	N/A	N/A	N/A	Intel® HD Graphics 4000	650 / 1000	1600	1600	3 MB	35 W	rPGA, BGA
INTEL® CORE™ i7 – ULTRA-LOW VOLTAGE PROCESSORS													
✓	i7-3667U	AV8063801057405	2	3.20	3	N/A	Intel HD Graphics 4000	350 / 1150	1600	1600	4 MB	17 W	BGA
✓	i7-3517U	AV8063801057605	1.90	3	2.80	N/A	Intel HD Graphics 4000	350 / 1150	1600	1600	4 MB	17 W	BGA
INTEL® CORE™ i5 – ULTRA-LOW VOLTAGE PROCESSORS													
✓	i5-3317U	AV8063801058002	1.70	2.60	2.40	N/A	Intel HD Graphics 4000	350 / 1050	1600	1600	3 MB	17 W	BGA
✓	i5-3427U	AV8063801057801	1.80	2.80	2.60	N/A	Intel HD Graphics 4000	350 / 1150	1600	1600	3 MB	17 W	BGA
INTEL® CORE™ i3 – ULTRA-LOW VOLTAGE PROCESSORS													
✓	i3-3217U	AV8063801058401	1.80	N/A	N/A	N/A	Intel HD Graphics 4000	350 / 1050	1600	1600	3 MB	17 W	BGA

For more information, visit www.intel.com/go/notebooks






¹ Intel® Turbo Boost Technology—maximum single-core turbo frequency (GHz). Intel Turbo Boost Technology requires a PC with a processor with Intel Turbo Boost Technology capability. Intel Turbo Boost Technology performance varies depending on hardware, software, and overall system configuration. Check with your PC manufacturer on whether your system delivers Intel Turbo Boost Technology. See www.intel.com/technology/turboboost for more information. Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. Visit www.intel.com/products/processor_number for more details. All products and dates specified are preliminary based on current expectations and are subject to change without notice. Availability in different channels may vary. Intel, the Intel logo, Intel Inside, Intel Core, and Core Inside are trademarks of Intel Corporation in the U.S. and other countries.

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Intel® Centrino® Wireless

Intel® Centrino® wireless networking solutions enable network connectivity without wires for notebook PC platforms. Intel® products provide uncompromising performance, enhanced security, and scalability for fast, flexible connectivity at work, home, or on the road.

SEGMENT	SIMPLE CONNECTIVITY		DUAL-STREAM		ADVANCED FEATURES		ULTIMATE
Intel® Centrino® Wireless (Intel Code Name)	Wireless-N 105 (Canyon Peak)	Wireless-N 135 (Canyon Peak + Bluetooth*)	Wireless-N 2200 (Marble Peak)	Wireless-N 2230 (Jackson Peak 1)	Advanced-N 6205 (Taylor Peak)	Advanced-N 6235 (Jackson Peak 2)	Ultimate-N 6300 (Puma Peak 3x3)
Speed Spatial Streams (Tx and Rx)	150 Mb/s (1x1)	150 Mb/s (1x1)	300 Mb/s (2x2)	300 Mb/s (2x2)	300 Mb/s (2x2)	300 Mb/s (2x2)	450 Mb/s (3x3)
Bands	Single Band - 2.40 GHz	Single Band - 2.40 GHz	Single Band - 2.40 GHz	Single Band - 2.40 GHz	Dual Band - 2.40 GHz and 5 GHz	Dual Band - 2.40 GHz and 5 GHz	Dual Band - 2.40 GHz and 5 GHz
Enterprise / SMB Features	Intel® PROSet for Windows* 7	Intel® PROSet for Windows* 7	Intel® PROSet for Windows* 7 Cisco* CCXv4	Intel® PROSet for Windows* 7 Cisco* CCXv4	Intel® PROSet for Windows* 7 Cisco* CCXv4	Intel® PROSet for Windows* 7 Cisco* CCXv4	Intel® PROSet for Windows* 7 Cisco* CCXv4
Intel® vPro™ Technology					✓	✓	✓
Intel® My WiFi Technology	✓	✓	✓	✓	✓	✓	✓
Intel® Wireless Display							
Laplink* PCsync* Software			✓	✓	✓	✓	✓
Intel® Smart Connect Technology			✓	✓	✓	✓	✓
Bluetooth*		 Bluetooth®		 Bluetooth®		 Bluetooth®	
Wi-Fi* Certification			 dual-stream n	 dual-stream n	 dual-stream n	 dual-stream n	 multi-stream n
Order Codes 100 pieces 10 pieces	105BN.HMWG 105BN.HMWWB	135BN.HMWG 135BN.HMWWB	2200BN.HMWG 2200BN.HMWWB	2230BN.HMWG 2230BN.HMWWB	62205AN.HMWG 62205AN.HMWWB	6235AN.HMWG 6235AN.HMWWB	633AN.HMWG 633AN.HMWWB

For more information, visit www.intel.com/go/wireless

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NEW SERVER PROCESSOR PRODUCT FAMILIES

INTEL® XEON® PROCESSOR E5-2600 / E5-1600 PRODUCT FAMILIES¹

IT organizations around the world are driving higher value into their businesses by virtualizing their data centers to reduce costs and adding automation to improve service levels, efficiency, and agility. Intel® Xeon® processor-based servers provide the foundation for this innovation. They account for the majority of all servers in today's virtualized data centers and clouds, and they also power many of today's highest-performing workstations. The Intel® Xeon® processor E5 family is at the heart of a flexible and efficient data center that meets diverse needs.

The latest Intel® Xeon® processor E5-2600 / E5-1600 product families take these advantages to new heights with up to 80 percent higher performance² than the prior generation and even better energy efficiency. These processors also include advanced technologies to help solve the storage, networking, and security challenges arising in today's increasingly dynamic computing environments.

INTEL® XEON® PROCESSOR E5-4600 PRODUCT FAMILY¹

Intel's new density and cost-optimized 4-socket (4S) processor extends the capabilities of the Intel Xeon processor E5 family, with up to a 75 percent performance boost than the Intel Xeon processor E5-2600 product family plus increased network and storage sharing efficiencies. The Intel® Xeon® processor E5-4600 product family dramatically reduces compute time with Intel® Advanced Vector Extensions (Intel® AVX), and with Intel® Integrated I/O latency is reduced while adding capacity and bandwidth.

INTEL® XEON® PROCESSOR E5-2400 PRODUCT FAMILY¹

The Intel® Xeon® processor E5-2400 product family provides up to three times more performance than Intel® Xeon® processor E3-1200 product family-based systems, supports larger applications and more users with additional storage and memory, and reduces operating costs with dependable, energy efficient 2-socket (2S) systems.

INTEL® XEON® PROCESSOR E3-1200 v2 PRODUCT FAMILY¹

The Intel® Xeon® Processor E3-1200 v2 product family is an affordable, reliable, and secure foundation for small business data storage and computing. Next-generation 22nm Intel® microarchitecture delivers enhanced performance and energy efficiency compared to previous generations and supports new security features like Intel® Secure Key and Intel® OS Guard technologies.





INTEL® SERVER BOARDS

GET POWERFUL. GET FLEXIBLE. GET EFFICIENT.

Discover a universe of possibilities with new Intel® Server Boards and Systems based on the Intel® Xeon® processor E3 and E5 families—the most complete line of Server Boards and Systems ever offered by Intel. With 19 different server board families to meet your needs—whether big or small, fast or faster, mainframe or mainstream—we have a server solution that’s right for you.

See our expanded lineup in the Server Board and Server System sections of this Matrix or online at intel.com/go/serverproducts

INTEL® SERVER SYSTEM R2000LH2 / LT2 (AVAILABLE Q3 2012)

PRE-ANNOUNCING INTEL’S FIRST GENERATION FOUR-SOCKET RACK SERVER BASED ON THE INTEL® XEON® PROCESSOR E5-4600 PRODUCT FAMILY

Incredible memory capacity of up to 1.5 terabytes and support for four Intel® Xeon® E5-4600 processors make the Intel® Server System R2000LH2 / LT2 the server of choice for dense, high-performance computing and enterprise applications. The R2000LH2 / LT2 excels at floating-point performance and performance per watt, and is perfect for cloud computing, virtualization, and databases. This system is thoroughly validated for PCI Express* Gen 3, has a maximum memory transfer rate of 1600 MHz at 32 DIMM configuration,² supports a range of hot-pluggable 80 PLUS* Platinum AC and DC power supplies, and is installed in a custom-designed chassis for best-in-class serviceability.



Product Name	Intel® Server System R2000LH2 / LT2
Description	Four-socket, incredibly dense and cost-optimized 2U rack system with excellent floating-point performance and performance-per-watt for enterprise and HPC applications utilizing the new Intel® Xeon® processor E5-4600 product family with support for Intel® MIC.
Target Market	Enterprise / HPC
System Form Factor	2U
Intel® Server Board Included	S4600LH2 or S4600LT2
Memory	48 DIMMs 16 channels
Drives	4 x 3.5" or 8 x 2.5" hot-swap
Module Upgrade	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module Intel® Trusted Platform Module
Available Systems	Intel® Server Systems R2208LH2HKC2, R2208LT2HKC4, R2304LH2HKC, R2304LT2FKC, R2304LT2HKC, R2304LT2HVC

UP TO 68 PERCENT LOWER PRICING ON INTEL® ON-SITE REPAIR FOR SERVERS

Expand your service area and increase your customer value with Intel® On-site Repair for Servers backed by qualified technicians supported by Intel. Now available in all 50 states and major cities in Canada, Intel On-site Repair for Servers with next business day on-site support helps you grow your business without increasing overhead and staffing costs. Check with your distributor for pricing and availability.

See the Server Services section of this matrix or contact EPSD.Service.Coordinator@intel.com for more information.

INTEL® SERVER BOARDS S1200KP AND S1200BT PRODUCT FAMILIES FULLY SUPPORT INTEL® XEON® PROCESSOR E3-1200 v2

Intel® Server Boards and Systems based on the Intel® Xeon® processor E3-1200 product family have been refreshed to support the Intel® Xeon® processor E3-1200 v2 processor upgrade and are ready to go. Be sure to order SKUs designated as refreshed ending with the code letter "R" as earlier board and system models will not support E3-1200 v2 processors. However, refreshed boards and systems will support both E3-1200 and E3-1200 v2 processors.

KEY BENEFITS TO UPGRADE:

- Up to 21 percent better performance and 32 percent more energy-efficient than previous generation
- 2x faster I/O bandwidth than previous generation with PCI Express* 3.0
- Supports faster memory (DDR3 1600 MHz) and storage technologies (SATA 3.0 Gb/s 4 ports and 6.0 Gb/s 2 ports)

See the Intel® Server / Workstation Processors section of this matrix for more information.

For more information, visit www.intel.com/xeon and www.intel.com/go/serverproducts

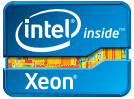
¹ Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. See www.intel.com/products/processor_number for details.

² Memory transfer rate of 1600 MHz is the full capacity of the Intel® Xeon® processor E5-4600.

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BETTER TOGETHER: RECOMMEND THE BEST INTEL® XEON® PROCESSOR AND INTEL® CHIPSET

SEGMENT	POSITIONING	RECOMMENDED PROCESSOR SERIES ¹	MAX. SOCKETS PER SYSTEM	NO. OF CORES	MAX. FREQ. ²	POWER	INTEL® QPI (GT/S) ³	CACHE	RECOMMENDED INTEL® CHIPSET
EXPANDABLE Leading performance, reliability, and scalability Target usage: Optimized for large enterprises, data centers, and server consolidation Recommended configuration: 4+ processors	Best	Intel® Xeon® processor E7 product family	Up to 8	Up to 10	2.66 GHz	95-130 W	Up to 6.40 GT/s	Up to 30 MB L3	Intel® 7500 Chipset
	Better	Intel® Xeon® processor E5-4600 product family	4	Up to 8	2.90 GHz	95-130 W	Up to 8 GT/s	Up to 20 MB L3 shared	Intel® C600 Chipset
EFFICIENT PERFORMANCE Energy efficient, cost effective Target usage: Optimized for general purpose servers (e-mail, Web, file, business applications), IT infrastructure virtualization, and cloud computing Recommended configuration: 2 processors	Best	Intel® Xeon® processor E5-2600 product family	2	Up to 8	3.10 GHz	60-150 W	Up to 8 GT/s	Up to 20 MB L3 shared	Intel® C600 Chipset
	Better	Intel® Xeon® processor E5-2400 product family	2	Up to 8	2.30 GHz	60-95 W	Up to 8 GT/s	Up to 20 MB L3 shared	Intel® C600 Chipset
	Good	Intel® Xeon® processor 5600 series	2	Up to 6	3.46 GHz	40-130 W	Up to 6.40 GT/s	Up to 12 MB L3 shared	Intel® 5520 Chipset
ENTRY Cost optimized Target usage: Small businesses with fewer than 100 employees, basic needs (e-mail, network, file / print) Recommended configuration: 1-2 processors	Best	Intel® Xeon® processor E5-2400 product family	2	Up to 8	2.30 GHz	60-95 W	Up to 5.86 GT/s	Up to 12 MB L3 shared	Intel® C600 Chipset
	Better	Intel® Xeon® processor E3-1200 v2 product family	1	4	3.70 GHz	17-95 W	N/A	Up to 8 MB Intel® Smart Cache	Intel® C202, C204, or C206 Chipset
	Good	Intel® Xeon® processor E3-1200 product family	1	4	3.50 GHz	20-95 W	N/A	Up to 8 MB Intel® Smart Cache	Intel® C202 or C204 Chipset

BETTER TOGETHER: RECOMMEND THE BEST INTEL® XEON® PROCESSOR AND INTEL® CHIPSET

SEGMENT	POSITIONING	RECOMMENDED PROCESSOR SERIES ¹	MAX. SOCKETS PER SYSTEM	NO. OF CORES	MAX. FREQ. ²	POWER	INTEL® QPI (GT/S) ³ / MAX. BUS (MHZ)	CACHE	RECOMMENDED INTEL® CHIPSET
HPC Optimized for high-performance analytics Target usage: Bandwidth-intensive applications, high-performance clusters, and complex computation	Best	Intel® Xeon® processor E7 product family	Up to 8	Up to 10	2.66 GHz	95-130 W	1066 MHz	Up to 30 MB L3	Intel® 7500 Chipset
	Better	Intel® Xeon® processor E5-2600 product family	2	Up to 8	3.10 GHz	60-150 W	Up to 8 GT/s	Up to 20 MB L3 shared	Intel® C600 Chipset
	Good	Intel® Xeon® processor E5-2400 product family	2	Up to 8	2.30 GHz	60-95 W	Up to 8 GT/s	Up to 20 MB L3 shared	Intel® C600 Chipset
WORKSTATION Optimized for complex analysis / visualization Target usage: Graphics rendering, multimedia content development, engineering applications (CAD / CAM), software development	Best	Intel® Xeon® processor E5-2600 product family	2	Up to 8	3.10 GHz	60-150 W	Up to 8 GT/s	Up to 20 MB L3 shared	Intel® C600 Chipset
	Better	Intel® Xeon® processor E5-1600 product family	1	Up to 6	3.30 GHz	130 W	N/A	Up to 15 MB L3 shared	Intel® C600 Chipset
	Good	Intel® Xeon® processor E3-1200 v2 product family	1	4	3.70 GHz	17-95 W	N/A	Up to 8 MB Intel® Smart Cache	Intel® C216 Chipset

For more information, visit www.intel.com/xeon

¹ Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. See www.intel.com/products/processor_number/ for details.

² Processor frequency as shown represents maximum frequency specification for the respective processor number family.

³ Intel® QPI-Intel® QuickPath Interconnect; GT/s-Gigatransfers per second.

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Intel® Server / Workstation Processors



Intel® Xeon® processors are the preferred choice for demanding server and workstation applications. Intel® server processors deliver enhanced, energy-efficient performance for data-intensive business applications and enable users to optimize and scale computing environments that maximize server utilization to workload, while providing headroom for growth. Workstation users can design, model, create, and visualize faster on innovation platforms powered by Intel Xeon processors.

INTEL® XEON® PROCESSOR E3-1200 v2 PRODUCT FAMILY FOR SERVER SYSTEMS FEATURING ONE LGA1155 SOCKET (THERMAL SOLUTION INCLUDED)

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	SINGLE-CORE TURBO MAX. SPEED	INTEL® SMART CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ¹	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
✓	Intel® Xeon® processor E3-1290 v2	CM8063701099102 (tray only)	3.70 GHz	4.10 GHz	8 MB	1600 MHz	4 / 8	✓	✓	87 W	
✓	Intel Xeon processor E3-1280 v2	BX80637E31280V2	3.60 GHz	4 GHz	8 MB	1600 MHz	4 / 8	✓	✓	69 W	7 35858 24236 3
✓	Intel Xeon processor E3-1270 v2	BX80637E31270V2	3.50 GHz	3.90 GHz	8 MB	1600 MHz	4 / 8	✓	✓	69 W	7 35858 24242 4
✓	Intel Xeon processor E3-1240 v2	BX80637E31240V2	3.40 GHz	3.80 GHz	8 MB	1600 MHz	4 / 8	✓	✓	69 W	7 35858 24249 3
✓	Intel Xeon processor E3-1230 v2	BX80637E31230V2	3.30 GHz	3.70 GHz	8 MB	1600 MHz	4 / 8	✓	✓	69 W	7 35858 24255 4
✓	Intel Xeon processor E3-1220 v2	BX80637E31220V2	3.10 GHz	3.50 GHz	8 MB	1600 MHz	4 / 4		✓	17 W	7 35858 24261 5
✓	Intel Xeon processor E3-1220L v2	CM8063701099001 (tray only)	2.30 GHz	3.50 GHz	3 MB	1600 MHz	2 / 4	✓	✓	20 W	

INTEL® XEON® PROCESSOR E3-1200 v2 PRODUCT FAMILY FOR WORKSTATION SYSTEMS FEATURING ONE LGA1155 SOCKET (THERMAL SOLUTION INCLUDED)

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	SINGLE-CORE TURBO MAX. SPEED	INTEL® SMART CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® GRAPHICS ENGINE	INTEL® HYPER-THREADING TECHNOLOGY ¹	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
✓	Intel® Xeon® processor E3-1275 v2	BX80637E31275V2	3.50 GHz	3.90 GHz	8 MB	1600 MHz	4 / 8	Intel® HD Graphics P4000	✓	✓	77 W	7 35858 24212 7
✓	Intel Xeon processor E3-1265L v2	BX80637E31265L2	2.50 GHz	3.50 GHz	8 MB	1600 MHz	4 / 8	Intel HD Graphics 2000	✓	✓	45 W	7 35858 24218 9
✓	Intel Xeon processor E3-1245 v2	BX80637E31245V2	3.40 GHz	3.80 GHz	8 MB	1600 MHz	4 / 8	Intel HD Graphics P4000	✓	✓	77 W	7 35858 24224 0
✓	Intel Xeon processor E3-1225 v2	BX80637E31225V2	3.20 GHz	3.60 GHz	8 MB	1600 MHz	4 / 4	Intel HD Graphics P4000		✓	77 W	7 35858 24230 1

INTEL® XEON® PROCESSOR E3-1200 PRODUCT FAMILY FOR SERVER SYSTEMS FEATURING ONE LGA1155 SOCKET (THERMAL SOLUTION INCLUDED UNLESS NOTED)

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	SINGLE-CORE TURBO MAX. SPEED	INTEL® SMART CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® GRAPHICS ENGINE	INTEL® HYPER-THREADING TECHNOLOGY ¹	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
	Intel® Xeon® processor E3-1290	CM8062301071705 (tray only)	3.60 GHz	4 GHz	8 MB	1333 MHz	4 / 8		✓	✓	95 W (thermal solution not included)	
	Intel Xeon processor E3-1280	BX80623E31280	3.50 GHz	3.90 GHz	8 MB	1333 MHz	4 / 8		✓	✓	95 W	7 35858 21763 7
	Intel Xeon processor E3-1270	BX80623E31270	3.40 GHz	3.80 GHz	8 MB	1333 MHz	4 / 8		✓	✓	80 W	7 35858 21764 4
	Intel Xeon processor E3-1260L	CM8062301061800 (tray only)	2.40 GHz	3.30 GHz	8 MB	1333 MHz	4 / 8	Intel® HD Graphics 2000	✓	✓	45 W	
	Intel Xeon processor E3-1240	BX80623E31240	3.30 GHz	3.70 GHz	8 MB	1333 MHz	4 / 8		✓	✓	80 W	7 35858 21765 1
	Intel Xeon processor E3-1230	BX80623E31230	3.20 GHz	3.60 GHz	8 MB	1333 MHz	4 / 8		✓	✓	80 W	7 35858 21766 8
	Intel Xeon processor E3-1220	BX80623E31220	3.10 GHz	3.40 GHz	8 MB	1333 MHz	4 / 4			✓	80 W	7 35858 21767 5
	Intel Xeon processor E3-1220L	CM8062307262828 (tray only)	2.20 GHz	3.40 GHz	3 MB	1333 MHz	2 / 4		✓	✓	20 W	

INTEL® XEON® PROCESSOR E3-1200 PRODUCT FAMILY FOR WORKSTATION SYSTEMS FEATURING ONE LGA1155 SOCKET (THERMAL SOLUTION INCLUDED)

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	SINGLE-CORE TURBO MAX. SPEED	INTEL® SMART CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® GRAPHICS ENGINE	INTEL® HYPER-THREADING TECHNOLOGY ¹	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
	Intel® Xeon® processor E3-1275	BX80623E31275	3.40 GHz	3.80 GHz	8 MB	1333 MHz	4 / 8	Intel® HD Graphics P3000	✓	✓	95 W	7 35858 21763 7
	Intel Xeon processor E3-1245	BX80623E31245	3.30 GHz	3.70 GHz	8 MB	1333 MHz	4 / 8	Intel HD Graphics P3000	✓	✓	95 W	7 35858 21764 4
	Intel Xeon processor E3-1235	BX80623E31235	3.20 GHz	3.60 GHz	8 MB	1333 MHz	4 / 8	Intel HD Graphics P3000	✓	✓	95 W	7 35858 21769 9
	Intel Xeon processor E3-1225	BX80623E31225	3.10 GHz	3.40 GHz	8 MB	1333 MHz	4 / 4	Intel HD Graphics P3000		✓	95 W	7 35858 21765 1

INTEL® THERMAL SOLUTION FOR SERVER / WORKSTATION SYSTEMS FEATURING ONE LGA1155 SOCKET

PRODUCT NAME	BOXED PRODUCT CODE	DESCRIPTION	RECOMMENDED USAGE ³	MAX. THERMAL DESIGN POWER
Intel® Thermal Solution XTS100H	BXXTS100H	Active thermal solution with fixed fan	High-end Intel® Thermal Solution supporting processors up to 95 W in pedestal chassis; for use with the Intel® Xeon® processor E3-1290.	95 W

INTEL® XEON® PROCESSOR X3400 PRODUCT FAMILY FOR SERVER / WORKSTATION SYSTEMS FEATURING ONE LGA1156 SOCKET (THERMAL SOLUTION INCLUDED)

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	SINGLE-CORE TURBO MAX. SPEED	INTEL® SMART CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ¹	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
	Intel® Xeon® processor X3480	BX80605X3480	3.06 GHz	3.73 GHz	8 MB	1333 MHz	4 / 8	✓	✓	95 W	7 35858 21457 5
	Intel Xeon processor X3470	BX80605X3470	2.93 GHz	3.60 GHz	8 MB	1333 MHz	4 / 8	✓	✓	95 W	7 35858 21029 4
	Intel Xeon processor X3460	BX80605X3460	2.80 GHz	3.46 GHz	8 MB	1333 MHz	4 / 8	✓	✓	95 W	7 35858 21030 0
	Intel Xeon processor X3450	BX80605X3450	2.66 GHz	3.20 GHz	8 MB	1333 MHz	4 / 8	✓	✓	95 W	7 35858 21031 7
	Intel Xeon processor X3440	BX80605X3440	2.53 GHz	2.93 GHz	8 MB	1333 MHz	4 / 8	✓	✓	95 W	7 35858 21032 4
	Intel Xeon processor X3430	BX80605X3430	2.40 GHz	2.80 GHz	8 MB	1333 MHz	4 / 4		✓	95 W	7 35858 21033 1

INTEL® XEON® PROCESSOR W3600 SERIES FOR WORKSTATION SYSTEMS FEATURING ONE LGA1366 SOCKET (THERMAL SOLUTION INCLUDED)

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® QPI ⁴ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ¹	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
	Intel® Xeon® processor W3690	BX80613W3690	3.46 GHz	6.40 GT/s	12 MB	1333 MHz	6 / 12	✓	✓	130 W	7 35858 21786 6
	Intel Xeon processor W3680	BX80613W3680	3.33 GHz	6.40 GT/s	12 MB	1333 MHz	6 / 12	✓	✓	130 W	7 35858 21408 7
	Intel Xeon processor W3670	BX80613W3670	3.20 GHz	4.80 GT/s	12 MB	1066 MHz	6 / 12	✓	✓	130 W	7 35858 21409 4

INTEL® XEON® PROCESSOR W3500 SERIES FOR WORKSTATION SYSTEMS FEATURING ONE LGA1366 SOCKET (THERMAL SOLUTION INCLUDED)

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® QPI ⁴ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ¹	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
	Intel® Xeon® processor W3580	BX80601W3580	3.33 GHz	6.40 GT/s	8 MB	1333 MHz	4 / 8	✓	✓	130 W	7 35858 21004 1
	Intel Xeon processor W3570	BX80601W3570	3.20 GHz	6.40 GT/s	8 MB	1333 MHz	4 / 8	✓	✓	130 W	7 35858 20633 4
	Intel Xeon processor W3565	BX80601W3565	3.20 GHz	4.80 GT/s	8 MB	1066 MHz	4 / 8	✓	✓	130 W	7 35858 21200 7
	Intel Xeon processor W3550	BX80601W3550	3.06 GHz	4.80 GT/s	8 MB	1066 MHz	4 / 8	✓	✓	130 W	7 35858 21005 8
	Intel Xeon processor W3540	BX80601W3540	2.93 GHz	4.80 GT/s	8 MB	1066 MHz	4 / 8	✓	✓	130 W	7 35858 20634 1
	Intel Xeon processor W3530	BX80601W3530	2.80 GHz	4.80 GT/s	8 MB	1066 MHz	4 / 8	✓	✓	130 W	7 35858 21384 4
	Intel Xeon processor W3520	BX80601W3520	2.66 GHz	4.80 GT/s	8 MB	1066 MHz	4 / 8	✓	✓	130 W	7 35858 20635 8

INTEL® XEON® PROCESSOR E5-2600 PRODUCT FAMILY FOR SERVER / WORKSTATION SYSTEMS FEATURING TWO LGA2011 SOCKETS (THERMAL SOLUTION SOLD SEPARATELY)

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® QPI ⁴ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ¹	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
✓	Intel® Xeon® processor E5-2690	BX80621E52690	2.90 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	135 W	7 35858 24086 4
✓	Intel Xeon processor E5-2687W	BX80621E52687W	3.10 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	150 W	7 35858 22396 6
✓	Intel Xeon processor E5-2680	BX80621E52680	2.70 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	130 W	7 35858 22397 3
✓	Intel Xeon processor E5-2670	BX80621E52670	2.60 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	115 W	7 35858 22398 0
✓	Intel Xeon processor E5-2667	CM8062100854802 (tray only)	2.90 GHz	7.20 GT/s	15 MB	1600 MHz	6 / 12	✓	✓	130 W	
✓	Intel Xeon processor E5-2665	BX80621E52665	2.40 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	155 W	7 35858 22400 0
✓	Intel Xeon processor E5-2660	BX80621E52660	2.20 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	95 W	7 35858 22401 7

INTEL® XEON® PROCESSOR E5-2600 PRODUCT FAMILY FOR SERVER / WORKSTATION SYSTEMS FEATURING TWO LGA2011 SOCKETS (THERMAL SOLUTION SOLD SEPARATELY)

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® QPI ⁴ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ¹	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
✓	Intel® Xeon® processor E5-2658	CM8062101042805 (tray only)	2.10 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	95 W	
✓	Intel Xeon processor E5-2650	BX80621E52650	2 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	95 W	7 35858 22402 4
✓	Intel Xeon processor E5-2650L	CM8062107185309 (tray only)	1.80 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	70 W	
✓	Intel Xeon processor E5-2648L	CM8062100854905 (tray only)	1.80 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	70 W	
✓	Intel Xeon processor E5-2643	CM8062107185605 (tray only)	3.30 GHz	6.40 GT/s	10 MB	1600 MHz	4 / 8	✓	✓	130 W	
✓	Intel Xeon processor E5-2640	BX80621E52640	2.50 GHz	7.20 GT/s	15 MB	1333 MHz	6 / 12	✓	✓	95 W	7 35858 22403 1
✓	Intel Xeon processor E5-2630	BX80621E52630	2.30 GHz	7.20 GT/s	15 MB	1333 MHz	6 / 12	✓	✓	95 W	7 35858 22404 8
✓	Intel Xeon processor E5-2630L	CM8062107185405 (tray only)	2 GHz	7.20 GT/s	15 MB	1333 MHz	6 / 12	✓	✓	65 W	
✓	Intel Xeon processor E5-2620	BX80621E52620	2 GHz	7.20 GT/s	15 MB	1333 MHz	6 / 12	✓	✓	95 W	7 35858 22405 5
✓	Intel Xeon processor E5-2609	BX80621E52609	2.40 GHz	6.40 GT/s	10 MB	1066 MHz	4 / 4			80 W	7 35858 23265 4
✓	Intel Xeon processor E5-2603	BX80621E52603	1.80 GHz	6.40 GT/s	10 MB	1066 MHz	4 / 4			80 W	7 35858 23270 8

INTEL® XEON® PROCESSOR E5-1600 PRODUCT FAMILY FOR WORKSTATION SYSTEMS FEATURING ONE LGA2011 SOCKET (THERMAL SOLUTION SOLD SEPARATELY)

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ¹	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
✓	Intel® Xeon® processor E5-1660	BX80621E51660	3.30 GHz	15 MB	1600 MHz	6 / 12	✓	✓	130 W	7 35858 22440 6
✓	Intel Xeon processor E5-1650	CM8062101102002 (tray only)	3.20 GHz	12 MB	1600 MHz	6 / 12	✓	✓	150 W	
✓	Intel Xeon processor E5-1620	CM8062101038606 (tray only)	3.60 GHz	10 MB	1600 MHz	4 / 8	✓	✓	130 W	

INTEL® XEON® PROCESSOR E5-2400 PRODUCT FAMILY FOR SERVER / WORKSTATION SYSTEMS FEATURING TWO LGA2011 SOCKETS (THERMAL SOLUTION SOLD SEPARATELY)

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® QPI ⁴ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ¹	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
✓	Intel® Xeon® processor E5-2470	BX80621E52470	2.30 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	95 W	7 35858 23023 9
✓	Intel Xeon processor E5-2450	BX80621E52450	2.10 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	95 W	7 35858 23003 1
✓	Intel Xeon processor E5-2450L	CM8062007283711 (tray only)	1.80 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	70 W	
✓	Intel Xeon processor E5-2440	BX80621E52440	2.40 GHz	7.20 GT/s	15 MB	1333 MHz	8 / 16	✓	✓	95 W	7 35858 23008 6
✓	Intel Xeon processor E5-2430	BX80621E52430	2.20 GHz	7.20 GT/s	15 MB	1333 MHz	6 / 12	✓	✓	95 W	7 35858 23013 0
✓	Intel Xeon processor E5-2430L	CM8062000862912	2 GHz	7.20 GT/s	15 MB	1600 MHz	6 / 12	✓	✓	60 W	
✓	Intel Xeon processor E5-2420	BX80621E52420	1.90 GHz	7.20 GT/s	15 MB	1333 MHz	6 / 12	✓	✓	80 W	7 35858 23018 5
✓	Intel Xeon processor E5-2407	BX80621E52407	2.20 GHz	6.40 GT/s	10 MB	1066 MHz	4 / 4			70 W	7 35858 23029 1
✓	Intel Xeon processor E5-2403	BX80621E52403	1.80 GHz	6.40 GT/s	10 MB	1066 MHz	4 / 4			70 W	7 35858 23041 3

INTEL® THERMAL SOLUTION STS200 SERIES FOR SERVER / WORKSTATION SYSTEMS FEATURING TWO LGA2011 SOCKETS

NEW	PRODUCT NAME	BOXED PRODUCT CODE	DESCRIPTION	TDP SUPPORT	UPC CODE
✓	Intel® Thermal Solution STS200P	BXSTS200P	Passive	Up to 130 W	7 35858 22179 5
✓	Intel Thermal Solution STS200PNRW	BXSTS200PNRW	Passive narrow	Up to 130 W	7 35858 22180 1
✓	Intel Thermal Solution STS200C	BXSTS200C	Combo with removable fan	Up to 150 W	7 35858 22181 8

INTEL® XEON® PROCESSOR 5600 SERIES FOR SERVER / WORKSTATION SYSTEMS FEATURING TWO LGA1366 SOCKETS (THERMAL SOLUTION SOLD SEPARATELY)

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® QPI ⁴ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ¹	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
	Intel® Xeon® processor X5690	BX80614X5690	3.46 GHz	6.40 GT/s	12 MB	1333 MHz	6 / 12	✓	✓	130 W	7 35858 21629 6
	Intel Xeon processor X5687	AT80614005919AB (tray only)	3.60 GHz	6.40 GT/s	12 MB	1333 MHz	4 / 8	✓	✓	130 W	
	Intel Xeon processor X5680	BX80614X5680	3.33 GHz	6.40 GT/s	12 MB	1333 MHz	6 / 12	✓	✓	130 W	7 35858 21412 4
	Intel Xeon processor X5677	AT80614005145AB (tray only)	3.46 GHz	6.40 GT/s	12 MB	1333 MHz	4 / 8	✓	✓	130 W	
	Intel Xeon processor X5675	BX80614X5675	3.06 GHz	6.40 GT/s	12 MB	1333 MHz	6 / 12	✓	✓	95 W	7 35858 21630 2
	Intel Xeon processor X5672	AT80614005922AA (tray only)	3.20 GHz	6.40 GT/s	12 MB	1333 MHz	4 / 8	✓	✓	95 W	
	Intel Xeon processor X5670	BX80614X5670	2.93 GHz	6.40 GT/s	12 MB	1333 MHz	6 / 12	✓	✓	95 W	7 35858 21413 1
	Intel Xeon processor X5667	AT80614005154AB (tray only)	3.06 GHz	6.40 GT/s	12 MB	1333 MHz	4 / 8	✓	✓	95 W	
	Intel Xeon processor X5660	BX80614X5660	2.80 GHz	6.40 GT/s	12 MB	1333 MHz	6 / 12	✓	✓	95 W	7 35858 21414 8
	Intel Xeon processor X5650	BX80614X5650	2.66 GHz	6.40 GT/s	12 MB	1333 MHz	6 / 12	✓	✓	95 W	7 35858 21415 5
	Intel Xeon processor X5647	AT80614006780AA (tray only)	2.93 GHz	5.86 GT/s	12 MB	1066 MHz	4 / 8	✓	✓	130 W	
	Intel Xeon processor E5649	BX80614E5649	2.53 GHz	5.86 GT/s	12 MB	1333 MHz	6 / 12	✓	✓	80 W	7 35858 21631 9
	Intel Xeon processor E5645	BX80614E5645	2.40 GHz	5.86 GT/s	12 MB	1333 MHz	6 / 12	✓	✓	80 W	7 35858 21632 6
	Intel Xeon processor E5640	BX80614E5640	2.66 GHz	5.86 GT/s	12 MB	1066 MHz	4 / 8	✓	✓	80 W	7 35858 21416 2
	Intel Xeon processor E5630	BX80614E5630	2.53 GHz	5.86 GT/s	12 MB	1066 MHz	4 / 8	✓	✓	80 W	7 35858 21417 9

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INTEL® XEON® PROCESSOR 5600 SERIES FOR SERVER / WORKSTATION SYSTEMS FEATURING TWO LGA1366 SOCKETS (THERMAL SOLUTION SOLD SEPARATELY)

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® QPI ⁴ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ¹	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
	Intel® Xeon® processor E5620	BX80614E5620	2.40 GHz	5.86 GT/s	12 MB	1066 MHz	4 / 8	✓	✓	80 W	7 35858 21418 6
	Intel Xeon processor E5607	BX80614E5607	2.26 GHz	4.80 GT/s	8 MB	1066 MHz	4 / 4			80 W	7 35858 21633 3
	Intel Xeon processor E5606	BX80614E5606	2.13 GHz	4.80 GT/s	8 MB	1066 MHz	4 / 4			80 W	7 35858 21634 0
	Intel Xeon processor E5603	BX80614E5603	1.60 GHz	4.80 GT/s	4 MB	1066 MHz	4 / 4			80 W	7 35858 21635 7
	Intel Xeon processor L5640	BX80614L5640	2.40 GHz	5.86 GT/s	12 MB	1066 MHz	6 / 12	✓	✓	60 W	7 35858 21411 7
	Intel Xeon processor L5630	BX80614L5630	2.13 GHz	5.86 GT/s	12 MB	1066 MHz	4 / 8	✓	✓	40 W	7 35858 21419 3
	Intel Xeon processor L5609	AT80614005940AA (tray only)	1.86 GHz	4.80 GT/s	12 MB	1066 MHz	4 / 4			40 W	

INTEL® XEON® PROCESSOR 5500 SERIES FOR SERVER / WORKSTATION SYSTEMS FEATURING TWO LGA1366 SOCKETS (THERMAL SOLUTION SOLD SEPARATELY)

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® QPI ⁴ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ¹	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
	Intel® Xeon® processor W5590	BX80602W5590	3.33 GHz	6.40 GT/s	8 MB	1333 MHz	4 / 8	✓	✓	130 W	7 35858 20995 3
	Intel Xeon processor W5580	BX80602W5580	3.20 GHz	6.40 GT/s	8 MB	1333 MHz	4 / 8	✓	✓	130 W	7 35858 20568 9
	Intel Xeon processor X5570	BX80602X5570	2.93 GHz	6.40 GT/s	8 MB	1333 MHz	4 / 8	✓	✓	95 W	7 35858 20569 6
	Intel Xeon processor X5560	BX80602X5560	2.80 GHz	6.40 GT/s	8 MB	1333 MHz	4 / 8	✓	✓	95 W	7 35858 20570 2
	Intel Xeon processor X5550	BX80602X5550	2.66 GHz	6.40 GT/s	8 MB	1333 MHz	4 / 8	✓	✓	95 W	7 35858 20571 9
	Intel Xeon processor E5540	BX80602E5540	2.53 GHz	5.86 GT/s	8 MB	1066 MHz	4 / 8	✓	✓	80 W	7 35858 20572 6
	Intel Xeon processor E5530	BX80602E5530	2.40 GHz	5.86 GT/s	8 MB	1066 MHz	4 / 8	✓	✓	80 W	7 35858 20573 3
	Intel Xeon processor L5530	BX80602L5530	2.40 GHz	5.86 GT/s	8 MB	1066 MHz	4 / 8	✓	✓	60 W	7 35858 20996 0
	Intel Xeon processor E5520	BX80602E5520	2.26 GHz	5.86 GT/s	8 MB	1066 MHz	4 / 8	✓	✓	80 W	7 35858 20574 0
	Intel Xeon processor L5520	BX80602L5520	2.26 GHz	5.86 GT/s	8 MB	1066 MHz	4 / 8	✓	✓	60 W	7 35858 20575 7
	Intel Xeon processor E5507	BX80602E5507	2.26 GHz	4.80 GT/s	4 MB	800 MHz	4 / 4			80 W	7 35858 21389 9
	Intel Xeon processor E5506	BX80602E5506	2.13 GHz	4.80 GT/s	4 MB	800 MHz	4 / 4			80 W	7 35858 20576 4
	Intel Xeon processor L5506	BX80602L5506	2.13 GHz	4.80 GT/s	4 MB	800 MHz	4 / 4			60 W	7 35858 20579 5
	Intel Xeon processor E5504	BX80602E5504	2 GHz	4.80 GT/s	4 MB	800 MHz	4 / 4			80 W	7 35858 20577 1
	Intel Xeon processor E5503	BX80602E5503	2 GHz	4.80 GT/s	4 MB	800 MHz	2 / 2			80 W	7 35858 21390 5
	Intel Xeon processor E5502	BX80602E5502	1.86 GHz	4.80 GT/s	4 MB	800 MHz	2 / 2			80 W	7 35858 20578 8

INTEL® THERMAL SOLUTION STS100 SERIES FOR SERVER / WORKSTATION SYSTEMS FEATURING TWO LGA1366 SOCKETS

PRODUCT NAME	BOXED PRODUCT CODE	DESCRIPTION	RECOMMENDED USAGE ³	MAX. THERMAL DESIGN POWER
Intel® Thermal Solution STS100C	BXSTS100C	Passive / active combination thermal solution with removable fan	<p>With fan installed:</p> <ul style="list-style-type: none"> ▪ Pedestal chassis that provide adequate ventilation and correct temperature air to the thermal solution. <p>With fan removed:</p> <ul style="list-style-type: none"> ▪ Pedestal chassis that provide ducted airflow to the thermal solution. ▪ 2U or larger rack chassis that provide ducted airflow to the thermal solution. 	130 W
Intel Thermal Solution STS100A	BXSTS100A	Active thermal solution with fixed fan	Pedestal chassis that provide adequate ventilation and correct temperature air to the thermal solution.	80 W
Intel Thermal Solution STS100P	BXSTS100P	25.5mm-tall passive thermal solution	1U, 2U, or blade chassis that provide ducted airflow to the thermal solution.	95 W

INTEL® XEON® PROCESSOR E5-4600 PRODUCT FAMILY FOR SERVER SYSTEMS FEATURING FOUR LGA2011 SOCKETS (THERMAL SOLUTION SOLD SEPARATELY)

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® QPI ⁴ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ¹	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
✓	Intel® Xeon® processor E5-4650	BX80621E54650	2.70 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	130 W	7 35858 23290 6
✓	Intel Xeon processor E5-4650L	BX80621E54650L	2.60 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	115 W	7 35858 23305 7
✓	Intel Xeon processor E5-4640	BX80621E54640	2.40 GHz	8 GT/s	20 MB	1600 MHz	6 / 12	✓	✓	95 W	7 35858 23350 7
✓	Intel Xeon processor E5-4620	BX80621E54620	2.20 GHz	7.20 GT/s	16 MB	1333 MHz	8 / 16	✓	✓	95 W	7 35858 23295 1

INTEL® XEON® PROCESSOR E5-4600 PRODUCT FAMILY FOR SERVER SYSTEMS FEATURING FOUR LGA2011 SOCKETS (THERMAL SOLUTION SOLD SEPARATELY)

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® QPI ⁴ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ¹	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
✓	Intel® Xeon® processor E5-4617	CM8062101145700 (tray only)	2.90 GHz	7.20 GT/s	15 MB	1600 MHz	6 / 6		✓	95 W	
✓	Intel Xeon processor E5-4610	BX80621E54610	2.40 GHz	7.20 GT/s	15 MB	1333 MHz	6 / 12	✓	✓	95 W	7 35858 23300 2
	Intel Xeon processor E5-4607	BX80621E54607	2.20 GHz	6.40 GT/s	12 MB	1066 MHz	6 / 12	✓	✓	95 W	7 35858 23310 1
✓	Intel Xeon processor E5-4603	BX80621E54603	2 GHz	6.40 GT/s	10 MB	1066 MHz	4 / 8	✓	✓	95 W	7 35858 23315 6

INTEL® XEON® PROCESSOR E7-4800 PRODUCT FAMILY FOR SERVER / WORKSTATION SYSTEMS FEATURING FOUR LGA1567 SOCKETS

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® QPI ⁴ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ¹	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
	Intel® Xeon® processor E7-4870	BX80615E74870	2.40 GHz	6.40 GT/s	30 MB	1066 MHz	10 / 20	✓	✓	130 W	7 35858 21849 8
	Intel Xeon processor E7-4860	AT80615007254AA (tray only)	2.26 GHz	6.40 GT/s	24 MB	1066 MHz	10 / 20	✓	✓	130 W	
	Intel Xeon processor E7-4850	AT80615007449AA (tray only)	2 GHz	6.40 GT/s	24 MB	1066 MHz	10 / 20	✓	✓	130 W	
	Intel Xeon processor E7-4830	BX80615E74830	2.13 GHz	6.40 GT/s	24 MB	1066 MHz	8 / 16	✓	✓	105 W	7 35858 21850 4
	Intel Xeon processor E7-4820	AT80615005772AC (tray only)	2 GHz	5.86 GT/s	18 MB	1066 MHz	8 / 16	✓	✓	105 W	
	Intel Xeon processor E7-4807	AT80615006432AB (tray only)	1.86 GHz	4.80 GT/s	18 MB	1066 MHz	6 / 12	✓		95 W	

INTEL® XEON® PROCESSOR 7500 SERIES FOR SERVER SYSTEMS FEATURING UP TO FOUR FCLGA1567 SOCKETS (THERMAL SOLUTION SOLD SEPARATELY)

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® QPI ⁴ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY ¹	INTEL® TURBO BOOST TECHNOLOGY ²	POWER	UPC CODE
	Intel® Xeon® processor X7560	BX80604X7560	2.26 GHz	6.40 GT/s	24 MB	1066 MHz	8 / 16	✓	✓	130 W	7 35858 21315 8
	Intel Xeon processor L7555	AT80604004875AA (tray only)	1.86 GHz	5.86 GT/s	24 MB	1066 MHz	8 / 16	✓	✓	95 W	
	Intel Xeon processor X7550	BX80604X7550	2 GHz	6.40 GT/s	18 MB	1066 MHz	8 / 16	✓	✓	130 W	7 35858 21316 5
	Intel Xeon processor L7545	AT80604004881AA (tray only)	1.86 GHz	5.86 GT/s	18 MB	1066 MHz	6 / 12	✓	✓	95 W	
	Intel Xeon processor X7542	AT80604005280AA (tray only)	2.66 GHz	5.86 GT/s	12 MB	1066 MHz	6 / 6		✓	130 W	
	Intel Xeon processor E7540	BX80604E7540	2 GHz	6.40 GT/s	18 MB	1066 MHz	6 / 12	✓	✓	105 W	7 35858 21317 2
	Intel Xeon processor E7530	AT80604004884AA (tray only)	1.86 GHz	5.86 GT/s	12 MB	1066 MHz	6 / 12	✓	✓	105 W	
	Intel Xeon processor E7520	BX80604E7520	1.86 GHz	4.80 GT/s	18 MB	800 MHz	4 / 8	✓		95 W	7 35858 21318 9

MULTI-CORE INTEL® XEON® PROCESSOR 7000 SEQUENCE FOR SERVER SYSTEMS FEATURING UP TO FOUR MPGA604 SOCKETS

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	FRONT SIDE BUS	CACHE	NO. OF CORES / THREADS	POWER	UPC CODE
	Intel® Xeon® processor X7460	BX80582X7460	2.67 GHz	1066 MHz	16 MB L3	6 / 6	130 W	7 35858 20355 5
	Intel Xeon processor L7455	AD80582JH046003 (tray only)	2.13 GHz	1066 MHz	12 MB L3	6 / 6	50 W	
	Intel Xeon processor E7450	BX80582E7450	2.40 GHz	1066 MHz	12 MB L3	6 / 6	90 W	7 35858 20356 2
	Intel Xeon processor L7445	AD80583JH046003 (tray only)	2.13 GHz	1066 MHz	12 MB L3	4 / 4	50 W	
	Intel Xeon processor E7440	BX80583E7440	2.40 GHz	1066 MHz	16 MB L3	4 / 4	90 W	7 35858 20357 9
	Intel Xeon processor E7430	AD80583QH046003 (tray only)	2.13 GHz	1066 MHz	12 MB L3	4 / 4	90 W	
	Intel Xeon processor E7420	BX80583E7420	2.13 GHz	1066 MHz	8 MB L3	4 / 4	90 W	7 35858 20358 6
	Intel Xeon processor E7310	BX80565E7310	1.60 GHz	1066 MHz	4 MB	4 / 4	80 W	7 35858 19669 7
	Intel Xeon processor L7345	LF80565JH0368M (tray only)	1.86 GHz	1066 MHz	8 MB	4 / 4	50 W	
	Intel Xeon processor E7220	LF80564QH0778M (tray only)	2.93 GHz	1066 MHz	8 MB	2 / 2	80 W	

For more information, visit www.intel.com/xeon

¹ Intel® Hyper-Threading Technology requires a computer system with a processor supporting HT Technology and an HT Technology-enabled chipset, BIOS, and operating system. Performance will vary depending on the specific hardware and software you use. For more information including details on which processors support HT Technology, see www.intel.com/info/hyperthreading

² Intel® Turbo Boost Technology requires a PC with a processor with Intel Turbo Boost Technology capability. Intel Turbo Boost Technology performance varies depending on hardware, software, and overall system configuration. Check with your PC manufacturer on whether your system delivers Intel Turbo Boost Technology. See www.intel.com/technology/turboboost for more information.

³ Contact your chassis supplier for compatibility details.

⁴ Intel® QPI-Intel® QuickPath Interconnect; GT/s-Gigatransfers per second.

All products and dates specified are preliminary based on current expectations and are subject to change without notice. Availability in different channels may vary.

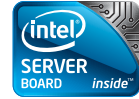
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Intel® Server / Workstation Boards



INTEL® SERVER BOARDS SUPPORTING THE INTEL® XEON® PROCESSOR E5-2600 FAMILY

GET POWERFUL. GET FLEXIBLE. GET EFFICIENT.

Designed to optimize the features of the Intel® Xeon® processor E5-2600 product family, Intel is unleashing an entirely new portfolio of boards and systems purpose-built with your needs in mind. Ranging from high-performance to half-width, HPC-focused to specialized workstation, Intel is committed to quality performance and innovative design.



Product Name	Intel® Server Board S2600JF	Intel® Server Board S2600WP
Description	As "the best HPC Server Board in the industry," ² the Intel® Server Board S2600JF provides maximum memory bandwidth and integrated QDR / FDR InfiniBand* in a half-width form factor with support for up to 3 PCI Express* 3.0 x16 slots. (Extended life product.)	The ideal solution for high-performance computing, the Intel® Server Board S2600WP delivers a larger memory footprint and support for up to 4 PCI Express* 3.0 x16 slots in a half-width form factor. Integrated QDR / FDR InfiniBand* is available. (Extended life product.)
Target Market	HPC	HPC
Order Code	S2600JF: no Infiniband* S2600JFF: integrated InfiniBand FDR (56 Gb/s) S2600JFQ: integrated InfiniBand QDR (40 Gb/s)	S2600WP: no Infiniband* S2600WPF: integrated InfiniBand FDR (56 Gb/s) S2600WPQ: integrated InfiniBand QDR (40 Gb/s)
Form Factor	Custom (6.42" x 17.7")	Custom (6.8" x 18.9")
Intel® Server Chassis or System	Intel® Server System H2000JF family	Intel® Server System H2000WP family
Processor Support¹	2 Intel® Xeon® processors E5-2600 product family	2 Intel® Xeon® processors E5-2600 product family
Chipset	Intel® C600 Chipset	Intel® C600 Chipset
Total Slots	3	4
Slot Types	3 PCI Express 3.0 x16	4 PCI Express 3.0 x16
Memory Capacity	8 LR / U / RDIMMs 1333 / 1600 ECC 256 GB max	16 LR / U / RDIMMs 1333 / 1600 ECC 512 GB max
SATA Ports	6-port SATA (2 6.0 Gb/s)	6-port SATA (2 6.0 Gb/s)
SAS Options	4 integrated SAS ports, 6 Gb/s SAS via optional Intel® RAID Module / Adapter	4 integrated SAS ports, 6 Gb/s SAS via optional Intel® RAID Module / Adapter
Integrated LAN	1 Integrated Dual Port Intel® Ethernet Controller I350 (1 GbE)	1 Integrated Dual Port Intel® Ethernet Controller I350 (1 GbE)
Management Support	Intel® Server Management Software Integrated BMC with IPMI 2.0	Intel® Server Management Software Integrated BMC with IPMI 2.0
Intel® RAID Support	Intel® Rapid Storage Technology (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology2 (ESRT2) RAID levels 0, 1, 5, 10	Intel® Rapid Storage Technology (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology2 (ESRT2) RAID levels 0, 1, 5, 10
Module Upgrades	Intel® I/O Module ³ Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 ³	Intel® I/O Module ³ Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 ³
Warranty	3 year limited warranty	3 year limited warranty



Product Name	Intel® Server Board S2600GL / GZ	Intel® Server Board S2600IP	Intel® Server Board S2600CP
Description	The Intel® Server Board S2600GL / GZ, Intel's technology showcase board, features maximum memory capacity, rack-optimized performance, and extensive I/O flexibility, making it ideal for high-performance and cloud computing. (Extended life product.)	With support for up to 8 single-width cards or 4 x16 double-width cards, the Intel® Server Board S2600IP provides enterprise customers with maximum I/O flexibility, storage flexibility, and is available in both rack and pedestal options. (Extended life product.)	Small to medium-sized businesses can benefit from the Intel® Server Board S2600CP's storage capacity, mainstream performance, and I/O flexibility. (Extended life product.)
Target Market	Data center / cloud	Enterprise / storage	Small to medium businesses
Order Code	S2600GL4: 16 DIMMs S2600GZ4: 24 DIMMs	S2600IP4: integrated I/O expansion module PCI Express* x8 Gen3	S2600CP2: Dual Port Ethernet Controller 1 GbE S2600CP4: Quad Port Ethernet Controller 1 GbE S2600CP210C: Dual 1 GbE, 8-port 6 Gb SAS PCI Express* card S2600CP410C: Quad 1 GbE, 8-port 6 Gb SAS PCI Express card S2600CP2J: Dual 1 GbE, up to 6 SATA ports
Form Factor	Custom (16.5" x 16.5")	Custom (14.2" x 15")	SSI EEB (12" x 13")
Intel® Server Chassis or System	Intel® Server System R1000GL/GZ family Intel® Server System R2000GL/GZ family	Intel® Server System R2000IP family Intel® Server System P4000IP family	Intel® Server System P4000CP family Intel® Server Chassis P4000M
Processor Support¹	2 Intel® Xeon® processors E5-2600 product family	2 Intel® Xeon® processors E5-2600 product family	2 Intel® Xeon® processors E5-2600 product family
Chipset	Intel® C600 Chipset	Intel® C600 Chipset	Intel® C600 Chipset
Total Slots	8	8+2	6
Slot Types	2 PCI Express* 3.0 x8 personality modules 2 PCI Express 3.0 x24 superslots (6 PCI Express 3.0 x8 or 2 PCI Express 3.0 x16 + 2 PCI Express 3.0 x8)	1 PCI Express 3.0 x16 3 PCI Express 3.0 x8 or x0 3 PCI Express 3.0 x8 or x16 1 PCI Express 2.0 x4 1 PCI Express 2.0 x4 via SAS ROC module 1 PCI Express 1.0 x8 via I/O expansion module	1 PCI Express 3.0 x16 5 PCI Express 3.0 x8
Memory Capacity	16 or 24 LR / U / RDIMMs 1333 / 1600 ECC 512 or 768 GB max	16 LR / U / RDIMMs 1333 / 1600 ECC 512 GB max	16 LR / U / RDIMMs 1333 / 1600 ECC 512 GB max
SATA Ports	10-port SATA (8 3.0 Gb/s, 2 6.0 Gb/s)	10-port SATA (8 3.0 Gb/s, 2 6.0 Gb/s)	14-port SATA (12 3.0 Gb/s, 2 6.0 Gb/s)
SAS Options	8 integrated SAS ports, 6 Gb/s SAS via optional Intel® RAID Module / Adapter	8 integrated SAS ports, 6 Gb/s SAS via optional Intel® RAID Module / Adapter	8 integrated SAS ports, 6 Gb/s SAS via optional Intel® RAID Module / Adapter
Integrated LAN	2 Integrated Dual Port Intel® Ethernet Controllers I350 (1 GbE)	2 Integrated Dual Port Intel® Ethernet Controllers I350 (1 GbE)	1 or 2 Integrated Dual Port Intel® Ethernet Controllers I350 (1 GbE)
Management Support	Intel® Server Management Software Integrated BMC with IPMI 2.0	Intel® Server Management Software Integrated BMC with IPMI 2.0	Intel® Server Management Software Integrated BMC with IPMI 2.0
Intel® RAID Support	Intel® Rapid Storage Technology (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology2 (ESRT2) RAID levels 0, 1, 5, 10	Intel® Rapid Storage Technology (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology2 (ESRT2) RAID levels 0, 1, 5, 10	Intel® Rapid Storage Technology (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology2 (ESRT2) RAID levels 0, 1, 5, 10
Module Upgrades	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Intel® Trusted Platform Module	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Intel® Trusted Platform Module	Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Intel® Trusted Platform Module
Warranty	3 year limited warranty	3 year limited warranty	3 year limited warranty



Product Name	Intel® Server Board S2600CO	Intel® Workstation Board W2600CR	Intel® Server Board S1600JP
Description	As an ideal server solution for embedded storage systems and small- to medium-sized businesses, the Intel® Server Board S2600CO has a standard form factor, rich I/O with flexible configurations, and a 5-year life cycle. (Extended life product.)	The Intel® Workstation Board W2600CR is an expert workstation that supports a maximum TDP processor, 16 DDR3 / DDR3L DIMM slots, dual 1 GbE LOM support, Firewire*, and high-end PCI Express* graphics cards.	A performance single-socket, half-width board, rich in I/O (40 Gen3 lanes) for a streamlined 1U rack mount server presentation. (Extended life product.)
Target Market	Embedded / storage / small to medium businesses	Data-intensive applications	Embedded / storage / small to medium businesses
Order Code	S2600CO4: 4 SAS ports S2600COE: Firewire* 1394b, 8 SAS ports S2600COEIOC: Firewire 1394b, 8-port 6 Gb SAS PCI Express* card included	W2600CR2: up to 4 double-wide graphics cards	S1600JP2: Dual Port Ethernet Controller 1 GbE S1600JP4: Quad Port Ethernet Controller 1 GbE
Form Factor	SSI EEB (12" x 13")	Custom (14.2" x 15")	Custom (6.8" x 13.8")
Intel® Server Chassis or System	Intel® Server Chassis P4000M	Intel® Workstation System P4000CR family	Intel® Server System R1000JP family
Processor Support¹	2 Intel® Xeon® processors E5-2600 product family	2 Intel® Xeon® processors E5-2600 product family	1 Intel® Xeon® processor E5-2600 / E5-1600 product family
Chipset	Intel® C600 Chipset	Intel® C600 Chipset	Intel® C600 Chipset
Total Slots	6	8+2	3
Slot Types	4 PCI Express 3.0 x16 1 PCI Express 3.0 x8 1 PCI Express 2.0 x4	1 PCI Express 3.0 x16 3 PCI Express 3.0 x8 or x0 3 PCI Express 3.0 x8 or x16 1 PCI Express 2.0 x4 1 PCI Express 2.0 x4 via SAS ROC module 1 PCI Express 1.0 x8 via I/O expansion module	2 PCI Express* 3.0 x16 1 PCI Express 3.0 x8
Memory Capacity	16 LR / U / RDIMMs 1333 / 1600 ECC 512 GB max	16 LR / U / RDIMMs 1333 / 1600 ECC 512 GB max	8 LR / U / RDIMMs 1333 / 1600 ECC 256 GB max
SATA Ports	10-port SATA (8 3.0 Gb/s, 2 6.0 Gb/s)	10-port SATA (8 3.0 Gb/s, 2 6.0 Gb/s)	10-port SATA (8 3.0 Gb/s, 2 6.0 Gb/s)
SAS Options	4 or 8 integrated SAS ports, 6 Gb/s SAS via optional Intel® RAID Module / Adapter	8 integrated SAS ports, 6 Gb/s SAS via optional Intel® RAID Module / Adapter	4 integrated SAS ports, 6 Gb/s SAS via optional Intel® RAID Module / Adapter
Integrated LAN	2 Integrated Dual Port Intel® Ethernet Controllers I350 (1 GbE)	1 Integrated Dual Port Intel® Ethernet Controller I350 (1 GbE)	1 or 2 Integrated Dual Port Intel® Ethernet Controllers I350 (1 GbE)
Management Support	Intel® Server Management Software Integrated BMC with IPMI 2.0	Intel® Server Management Software Integrated BMC with IPMI 2.0	Intel® Server Management Software Integrated BMC with IPMI 2.0
Intel® RAID Support	Intel® Rapid Storage Technology (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology2 (ESRT2) RAID levels 0, 1, 5, 10	Intel® Rapid Storage Technology (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology2 (ESRT2) RAID levels 0, 1, 5, 10	Intel® Rapid Storage Technology (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology2 (ESRT2) RAID levels 0, 1, 5, 10
Module Upgrades	Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Intel® Trusted Platform Module	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Intel® Trusted Platform Module	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4
Warranty	3 year limited warranty	3 year limited warranty	3 year limited warranty

INTEL® SERVER BOARDS SUPPORTING THE INTEL® XEON® PROCESSOR E5-4600 FAMILY

CONTROL THE ENTERPRISE WITH THE INTEL® SERVER BOARD S4600LH

Intel's new density and cost-optimized four-socket (4S) server board extends the capabilities of the Intel® Xeon® processor E5 family, with up to a 75 percent performance boost over the Intel® Xeon® processor E5-2600 product family, plus increased network and storage sharing efficiencies. The Intel® Xeon® processor E5-4600 product family dramatically reduces compute time with Intel® Advanced Vector Extensions (Intel® AVX), and with Intel® Integrated I/O, latency is reduced while adding capacity and bandwidth.

NEW



Product Name	Intel® Server Board S4600LH
Description	Four-socket, incredibly dense server board with excellent floating-point performance and performance-per-watt for enterprise and HPC applications utilizing the new Intel® Xeon® processor E5-4600 product family with support for Intel® MIC. Available with integrated Dual Port Intel® Ethernet Controllers (1 GbE or 10 GbE) and 48 DIMMs for massive memory support of 1.5 terabytes. (Extended life product.)
Target Market	Enterprise / HPC
Order Code	S4600LH2: integrated Dual Port Intel® Ethernet Controller I350 (1 GbE) S4600LT2: integrated Dual Port Intel® Ethernet Controller X540 (10 GbE)
Form Factor	Custom (16.7" x 20")
Intel® Server Chassis or System	Intel® Server System R2208LH/LT family Intel® Server System R2304LH/LT family
Processor Support ¹	4 Intel® Xeon® processors E5-4600 product family
Chipset	Intel® C600 Chipset
Total Slots	6+2
Slot Types	6 PCI Express* 3.0 x16 2 PCI Express 3.0 x8 via I/O expansion module
Memory Capacity	48 LR / U / DIMMs 1333 / 1600 ECC 1500 GB max
SATA Ports	11-port SATA (8 3.0 Gb/s, 2 6.0 Gb/s, 1 3.0 Gb/s)
SAS Options	8 integrated SAS ports, 6 Gb/s SAS via optional Intel® RAID Module / Adapter
Integrated LAN	1 Integrated Dual Port Intel® Ethernet Controller X540 (10 GbE) or 1 Integrated Dual Port Intel® Ethernet Controller I350 (1 GbE)
Management Support	Intel® Server Management Software Integrated BMC with IPMI 2.0
Intel® RAID Support	Intel® Rapid Storage Technology (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology2 (ESRT2) RAID levels 0, 1, 5, 10
Module Upgrades	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Intel® Trusted Platform Module
Warranty	3 year limited warranty

INTEL® SERVER BOARDS SUPPORTING THE INTEL® XEON® PROCESSOR E5-2400 FAMILY

NEW INTEL® SERVER BOARDS AND SYSTEMS BASED ON THE INTEL® XEON® PROCESSOR E5-2400 PRODUCT FAMILY FURTHER EXPAND INTEL'S SERVER LINE UP

Our latest line of Intel® Server Boards featuring the Intel® Xeon® processor E5-2400 product family pave the way for better performance, better value, and better sales. Supporting a wide range of 1U, 2U, and pedestal systems with more options and more features, the family of E5-2400 server products deliver server class performance at competitive price points.

NEW



NEW



Product Name	Intel® Server Board S1400FP	Intel® Server Board S1400SP
Description	Perfect for entry-level applications with 6 DIMMs, dual Intel® Ethernet Controllers, 24 PCI Express* Gen3 I/O lanes, and Intel® Server Management for affordable and effective performance. Available in rack or pedestal configurations. (Extended life product.)	Flexible single-socket board that brings I/O and SAS expansion options to an entry-level, single-slot server for easy customization. Systems available with quad or dual 1 GbE NIC, 2.5" or 3.5" drives, and 350 W or 450 W PSU. (Extended life product.)
Target Market	First server	Embedded
Order Code	S1400FP2: Dual Port Ethernet Controller 1 GbE S1400FP4: Quad Port Ethernet Controller 1 GbE	S1400SP2: Dual Port Ethernet Controller 1 GbE S1400SP4: Quad Port Ethernet Controller 1 GbE
Form Factor	SSI ATX (12" x 9.6")	SSI ATX-like (12" x 9.6")
Intel® Server Chassis or System	Intel® Server System R2300FP family Intel® Server System P4300FP family Intel® Server Chassis P4000S	Intel® Server System R1000SP family
Processor Support¹	1 Intel® Xeon® processor E5-2400 product family	1 Intel® Xeon® processor E5-2400 product family
Chipset	Intel® C600 Chipset	Intel® C600 Chipset
Total Slots	4+1	1+1+1
Slot Types	1 PCI Express 3.0 x8 3 PCI Express 3.0 x4 1 PCI Express 2.0 x4	1 PCI Express 3.0 x8 1 PCI Express 3.0 x4 via I/O expansion module 1 PCI Express 3.0 x8 via I/O expansion module
Memory Capacity	6 LV / R / U / DIMMs 1066 / 1333 / 1600 ECC 96 GB max	6 LV / R / U / DIMMs 1066 / 1333 / 1600 ECC 96 GB max
SATA Ports	6-port SATA (4 3.0 Gb/s, 2 6.0 Gb/s)	6-port SATA (4 3.0 Gb/s, 2 6.0 Gb/s)
SAS Options	8 integrated SAS ports, 6 Gb/s SAS via optional Intel® RAID Module / Adapter	8 integrated SAS ports, 6 Gb/s SAS via optional Intel® RAID Module / Adapter
Integrated LAN	1 or 2 Integrated Dual Port Intel® Ethernet Controllers I350 (1 GbE)	1 or 2 Integrated Dual Port Intel® Ethernet Controllers I350 (1 GbE)
Management Support	Intel® Server Management Software Integrated BMC with IPMI 2.0	Intel® Server Management Software Integrated BMC with IPMI 2.0
Intel® RAID Support	Intel® Rapid Storage Technology (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology2 (ESRT2) RAID levels 0, 1, 5, 10	Intel® Rapid Storage Technology (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology2 (ESRT2) RAID levels 0, 1, 5, 10
Module Upgrades	Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Intel® Trusted Platform Module	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Intel® Trusted Platform Module
Warranty	3 year limited warranty	3 year limited warranty

NEW



NEW



	Intel® Server Board S2400LP	Intel® Server Board S2400EP
Product Name	Intel® Server Board S2400LP	Intel® Server Board S2400EP
Description	A mainstream, cost-efficient solution for high-density computing, provides 12 DIMMs via 6 channels and supports 2 PCI Express* 3.0 slots (1 x16, 1 x8) in a half-width form factor. Integrated QDR / FDR Infiniband* is available. (Extended life product.)	Value dual-socket board in 1U rack supports embedded environments with 28 PCI Express* Gen 3 I/O lanes and 8 DIMMs. Dual or quad Gbe SKUs in 1U rack systems. (Extended life product.)
Target Market	IPDC / HPC	Embedded
Order Code	S2400LP: no Infiniband S2400LPF: integrated InfiniBand FDR (56 Gb/s) S2400LPQ: integrated InfiniBand QDR (40 Gb/s)	S2400EP2: Dual Port Ethernet Controller 1 GbE S2400EP4: Quad Port Ethernet Controller 1 GbE
Form Factor	Custom (6.8" x 16.6")	SSI CEB (12" x 10.5")
Intel® Server Chassis or System	Intel® Server System H2000LP family	Intel® Server System R1000EP family
Processor Support¹	2 Intel® Xeon® processors E5-2400 product family	2 Intel® Xeon® processors E5-2400 product family
Chipset	Intel® C600 Chipset	Intel® C600 Chipset
Total Slots	2	1+1+1
Slot Types	1 PCI Express 3.0 x16 1 PCI Express 3.0 x8	1 PCI Express 3.0 x16 1 PCI Express 3.0 x8 via I/O expansion module 1 PCI Express 3.0 x4 via I/O expansion module
Memory Capacity	12 LR / U / RDIMMs 1333 / 1600 ECC 384 GB max	8 LV / R / U / DIMMs 1066 / 1333 / 1600 ECC 128 GB max
SATA Ports	5-port SATA (4 3.0 Gb/s, 1 6.0 Gb/s)	2-port SATA (2 6.0 Gb/s)
SAS Options	4 integrated SAS ports, 6 Gb/s SAS via optional Intel® RAID Module / Adapter	8 integrated SAS ports, 6 Gb/s SAS via optional Intel® RAID Module / Adapter
Integrated LAN	1 Integrated Dual Port Intel® Ethernet Controller I350 (1 GbE)	1 or 2 Integrated Dual Port Intel® Ethernet Controllers I350 (1 GbE)
Management Support	Intel® Server Management Software Integrated BMC with IPMI 2.0	Intel® Server Management Software Integrated BMC with IPMI 2.0
Intel® RAID Support	Intel® Rapid Storage Technology (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology2 (ESRT2) RAID levels 0, 1, 5, 10	Intel® Rapid Storage Technology (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology2 (ESRT2) RAID levels 0, 1, 5, 10
Module Upgrades	Intel® I/O Module ³ Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 ³	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Intel® Trusted Platform Module
Warranty	3 year limited warranty	3 year limited warranty

NEW



NEW



NEW



Product Name	Intel® Server Board S2400BB	Intel® Server Board S2400SC	Intel® Server Board S2400GP
Description	Best solution for price / performance-per-watt and per square foot with spread core design for exceptional power efficiency. 12 DIMMs and extensive I/O flexibility plus integrated quad GbE and more. (Extended life product.)	Expanded I/O with 33 total PCI Express* lanes and dual processor sockets bring cost-effective features to small and medium businesses. Flexible storage and server management capabilities in rack or pedestal configurations.	Maximize the power of the Intel® Xeon® processor E5-2400 with excellent memory and I/O support in a standard form factor. Rackable pedestal systems available or custom build.
Target Market	IPDC / cloud	Medium business / RBO	Medium business
Order Code	S2400BB4	S2400SC	S2400GP2: Dual Port Ethernet Controller 1 GbE S2400GP4: Quad Port Ethernet Controller 1 GbE
Form Factor	Custom (13.5" x 13.5")	SSI CEB (12" x 10.5")	SSI EEB (12" x 13")
Intel® Server Chassis or System	Intel® Server System R1000BB family Intel® Server System R2000BB family	Intel® Server System R2300SC family Intel® Server System P4300SC family Intel® Server Chassis P4000S/M	Intel® Server System P4300GP family Intel® Server Chassis P4000M
Processor Support¹	2 Intel® Xeon® processors E5-2400 product family	2 Intel® Xeon® processors E5-2400 product family	2 Intel® Xeon® processors E5-2400 product family
Chipset	Intel® C600 Chipset	Intel® C600 Chipset	Intel® C600 Chipset
Total Slots	8+1	4+1	5+1+1
Slot Types	2 PCI Express* 3.0 x16 6 PCI Express 3.0 x8 1 PCI Express 2.0 x8 via I/O expansion module	1 PCI Express 3.0 x16 1 PCI Express 3.0 x8 1 PCI Express 3.0 x4 1 PCI Express 2.0 x4 1 Legacy 32/33 PCI slot	2 PCI Express* 3.0 x16 1 PCI Express 3.0 x8 1 PCI Express 3.0 x4 1 PCI Express 1.0 x1 1 PCI Express 3.0 x8 via I/O expansion module 1 Legacy 32/33 PCI slot
Memory Capacity	12 LR / U / RDIMMs 1333 / 1600 ECC 384 GB max	8 LV / R / U / DIMMs 1066 / 1333 / 1600 ECC 128 GB max	12 LV / R / U / DIMMs 1066 / 1333 / 1600 ECC 192 GB max
SATA Ports	10-port SATA (6 3.0 Gb/s, 2 6.0 Gb/s)	6-port SATA (4 3.0 Gb/s, 2 6.0 Gb/s)	6-port SATA (4 3.0 Gb/s, 2 6.0 Gb/s)
SAS Options	8 integrated SAS ports, 6 Gb/s SAS via optional Intel® RAID Module / Adapter	8 integrated SAS ports, 6 Gb/s SAS via optional Intel® RAID Module / Adapter	8 integrated SAS ports, 6 Gb/s SAS via optional Intel® RAID Module / Adapter
Integrated LAN	2 Integrated Dual Port Intel® Ethernet Controllers I350 (1 GbE)	1 Integrated Dual Port Intel® Ethernet Controller I350 (1 GbE)	1 or 2 Integrated Dual Port Intel® Ethernet Controllers I350 (1 GbE)
Management Support	Intel® Server Management Software Integrated BMC with IPMI 2.0	Intel® Server Management Software Integrated BMC with IPMI 2.0	Intel® Server Management Software Integrated BMC with IPMI 2.0
Intel® RAID Support	Intel® Rapid Storage Technology (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology2 (ESRT2) RAID levels 0, 1, 5, 10	Intel® Rapid Storage Technology (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology2 (ESRT2) RAID levels 0, 1, 5, 10	Intel® Rapid Storage Technology (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology2 (ESRT2) RAID levels 0, 1, 5, 10
Module Upgrades	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Intel® Trusted Platform Module	Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Intel® Trusted Platform Module	Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Intel® Trusted Platform Module
Warranty	3 year limited warranty	3 year limited warranty	3 year limited warranty

INTEL® SERVER BOARDS SUPPORTING THE INTEL® XEON® PROCESSOR E3-1200 V2 FAMILY

ENTRY-LEVEL SERVER BOARDS FOR EASY AND AFFORDABLE SOLUTIONS

Single-socket server boards featuring the Intel® Xeon® processor E3-1200 and E3-1200 v2 product family are a simple, yet powerful way for small businesses to get the server-level features they need, with Intel technology and support. 1U rack and 4U pedestal systems also available for easy integration.



Product Name	Intel® Entry Server Board S1200KP	Intel® Entry Server Board S1200BTS	Intel® Entry Server Board S1200BTL
Description	Sub-entry, mini-ITX server board for minimal footprint and lowest acquisition cost. Great for embedded applications requiring server performance.	Recommended first server where lowest price with reliability are key. Basic server features with room to grow.	Entry server board with management options expands deployment opportunities for remote access with low price point and basic server features.
Target Market	First server / embedded / storage	First server	First server / remote branch office
Order Code	S1200KPR	S1200BTSR	S1200BTLR
Form Factor	Mini-ITX (6.7" x 6.7")	MicroATX (9.6" x 9.6")	ATX (12" x 9.6")
Intel® Server Chassis or System	N/A	Intel® Server Chassis P4000S Intel® Server System R1304BTS family Intel® Server System P4304BTS family	Intel® Server Chassis P4000S Intel® Server System R1304BTL family Intel® Server System P4304BTL family
Processor Support¹	1 Intel® Xeon® processor E3-1200 v2 product family	1 Intel® Xeon® processor E3-1200 v2 product family	1 Intel® Xeon® processor E3-1200 v2 product family
Chipset	Intel® C206 Chipset	Intel® C202 Chipset	Intel® C204 Chipset
Total Slots	1	4	5
Slot Types	1 PCI Express* 2.0 x8 (x16 mechanical)	1 PCI Express* 3.0 x8 (x16 mechanical) 1 PCI Express 3.0 x8 (x8 mechanical) 1 PCI Express 3.0 x4 (x8 mechanical) 1 PCI 32-bit / 33 MHz (5 V)	1 PCI Express* 3.0 x8 (x16 mechanical) 3 PCI Express 3.0 x4 (x8 mechanical) 1 PCI 32-bit / 33 MHz (5 V) 1 Mezzanine connector—optional SAS module
Memory Capacity	2 DDR3 UDIMMs 1066 / 1333 ECC 16 GB max	4 DDR3 UDIMMs 1066 / 1333 / 1600 ECC 32 GB max	4 DDR3 UDIMMs 1066 / 1333 / 1600 ECC 32 GB max
SATA Ports	4-port SATA (2 6.0 Gb/s, 2 3.0 Gb/s)	6-port SATA (6 3.0 Gb/s)	6-port SATA (2 6.0 Gb/s, 4 3.0 Gb/s)
SAS Options	N/A	N/A	Optional SAS or SAS RAID via I/O Expansion Modules
Integrated LAN	Intel® Dual Gigabit Controller 82574L and 82579	Intel® Dual-Gigabit Controllers 82574L and 82579	Intel® Dual-Gigabit Controllers 82574L and 82579
Management Support	Intel® Deployment Assistant only	Intel® Deployment Assistant only	Intel® Server Management Software Integrated BMC with IPMI 2.0
Intel® RAID Support	Intel® Rapid Storage Technology (0, 1, 5, and 10)	Intel® Rapid Storage Technology (0, 1, 5, and 10)	Intel® Rapid Storage Technology (0, 1, 5, and 10) Intel® Embedded Server RAID Technology (0, 1, and 10)
Module Upgrades	N/A	Intel® Trusted Platform Module	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Intel® Trusted Platform Module
Warranty	3 year limited warranty	3 year limited warranty	3 year limited warranty

LEGACY INTEL® SERVER BOARDS

SERVER AND WORKSTATION BOARDS SUPPORTING THE INTEL® XEON® PROCESSOR 3400, 3600, 5500, 5600 SERIES

Intel® Server and Workstation Boards deliver industry-leading performance with maximum energy efficiency and lower hardware refresh costs to provide the quality, flexibility, and support you need to build configurable, customized, and cost-effective solutions.

USAGE MODEL	INTEL® SERVER BOARD	FORM FACTOR	NUMBER OF PROCESSORS	INTEL® XEON® PROCESSOR	INTEL® CHIPSET	MEMORY	PCI EXPRESS*	INTEL® I/O EXPANSION
High Density / Enterprise	S5520UR/URT ⁴	SSI TEB (12" x 13")	2	5600	5520 w/ ICH10R	12 x DDR3 (192 GB)	1 x24 Gen2 riser, 1 x8 Gen2 IOM	RMM3, GbE, 10 GbE, SAS, InfiniBand*
	S5500HV	Custom (6.3" x 16.7")	2	5600	5500 w/ ICH10R	12 x DDR3 (96 GB)	1 x16 Gen2 half length	N/A
	S5500WB	SSI EATX (12" x 13")	2	5600	5500 w/ ICH10R	8 x DDR3 (64 GB)	1 x8 Gen2, 1 x4 Gen2	RMM3, GbE, 10 GbE, SAS, InfiniBand*
Performance Server	S5520HC/HCT ⁴	SSI EEB (12" x 13")	2	5600	5520 w/ ICH10R	12 x DDR3 (192 GB)	4 x8 Gen2, 1 x4, 1 x32-bit	RMM3, SAS
	S5500HCV	SSI EEB (12" x 13")	2	5600	5500 w/ ICH10R	9 x DDR3 (144 GB)	2 x8 Gen2, 1 x4 Gen2, 1 x4, 1 x32-bit	RMM3, SAS
Value Server	S5500BC	SSI CEB (12" x 10.5")	2	5600	5500 w/ ICH10R	8 x DDR3 (32 GB)	2 x8 Gen2, 1 x4 Gen2, 1 x4, 1 x32-bit All half length	RMM3
	S3420GPLC	ATX	1	3400	3420	6 x RDIMMs or 4 x UDIMMs, DDR3 (32 GB or 16 GB)	2 x8 Gen2, 1 x4, 1 x32-bit	N/A
	S3420GPLX	ATX	1	3400	3420	6 x RDIMMs or 4 x UDIMMs, DDR3 (32 GB or 16 GB)	2 x8 Gen2, 1 x4 Gen2, 1 x1, 1 x4, 1 x32-bit	RMM3, SAS
	S3420GPRX	ATX	1	3400	3420	6 x RDIMMs or 4 x UDIMMs, DDR3 (32 GB or 16 GB)	1 x8 Gen2	RMM3Lite, GbE, SAS
	S3420GPV	ATX	1	3400	3420	4 x UDIMMs, DDR3 (16 GB)	2 x8 Gen2, 1 x4, 1 x32-bit	N/A
Workstation	S5520SC	SSI EEB (12" x 13")	2	5600	5520 w/ ICH10R	12 x DDR3 (96 GB)	2 x16 Gen2, 1 x4, 1 x1, 1 x32-bit	RMM3, SAS
	WX58BP	ATX	1	3600	X58 Express w/ ICH10R	4 x DDR3 (12 GB)	2 x16 Gen2, 1 x4 Gen2, 2 x1, 1 x32-bit	N/A
Modular	MFS5520VI	Custom	2	5600	5520 w/ ICH10R	12 x DDR3 (96 GB)	N/A	GbE I/O Mezzanine Card

For more information, visit www.intel.com/go/serverboards or ark.intel.com

¹ Refer to <http://support.intel.com/support/motherboards/server> for up-to-date details on processors supported by each server board.

² As said by John Lee, Vice President, ATS Appro International, Inc.

³ On interposer (need accessory kit AXXRMM4IOM or AXXRMM4IOMW).

⁴ Model available with TPM-enabled board supporting Intel® Trusted Execution Technology (Intel® TXT). No computer system can provide absolute security under all conditions. Intel TXT requires a computer system with Intel® Virtualization Technology, an Intel TXT-enabled processor, chipset, BIOS, Authenticated Code Modules and an Intel TXT-compatible measured launched environment (MLE). Intel TXT also requires the system to contain a TPM v1.s. For more information, visit www.intel.com/technology/security

All products and dates specified are preliminary based on current expectations and are subject to change without notice. Availability in different channels may vary.

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INTEL® SERVER SYSTEMS H2000JF BASED ON THE INTEL® SERVER BOARD S2600JF

Description	Specifically designed for the HPC market, a high-density, four-node solution supporting optional QDR / FDR InfiniBand®, balancing optimal memory bandwidth and computing power to maximize price performance. (Extended life product.)
Target Market	IPDC / HPC embedded
Server Board Included	4 x S2600JF: No InfiniBand 4 x S2600JFF: Integrated InfiniBand FDR (56 Gb/s) 4 x S2600JFQ: Integrated InfiniBand QDR (40 Gb/s)
Processors Supported	2 x Intel® Xeon® processors E5-2600 product family per node
Total Slots	3 per node
Slot Types	4 x 3 PCI Express* 3.0 x16
Memory Capacity	4 x 8 LR / U / RDIMMs 1333 / 1600 ECC 256 GB max per node
Module Upgrades	Intel® I/O Module ¹ Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 ¹



FOUR NODE 2U RACK SYSTEMS

Dimensions (H x W x D)	3.5" x 17.2" x 29.5"
System Cooling	3 x high-speed hot-swap redundant 40mm dual rotor fans per node
Power Supply	1200 W or 1600 W AC Common Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Intel® System Management Software, iBMC with IPMI Optional SAS 6G upgrade kit
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUS

H2216JFJR	16 x 2.5" hot-swap HDD 2 x 1200 W AC Common Redundant PSU No InfiniBand
H2216JFKR	16 x 2.5" hot-swap HDD 2 x 1600 W AC Common Redundant PSU No InfiniBand
H2216JFFJR	16 x 2.5" hot-swap HDD 2 x 1200 W AC Common Redundant PSU InfiniBand FDR
H2216JFFKR	16 x 2.5" hot-swap HDD 2 x 1600 W AC Common Redundant PSU InfiniBand FDR
H2216JFQJR	16 x 2.5" hot-swap HDD 2 x 1200 W AC Common Redundant PSU InfiniBand QDR
H2216JFQKR	16 x 2.5" hot-swap HDD 2 x 1600 W AC Common Redundant PSU InfiniBand QDR

SPECIFIC SKUS

H2312JFJR	12 x 3.5" hot-swap HDD 2 x 1200 W AC Common Redundant PSU No InfiniBand
H2312JFKR	12 x 3.5" hot-swap HDD 2 x 1600 W AC Common Redundant PSU No InfiniBand
H2312JFFJR	12 x 3.5" hot-swap HDD 2 x 1200 W AC Common Redundant PSU InfiniBand FDR
H2312JFFKR	12 x 3.5" hot-swap HDD 2 x 1600 W AC Common Redundant PSU InfiniBand FDR
H2312JFQJR	12 x 3.5" hot-swap HDD 2 x 1200 W AC Common Redundant PSU InfiniBand QDR
H2312JFQKR	12 x 3.5" hot-swap HDD 2 x 1600 W AC Common Redundant PSU InfiniBand QDR

INTEL® SERVER SYSTEMS H2000WP BASED ON THE INTEL® S2600WP SERVER BOARD

Description	The ideal option for high-performance computing and data center deployment with maximum memory and I/O capability. Integrated QDR / FDR InfiniBand* available. (Extended life product.)
Target Market	IPDC / HPC embedded
Server Board Included	4 x S2600WP: No InfiniBand 4 x S2600WPF: Integrated InfiniBand FDR (56 Gb/s) 4 x S2600WPQ: Integrated InfiniBand QDR (40 Gb/s)
Processors Supported	2 x Intel® Xeon® processors E5-2600 product family per node
Total Slots	4 per node
Slot Types	4 x 4 PCI Express* 3.0 x16
Memory Capacity	4 x 16 LR / U / RDIMMs 1333 / 1600 ECC 512 GB max per node
Module Upgrades	Intel® I/O Module ¹ Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 ¹



FOUR NODE 2U RACK SYSTEMS

Dimensions (H x W x D)	3.5" x 17.2" x 29.5"
System Cooling	3 x high-speed hot-swap redundant 40mm dual rotor fans per node
Power Supply	1200 W or 1600 W AC Common Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Intel® System Management Software, iBMC with IPMI Optional SAS 6G upgrade kit
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUS

H2216WPJR	16 x 2.5" hot-swap HDD 2 x 1200 W AC Common Redundant PSU No InfiniBand
H2216WPKR	16 x 2.5" hot-swap HDD 2 x 1600 W AC Common Redundant PSU No InfiniBand
H2216WPFJR	16 x 2.5" hot-swap HDD 2 x 1200 W AC Common Redundant PSU InfiniBand FDR
H2216WPFKR	16 x 2.5" hot-swap HDD 2 x 1600 W AC Common Redundant PSU InfiniBand FDR
H2216WPQJR	16 x 2.5" hot-swap HDD 2 x 1200 W AC Common Redundant PSU InfiniBand QDR
H2216WPQKR	16 x 2.5" hot-swap HDD 2 x 1600 W AC Common Redundant PSU InfiniBand QDR

SPECIFIC SKUS

H2312WPJR	12 x 3.5" hot-swap HDD 2 x 1200 W AC Common Redundant PSU No InfiniBand
H2312WPKR	12 x 3.5" hot-swap HDD 2 x 1600 W AC Common Redundant PSU No InfiniBand
H2312WPFJR	12 x 3.5" hot-swap HDD 2 x 1200 W AC Common Redundant PSU InfiniBand FDR
H2312WPFKR	12 x 3.5" hot-swap HDD 2 x 1600 W AC Common Redundant PSU InfiniBand FDR
H2312WPQJR	12 x 3.5" hot-swap HDD 2 x 1200 W AC Common Redundant PSU InfiniBand QDR
H2312WPQKR	12 x 3.5" hot-swap HDD 2 x 1600 W AC Common Redundant PSU InfiniBand QDR

INTEL® SERVER SYSTEMS R1000GZ AND R2000GZ BASED ON THE INTEL® S2600GL / GZ SERVER BOARDS

Description	Rack-optimized Server Systems deliver unmatched memory capacity, performance, I/O capacity and flexibility in an expansive family of 1U and 2U systems for the most demanding enterprise data center, cloud, or HPC environments. (Extended life product.)
Target Market	Data center / cloud
Server Board Included	S2600GL4: 16 DIMMs S2600GZ4: 24 DIMMs
Processors Supported	2 x Intel® Xeon® processors E5-2600 product family
Total Slots	8
Slot Types	2 x PCI Express* 3.0 x8 personality modules 2 x PCI Express 3.0 x24 superslots (6 PCI Express 3.0 x8 or 2 x PCI Express 3.0 x16 + 2 x PCI Express 3.0 x8)
Memory Capacity	16 or 24 x LR / U / RDIMMs 1333 / 1600 ECC 512 or 768 GB max
Module Upgrades	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 (included) Intel® Trusted Platform Module

**1U RACK SYSTEMS**

Dimensions (H x W x D)	1.75" x 16.93" x 27.95"
System Cooling	Redundant cooling fans
Power Supply	460 W AC Redundant PSU (Gold Efficiency), 750 W AC Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Includes Intel® System Management Software, iBMC with IPMI Intel® Remote Management Module 4 Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUS

R1208GL4DS	8 x 2.5" hot-swap HDD 16 DIMM 460 W AC Redundant PSU Software RAID Key RKSATA8
R1208GZ4GC	8 x 2.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU Software RAID Key RKSATA8
R1208GZ4GCSAS	8 x 2.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU Intel® Integrated RAID Module RMS25CB080

SPECIFIC SKUS

R1208GZ4GS9	8 x 2.5" hot-swap HDD 24 DIMM 750 W AC Redundant PSU Intel® Remote Management Module 4 not included
R1304GL4DS9	4 x 3.5" hot-swap HDD 16 DIMM 460 W AC Redundant PSU Intel® Remote Management Module 4 not included
R1304GZ4GC	4 x 3.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU
R1304GZ4GS9	4 x 3.5" hot-swap HDD 24 DIMM 750 W AC Redundant PSU Intel® Remote Management Module 4 not included

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INTEL® SERVER SYSTEMS R1000GZ AND R2000GZ BASED ON THE INTEL® S2600GL / GZ SERVER BOARDS *continued*

2U RACK SYSTEMS

Dimensions (H x W x D)	3.44" x 16.93" x 27.95"
System Cooling	Redundant cooling fans
Power Supply	460 W AC Redundant PSU (Gold Efficiency), 750 W AC or DC Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Includes Intel® System Management Software, iBMC with IPMI Intel® Remote Management Module 4 Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUS

R2208GL4GS	8 x 2.5" hot-swap HDD 16 DIMM 750 W AC Redundant PSU Software RAID Key RKSATA8
R2208GL4DS9	8 x 2.5" hot-swap HDD 16 DIMM 460 W AC Redundant PSU Intel® Remote Management Module 4 not included
R2208GZ4GC	8 x 2.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU Software RAID Key RKSATA8
R2208GZ4IS	8 x 2.5" hot-swap HDD 24 DIMM 750 W DC Redundant PSU Software RAID Key RKSATA8
R2208GZ4GS9	8 x 2.5" hot-swap HDD 24 DIMM 750 W AC Redundant PSU Intel® Remote Management Module 4 not included
R2216GZ4GC	16 x 2.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU Software RAID Key RKSAS4 Intel® RAID Expander RES2CV240 24-port

SPECIFIC SKUS

R2216GZ4GCLX	16 x 2.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU Intel® Integrated RAID Module RMS25CB080 Intel® RAID Expander RES2CV240 24-port
R2224GZ4GC4	24 x 2.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU
R2224GZ4GCSAS	24 x 2.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU Intel® Integrated RAID Module RMS25CB080 Intel® RAID Expander RES2CV360 36-port
R2308GL4GS	8 x 3.5" hot-swap HDD 16 DIMM 750 W AC Redundant PSU Software RAID Key RKSATA8
R2308GL4DS9	8 x 3.5" hot-swap HDD 16 DIMM 460 W AC Redundant PSU Intel® Remote Management Module 4 not included
R2308GZ4GC	8 x 3.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU Software RAID Key RKSATA8

SPECIFIC SKUS

R2308GZ4GS9	8 x 3.5" hot-swap HDD 24 DIMM 750 W AC Redundant PSU Intel® Remote Management Module 4 not included
R2312GL4GS	12 x 3.5" hot-swap HDD 16 DIMM 750 W AC Redundant PSU
R2312GZ4GC4	12 x 3.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU
R2312GZ4GCSAS	12 x 3.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU Intel® Integrated RAID Module RMS25CB080 Software RAID Key RKSAS4
R2312GZ4GS9	12 x 3.5" hot-swap HDD 24 DIMM 750 W AC Redundant PSU Intel® Remote Management Module 4 not included

INTEL® SERVER SYSTEMS R2000IP AND P4000IP BASED ON THE INTEL® SERVER BOARD S2600IP

Description	Provides unsurpassed I/O capacity by exposing all 80 PCI Express* Gen3 lanes available in the chipset to offer 8 single-width or 4 double-width card support with a full range of SAS RAID and I/O expansion options for the ultimate in flexibility. (Extended life product.)
Target Market	Enterprise / storage
Server Board Included	S2600IP4: integrated I/O expansion module PCI Express* x8 Gen3
Processors Supported	2 x Intel® Xeon® processors E5-2600 product family
Total Slots	8+2
Slot Types	1 x PCI Express 3.0 x16 3 x PCI Express 3.0 x8 or x0 3 x PCI Express 3.0 x8 or x16 1 x PCI Express 2.0 x4 1 x PCI Express 2.0 x4 via SAS ROC module 1 x PCI Express 1.0 x8 via I/O expansion module
Memory Capacity	16 x LR / U / RDIMMs 1333 / 1600 ECC 512 GB max
Module Upgrades	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Intel® Trusted Platform Module

2U RACK SYSTEMS

Dimensions (H x W x D)	3.44" x 16.93" x 27.95"
System Cooling	Redundant cooling fans
Power Supply	750 W AC Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Includes Intel® System Management Software, iBMC with IPMI Intel® Remote Management Module 4 Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUS

R2208IP4LHPC	8 x 2.5" hot-swap HDD Software RAID Key RKSAS8
R2216IP4LHPC	16 x 2.5" hot-swap HDD Intel® RAID Expander RES2CV240 24-port Intel® Integrated RAID Module RMS25CB080
R2224IP4LHPC	24 x 2.5" hot-swap HDD Software RAID Key RKSAS8 Intel® RAID Expander RES2CV360 36-port
R2308IP4LHPC	8 x 3.5" hot-swap HDD Software RAID Key RKSATA8
R2312IP4LHPC	12 x 3.5" hot-swap HDD Intel® RAID Expander RES2SV240 Intel® Integrated RAID Module RMS25CB080

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INTEL® SERVER SYSTEMS R2000IP AND P4000IP BASED ON THE INTEL® SERVER BOARD S2600IP *continued*

4U PEDESTAL SYSTEMS

Dimensions (H x W x D)	17.24" x 6.81" x 26.9"
System Cooling	Redundant cooling fans
Power Supply	750 W, 1200 W, or 1600 W AC Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Includes Intel® System Management Software, iBMC with IPMI Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUS

P4208IP4LHGC	8 x 2.5" hot-swap HDD 2 x 750 W AC Redundant PSU Software RAID Key RKSAS8
P4216IP4LHJC	16 x 2.5" hot-swap HDD 2 x 1200 W AC Redundant PSU
P4216IP4LHKC	16 x 2.5" hot-swap HDD 2 x 1600 W AC Redundant PSU Intel® Integrated RAID Module RMS25CB080
P4224IP4LHKC	24 x 2.5" hot-swap HDD 2 x 1600 W AC Redundant PSU Software RAID Key RKSAS8
P4308IP4LHGC	8 x 3.5" hot-swap HDD 2 x 750 W AC Redundant PSU Software RAID Key RKSATA8
P4308IP4LHJC	8 x 3.5" hot-swap HDD 2 x 1200 W AC Redundant PSU Software RAID Key RKSATA8
P4308IP4LHKC	8 x 3.5" hot-swap HDD 2 x 1600 W AC Redundant PSU Intel® Integrated RAID Module RMS25CB080

INTEL® SERVER SYSTEMS P4000CP BASED ON THE INTEL® SERVER BOARD S2600CP

Description	Integrated system with a variety of storage and power supply options for powerful performance and flexible feature advantages specific to the small and medium business and storage segments. (Extended life product.)
Target Market	Small to medium business
Server Board Included	S2600CP4: Quad 1 GbE Ethernet Controllers
Processors Supported	2 x Intel® Xeon® processors E5-2600 product family
Total Slots	6
Slot Types	1 x PCI Express* 3.0 x16 5 x PCI Express 3.0 x8
Memory Capacity	16 x LR / U / RDIMMs 1333 / 1600 ECC 512 GB max
Module Upgrades	Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Intel® Trusted Platform Module



4U PEDESTAL SYSTEMS

Dimensions (H x W x D)	17.24" x 6.81" x 24.9"
System Cooling	Non-redundant or redundant cooling fans
Power Supply	550 W AC Fixed PSU (Gold Efficiency), 750 W AC Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Includes Intel® System Management Software, iBMC with IPMI Hardware RAID Controller RMS25PB080 provides 6 Gb/s to enable 8 SAS / SATA drives Optional optical disk drive
Warranty	3 year limited warranty

SPECIFIC SKUS

P4208CP4MHGC	8 x 2.5" hot-swap HDD 2 x 750 W AC Redundant PSU Redundant cooling fans Software RAID Key RKSAS8
P4308CP4MHEN	8 x 3.5" hot-swap HDD 550 W AC Fixed PSU Non-redundant cooling fans Software RAID Key RKSATA8
P4308CP4MHGC	8 x 3.5" hot-swap HDD 2 x 750 W AC Redundant PSU Redundant cooling fans Software RAID Key RKSATA8

INTEL® SERVER SYSTEMS R1000JP BASED ON THE INTEL® SERVER BOARD S1600JP

Description	Systems featuring a performance, single-socket, half-width board, rich in I/O (40 Gen3 lanes) for a streamlined 1U rack mount server presentation. (Extended life product.)
Target Market	Embedded / storage / small to medium businesses
Server Board Included	S1600JP4: Integrated Quad 1 GbE Ethernet Controllers
Processors Supported	1 x Intel® Xeon® processor E5-2600 product family
Total Slots	3
Slot Types	2 x PCI Express* 3.0 x16 1 x PCI Express 3.0 x8
Memory Capacity	8 x LR / U / RDIMMs 1333 / 1600 ECC 256 GB max
Module Upgrades	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4



1U RACK SYSTEMS

Dimensions (H x W x D)	1.75" x 17.2" x 24.75"
System Cooling	Redundant cooling fans
Power Supply	450 W AC Redundant PSU (Gold Efficiency), 750 W AC Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Includes Intel® System Management Software, iBMC with IPMI Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUS

R1208JP40C	8 x 2.5" hot-swap HDD 2 x 450 W AC Redundant PSU
R1304JP4GS	4 x 3.5" hot-swap HDD 750 W AC Redundant PSU

INTEL® WORKSTATION SYSTEMS P4000CR BASED ON THE INTEL® WORKSTATION BOARD W2600CR

Description	These workstation systems balance the need for computational power with I/O capacity and flexibility to deliver amazing application performance.
Target Market	Data-intensive applications
Workstation Board Included	W2600CR2: up to 4 double-wide graphics cards
Processors Supported	2 x Intel® Xeon® processors E5-2600 product family
Total Slots	8+2
Slot Types	1 x PCI Express* 3.0 x16 3 x PCI Express 3.0 x8 or x0 3 x PCI Express 3.0 x8 or x16 1 x PCI Express 2.0 x4 1 x PCI Express 2.0 x4 via SAS ROC module 1 x PCI Express 1.0 x8 via I/O expansion module
Memory Capacity	16 x LR / U / RDIMMs 1333 / 1600 ECC 512 GB max
Module Upgrades	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Intel® Trusted Platform Module



4U PEDESTAL SYSTEMS

Dimensions (H x W x D)	17.24" x 6.81" x 26.9"
System Cooling	Non-redundant cooling fans
Power Supply	750 W, 1200 W, or 1600 W AC Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Includes Intel® System Management Software, iBMC with IPMI Hardware RAID Controller RMS25PB080 provides 6 Gb/s to enable 8 SAS / SATA drives Optional optical disk drive
Warranty	3 year limited warranty

SPECIFIC SKUS

P4304CR2LFGN	4 x 3.5" fixed HDD 750 W AC Redundant PSU
P4304CR2LFJN	4 x 3.5" fixed HDD 1200 W AC Redundant PSU
P4304CR2LFKN	4 x 3.5" fixed HDD 1600 W AC Redundant PSU

INTEL® SERVER SYSTEMS R2000LH2 / LT2 BASED ON THE INTEL® SERVER BOARD S4600LH

Description	The uncompromising performance and high reliability server of choice for demanding applications, featuring support for 4 Intel® Xeon® processor E5-4600 and massive memory capacity of 1.5 TB. (Extended life product.)
Target Market	Enterprise / HPC
Server Board Included	S4600LH2: Integrated Dual Port Intel® Ethernet Controller I350 (1 GbE) S4600LT2: Integrated Dual Port Intel® Ethernet Controller X540 (10 GbE)
Processors Supported	4 x Intel® Xeon® processors E5-4600 product family
Total Slots	6+2
Slot Types	6 x PCI Express* 3.0 x16 2 x PCI Express 3.0 x8 via I/O expansion module
Memory Capacity	48 x LR / U / DIMMs 1333 / 1600 ECC 1500 GB max
Module Upgrades	Intel® I/O Module: Ethernet and InfiniBand* Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 (included) Intel® Trusted Platform Module
Additional Board Options	eUSB SSD, SATA DOM, and mSATA support (for internal keys and boot)



2U RACK SYSTEMS

Dimensions (H x W x D)	3.43" x 17.24" x 28"
System Cooling	11 x high-speed hot-swap redundant 40mm dual rotor fans
Power Supply	1600 W AC Common Redundant PSU (Platinum Efficiency), 1600 W DC Common Redundant PSU (Gold Efficiency)
Thermal Solution	Included
Other Components	Includes Intel® System Management Software, iBMC with IPMI Intel® Remote Management Module 4 Optional optical disk drive Optional Intel® MIC Optional Local Control Panel
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUS

R2208LH2HKC2	8 x 2.5" hot-swap HDD Software RAID Key RKSAS8R5 to enable 8 SAS / SATA drives Integrated Dual Port Intel® Ethernet Controller I350 (1 GbE) 2 x 1600 W AC Common Redundant PSU
R2208LT2HKC4	8 x 2.5" hot-swap HDD Hardware RAID Controller RMS25PB080 provides 6 Gb/s to enable 8 SAS / SATA drives Integrated Dual Port Intel® Ethernet Controller X540 (10 GbE) 2 x 1600 W AC Common Redundant PSU
R2304LH2HKC	4 x 3.5" hot-swap HDD Integrated Dual Port Intel® Ethernet Controller I350 (1 GbE) 2 x 1600 W AC Common Redundant PSU
R2304LT2HKC	4 x 3.5" hot-swap HDD Integrated Dual Port Intel® Ethernet Controller X540 (10 GbE) 2 x 1600 W AC Common Redundant PSU
R2304LT2HVC	4 x 3.5" hot-swap HDD Integrated Dual Port Intel® Ethernet Controller X540 (10 GbE) 2 x 1600 W DC Common Redundant PSU
R2304LH2FKC	4 x 3.5" fixed HDD Integrated Dual Port Intel® Ethernet Controller I350 (1 GbE) 2 x 1600 W AC Common Redundant PSU

INTEL® SERVER SYSTEMS P4000FP BASED ON THE INTEL® SERVER BOARD S1400FP

Description	Intel's lowest cost server system supporting the Intel® Xeon® processor E5-2400, delivering real server benefits including I/O expandability, storage flexibility, and management in a sleek and acoustically quiet pedestal system. (Extended life product.)
Target Market	First server
Server Board Included	S1400FP2: Integrated Dual 1 GbE Ethernet Controllers
Processors Supported	1 x Intel® Xeon® processor E5-2400 product family
Total Slots	4+1
Slot Types	2 x PCI Express* 3.0 x8 1 x PCI Express 3.0 x4 1 x PCI Express 2.0 x4 1 x Legacy 32 / 33 PCI slot
Memory Capacity	6 x R / U / DIMMs 1066 / 1333 / 1600 ECC 96 GB max
Module Upgrades	Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Intel® Trusted Platform Module



4U PEDESTAL SYSTEMS

Dimensions (H x W x D)	17.24" x 6.81" x 21.5"
System Cooling	Non-redundant cooling fans
Power Supply	365 W AC Fixed PSU (Silver Efficiency), 460 W AC Redundant PSU (Gold Efficiency)
Thermal Solution	Included
Other Components	Includes Intel® System Management Software, iBMC with IPMI Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUS

P4304FP2SFCN	4 x 3.5" fixed HDD 365 W AC Fixed PSU Integrated Dual 1 GbE Ethernet Controllers
P4304FP2SHDR	4 x 3.5" hot-swap HDD 2 x 460 W AC Redundant PSU Integrated Dual 1 GbE Ethernet Controllers Power Distribution Board

INTEL® SERVER SYSTEMS R1000SP BASED ON THE INTEL® SERVER BOARD S1400SP

Description	Built for entry-level affordability, this single-socket rack system provides real server performance at a low cost, making it an ideal embedded, data center, and storage solution building block. (Extended life product.)
Target Market	Embedded
Server Board Included	S1400SP2: Integrated Dual 1 GbE Ethernet Controllers S1400SP4: Integrated Quad 1 GbE Ethernet Controllers
Processors Supported	1 x Intel® Xeon® processor E5-2400 product family
Total Slots	1+1+1
Slot Types	1 x PCI Express* 3.0 x8 1 x PCI Express 3.0 x4 via I/O expansion module 1 x PCI Express 3.0 x8 via I/O expansion module
Memory Capacity	6 x R / U / DIMMs 1066 / 1333 / 1600 ECC 96 GB max
Module Upgrades	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Intel® Trusted Platform Module

1U RACK SYSTEMS

Dimensions (H x W x D)	1.7" x 17.2" x 21.8"
System Cooling	Non-redundant cooling fans
Power Supply	350 W AC Fixed PSU (Silver Efficiency), 450 W AC Redundant Power Supply (Gold Efficiency)
Thermal Solution	Included
Other Components	Includes Intel® System Management Software, iBMC with IPMI Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUS

R1304SP2SFBN	4 x 3.5" fixed HDD Intel® S1400SP2 Server Board with Integrated Dual 1 GbE Ethernet Controllers 365 W AC Fixed PSU
R1304SP2SHBN	4 x 3.5" hot-swap HDD Intel® S1400SP2 Server Board with Integrated Dual 1 GbE Ethernet Controllers 365 W AC Fixed PSU
R1304SP2SHOC	4 x 3.5" hot-swap HDD Intel® S1400SP2 Server Board with Integrated Dual 1 GbE Ethernet Controllers 2 x 460 W AC Redundant PSU
R1304SP4SHOC	4 x 3.5" hot-swap HDD Intel® S1400SP4 Server Board with Integrated Quad 1 GbE Ethernet Controllers 2 x 460 W AC Redundant PSU



INTEL® SERVER SYSTEMS H2000LP BASED ON THE INTEL® SERVER BOARD S2400LP

Description	Specifically designed for the HPC and data center markets, balancing memory bandwidth, computing power, and price to maximize return on investment. Optional integrated ConnectX*-3 QDR / FDR InfiniBand* also available. (Extended life product.)
Target Market	IPDC / HPC embedded
Server Board Included	4 x S2400LP: no InfiniBand 4 x S2400LPF: integrated InfiniBand FDR (56 Gb/s) 4 x S2400LPQ: integrated InfiniBand QDR (40 Gb/s)
Processors Supported	2 x Intel® Xeon® processors E5-2400 product family per node
Total Slots	2 per node
Slot Types	4 x 1 PCI Express* 3.0 x16 4 x 1 PCI Express 3.0 x8
Memory Capacity	4 x 12 LR / U / RDIMMs 1333 / 1600 ECC 384 GB max per node
Module Upgrades	Intel® I/O Module ¹ Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 ¹



FOUR NODE 2U RACK SYSTEMS

Dimensions (H x W x D)	3.5" x 17.2" x 29.5"
System Cooling	3 x high-speed hot-swap redundant 40mm dual rotor fans per node
Power Supply	1200 W or 1600 W AC Common Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Intel® System Management Software, iBMC with IPMI Optional SAS 6G upgrade kit
Extended life product	Standard 3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUS

H2216LPJR	16 x 2.5" hot-swap HDD 2 x 1200 W AC Common Redundant PSU No InfiniBand
H2216LPKR	16 x 2.5" hot-swap HDD 2 x 1600 W AC Common Redundant PSU No InfiniBand
H2216LPFJR	16 x 2.5" hot-swap HDD 2 x 1200 W AC Common Redundant PSU InfiniBand FDR
H2216LPFKR	16 x 2.5" hot-swap HDD 2 x 1600 W AC Common Redundant PSU InfiniBand FDR
H2216LPQJR	16 x 2.5" hot-swap HDD 2 x 1200 W AC Common Redundant PSU InfiniBand QDR
H2216LPQKR	16 x 2.5" hot-swap HDD 2 x 1600 W AC Common Redundant PSU InfiniBand QDR

SPECIFIC SKUS

H2312LPJR	12 x 3.5" hot-swap HDD 1200 W AC Common Redundant PSU No InfiniBand
H2312LPKR	12 x 3.5" hot-swap HDD 2 x 1600 W AC Common Redundant PSU No InfiniBand
H2312LPFJR	12 x 3.5" hot-swap HDD 2 x 1200 W AC Common Redundant PSU InfiniBand FDR
H2312LPFKR	12 x 3.5" hot-swap HDD 2 x 1600 W AC Common Redundant PSU InfiniBand FDR
H2312LPQJR	12 x 3.5" hot-swap HDD 2 x 1200 W AC Common Redundant PSU InfiniBand QDR
H2312LPQKR	12 x 3.5" hot-swap HDD 2 x 1600 W AC Common Redundant PSU InfiniBand QDR

INTEL® SERVER SYSTEMS R1000EP BASED ON THE INTEL® SERVER BOARD S2400EP

Description	Designed for high-density rack-optimized deployments, either in value data centers or embedded applications. (Extended life product.)
Target Market	Embedded
Server Board Included	S2400EP2: Dual 1 GbE Ethernet Controllers
Processors Supported	2 x Intel® Xeon® processors E5-2400 product family
Total Slots	1+1+1
Slot Types	1 x PCI Express* 3.0 x16 1 x PCI Express 3.0 x8 via I/O expansion module 1 x PCI Express 3.0 x4 via I/O expansion module
Memory Capacity	8 x LV / R / U / DIMMs 1066 / 1333 / 1600 ECC 128 GB max
Module Upgrades	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Intel® Trusted Platform Module



1U RACK SYSTEMS

Dimensions (H x W x D)	1.7" x 17.2" x 21.8"
System Cooling	Non-redundant cooling fans
Power Supply	600 W AC Fixed PSU (Silver Efficiency)
Thermal Solution	Included
Other Components	Includes Intel® System Management Software, iBMC with IPMI Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUS

R1208EP2SHFN	8 x 2.5" hot-swap HDD 600 W AC Fixed PSU
R1304EP2SFFN	4 x 3.5" fixed HDD 600 W AC Fixed PSU
R1304EP2SHFN	4 x 3.5" hot-swap HDD 600 W AC Fixed PSU

INTEL® SERVER SYSTEMS R1000BB AND R2000BB BASED ON THE INTEL® SERVER BOARD S2400BB

Description	Innovative spread core design makes this the high-density and energy-efficient choice for data center and cloud applications where return on investment is measured in price and performance-per-watt. (Extended life product.)
Target Market	IPDC / cloud
Server Board Included	S2400BB4
Processors Supported	2 x Intel® Xeon® processors E5 2400 product family
Total Slots	8+1
Slot Types	2 x PCI Express* 3.0 x16 6 x PCI Express 3.0 x8 1 x PCI Express 2.0 x8 via I/O expansion module
Memory Capacity	12 x LR / U / RDIMMs 1333/1600 ECC 384 GB max
Module Upgrades	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Intel® Trusted Platform Module

**1U RACK SYSTEMS**

Dimensions (H x W x D)	1.75" x 17.2" x 24.75"
System Cooling	Redundant cooling fans
Power Supply	460 W AC Redundant PSU (Gold Efficiency), 750 W AC Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Includes Intel® System Management Software, iBMC with IPMI Intel® Remote Management Module 4 Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUS

R1208BB4DC	8 x 2.5" hot-swap HDD 2 x 460 W AC Redundant PSU Software RAID Key RKSATA8
R1304BB4DC	4 x 3.5" hot-swap HDD 2 x 460 W AC Redundant PSU
R1208BB4GS9	8 x 2.5" hot-swap HDD 750 W AC Redundant PSU
R1304BB4GS9	4 x 3.5" hot-swap HDD 750 W AC Redundant PSU

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INTEL® SERVER SYSTEMS R1000BB AND R2000BB BASED ON THE INTEL® SERVER BOARD S2400BB *continued*

2U RACK SYSTEMS

Dimensions (H x W x D)	3.5" x 17.2" x 24.75"
System Cooling	Redundant cooling fans
Power Supply	750 W AC Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Includes Intel® System Management Software, iBMC with IPMI Intel® Remote Management Module 4 Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUS

R2208BB4GC	8 x 2.5" hot-swap HDD 2 x 750 W AC Redundant PSU Software RAID Key RKSATAB
R2208BB4GS9	8 x 2.5" hot-swap HDD 750 W AC Redundant PSU Intel® Remote Management Module 4 not included
R2216BB4GC	16 x 2.5" hot-swap HDD 2 x 750 W AC Redundant PSU Software RAID Key RKSAS8 Intel® RAID Expander RES2CV240 24-port
R2224BB4GCSAS	24 x 2.5" hot-swap HDD 2 x 750 W AC Redundant PSU Intel® Integrated RAID Module RMS25PB080 Intel® RAID Expander RES2CV360 36-port

SPECIFIC SKUS

R2308BB4GC	8 x 3.5" hot-swap HDD 2 x 750 W AC Redundant PSU Software RAID Key RKSATAB
R2312BB4GCSAS	12 x 3.5" hot-swap HDD 2 x 750 W AC Redundant PSU Software RAID Key RKSAS4 Intel® Integrated RAID Module RMS25PB080
R2312BB4GS9	12 x 3.5" hot-swap HDD 750 W AC Redundant PSU Intel® Remote Management Module 4 not included
R2000BB4GS9	No drive cages 750 W AC Redundant PSU Diskless system

INTEL® SERVER SYSTEMS R2000SC AND P4000SC BASED ON THE INTEL® SERVER BOARD S2400SC

Description	Expanded I/O for demanding first server environments makes this an ideal choice for small businesses seeking to maximize ROI while delivering affordable server-level performance.
Target Market	Medium business / RBO
Server Board Included	S2400SC
Processors Supported	2 x Intel® Xeon® processors E5-2400 product family
Total Slots	4+1
Slot Types	1 x PCI Express* 3.0 x16 1 x PCI Express 3.0 x8 1 x PCI Express 3.0 x4 1 x PCI Express 2.0 x4 1 x Legacy 32/33 PCI slot
Memory Capacity	8 x LV / R / U / DIMMs 1066 / 1333 / 1600 ECC 128 GB max
Module Upgrades	Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Intel® Trusted Platform Module

2U RACK SYSTEMS

Dimensions (H x W x D)	3.5" x 17.2" x 24.75"
System Cooling	Non-redundant cooling fans
Power Supply	600 W AC Fixed PSU (Silver Efficiency), 460 W AC Redundant PSU (Gold Efficiency), 750 W AC Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Includes Intel® System Management Software, iBMC with IPMI Optional optical disk drive
Warranty	3 year limited warranty

SPECIFIC SKUS

R2308SC2SHDR	8 x 3.5" hot-swap HDD 2 x 460 W AC Redundant PSU Power Distribution Board
R2308SC2SHFN	8 x 3.5" hot-swap HDD 600 W AC Fixed PSU
R2312SC2SHGR	12 x 3.5" hot-swap HDD 2 x 750 W AC Redundant PSU Power Distribution Board Intel® Remote Management Module 4 Software RAID Key RKSATA8

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INTEL® SERVER SYSTEMS R2000SC AND P4000SC BASED ON THE INTEL® SERVER BOARD S2400SC *continued*

4U PEDESTAL SYSTEMS

Dimensions (H x W x D)	17.24" x 6.81" x 21.5" or 17.24" x 6.81" x 24.9"
System Cooling	Non-redundant or redundant cooling fans
Power Supply	550 W AC Fixed PSU (Silver Efficiency), 460 W AC Redundant PSU (Gold Efficiency), 750 W AC Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Includes Intel® System Management Software, iBMC with IPMI Optional optical disk drive
Warranty	3 year limited warranty

SPECIFIC SKUS

P4304SC2SFEN	4 x 3.5" fixed HDD 550 W AC Fixed PSU Non-redundant cooling fans 17.24" x 6.81" x 21.5" P4000S chassis
P4304SC2SHDR	4 x 3.5" hot-swap HDD 2 x 460 W AC Redundant PSU Non-redundant cooling fans Power Distribution Board Intel® Remote Management Module 4 17.24" x 6.81" x 21.5" P4000S chassis
P4308SC2MHGC	8 x 3.5" hot-swap HDD 2 x 750 W AC Redundant PSU Redundant cooling fans Power Distribution Board Intel® Remote Management Module 4 17.24" x 6.81" x 24.9" P4000M chassis

INTEL® SERVER SYSTEMS P4000GP BASED ON THE INTEL® SERVER BOARD S2400GP

Description	Full-featured and flexible server for the embedded, storage and SMB markets, delivering the maximum memory capacity and I/O capability possible with the Intel® Xeon® processor E5-2400 product family.
Target Market	Medium business
Server Board Included	S2400GP2: Dual 1 GbE Ethernet Controllers
Processors Supported	2 x Intel® Xeon® processors E5-2400 product family
Total Slots	5+1+1
Slot Types	2 x PCI Express* 3.0 x16 1 x PCI Express 3.0 x8 1 x PCI Express 3.0 x4 1 x PCI Express 2.0 x4 1 x PCI Express 3.0 x4 via I/O expansion module 1 x Legacy 32 / 33 PCI slot
Memory Capacity	12 x LV / R / U / LR DIMMs 1066 / 1333 / 1600 ECC 384 GB max
Module Upgrades	Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 (included) Intel® Trusted Platform Module



4U PEDESTAL SYSTEMS

Dimensions (H x W x D)	17.24" x 6.81" x 24.9"
System Cooling	Non-redundant or redundant cooling fans
Power Supply	460 W AC Redundant PSU (Gold Efficiency), 750 W AC Redundant PSU (Platinum Efficiency), 1200 W AC Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Includes Intel® System Management Software, iBMC with IPMI Intel® Remote Management Module 4 Optional optical disk drive Power Distribution Board
Warranty	3 year limited warranty

SPECIFIC SKUS

P4304GP2MHDR	4 x 3.5" hot-swap HDD 2 x 460 W AC Redundant PSU Non-redundant cooling fans
P4308GP2MHGC	8 x 3.5" hot-swap HDD 2 x 750 W AC Redundant PSU Redundant cooling fans
P4308GP2MHJC	8 x 3.5" hot-swap HDD 2 x 1200 W AC Redundant PSU Redundant cooling fans

INTEL® SERVER SYSTEMS R1000BT AND P4000BT BASED ON THE INTEL® SERVER BOARDS S1200BTL / BTS

Description	Low-priced, entry-level server systems featuring the Intel® Xeon® processor E3 product family expand deployment opportunities for first server customers. Optional server management on some models.
Target Market	First server
Server Board Included	S1200BTSR: no management S1200BTLR: Intel® System Management Software, iBMC with IPMI
Processors Supported	1 x Intel® Xeon® processor E3-1200 or E3-1200 v2 product family
Total Slots	4 or 5
Slot Types	S1200BTSR: 1 x PCI Express* 3.0 x8, 1 x PCI Express 3.0 x8 (x8 mechanical), 1 x PCI Express 3.0 x4 (x8 mechanical), 1 x PCI 32-bit / 33 MHz (5 V) S1200BTLR: 1 x PCI Express 3.0 x8 (x16 mechanical), 3 x PCI Express 3.0 x4 (x8 mechanical), 1 x PCI 32-bit / 33 MHz (5 V), 1 x Mezzanine connector—optional SAS module
Memory Capacity	4 x DDR3 UDIMMs 1066 / 1333 / 1600 ECC 32 GB max
Module Upgrades	S1200BTSR: Intel® Trusted Platform Module S1200BTLR: Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Intel® Trusted Platform Module



1U RACK SYSTEMS

Dimensions (H x W x D)	1.75" x 17.24" x 21.8"
System Cooling	Non-redundant cooling fans
Power Supply	250 W or 350 W AC Fixed PSU (Silver Efficiency)
Thermal Solution	Sold separately
Other Components	Optional optical disk drive
Warranty	3 year limited warranty

SPECIFIC SKUS

R1304BTSSFANR	4 x 3.5" fixed HDD Intel® Server Board S1200BTSR 250 W AC Fixed PSU
R1304BTLSFANR	4 x 3.5" fixed HDD Intel® Server Board S1200BTLR 250 W AC Fixed PSU
R1304BTLSHBNR	4 x 3.5" hot-swap HDD Intel® Server Board S1200BTLR 350 W AC Fixed PSU

4U PEDESTAL SYSTEMS

Dimensions (H x W x D)	17.24" x 6.9" x 21.5"
System Cooling	Non-redundant cooling fans
Power Supply	365 W AC Fixed PSU (Silver Efficiency)
Thermal Solution	Sold separately
Other Components	Optional optical disk drive
Warranty	3 year limited warranty

SPECIFIC SKUS

P4304BTSSFCNR	4 x 3.5" fixed HDD Intel® Server Board S1200BTSR
P4304BTLSFCNR	4 x 3.5" fixed HDD Intel® Server Board S1200BTLR
P4304BTLSHCNR	4 x 3.5" hot-swap HDD Intel® Server Board S1200BTLR

LEGACY INTEL® SERVER / WORKSTATION SYSTEMS

Intel® Server Systems are engineered from the processor out to meet a range of business needs, from SMB applications to virtualization deployments to HPC infrastructure. Rely on Intel's legacy of quality, flexibility, and support to grow your business.

USAGE MODEL	INTEL® SERVER / WORKSTATION SYSTEM	FORM FACTOR	INTEL® SERVER / WORKSTATION BOARD	DRIVE BAYS	POWER SUPPLY	INTEL® I/O EXPANSION
High-Performance Server	SC5650HCBRP	5U pedestal	S5520HC	6 x 3.5" hot-swap SAS / SATA	600 W 1+0 redundant ³	RMM3, SAS
High-Performance Workstation	SC5650SCWS	5U pedestal	S5520SC	6 x 3.5" hot-swap SAS / SATA	1000 W with integrated cooling fan ³	RMM3, SAS
High-Density / Enterprise	SR1600UR	1U	S5520UR	3 x 3.5" fixed or hot-swap SAS / SATA	600 W 1	RMM3, GbE, 10 GbE, SAS, InfiniBand*
	SR1625UR	1U	S5520UR	8 x 2.5" hot-swap SAS / SATA	650 W 1+0 redundant ³	RMM3, GbE, 10 GbE, SAS, InfiniBand*
	SR2600UR	2U	S5520UR	6 x 3.5" hot-swap SAS / SATA, 2 x 2.5" internal fixed SATA drive mounts	750 W 1+0 redundant ³	RMM3, GbE, 10 GbE, SAS, InfiniBand*
	SR2625UR ²	2U	S5520UR	8 x 3.5" hot-swap SAS / SATA, 2 x 2.5" internal fixed SATA drive mounts	750 W 1+0 redundant ³	RMM3, GbE, 10 GbE, SAS, InfiniBand*
Storage	SR2612UR	2U	S5520UR	12 x 3.5" hot-swap SAS / SATA, 2 x 2.5" internal fixed SATA drive mounts	2 x 760 W 1+0 redundant ³	RMM3, GbE, 10 GbE, SAS, InfiniBand*
HPC / Data Center	SR1670HV	1U	S5500HV	8 x 2.5" hot-swap SATA	2 x 770 W	N/A
	SR1690WB	1U	S5500WB	4 x 3.5" hot-swap SAS / SATA configurable to support 2.5"	650 W ³	RMM3, GbE, 10 GbE, SAS, InfiniBand*
	SR1695WB	1U	S5500WB	4 x 3.5" hot-swap SAS / SATA configurable to support 2.5"	450 W AC or DC 1+0 redundant ³	RMM3, GbE, 10 GbE, SAS, InfiniBand*
Value Server	SR1630BC	1U	S5500BC	2 x 3.5" fixed SATA, 1 x slim-line DVD-ROM	400 W ³	RMM3
	SC5650BCDP	5U pedestal	S5500BC	6 x 3.5" hot-swap SAS / SATA	600 W	RMM3
	SR1630GP / HGP	1U	S3420GPLC	2 or 3 x 3.5" fixed SATA, 1 x slim-line DVD-ROM	350 W	N/A
	SR1630GPRX / HGPRX	1U	S3420GPRX	2 or 3 x 3.5" fixed SATA, 1 x slim-line DVD-ROM	350 W ³	RMM3Lite, GbE, SAS
	SR1695GPRX	1U	S3420GPRX	4 x 3.5" hot-swap SAS / SATA configurable to support 2.5"	400 W AC 1+0 redundant ³	RMM3Lite, GbE, SAS
Remote Branch	MFSYS25V2	6U	MFS5520VI	14 x 2.5" SAS / SATA / SSD	Up to 4 x 1000 W, N+1	GbE I/O Mezzanine Card

For more information, visit www.intel.com/go/serversystems or ark.intel.com

¹ On interposer (need accessory kit AXXRMM4IOM or AXXRMM4IOMW).

² Model available with TPM-enabled board supporting Intel® Trusted Execution Technology (Intel® TXT). No computer system can provide absolute security under all conditions. Intel TXT requires a computer system with Intel® Virtualization Technology, an Intel TXT-enabled processor, chipset, BIOS, Authenticated Code Modules, and an Intel TXT-compatible measured launched environment (MLE). Intel TXT also requires the system to contain a TPM v1.s. For more information, visit www.intel.com/technology/security

³ High efficiency power supply.

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Intel® Server Chassis



New Intel® Server Chassis P4000 series requires the separate purchase of a thermal solution kit and air duct specific to the Intel Server Board selected. See the Accessories and Spares section of the chosen Intel Server Board configuration guide for recommended part numbers.

Other boxed Intel® Thermal Solutions are mechanically compatible with the processor socket but are not thermally validated in Intel Server Chassis.



Chassis		Intel® Server Chassis P4000S	
A general purpose pedestal chassis optimized for thermal and acoustic performance.			
Model	Fixed HDD models	Hot-swap HDD models	
Chassis Order Code	P4304XXSFCN, P4304XXSFEN, P4304XXSFDN, P4304XXSFDR	P4304XXSHCN, P4304XXSHEN, P4304XXSHDN, P4304XXSHDR	
Spares Kit Order Code	Mechanical Spares Kit ² : FUPSMSK Electrical Spares Kit ² : FUPSESK Air ducts sold separately based on board purchased	Mechanical Spares Kit ² : FUPSMSK Electrical Spares Kit ² : FUPSESK Air ducts sold separately based on board purchased	
Form Factor	4U Pedestal	4U Pedestal	
Intel® Server Board Support ¹	P4304XXSFCN : S1200BTS, S1200BTL, S2600CP2] P4304XXSFEN : S2400SC2, S2600CP2] P4304XXSFDN : S2400SC2, S2600CP2], all S1400FP P4304XXSFDR : S2400SC2, S2600CP2], all S1400FP	P4304XXSHCN : S1200BTL, S2600CP2] P4304XXSHEN : S2400SC2, S2600CP2] P4304XXSHDN : S2400SC2, S2600CP2], all S1400FP P4304XXSHDR : S2400SC2, S2600CP2], all S1400FP	
Drive Bays	Up to four 3.5" fixed SAS / SATA drives	Up to four 3.5" hot-swap SAS / SATA drives	
Hot-Swap Disk Drive Bay (Order Code)	Upgrade: up to four hot-swap drive bays via the following hot-swap disk drive bay upgrade kits: 4-drive SAS / SATA (FUP4X35HSDK)	Share the same hot-swap drive bay kit (FUP4X35HSDK), use as a spare	
System Cooling	2 x 92mm internal chassis fan (single fan in P4304XXSFCN)	2 x 92mm internal chassis fan (single fan in P4304XXSHCN)	
Power Supplies	P4304XXSFCN: (1) Fixed 365 W (Silver Efficiency) P4304XXSFEN: (1) Fixed 550 W (Silver Efficiency) P4304XXSFDN: (1) Common Redundant 460 W (Gold Efficiency) P4304XXSFDR: (2) Common Redundant 460 W (Gold Efficiency)	P4304XXSHCN: (1) Fixed 365 W (Silver Efficiency) P4304XXSHEN: (1) Fixed 550 W (Silver Efficiency) P4304XXSHDN: (1) Common Redundant 460 W (Gold Efficiency) P4304XXSHDR: (2) Common Redundant 460 W (Gold Efficiency)	
I/O Slots	Up to 6	Up to 6	
Backplane	None included	Included	
Tool-less Features	Front bezel, EMI cover, side cover, PCI card retainer, peripheral bays, PSU installation, and fixed drive carriers	Front bezel, side cover, PCI card retainer, hot-swap hard drive trays, hot-swap hard drive bays, peripheral bays, and PSU installation	
Dimensions (H x W x D)	Pedestal: 17.24" x 6.81" x 21.5" (438mm x 173mm x 546mm)	Pedestal: 17.24" x 6.81" x 21.5" (438mm x 173mm x 546mm)	
Bezel Features	Black, control panel, three 5.25" peripheral drive bays, four internal hard drive bays, two USB ports	Black, control panel, three 5.25" peripheral drive bays, four hot-swap hard drive bays and carriers (behind door), security lock, two USB ports	
Front Connectors	2 x USB	2 x USB	
System Security	Side cover: A padlock loop slot available at the rear of the system access cover to prevent access to the microprocessors, memory, and add-in cards Side cover: Intrusion switch Back panel: Kensington* cable lock mounting hole	Front door: Security lock (available on hot-swap HDD SKUs only) Side cover: A padlock loop slot available at the rear of the system access cover to prevent access to the microprocessors, memory, and add-in cards Side cover: Intrusion switch Back panel: Kensington* cable lock mounting hole	



Chassis

Intel® Server Chassis P4000M

A general purpose pedestal chassis targeted at small to medium business supporting CEB and EEB form factor server boards.

Model

Fixed HDD models

Hot-swap HDD models

Chassis Order Code

P4308XXMFDN, P4308XXMFDR, P4308XXMFEN, P4308XXMFGN, P4308XXMFR

P4208XXMHDR, P4208XXMHEN, P4208XXMHGC, P4208XXMHGR, P4216XXMHEN, P4216XXMHGC, P4216XXMHGR, P4216XXMHJC, P4304XXMHEN, P4308XXMHDN, P4308XXMHDR, P4308XXMHEN, P4308XXMHGC, P4308XXMHGN, P4308XXMHGR, P4308XXMHJC

Spares Kit Order Code

Mechanical Spares Kit²: FUPMMSK
Electrical Spares Kit²: FUPMESK
Air ducts sold separately based on board purchased

Mechanical Spares Kit²: FUPMMSK
Electrical Spares Kit²: FUPMESK
Air ducts sold separately based on board purchased

Form Factor

4U Pedestal

4U Pedestal

Intel® Server Board Support¹

P4308XXMFDN: all S2600CP, all S2600CO, all S2400GP, S2400SC2
P4308XXMFDR: all S2600CP, all S2600CO, all S2400GP, S2400SC2
P4308XXMFEN: all S2600CP, all S2600CO, all S2400GP, S2400SC2
P4308XXMFGN: all S2600CP, all S2600CO, all S2400GP, S2400SC2
P4308XXMFR: all S2600CP, all S2600CO, all S2400GP, S2400SC2

P4208XXMHDR, P4208XXMHEN, P4208XXMHGC, P4208XXMHGR, P4216XXMHEN, P4216XXMHGC, P4216XXMHGR, P4304XXMHEN, P4308XXMHDN, P4308XXMHDR, P4308XXMHEN, P4308XXMHGC, P4308XXMHGN, P4308XXMHGR, P4308XXMHJC: all S2600CP, all S2600CO, all S2400GP, S2400SC2
P4216XXMHJC: all S2600CP, all S2600CO, all S2400GP
P4308XXMHJC: all S2600CP, all S2600CO, all S2400GP

Drive Bays

Up to eight 3.5" fixed SAS / SATA drives

Up to eight or sixteen 2.5" hot-swap SAS / SATA drives
Up to four or eight 3.5" hot-swap SAS / SATA drives

Hot-Swap Disk Drive Bay (Order Code)

Upgrade: up to four hot-swap drive bays via the following hot-swap disk drive bay upgrade kit 4-drive SAS / SATA (FUP4X35HSDK)

Share the same hot-swap drive bay kit (FUP4X35HSDK/FUP8X25HSDK), use as spare

System Cooling

2 x 120mm internal chassis fan

2 x 120mm internal chassis fan
Redundant Cooling on: P4208XXMHGC, P4216XXMHGC, P4216XXMHJC, P4308XXMHGC, P4308XXMHJC

Power Supplies

P4308XXMFDN: (1) Common Redundant 460 W (Gold Efficiency)
P4308XXMFDR: (2) Common Redundant 460 W (Gold Efficiency)
P4308XXMFEN: (1) Fixed 550 W (Silver Efficiency) No redundant PSU
P4308XXMFGN: (1) Common Redundant 750 W (Platinum Efficiency)
P4308XXMFR: (2) Common Redundant 750 W (Platinum Efficiency)

P4208XXMHDR: (2) Common Redundant 460 W (Gold Efficiency)
P4208XXMHEN: (1) Fixed 550 W (Silver Efficiency) No redundant PSU
P4208XXMHGC: (2) Common Redundant 750 W (Platinum Efficiency)
P4208XXMHGR: (2) Common Redundant 750 W (Platinum Efficiency)
P4216XXMHEN: (1) Fixed 550 W (Silver Efficiency) No redundant PSU
P4216XXMHGC: (2) Common Redundant 750 W (Platinum Efficiency)
P4216XXMHGR: (2) Common Redundant 750 W (Platinum Efficiency)
P4216XXMHJC: (2) Common Redundant 1200 W (Platinum Efficiency)
P4304XXMHEN: (1) Fixed 550 W (Silver Efficiency) No redundant PSU
P4308XXMHDN: (1) Common Redundant 460 W (Gold Efficiency)
P4308XXMHDR: (2) Common Redundant 460 W (Gold Efficiency)
P4308XXMHEN: (1) Fixed 550 W (Silver Efficiency) No redundant PSU
P4308XXMHGC: (2) Common Redundant 750 W (Platinum Efficiency)
P4308XXMHGN: (1) Common Redundant 750 W (Platinum Efficiency)
P4308XXMHGR: (2) Common Redundant 750 W (Platinum Efficiency)
P4308XXMHJC: (2) Common Redundant 1200 W (Platinum Efficiency)

I/O Slots

Up to 6

Up to 6

Backplane

None included

Included

Tool-less Features

Front bezel, EMI cover, side cover, PCI card retainer, peripheral bays, PSU installation, and fixed drive carriers

Front bezel, side cover, PCI card retainer, hot-swap hard drive trays, hot-swap hard drive bays, peripheral bays, and PSU installation

Dimensions (H x W x D)

Pedestal: 17.24" x 6.81" x 24.9" (438mm x 173mm x 632mm)

Pedestal: 17.24" x 6.81" x 24.9" (438mm x 173mm x 632mm)

Bezel Features

Black, control panel, three 5.25" peripheral drive bays, four internal hard drive bays, two USB ports

Black, control panel, three 5.25" peripheral drive bays, four hot-swap hard drive bays and carriers (behind door), security lock, two USB ports

Front Connectors

2 x USB

2 x USB

System Security

Side cover: A padlock loop slot available at the rear of the system access cover to prevent access to the microprocessors, memory, and add-in cards
Side cover: Intrusion switch
Back panel: Kensington* cable lock mounting hole

Front door: Security lock (available on hot-swap HDD SKUs only)
Side cover: A padlock loop slot available at the rear of the system access cover to prevent access to the microprocessors, memory, and add-in cards
Side cover: Intrusion switch
Back panel: Kensington* cable lock mounting hole

For more information, visit www.intel.com/products/server/chassis or ark.intel.com

¹ Refer to www.intel.com/p/en_US/support/server/ for up-to-date details on server boards supported by each chassis.

² For complete spare and accessory list, please download the latest configuration guide from Spares, parts list and configuration guide at www.intel.com/p/en_US/support

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Intel® Modular Server

SIMPLE. FLEXIBLE. COMPLETE.

The Intel® Modular Server is an integrated system that includes SAN storage, computing, and networking to simplify the growing demands of your IT infrastructure. The Intel Modular Server features:

- Up to six dual processor Server Compute Modules
- Integrated Storage Area Network (SAN)
- Integrated Ethernet Switch Modules
- All hot-swappable components
- Virtual Presence remote management capabilities
- Optional software upgrade features:

Intel® Shared LUN: Enables HA clustering and advanced virtualization applications

Intel® Modular Server Storage Management Pack: Enables LUN cloning, RAID morphing, and storage pool defragmentation

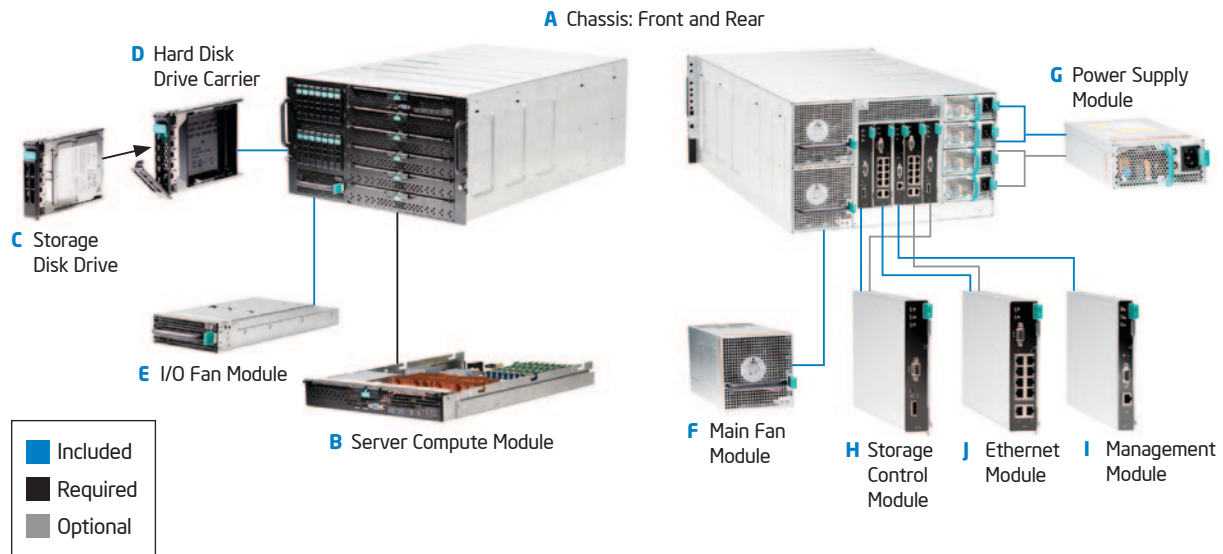
Intel® Modular Server Advanced Management Pack: Enables features for user authentication using an LDAP server, forwarding events to an external SYSLOG server, and exporting / importing chassis settings

As an integrated system, the Intel® Modular Server has capabilities not found in the common rack server setup, including virtual drives that provide grow-as-you-go flexibility and Virtual Presence management for simplicity.

Now available: Intel® Modular Server Virtualization Manager—the first product release of the Intel® Server Continuity Suite for the Modular Server

Simple point-and-click virtualization is seamlessly integrated into the management interface, enabling you to virtualize your servers, create multiple virtual machines, and use Live Migration to move running virtual machines between compute modules.

Coming in 2H'12: The Intel® Modular Server Virtualization Manager—High Availability Pack key enables virtual machine (VM) high availability and storage subsystem high availability (HA), in case of either a compute module or storage control module failure. With just a few mouse clicks, it's simple to either upgrade existing virtual machines or create new VMs with HA, enabling even greater business continuity.



A CHASSIS

- 1-6 Server Compute Modules
- Storage Drive Bay

B SERVER COMPUTE MODULE (REQUIRED)

- Two models available: MFS2600KI and MFS5520VIR
- Up to 2 Intel® Xeon® processors
- Supports 16 DDR3 DIMMs (MFS2600KI) or 12 DDR3 DIMMs (MFS5520VIR)
- Dual Gigabit Mezzanine expansion card (optional)

C STORAGE HARD DISK DRIVE (REQUIRED)

- Up to 14 2.5-inch SAS / SATA drives

D HARD DISK DRIVE CARRIERS (INCLUDED)

E HOT-SWAPPABLE I/O FAN MODULE (INCLUDED)

F HOT-SWAPPABLE MAIN FAN MODULE (INCLUDED)

G HOT-SWAPPABLE POWER SUPPLY MODULE (2 INCLUDED, 2 OPTIONAL)

- 3 + 1 redundancy

H STORAGE CONTROL MODULE (1 INCLUDED, 1 OPTIONAL)

- Up to 2 Storage Control Modules for redundancy

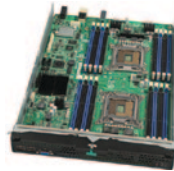
I MANAGEMENT MODULE (INCLUDED)

J ETHERNET SWITCH MODULE (1 INCLUDED, 1 OPTIONAL)

- Up to 2 Ethernet Switch Modules
- Each module features 10/100/1000GbE full-duplex ports

INTEL® MODULAR SERVER PRODUCTS

AVAILABLE
Q3 2012



Server	Intel® Modular Server Compute Module MFS2600KI	Intel® Modular Server Compute Module MFS520VIR
Order Code	MFS2600KI	MFS520VIR
Intel® Server Chassis Support	Intel® Modular Server System MFSYS25V2	Intel® Modular Server System MFSYS25V2
Processor Support	Intel® Xeon® processor E5-2600 product family	Intel® Xeon® processor 5500 or 5600 series
Number of Processors Supported	2	2
Supported Speeds	Up to 8 GT/s (Intel® QuickPath Interconnect)	6.40 GT/s / 5.86 GT/s / 4.80 GT/s (Intel® QuickPath Interconnect)
Chipset	Intel® C600 Chipset	Intel® 5520 Server Chipset
Memory Capacity	16 DDR3 DIMMs (8 per processor)	12 DDR3 DIMMs (6 per processor)
Total Slots	1 Mezzanine expansion connector	1 Mezzanine expansion connector
Integrated SAS HBA	Connectivity to shared storage provided via onboard LSI* 1064e controller	Connectivity to shared storage provided via onboard LSI* 1064e controller
Integrated LAN	2 x Gigabit Ethernet (4 x with optional gigabit mezzanine card AXGGBIOMEZV)	2 x Gigabit Ethernet (4 x with optional gigabit mezzanine card AXGGBIOMEZV)
Integrated Graphics	Server Engines* LLC Pilot II* controller with 64 MB DDR2 memory	Server Engines* LLC Pilot II* controller with 64 MB DDR2 memory
Integrated Management	Remote management (KVM over IP), Remote Media Redirection, and Remote Serial Console	Remote management (KVM over IP), Remote Media Redirection, and Remote Serial Console
Application Management	Provided by Intel® System Management Software	Provided by Intel® System Management Software
Front Connectors	4 x USB, 1 x DB15 video	4 x USB, 1 x DB15 video

Chassis	Intel® Modular Server System MFSYS25V2
Chassis Order Code	MFSYS25V2
Form Factor	6U (can be deployed in a rack or pedestal kit)
Intel® Server Board Support	Intel® Modular Server Compute Module MFS520VIR or MFS2600KI
Server Slots	6
Shared Storage HDD Bay	Supports up to 14 x 2.5" drives (MFSYS25V2)
Management Module Bay	1 integrated Intel® Modular Server Management Module
Storage Module Bay	1 integrated Intel® Storage Controller, option for redundant storage module
I/O Module Bay	1 integrated Intel® Gigabit Ethernet Switch, option for redundant Ethernet switch
System Cooling	3 x high-flow system fans included
Power Supply	Up to (4) 1000 W, N + 1 PFC 100 to 240 V-capable (2 power supplies included in the base MFSYS25V2 SKU)
Redundant Power Capable	Yes (fully redundant system configuration requires two additional power modules AXXP5U)
Tool-less Features	Complete tool-less serviceability
Dimensions (H x W x D)	10.3" x 17.5" x 28.4"
Weight	187 lbs (84.8 kg) fully configured
Ethernet Switch Module	10 x external 10/100/1000 Mb/s ports, 12 x internal 1 Gb/s ports, Layer 2+, 10 Gb/s switch interlinks, integrated management
Storage Controller Module	SAS 3 Gb-based SAN storage supporting RAID 0, 1, 1E, 5, 6, 10, 50, and 60; external 4 x mini SAS port expansion for integration with external SAS tape or RAID
Chassis Management Module	Web management GUI with remote KVM support, virtual presence, and virtualized access storage management

For more information, visit www.intel.com/go/modular

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Intel offers multiple categories of RAID products to protect data, increase performance, scale storage, and enhance server availability. A brief description of each category is listed below with details in the pages that follow.

CONTROLLER CARDS AND MODULES

- Best: Intel® Integrated Server RAID signifies unique system boards that are designed to add value above that of a standard RAID add-in card to Intel® Server Boards and Systems.
- Better: Intel® RAID Controllers are add-in cards designed to enable a wide variety of RAID solutions.
- Good: Intel® Embedded Server RAID Technology Software RAID Activation Keys are designed for entry-level RAID solutions.

RAID CACHE BACKUP

- Battery Backup Units (BBU) and Maintenance-Free Backup Units (MFBU) are available for hardware RAID products with embedded cache. The backup options are listed in the "Backup Option" row of the product tables.

EXPANDER BOARDS

- Intel® RAID Expander Cards are intended for any system with more than 8 drives. As an example of use, 8 RAID ports can be expanded to 24 ports.

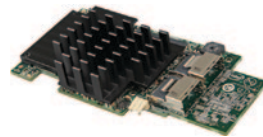
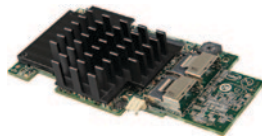
PREMIUM FEATURE KEYS

- Several upgrade features can be added to enhance the performance and data protection of Intel's intelligent RAID cards and modules.

CABLE KITS AND CONVERTER BOARDS

- Newer generation RAID products do not ship with cables, as multiple options exist depending on the system in which the RAID products are installed. Therefore, Intel offers a variety of cables. A converter board that allows for two internal 8087 connectors to be converted to two external 8088 connectors is also available.

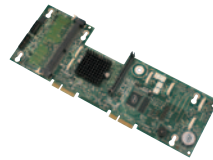
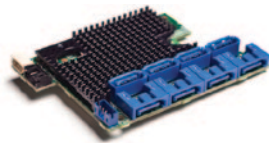
INTEL® INTEGRATED RAID PRODUCTS



Controller	Intel® Integrated RAID Module RMS25CB080 / 040	Intel® Integrated RAID Module RMT3CB080	Intel® Integrated RAID Module RMS25JB080 / 040	Intel® Integrated RAID Module RMS25PB080 / 040
	6.0 Gb/s SAS 2.1 full hardware RAID Module with storage I/O connector	6.0 Gb/s SATA 3.0 full hardware RAID Module with storage I/O connector	6.0 Gb/s SAS 2.1 entry-level RAID Module with storage I/O connector	6.0 Gb/s SAS 2.1 full hardware RAID Module with standard PCI Express* x8 connector
Market Segment	Mainstream	Mainstream	Entry / Limited Feature	Mainstream
Order Code	RMS25CB080 / RMS25CB040	RMT3CB080	RMS25JB080 / RMS25JB040	RMS25PB080 / RMS25PB040
Processor / RAID On Chip	LSI* 2208	LSI* 2208	LSI* 2308	LSI* 2208
Memory	Embedded 1 GB ECC DDR2 SDRAM	Embedded 512 MB ECC DDR2 SDRAM	2 MB context memory for entry-level hardware RAID calculations	Embedded 1 GB ECC DDR2 SDRAM
PCI Bus	PCI Express* 3.0 x8	PCI Express* 3.0 x8	PCI Express* 3.0 x8	PCI Express* 3.0 x8
Channels	8 / 4 SAS / SATA ports supporting point-to-point 6.0 Gb/s data-transfer rates	8 SATA ports supporting point-to-point 6.0 Gb/s data-transfer rates	8 / 4 SAS / SATA ports supporting point-to-point 6.0 Gb/s data-transfer rates	8 / 4 SAS / SATA ports supporting point-to-point 6.0 Gb/s data-transfer rates
Form Factor	1U capable system board	1U capable system board	1U capable system board	Low-profile PCI Express add-in card
RAID Levels	0, 1, 5, 6, 10, 50, and 60	0, 1, 5, 6, 10, 50, and 60	0, 1, and 1E	0, 1, 5, 6, 10, 50, and 60
Backup Options	AXXRSBBU9 (battery backup) AXXRMFBU2 (flash and supercap)	AXXRSBBU9 (battery backup) AXXRMFBU2 (flash and supercap)	N/A	AXXRSBBU9 (battery backup) AXXRMFBU2 (flash and supercap)
Cables	Purchased separately	Purchased separately	Purchased separately	Purchased separately
Intel® Server Board Support	Intel® Xeon® E5 series server boards with a storage I/O module connector	Intel® Xeon® E5 series server boards with a storage I/O module connector	Intel® Xeon® E5 series server boards with a storage I/O module connector	Intel® Xeon® E5 series server boards
Availability	Now	Now	Now	Now



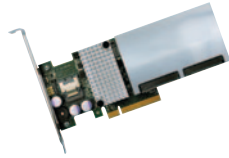
Controller	Intel® Integrated RAID Module RMT3PB080	Intel® Integrated RAID Module RMS25KB080 / 040	Intel® Integrated RAID Module RMS2MH080	Intel® Integrated RAID Module RMS2AF080 / 040
	6.0 Gb/s SATA 3.0 full hardware RAID Module with standard PCI Express* connector	6.0 Gb/s SAS 2.1 entry-level RAID Module with standard PCI Express* connector	6.0 Gb/s SAS 2.0 RAID Module for use with Intel® Server Boards S552OUR and S5500WB	6.0 Gb/s SAS 2.0 entry-level RAID Module for use with Intel® Xeon® E3 and 5600 series server boards with an I/O module slot
Market Segment	Mainstream	Entry / Limited Feature	Mainstream	Entry
Order Code	RMT3PB080	RMS25KB080 / RMS25KB040	AXXRMS2MH080	AXXRMS2AF080 / AXXRMS2AF040
Processor / RAID On Chip	LSI* 2208	LSI* 2308	LSI* 2108	LSI* 2008
Memory	Embedded 512 MB ECC DDR2 SDRAM	2 MB context memory for entry-level hardware RAID calculations	Embedded 512 MB ECC DDR2 SDRAM	2 MB (on card) for RAID 0, 1, 1E, and 128 MB (from server board) for RAID 5 calculations
PCI Bus	PCI Express* 3.0 x8	PCI Express* 3.0 x8	PCI Express* 2.0 x8	PCI Express* 2.0 x4
Channels	8 SATA ports supporting point-to-point 6.0 Gb/s data-transfer rates	8 / 4 SAS / SATA ports supporting point-to-point 6.0 Gb/s data-transfer rates	8 SAS / SATA ports supporting point-to-point 6.0 Gb/s data-transfer rates	8 / 4 SAS / SATA ports supporting point-to-point 6.0 Gb/s data-transfer rates
Form Factor	Low-profile PCI Express add-in card	Low-profile PCI Express add-in card	1U capable system board	1U capable system board
RAID Levels	0, 1, 5, 6, 10, 50, and 60	0, 1, and 1E	0, 1, 5, 6, 10, 50, and 60	0, 1, 5, 10, and 50
Backup Options	AXXRSBBU9 (battery backup) AXXRMFBU2 (flash and supercap)	N/A	AXXRSBBU7 AXXRSBBU8 (new longer life)	No
Cables	Purchased separately	Purchased separately	Included	Included
Intel® Server Board Support	Intel® Xeon® E5 series server boards	Intel® Xeon® E5 series server boards	Intel® Server Boards S552OUR and S5500WB	Intel® Server Boards S552OUR, S5500WB, S5520HC, S5520SC, S3420GP, and S1200BT
Availability	Now	Now	Now	Now



Controller	Intel® Integrated RAID Module RMS2LL080 / 040	Intel® Integrated RAID 1U / 2U Midplane	Intel® Integrated RAID Module SROMBSASMR	Intel® Integrated RAID Module AXX4SASMOD
	6.0 Gb/s SAS 2.0 entry-level RAID Module for use with Intel® Xeon® E3 and 5600 series server boards with an I/O module slot	SAS and SATA RAID Module for Intel® Server Systems SR1625UR, SR2600UR, and SR2625UR	Four-port internal RAID Module for 1U, 2U, and pedestal use with Intel® Server Boards S5520HC and S5500WB	Flexible Module offering pass-through SAS and multiple entry-level RAID options
Market Segment	Entry / Limited Feature	Mainstream	Mainstream	Entry
Order Code	AXXRMS2LL080 / AXXRMS2LL040	Midplane included with systems requires AXXRAKSAS2 for hardware RAID activation	AXXROMBSASMR	AXX4SASMOD requires AXXRAKSW5 for RAID 5
Processor / RAID On Chip	LSI* 2008	LSI* 1078	LSI* 1078	LSI* 1064
Memory	2 MB for entry-level hardware RAID calculations	Supports up to 1 GB mini-DIMM ECC DDR2 667 MHz DDR2 SDRAM	Embedded 128 MB ECC DDR2 SDRAM	2 MB for entry-level hardware RAID calculations
PCI Bus	PCI Express* 2.0 x4	PCI Express* x4	PCI Express* x8	PCI Express* x4
Channels	8 / 4 SAS / SATA ports supporting point-to-point 6.0 Gb/s data-transfer rates	8 SAS / SATA ports supporting point-to-point 3.0 Gb/s data-transfer rates	4 internal SAS / SATA ports supporting point-to-point 3.0 Gb/s data-transfer rates	4 SAS / SATA ports supporting point-to-point 3.0 Gb/s data-transfer rates
Form Factor	1U capable system board	System midplane	1U capable system board	1U capable system board
RAID Levels	0, 1, and 1E	0, 1, 5, 6, 10, 50, and 60	0, 1, 5, 6, 10, 50, and 60	0, 1, 1E, and optional RAID 5
Backup Options	No	AXXRSBBU3	AXXRSBBU3	No
Cables	Included	Included	Included	Included
Intel® Server Board Support	Intel® Server Boards S5520UR, S5500WB, S5520HC, S5520SC, S3420GP, and S1200BT	Intel® Server Board S5520UR	Intel® Server Boards S5520UR, S5500WB, S5520HC, S5520SC, S3420GP, and S1200BT	Intel® Server Boards S5520UR, S5500WB, S5520HC, S5520SC, S3420GP, and S1200BT
Availability	Now	Now	Now	Now

SAS 2.0 INTEL® RAID CONTROLLER ADD-IN CARDS

NEW



Controller	Intel® RAID SSD Cache Controller RCS25ZB040	Intel® RAID Controller RS2SG244	Intel® RAID Controller RS2WG160	Intel® RAID Controller RS25NB008
	High performance 4-port intelligent hardware RAID card with a large capacity integrated NAND cache to significantly boost performance.	Scalable performance 6.0 Gb/s SAS RAID Controller with 24 internal and 4 external ports for SAS / SATA drives	Scalable performance 6.0 Gb/s SAS RAID Controller with 16 internal ports for SAS / SATA drives	Scalable performance dual-core 6.0 Gb/s SAS RAID Controller with 8 external ports for SAS / SATA drives
Order Code	RCS25ZB040V (128 GB cache) RCS25ZB040 (256 GB cache) RCS25ZB040LX (1024 GB cache)	RS2SG244	RS2WG160	RS25NB008
Processor / RAID On Chip	LSI* SAS2208	LSI* SAS2108	LSI* SAS2108	LSI* SAS2208
Memory	1 GB embedded DDR3 ECC memory plus either 128, 256, or 1024 GB NAND	512 MB embedded DDR2 ECC memory	512 MB embedded DDR2 ECC memory	1 GB embedded DDR3 ECC memory
PCI Bus	PCI Express* 3.0 x8	PCI Express* 2.0 x8	PCI Express* 2.0 x8	PCI Express* 3.0 x8
Channels	4 internal SAS / SATA ports supporting point-to-point 6.0 Gb/s and 3.0 Gb/s data-transfer rates	24 internal and 4 external SAS / SATA ports supporting point-to-point 6.0 Gb/s and 3.0 Gb/s data-transfer rates	16 internal SAS / SATA ports supporting point-to-point 6.0 Gb/s and 3.0 Gb/s data-transfer rates	8 external SAS / SATA ports supporting point-to-point 6.0 Gb/s and 3.0 Gb/s data-transfer rates
Form Factor	Low-profile, 6.6" length (MD2 compliant)	Full-height, 6.6" length	Full-height, 6.6" length	Low-profile, 6.6" length (MD2 compliant)
RAID Levels	0, 1, 5, 6, 10, 50, and 60	0, 1, 5, 6, 10, 50, and 60	0, 1, 5, 6, 10, 50, and 60	0, 1, 5, 6, 10, 50, and 60
Intel® Smart Backup Option	AXXRMFBU3	AXXRSBBU7 AXXRSBBU8 (new longer life)	AXXRSBBU7 AXXRSBBU8 (new longer life)	AXXRSBBU9
Cables	Not included	Included	Included	Not included
Availability	September	Now	Now	August



Controller	Intel® RAID Controller RS25SB008	Intel® RAID Controller RS2MB044	Intel® RAID Controller RS25AB080	Intel® RAID Controller RS25DB080
	Scalable performance dual-core 6.0 Gb/s SAS RAID Controller with 8 external ports for SAS / SATA drives and maintenance-free backup unit (Flash-based)	Scalable performance 6.0 Gb/s SAS RAID Controller with 4 internal and 4 external ports for SAS / SATA drives	Mainstream dual-core 6.0 Gb/s SAS RAID Controller with 8 internal ports for SAS / SATA drives and maintenance-free backup unit (Flash-based)	Mainstream dual-core 6.0 Gb/s SAS RAID Controller with 8 internal ports for SAS / SATA drives
Order Code	RS25SB008	RS2MB044	RS25AB080	RS25DB080
Processor / RAID On Chip	LSI* SAS2208	LSI* SAS2108	LSI* SAS2208	LSI* SAS2208
Memory	1 GB embedded DDR2 ECC memory	512 MB embedded DDR2 ECC memory	1 GB embedded DDR2 ECC memory	1 GB embedded DDR3 ECC memory
PCI Bus	PCI Express* 3.0 x8	PCI Express* 2.0 x8	PCI Express* 3.0 x8	PCI Express* 3.0 x8
Channels	8 external SAS / SATA ports supporting point-to-point 6.0 Gb/s and 3.0 Gb/s data-transfer rates	4 internal and 4 external SAS / SATA ports supporting point-to-point 6.0 Gb/s and 3.0 Gb/s data-transfer rates	8 internal SAS / SATA ports supporting point-to-point 6.0 Gb/s and 3.0 Gb/s data-transfer rates	8 internal SAS / SATA ports supporting point-to-point 6.0 Gb/s and 3.0 Gb/s data-transfer rates
Form Factor	Low-profile, 6.6" length (MD2 compliant)	Low-profile, 6.6" length (MD2 compliant)	Low-profile, 6.6" length (MD2 compliant)	Low-profile, 6.6" length (MD2 compliant)
RAID Levels	0, 1, 5, 6, 10, 50, and 60	0, 1, 5, 6, 10, 50, and 60	0, 1, 5, 6, 10, 50, and 60	0, 1, 5, 6, 10, 50, and 60
Intel® Smart Backup Option	Maintenance-free backup unit (Flash-based) included with add-in card	AXXRSBBU7 AXXRSBBU8 (new longer life)	Maintenance-free backup unit (Flash-based) included with add-in card	AXXRSBBU9
Cables	Not included	One 8087 to four 7-pin SATA cable included	Purchased separately	AXXCBL740MS7P (ordered separately)
Availability	Now	Now	Now	Now



Controller	Intel® RAID Controller RS2VB080 / 040	Intel® RAID Controller RS2BL080 / 040	Intel® RAID Controller RS2PI008
	Mainstream 6.0 Gb/s SAS RAD Controller with 8 internal ports for SAS / SATA drives and maintenance-free backup unit (Flash-based)	Mainstream 6.0 Gb/s SAS RAID Controller with 8 internal ports for SAS / SATA drives	Mainstream 6.0 Gb/s SAS RAID Controller with 8 external ports for JBODs with SAS / SATA drives
Order Code	RS2VB080 / RS2VB040	RS2BL080 / RS2BL040 (Standard) RS2BL080DE (with Drive Encryption Management)	RS2PI008 (Standard) RS2PI008DE (with Drive Encryption Management)
Processor / RAID On Chip	LSI* SAS2108	LSI* SAS2108	LSI* SAS2108
Memory	512 MB embedded DDR2 ECC memory	512 MB embedded DDR2 ECC memory	512 MB embedded DDR2 ECC memory
PCI Bus	PCI Express* 2.0 x8	PCI Express* 2.0 x8	PCI Express* 2.0 x8
Channels	8 / 4 internal SAS / SATA ports supporting point-to-point 6.0 Gb/s and 3.0 Gb/s data-transfer rates	8 / 4 internal SAS / SATA ports supporting point-to-point 6.0 Gb/s and 3.0 Gb/s data-transfer rates	8 external SAS / SATA ports supporting point-to-point 6.0 Gb/s and 3.0 Gb/s data-transfer rates
Form Factor	Low-profile, 6.6" length (MD2 compliant)	Low-profile, 6.6" length (MD2 compliant)	Low-profile, 6.6" length (MD2 compliant)
RAID Levels	0, 1, 5, 6, 10, 50, and 60	0, 1, 5, 6, 10, 50, and 60	0, 1, 5, 6, 10, 50, and 60
Intel® Smart Backup Option	Maintenance-free backup unit (Flash-based) included with add-in card	AXXRSBBU7 AXXRSBBU8 (new longer life)	AXXRSBBU7 AXXRSBBU8 (new longer life)
Cables	Included	Included	Included
Availability	Now	Now	Now



NEW

Controller	Intel® RAID Controller RT3WB080	Intel® RAID Controller RS2WC080 / 040	Intel® RAID Controller RS25GB008	Intel® RAID Controller RS25FB044
	Mainstream SATA-only RAID Controller with 8 ports and SAS expansion support for up to 16 SATA drives	Entry-level 6.0 Gb/s SAS RAID Controller with 8 internal ports for SAS / SATA drives	Entry-level 6.0 Gb/s SAS RAID Controller with 8 external ports for JBOD with SAS / SATA drives	Entry-level 6.0 Gb/s SAS RAID Controller with 4 internal ports for DAS storage and 4 external ports for JBOD storage
Order Code	RT3WB080	RS2WC080 / RS2WC040	RS25GB008	RS25FB044
Processor / RAID On Chip	LSI* SAS2108	LSI* SAS2008	LSI* SAS2308	LSI* SAS2308
Memory	256 MB embedded DDR2 ECC memory	2 MB (on card) for RAID 0, 1, 1E, and 128 MB (from server board) for RAID 5 calculations	2 MB context memory	2 MB context memory
PCI Bus	PCI Express* 2.0 x8	PCI Express* 2.0 x8	PCI Express* 3.0 x8	PCI Express* 3.0 x8
Channels	8 internal SATA ports supporting SAS expansion and point-to-point 6.0 Gb/s and 3.0 Gb/s data-transfer rates	8 / 4 internal SAS / SATA ports supporting point-to-point 6.0 Gb/s and 3.0 Gb/s data-transfer rates	8 external SAS / SATA ports supporting point-to-point 6.0 Gb/s and 3.0 Gb/s data-transfer rates	4 internal and 4 external SAS / SATA ports supporting point-to-point 6.0 Gb/s and 3.0 Gb/s data-transfer rates
Form Factor	Low-profile, 6.6" length (MD2 compliant)	Low-profile, 6.6" length (MD2 compliant)	Low-profile, 6.6" length (MD2 compliant)	Low-profile, 6.6" length (MD2 compliant)
RAID Levels	0, 1, 5, 6, 10, 50, and 60	0, 1, 5, 10, and 50	JBOD	0, 1, 1E, and JBOD
Intel® Smart Backup Option	AXXRSBBU7 AXXRSBBU8 (new longer life)	No	No	No
Cables	Included	Included	Not included	Not included
Availability	Now	Now	Now	Now

SAS 1.0 INTEL® RAID CONTROLLER ADD-IN CARDS



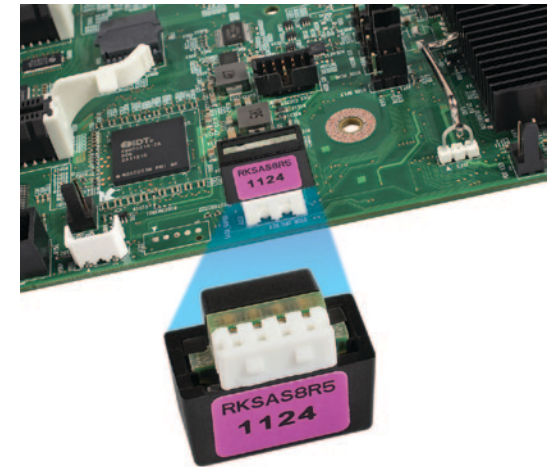
Controller	Intel® RAID Controller SASUC8I	Intel® RAID Controller SASWT4I
	8-port SAS / SATA with pass through SAS and entry-level hardware RAID 0, 1, 1E, and 10E capability	4-port SAS / SATA with pass through SAS and entry-level hardware RAID 0, 1, 1E, and 10E capability
Order Code	SASUC8I	SASWT4I
Processor / RAID On Chip	LSI* 1068	LSI* 1064
Memory	2 MB for entry-level hardware RAID calculations	2 MB for entry-level hardware RAID calculations
PCI Bus	PCI Express* x4	PCI Express* x4
Channels	8 internal SAS / SATA ports supporting point-to-point 3.0 Gb/s data-transfer rates	4 internal SAS / SATA ports supporting point-to-point 3.0 Gb/s data-transfer rates
Form Factor	Low-profile, 6.6" length	Low-profile, 6.6" length
RAID Levels	0, 1, and 1E/10E	0, 1, and 1E/10E
Intel® Smart Backup Option	No	No
Cables	N/A	Included
Availability	Now	Now

INTEL® SOFTWARE RAID ACTIVATION KEYS

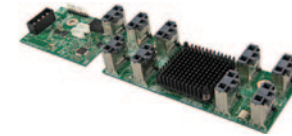
Most Intel® Xeon® 5500 and 5600 series server boards include Intel® Embedded Server RAID Technology 2 which provides RAID 0, 1, and 10. Software RAID 5 can be enabled on these server boards by adding the AXXRAKSW5 activation key.

Most Intel® Xeon E5 series server boards include 8 SCU storage ports with activation and features corresponding to the following table.

ACTIVATION KEY	PRODUCT NAME	SCU STORAGE FUNCTIONALITY
None	N/A	4-port SATA key with Intel® Embedded Server RAID Technology 2, RAID 0, 1, and 10, and Intel® Rapid Storage Technology Enterprise RAID 0, 1, 5, and 10 (no key)
RKSATA4R5	Intel® RAID C600 Upgrade Key RKSATA4R5	4-port SATA key with Intel® Embedded Server RAID Technology 2, RAID 0, 1, 5, and 10, and Intel® Rapid Storage Technology Enterprise RAID 0, 1, 5, and 10 (BLACK)
RKSATA8	Intel® RAID C600 Upgrade Key RKSATA8	8-port SATA key with Intel® Embedded Server RAID Technology 2, RAID 0, 1, and 10, and Intel® Rapid Storage Technology Enterprise RAID 0, 1, 5, and 10 (BLUE)
RKSATA8R5	Intel® RAID C600 Upgrade Key RKSATA8R5	8-port SATA key with Intel® Embedded Server RAID Technology 2, RAID 0, 1, 5, and 10, and Intel® Rapid Storage Technology Enterprise RAID 0, 1, 5, and 10 (WHITE)
RKSAS4	Intel® RAID C600 Upgrade Key RKSAS4	4-port SAS key with Intel® Embedded Server RAID Technology 2, RAID 0, 1, and 10, and Intel® Rapid Storage Technology Enterprise RAID 0, 1, and 10 (GREEN)
RKSAS4R5	Intel® RAID C600 Upgrade Key RKSAS4R5	4-port SAS key with Intel® Embedded Server RAID Technology 2, RAID 0, 1, 5, and 10 and Intel® Rapid Storage Technology Enterprise RAID 0, 1, and 10 (YELLOW)
RKSAS8	Intel® RAID C600 Upgrade Key RKSAS8	8-port SAS key with Intel® Embedded Server RAID Technology 2, RAID 0, 1, and 10 and Intel® Rapid Storage Technology Enterprise RAID 0, 1, and 10 (ORANGE)
RKSAS8R5	Intel® RAID C600 Upgrade Key RKSAS8R5	8-port SAS key with Intel® Embedded Server RAID Technology 2, RAID 0, 1, 5, and 10 and Intel® Rapid Storage Technology Enterprise RAID 0, 1, and 10 (PURPLE)



INTEL® RAID EXPANDER BOARDS (SAS EXPANDERS)



Expander Board	Intel® RAID Expander RES2SV240	Intel® RAID Expander RES2CV360 / 240
	24-port, 6.0 Gb/s-capable expander card for use with Intel® RAID products	36 / 24-port, 6.0 Gb/s-capable expander card for use with Intel® RAID products
Order Code	RES2SV240 (with 6 cables) RES2SV240NC (no cables)	RES2CV360 (no cables) / RES2CV240 (no cables)
Processor / RAID On Chip	LSI* 6.0 Gb/s Expander	LSI* 6.0 Gb/s Expander
Channels	24 SAS / SATA ports supporting point-to-point 6.0 Gb/s and 3.0 Gb/s data-transfer rates	36 / 24 SAS / SATA ports supporting point-to-point 6.0 Gb/s and 3.0 Gb/s data-transfer rates
Form Factor	Low-profile, 6.6" length (MD2 compliant) can be mounted in PCI Express* slot or chassis wall	Unique system board that requires chassis mounting point
Power Options	Standard PCI Express* x4 connector or RA 4-pin power connector	RA 4-pin power connector
Management	SGPIO	SGPIO
Fault LED Headers	Includes 2 pin headers to support each SAS port	Includes 2 pin headers to support each SAS port
Availability	Now	Now

INTEL® RAID PREMIUM FEATURES

These features are available as an upgrade for all LSI* SAS2108 processor-based Intel® RAID products. To identify products with this processor, please refer to the Processor row of the preceding feature tables. The Premium Feature Keys are described below.

PREMIUM FEATURE	SSD CACHE WITH FAST-PATH I/O	DRIVE ENCRYPTION MANAGEMENT	RAPID RECOVERY SNAPSHOT
Key Benefits	<ul style="list-style-type: none"> SSD Cache allows Solid-State Drives to be utilized as additional cache for the RAID Controller. The cache can be used for both reads and writes to assist storage performance. Fast-Path I/O accelerates communication with SSDs providing up to 150,000 I/O reads per second for small, random block-size I/O activity. This is a dramatic increase over solutions not using Fast-Path. 	<ul style="list-style-type: none"> Drive encryption management enables authentication key management, auto-lock, and instant erase of self-encrypting drives (SED). All drives eventually leave the data center and the use of SEDs helps reduce risk of data breaches. Instant erase significantly reduces the cost and time of repurposing or retiring drives. 	<ul style="list-style-type: none"> Rapid Recovery Snapshot allows users to capture source volume data changes and either restore files or rollback applications to a previous Point in Time (PiT). Rapid recovery of lost data from disk can occur within minutes, minimizing the downtime experienced by users and eliminating the lengthy process of restoring data from tape. By isolating a server's boot volume to a separate virtual drive and enabling the auto snapshot feature, users can be guaranteed that bootable snapshots exist, should operating system corruption occur.
Order Code	AXXRPFKSSD	AXXRPFKDE	AXXRPFKNSH
Availability	Now	Now	Now

These features are available as an upgrade for all LSI* SAS2208 processor-based Intel® RAID products. To identify products with this processor, please refer to the Processor row of the preceding feature tables. The Premium Feature Keys are described below.

PREMIUM FEATURE	SSD CACHE WITH FAST-PATH I/O	DRIVE ENCRYPTION MANAGEMENT	RAPID RECOVERY SNAPSHOT
Key Benefits	<ul style="list-style-type: none"> SSD Cache allows Solid-State Drives to be utilized as additional cache for the RAID Controller. Frequently accessed information is stored in the cache, allowing rapid access. Fast-Path I/O accelerates communication with SSDs providing up to 465,000 I/O reads per second for small, random block-size I/O activity. This is a dramatic increase over solutions not using Fast-Path. 	<ul style="list-style-type: none"> Drive encryption management enables authentication key management, auto-lock, and instant erase of self-encrypting drives (SED). All drives eventually leave the data center and the use of SEDs helps reduce risk of data breaches. Instant erase significantly reduces the cost and time of repurposing or retiring drives. 	<ul style="list-style-type: none"> Rapid Recovery Snapshot allows users to capture source volume data changes and either restore files or rollback applications to a previous Point in Time (PiT). Rapid recovery of lost data from disk can occur within minutes, minimizing the downtime experienced by users and eliminating the lengthy process of restoring data from tape. By isolating a server's boot volume to a separate virtual drive and enabling the auto snapshot feature, users can be guaranteed that bootable snapshots exist, should operating system corruption occur.
Order Code	AXXRPFKSSD2	AXXRPFKDE2	AXXRPFKNSH2
Availability	Now	Now	Now

CABLE KITS AND CONVERTER BOARDS

The following cables are available for connecting Intel® RAID cards and modules to storage devices and drive bays. Intel® cables are designed to a high-quality specification and include the ability to bend at a very small radii. These cables allow low-profile Intel RAID products with vertical 8087 connectors to be used in 2U rack chassis while installed in a standard PCI Express* slot.

CABLE KIT ORDER CODE	NUMBER OF CABLES INCLUDED IN KIT	INITIATOR CONNECTOR	TARGET CONNECTOR	LENGTH
AXXCBL750MS7P	2	8087 mini-SAS straight	Four x 7-pin SATA style	750mm
AXXCBL650MSMS	2	8087 mini-SAS straight	8087 mini-SAS straight	650mm



CONVERTER BOARDS	ORDER CODE	DESCRIPTION	INTERNAL CONNECTORS	EXTERNAL CONNECTORS
Intel® RAID Converter Board RCVT8788	AXXRCVT8788	Small form factor board with brackets for installation in a standard or low-profile chassis cutout. Intended to be used to convert internal ports to external ports. Cables are not included.	Two x 8087 mini-SAS	Two x 8088

For more information, visit www.intel.com/go/RAID

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Intel® Server Adapters

Help improve a server's reliability, availability, and scalability by adding an Intel® Ethernet 10GbE or 1GbE multi-port adapter.

CONNECTIVITY FOR COPPER NETWORKS

10 GIGABIT-OVER-COPPER



NEW

Adapter	Intel® X520-DA2 Dual Port Ethernet Server Adapter	Intel® 10 Gigabit AT2 Server Adapter	Intel® Ethernet Server Adapter X520-T2	Intel® Ethernet Server Adapter X540-T1	Intel® Ethernet Server Adapter X540-T2
Product Code—Singles	E10G42BTDA	E10G41AT2	E10G42BT	X540T1	X540T2
Product Code—Five Packs	N/A	N/A	N/A	N/A	N/A
Connector(s)	2 SFP+ Direct Attach Copper	1 RJ-45	2 RJ-45	1 RJ-45	2 RJ-45
End-Brackets	Low-profile, full-height	Low-profile, full-height	Low-profile, full-height	Low-profile, full-height	Low-profile, full-height
Ethernet Controller	Intel® 82599ES	Intel® 82598EB	Intel® 82599ES	Intel® X540	Intel® X540
Bus Width and Type	PCI Express* 2.0 (5 GT/s) x8	PCI Express* 2.0 (2.50 GT/s) x8	PCI Express* 2.0 (5 GT/s) x8	PCI Express* 2.1 (5 GT/s) x8	PCI Express* 2.1 (5 GT/s) x8
Open FCoE Support	Yes	No	No	Yes	Yes

10 GIGABIT-OVER-COPPER



Adapter	Intel® 10 Gigabit AF DA Dual Port Server Adapter	NetEffect® Ethernet Server Cluster Adapter DA	NetEffect® Ethernet Server Cluster Adapter CX4	Intel® 10 Gigabit CX4 Dual Port Server Adapter
Product Code—Singles	E10G42AFDA	E10G81G2P	E10G81GT2CX4	EXPX9502CX4
Product Code—Five Packs	N/A	N/A	N/A	N/A
Connector(s)	2 SFP+ Direct Attach Copper	1 SFP+ Direct Attach Copper	1 CX4	2 CX4
End-Brackets	Low-profile, full-height	Low-profile, full-height	Low-profile, full-height	Low-profile, full-height
Ethernet Controller	Intel® 82598EB	NE020	NE020	Intel® 82598EB
Bus Width and Type	PCI Express* 2.0 (2.50 GT/s) x8	PCI Express* 1.1 (2.50 GHz) x8	PCI Express* 1.1 (2.50 GHz) x8	PCI Express* 2.0 (2.50 GT/s) x8

CONNECTIVITY FOR COPPER NETWORKS

10/100/1000 MB/S-OVER-COPPER MULTI-PORT



Adapter	Intel® PRO/1000 PT Quad Port Server Adapter	Intel® PRO/1000 GT Quad Port Server Adapter	Intel® PRO/1000 PT Dual Port Server Adapter
Product Code—Singles	EXPI9404PTL	PWLA8494GT	EXPI9402PT
Product Code—Five Packs	EXPI9404PTLCLK	PWLA8494GTCLK5	EXPI9402PTCLK
Connector(s)	4 RJ-45	4 RJ-45	2 RJ-45
End-Brackets	Low-profile, full-height	Full-height	Low-profile, full-height
Ethernet Controller	Intel® 82571GB	Intel® 82546GB	Intel® 82571GB
Bus Width and Type	PCI Express* x4	64-bit PCI / PCI-X	PCI Express* x4

10/100/1000 MB/S-OVER-COPPER MULTI-PORT



Adapter	Intel® PRO/1000 MT Dual Port Server Adapter	Intel® Gigabit ET2 Quad Port Server Adapter	Intel® Gigabit ET Dual Port Server Adapter
Product Code—Singles	PWLA8492MT	E1G44ET2	E1G42ET
Product Code—Five Packs	PWLA8492MTCLK5	E1G44ET2CLK	E1G42ETCLK
Connector(s)	2 RJ-45	4 RJ-45	2 RJ-45
End-Brackets	Low-profile, full-height	Low-profile, full-height	Low-profile, full-height
Ethernet Controller	Intel® 82546GB	Intel® 82576	Intel® 82576
Bus Width and Type	32- or 64-bit PCI / PCI-X	PCI Express* x4	PCI Express* x4
Virtual Machine Device Queues (VMDq) Support	No	Yes	Yes
Security Features	No	IPsec	IPsec
Halogen Free	No	No	No

CONNECTIVITY FOR COPPER NETWORKS

10/100/1000 MB/S-OVER-COPPER MULTI-PORT



Adapter	Intel® Ethernet Server Adapter I340-T4	Intel® Ethernet Server Adapter I350-T2	Intel® Ethernet Server Adapter I350-T4
Product Code—Singles	E1G44HT	I350T2	I350T4
Product Code—Five Packs	E1G44HTBLK	I350T2BLK	I350T4BLK
Connector(s)	4 RJ-45	2 RJ-45	4 RJ-45
End-Brackets	Low-profile, full-height	Low-profile, full-height	Low-profile, full-height
Ethernet Controller	Intel® 82580	Intel® I350	Intel® I350
Bus Width and Type	PCI Express* x4	PCI Express* x4	PCI Express* x4
Virtual Machine Device Queues (VMDq) Support	Yes	Yes	Yes
Security Features	No	No	No
Halogen Free	Yes	Yes	Yes
EEE / DMA Coalescing	N/A	Yes	Yes

10/100/1000 MB/S-OVER-COPPER SINGLE PORT



Adapter	Intel® PRO/1000 PT Server Adapter	Intel® PRO/1000 MT Server Adapter
Product Code—Singles	EXPI9400PT	PWLA8490MT
Product Code—Five Packs	EXPI9400PTBLK	PWLA8490MTBLK5
Connector(s)	1 RJ-45	1 RJ-45
End-Brackets	Low-profile, full-height	Low-profile, full-height
Ethernet Controller	Intel® 82572GI	Intel® 82545GM
Bus Width and Type	PCI Express* x1	32- or 64-bit PCI / PCI-X

CONNECTIVITY FOR FIBER NETWORKS

10 GIGABIT-OVER-FIBER SINGLE PORT



Adapter	Intel® X520-SR1 Ethernet Server Adapter	Intel® X520-LR1 Ethernet Server Adapter	Intel® 10 Gigabit XF SR Server Adapter
Product Code—Singles	E10G41BFSR	E10G41BFLR	EXPX9501AFXSR
Product Code—Five Packs	N/A	N/A	N/A
Connector(s)	1 LC	1 LC	1 LC
Fiber Optic Cabling	MMF 62.5 / 50µm up to 300m	SMF up to 10km	MMF 62.5 / 50µm up to 300m
End-Brackets	Low-profile, full-height	Low-profile, full-height	Low-profile, full-height
Ethernet Controller	Intel® 82599ES	Intel® 82599ES	Intel® 82598EB
Bus Width and Type	PCI Express* 2.0 (5 GT/s) x8	PCI Express* 2.0 (5 GT/s) x8	PCI Express* 2.0 (2.50 GT/s) x8
Open FCoE Support	Yes	No	No

10 GIGABIT-OVER-FIBER SINGLE PORT

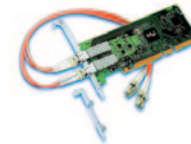
10 GIGABIT-OVER-FIBER MULTI-PORT



Adapter	Intel® 10 Gigabit XF LR Server Adapter	NetEffect™ Ethernet Server Cluster Adapter SFP+SR	Intel® X520-SR2 Dual Port Ethernet Server Adapter	Intel® 10 Gigabit XF SR Dual Port Server Adapter
Product Code—Singles	EXPX9501AFXLR	E10G81GF2SR	E10G42BFSR	EXPX9502AFXSR
Product Code—Five Packs	N/A	N/A	N/A	N/A
Connector(s)	1 LC	1 LC	2 LC	2 LC
Fiber Optic Cabling	SMF up to 10km	MMF 62.5 / 50µm up to 300m	MMF 62.5 / 50µm up to 300m	MMF 62.5 / 50µm up to 300m
End-Brackets	Low-profile, full-height	Low-profile, full-height	Low-profile, full-height	Low-profile, full-height
Ethernet Controller	Intel® 82598EB	NE020	Intel® 82599ES	Intel® 82598EB
Bus Width and Type	PCI Express* 2.0 (2.50 GT/s) x8	PCI Express* 1.1 (2.50 GHz) x8	PCI Express* 2.0 (5 GT/s) x8	PCI Express* 2.0 (2.50 GT/s) x8
Open FCoE Support	No	No	Yes	No

CONNECTIVITY FOR FIBER NETWORKS

GIGABIT-OVER-FIBER MULTI-PORT



Adapter	Intel® Ethernet Server Adapter I350-F2	Intel® PRO/1000 PF Dual Port Server Adapter	Intel® PRO/1000 MF Dual Port Server Adapter	Intel® Gigabit EF Dual Port Server Adapter
Product Code—Singles	I350F2	EXPI9402PF	PWLA8492MF	E1G42EF
Product Code—Five Packs	I350F2BLK	EXPI9402PFBLK	PWLA8492MFBLK5	E1G42EFBLK
Connector(s)	2 LC	2 LC	2 LC	2 LC
Fiber Optic Cabling	MMF 62.5µm up to 275m MMF 50µm up to 550m	MMF 62.5 / 50µm up to 275m	MMF 62.5 / 50µm up to 275m	MMF 62.5µm up to 275m MMF 50µm up to 550m
End-Brackets	Low-profile, full-height	Low-profile, full-height	Low-profile, full-height	Low-profile, full-height
Ethernet Controller	Intel® I350	Intel® 82571GB	Intel® 82546GB	Intel® 82576
Bus Width and Type	PCI Express* x4	PCI Express* x4	64-bit PCI / PCI-X	PCI Express* x4
Virtual Machine Device Queues (VMDq) Support	Yes	No	No	Yes
Security Features	No	No	No	IPsec
EEE / DMA Coalescing	Yes	No	No	No

CONNECTIVITY FOR FIBER NETWORKS

GIGABIT-OVER-FIBER MULTI-PORT



GIGABIT-OVER-FIBER SINGLE PORT



Adapter	Intel® Ethernet Server Adapter I350-F4	Intel® Ethernet Server Adapter I340-F4	Intel® PRO/1000 PF Server Adapter
Product Code—Singles	I350F4	E1G44HF	EXPI9400PF
Product Code—Five Packs	I350F4BLK	E1G44HFBLK	EXPI9400PFBLK
Connector(s)	4 LC	4 LC	1 LC
Fiber Optic Cabling	MMF 62.5µm up to 275m MMF 50µm up to 550m	MMF 62.5µm up to 275m MMF 50µm up to 550m	MMF 62.5 / 50µm up to 275m
End-Brackets	Full-height	Full-height	Full-height
Ethernet Controller	Intel® I350	Intel® 82580	Intel® 82572GI
Bus Width and Type	PCI Express* x4	PCI Express* x4	PCI Express* x4
Virtual Machine Device Queues (VMDq) Support	Yes	Yes	N/A
Security Features	No	No	N/A
EEE / DMA Coalescing	Yes	No	N/A

For more information, visit www.intel.com/go/ethernet

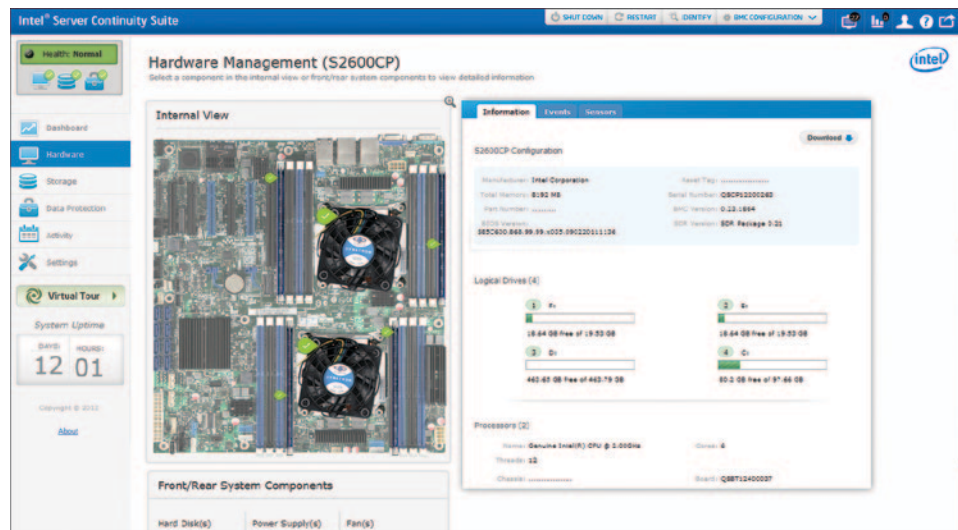
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INTEL® SERVER CONTINUITY SUITE—PROTECT. INTEGRATE. SIMPLIFY.

Face it—business today is continuous. There is no room for downtime. And real businesses need software that will keep their servers up and running while protecting their data and their applications. With everyday real server issues, who has time to manage separate software products for hardware management, data protection, and RAID management? Intel® Server Continuity Suite¹ combines the most important business continuity features into one simple-to-use, graphically rich user interface with tight feature integration.



Virtual presence allows IT administrators to see how a system is populated and, if there is an issue, exactly where that issue is located.

INTEL® SCS SYSTEM MANAGER

- Virtual presence allows users to see the system exactly as it is populated and where issues might be
- Point and click RAID management with a visual interface makes setting up RAID simple
- Predictive failure detection of system components will send immediate alerts and accelerate application protection

PROVIDES ENTERPRISE CLASS FEATURES

- Continuous data protection backs up your data with recovery to any point in time
- Eliminate scheduled backup windows
- Predictive alerts signal the server to take actions that will provide a higher level of protection

SIMPLE TO USE

- Unified virtual presence GUI
- Manage anytime from anywhere
- One phone call for support of hardware, software, and services

LOWER COST

- One highly integrated solution replaces multiple software products for less

ENABLING YOUR SERVER TO THINK FOR ITSELF—PROTECTING YOUR DATA AND YOUR BUSINESS

INTEL® SCS DATA PROTECTION MANAGER

- Recovery to any point in time, every I/O is protected
- No backup window, nothing to schedule as system is always being backed up
- Faster recovery time as latest image is always readily available, allowing only one restore (traditional software will force you to recover the full image first and then all of the incrementals over time)
- Application consistent restore points means recoveries to these points in time will ensure your application is restored and ready for use

QUICKLY GET YOUR SERVERS UP AND RUNNING—AND KEEP THEM RUNNING—WITH INTEL® SERVER MANAGEMENT SOLUTIONS

Intel® Server Management improves security, reduces costs, and helps businesses move from reactive to proactive system management. A mix of hardware and software enables secure remote management and monitoring of servers, clients, and applications from virtually any location—in a way that IT generalists can understand without attending weeks of training. It's all about IT made easy:

- | | | |
|--|---|--|
| <p>SIMPLE</p> <ul style="list-style-type: none"> ▪ Makes it easy to set up and maintain a reliable and secure IT infrastructure ▪ Streamlines tasks throughout server lifecycle with remote management ▪ Manages IT functions with a single suite of tools | <p>SECURE</p> <ul style="list-style-type: none"> ▪ Keeps IT informed with automated daily health reports and alerts ▪ Improves reliability and stability with rapid application and patch deployment | <p>SMART</p> <ul style="list-style-type: none"> ▪ Designed specifically for small to midsize businesses ▪ Reduces travel time and costs ▪ Provides a proactive solution to server management with reports and alerts |
|--|---|--|

INTEL® DEPLOYMENT ASSISTANT

Intel® Deployment Assistant is a free deployment application that helps keep servers up to date by locating, comparing, and recommending system updates. To set up your Intel® Servers using the Intel Deployment Assistant, just answer a series of easy-to-understand questions and confirm your configuration choices. The Intel Deployment Assistant will then configure the server and begin loading the chosen operating system. It also reduces redundant tasks by cloning all of your settings and updates to easily and quickly replicate across other identical servers.

FEATURES	BENEFITS
Wizard-based user interface	Reduces complexity while providing comprehensive guidance in the deployment of Intel® Servers.
Automatic detection of server configuration and components	Eliminates steps and saves time by detecting key configuration information including BIOS, LAN, and server management settings.
Load configuration profiles for identical servers	Reduces redundant tasks by saving and loading configuration settings from one server to identical servers.
Wizard-guided RAID configuration	Configures RAID from a single console with simple step-by-step instructions.
Automatic detection of available software updates	Minimizes uncertainty by automatically locating the latest drivers, firmware, and BIOS from the Internet, corporate network, or USB sources.
Unattended OS installation	Saves time—simply answer configuration questions, choose the drivers to include, and pop in the operating system CD. Supports a variety of Linux*, Windows*, and VMware* operating systems.
Multi-server cloning	Using the same easy-to-use wizard for updates, configuration, and OS installs, users can now build a silent PXE or USB image to clone everything on multiple systems at one time. Use it to create templates for future builds, give it to technicians to rebuild systems on-site, or use it in mass deployment environments.
Customized branding	OEMs and integrators can customize the user interface with their choice of colors and logos to promote their brand.

INTEL® SYSTEM MANAGEMENT SOFTWARE

Intel® System Management Software is a set of management applications comprised of Intel® Active System Console, Microsoft* System Center with Intel® Management Packs, and Intel® SNMP Subagent that let you view and control hardware (servers, desktops, and laptops) and software (operating systems, applications, and patches) across your network.

The Intel® Multi-Server Manager allows IT administrators to manage up to 100 servers from a single console. Users can discover and organize the servers however they like, see the health of all of their servers, view asset inventory, remotely power off and on their servers, and run multiple reports.

COMING IN Q4 2012

KEY ENHANCEMENTS TO INTEL® MULTI-SERVER MANAGER

- Manage health of up to 200 servers from a single console.
- Power management for a group of up to 200 servers using Intel® Intelligent Power Node Manager 2.0 technology. Perform operations such as Power Monitoring, Power Capping, Power Alerts and Notifications, and Trend Graphs.

FEATURES	INTEL® MULTI-SERVER MANAGER ²	INTEL® ACTIVE SYSTEM CONSOLE	MICROSOFT* SYSTEM CENTER WITH INTEL® MANAGEMENT PACKS	INTEL® SNMP SUBAGENT
Server Environment	1 to 100 servers	1 to 10 servers	10 to 30 servers (Use Operations Manager for Enterprise)	Enterprise
User Interface	Web-based	Web-based	Windows* Management Application	Integrates into enterprise tools such as HP* OpenView
Operating System Support	Windows*, Linux*	Windows*, Linux*	Windows*, Linux*	Windows*, Linux*
Single, Easy-to-Use Console	Yes	Yes	Yes	
Hardware Predictive Failure Analysis	Yes	Yes	Yes	Yes
Sensor Readings	Yes	Yes	Yes	Yes
Hardware Event Log	Yes	Yes	Yes	
Hardware and Software Inventory	Yes (hardware and operating system)		Yes	
OS and Application Monitoring			Yes	
Software Patch Deployment			Yes	
Application Deployment			Yes	
Alerting	Yes (e-mail)	Yes (e-mail and SNMP)	Yes (e-mail, SNMP, SMS)	Yes (SNMP)
Reporting	Yes (group or individual)	Yes	Yes (80 powerful software and hardware reports)	
BMC Configuration	Yes	Yes	Yes	
Power Management	Yes (available Q4 2012)	Yes	Yes	
Performance Views			Yes	
Remote Management	Yes (Windows*, Linux*, and agentless)		Yes	Yes
Remote Power On/Off/Reboot	Yes (group or individual)		Yes	
Serial Over LAN (Console Redirection)			Yes	
OEM Customization	Yes	Yes	Yes	

INTEL® MANAGEMENT MODULE

The Intel® Remote Management Module (Intel® RMM) allows you to securely gain access and control servers and other devices from any machine on the network—any place, any time.



Module	Intel® Remote Management Module 4			
Positioning	Have remote, secure access to full-screen KVM features together with remote CD or USB access without ever having to visit the server. Tightly integrated with onboard system firmware so users can choose between onboard NIC or dedicated management NIC for all RMM4 functionality. The RMM4 Lite contains all of the functionality of the RMM4 without the dedicated NIC and is now a choice on all systems that support the full RMM4.			
Order Code	AXXRMM4Lite	AXXRMM4	AXXRMM4IOM	AXXRMM4IOMW
Supported Systems³	Select Systems based on Intel® Server Boards S1200BTL, S1400FP, S1400SP, S2400LP, S2600JF, S2600WP, S2400EP, S2400BB, S2400SC, S2400GP, S1600JP, S2600GL, S2600GZ, S2600IP, S2600CP, S2600CO, MFS2600KI, S4600LH, W2600CR	Select Systems based on Intel® Server Boards S1200BTL, S1400FP, S1400SP, S2400LP, S2600JF, S2600WP, S2400EP, S2400BB, S2400SC, S2400GP, S1600JP, S2600GL, S2600GZ, S2600IP, S2600CP, S2600CO, MFS2600KI, S4600LH, W2600CR	Select Systems based on Intel® Server Boards S2600JF, S2400LP	Select Systems based on Intel® Server Boards S2600WP
Remote Server Restart	Support built into system firmware	Support built into system firmware	Support built into system firmware	Support built into system firmware
OEM Customization	Support built into system firmware	Support built into system firmware	Support built into system firmware	Support built into system firmware
USB Virtual Media Redirection	Yes	Yes	Yes	Yes
LDAP, SSH, SSL Support	Support built into system firmware	Support built into system firmware	Support built into system firmware	Support built into system firmware
WS-MAN	No	No	No	No
Embedded Video / GUI (KVM) Redirection	Yes	Yes	Yes	Yes
Embedded Web Server	Support built into system firmware	Support built into system firmware	Support built into system firmware	Support built into system firmware
Dedicated Server Management NIC	No	Yes	Yes	Yes
Local and Remote Configuration	Support built into system firmware	Support built into system firmware	Support built into system firmware	Support built into system firmware
Agent-less Management	Support built into system firmware	Support built into system firmware	Support built into system firmware	Support built into system firmware

For more information, visit www.intel.com/go/servermanagement

¹ No software can guarantee that there will be zero data loss or corruption under all conditions. The amount of data loss or data corruption depends on the speed and quality of the backup device used with the software, the operating environment, and the amount of data change happening on the system itself. Intel® Server Continuity Suite data protection supports only specific enterprise class SAS, SATA, and USB drives as backup devices. For the list of supported devices, refer to the user guide.

² Intel Multi-Server Manager is available on most Intel® Server Boards and Intel® Server Systems.

³ For the latest Intel® Server Board support please visit <http://support.intel.com/support/motherboards/server>

All products and dates specified are preliminary based on current expectations and are subject to change without notice. Availability in different channels may vary.

Features and functions of the Intel® Management Packs are dependent on the features and functions available on the server and client hardware and the loaded software and operating systems. Not all features and functions are available on all products and may require Intel® AMT or IPMI technologies for additional functionality.

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Intel® Server Support Services

Check with your distributor
for coverage in your area

GROW YOUR BUSINESS AND INCREASE YOUR SERVICE REACH WITH INTEL® SERVER SUPPORT SERVICES

Now you don't have to pass on sales opportunities outside your local area. With Intel® On-site Repair for Servers, you can offer service in the next city, the next state, or even across the country. Pairing your Intel® server hardware sales with Intel On-site Repair for Servers or Intel® Server Component Extended Warranty increases your value to your customers, helping you succeed in today's competitive marketplace.

INTEL® ON-SITE REPAIR FOR SERVERS

Intel® On-site Repair is the answer to providing on-site service outside your business coverage area.

Intel On-site Repair for Servers provides Next Business Day¹ on-site repair service² for Intel® white-box servers and included Intel® products. With 24/7 phone support available, Intel helps diagnose the issue and a qualified technician replaces faulty hardware on-site. Next Business Day support is available in all 50 states and major cities in Canada.

INTEL® SERVER COMPONENT EXTENDED WARRANTY

Intel® Server Component Extended Warranty adds two more years to the standard warranty on Intel® Server components,³ so you can cover your server products for a total of up to five years after purchase. Plus, expedited shipping⁴ of replacement parts means your customers are taken care of with hassle-free service.



For more information on Intel® Server Support Services, visit www.intel.com/go/serverservices or email us at EPSD.Services.Coordinator@intel.com

¹ Next Business Day support option is available in all 50 U.S. states and select cities in Canada. Next Business Day 8–5 response is on-site response occurring Monday through Friday, 8:00 a.m. to 5:00 p.m. customer local time, excluding national holidays. If the reseller or end-customer calls Intel before 5:00 p.m. end-customer local time, Intel will diagnose the specific hardware failure and respond on-site at the end-customer the next business day. If the diagnosis is made after 5:00 p.m. eastern time, the on-site appointment may be scheduled for two business days rather than one. "Response time" is calculated after the service provider determines the specific hardware component that needs replacement and dispatches a repair technician to the end-customer site.

² Only Intel® processors, Intel® Server Systems, Intel® Server Boards, Intel® RAID Controllers, and Intel® Server accessories (Intel® products) and specific memory and hard drives listed on the Intel On-site Repair Hardware Compatibility List will be supported under a service contract. Systems must be built using new components with original three-year manufacturer warranty. This service must be purchased at the same time as the hardware. Software/operating systems or system technical support, optimization, or errata repairs are not included or supported by this service. Requests for support beyond hardware remedial services will be referred to the original reseller or integrator. Configuration and reintegration of the unit being serviced is the responsibility of the system owner. Only low-level firmware and BIOS will be updated by the service technician when required to complete POST. This service does not cover dead on arrival, technical advisory recommendations on replacement, cosmetic damages (scratches, dents, etc), lost, stolen, incorrect, or inadequate installation, intentional damage, recovery or transfer of data, or acts of God or nature. This service requires registration of major components, including the chassis, Intel Server Board, and power supplies, power distribution board(s), drive backplane(s), active/passive midplane(s), front panel, management module, fan(s), bridge board(s), I/O module(s), PCI Express* / PCI-X* riser(s), Intel RAID controller, memory, hard drives, or processors.

³ Most EPSP products released in 2009 or later are covered, including Intel® Modular Server. EPSP parts only will be included—Intel® Server Boards, Intel® Server Systems, Intel® Server Chassis, Intel® RAID Controllers, server, and FRUs, and accessories. This is the same as the standard product warranty. Components included within the system are covered by the Intel® Server Component Extended Warranty, but single components sold stand-alone are not covered. Third-party add-in cards, memory, hard drives, keyboards, video, mice, graphics cards, RAID backup batteries, optical drives, plastic/sheet metal parts, non-electrical parts, OEM-specific parts, and Intel® processors are not covered. For a complete list of included parts refer the product configuration guides. This service requires registration of major components, including the chassis, Intel® Server Board, and power supplies for systems.

⁴ Advanced Warranty Replacement (AWR) is available to qualified Intel® Channel members. See your distributor for specific coverage. To learn more, visit the Intel® Reseller Center Membership Benefits page at www3.intel.com/cd/channel/reseller/asm-na/eng/membershipresources/benefits/current/index.htm

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Intel® Enabled Solutions Acceleration Alliance (Intel® ESAA)



YOUR RECIPE FOR SUCCESS

INTEL® ESAA GIVES RESELLERS THE TOOLS NEEDED TO ACCELERATE DELIVERY OF HIGH-QUALITY INTEL-BASED IT SOLUTIONS. GET TO MARKET FASTER, REACH NEW CUSTOMERS, AND ACHIEVE EVEN GREATER SUCCESS.

Getting components from different vendors to work seamlessly in a single, reliable solution can be a challenge. In addition, end customers want solutions that feature the latest and greatest hardware and software available—without deployment or troubleshooting headaches. And with so many vendors in the marketplace, validation has become critical. That's where the Intel® ESAA Program comes in, giving Intel® Technology Providers and direct Intel OEMs access to pre-verified configuration guides ("recipes") jointly developed with IxVs around the globe. Applications include HPC, virtualization, cloud, storage and backup, digital content creation, server management, and more, enabling resellers and direct OEMs¹ to deliver pre-tested, high-quality solutions based on Intel® Server, Workstation, and Desktop Products.

"HAVING STEP-BY-STEP INSTRUCTIONS AND CERTIFICATION GAVE MY CLIENTS PEACE OF MIND."

DENNIS EVANS, DENNIS' COMPUTERS

ACCESS TO MORE THAN 1,000 INSTALLATION RECIPES AND SOLUTION GUIDES.

Membership in the program is an automatic benefit for Intel® Technology Provider Program members at the Platinum and Gold levels. Member benefits include:

- Faster time to market using pre-tested solution recipes with step-by-step configuration instructions
- Easier entry into new segments such as cloud or "green" PCs
- Reduced engineering costs with access to validated and proven technologies
- Pass-through certification from companies such as VMware, Red Hat, Citrix, EMC, and Novell
- Alignment with Intel's world-class processor technology leadership and support infrastructure

For added customer confidence, resellers can request a certificate stating that Intel and the application vendor stand behind their branded Intel-based solution. VMware, Red Hat, Citrix, EMC, and Novell-based solutions may also qualify for free pass-through branded system certification and listing on the vendor's Hardware Compatibility List (HCL).

MORE THAN 40 SOFTWARE VENDORS PARTICIPATE IN THE INTEL® ESAA PROGRAM WORLDWIDE.

As a worldwide technology community, Intel ESAA strives to promote a healthy and thriving business ecosystem that connects Intel® Technology Providers and direct Intel OEMs with industry-leading software companies to enable the reliable and seamless integration of Intel Server, Workstation, and Desktop Products. Intel ESAA members benefit from marketing and sales tools, pre- and post-sales training, and technical support so they can get to market faster with leading-edge server technologies.

For more information, visit www.intel.com/go/esaa

¹ Program membership is free but restricted to direct Intel OEMs and Intel® Technology Provider Program members at the Platinum and Gold levels. For more information on how to become a member of the Intel® Technology Provider Program, visit www.intel.com/cd/channel/reseller/emea/eng/membership/index.htm. Direct OEMs, please contact esaamail@intel.com for membership information.

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INDUSTRY-LEADING VIRTUALIZATION FOR YOUR INTEL® SERVER PRODUCT OPPORTUNITIES

VMware vSphere* is the industry-leading virtualization platform for building cloud infrastructures, enabling users to run business-critical applications with confidence and respond to their business faster. Pairing Intel® Server Products with the appropriate VMware vSphere edition in a pre-validated Intel® ESAA solution recipe enables value-added resellers to pass this confidence and quality on to their customers. Intel offers a range of VMware vSphere product options, enabling businesses of all sizes to match their virtualization solution to their specific needs.

Target Audience	For small businesses and branch offices with fewer than 20 server workloads needing an all-in-one solution to consolidate and manage many application workloads	For small businesses and branch offices with fewer than 20 server workloads requiring application high availability, data protection, and VMware vMotion* for a complete server consolidation and business continuity solution	For organizations that want to optimize existing IT assets and delay costly datacenter expansions	For organizations that want to virtualize entire datacenters and deliver IT as a service with powerful and efficient resource management	For organizations that want to virtualize entire datacenters and deliver IT as a service with policy-based datacenter automation
Recommended VMware vSphere* Edition	VMware vSphere* Essentials with VMware vCenter* Server for Essentials	VMware vSphere* Essentials Plus with VMware vCenter* Server for Essentials	VMware vSphere* Standard and VMware vCenter* Standard¹	VMware vSphere* Enterprise and VMware vCenter* Standard¹	VMware vSphere* Enterprise Plus and VMware vCenter* Standard¹
Consolidation Optimize existing infrastructure by converting physical systems to virtual machines	Yes	Yes	Yes	Yes	Yes
Availability Enable high availability and data recovery; leverage live migration for applications		Yes	Yes	Yes	Yes
Automated Resource Allocation Deliver load balancing, power management, and live storage migration (VMware Storage vMotion*) without manual intervention				Yes	Yes
Simplified IT Operations Use advanced networking (distributed network switch) and host configuration templates (host profiles) for more operating expense savings					Yes
VMware vSphere* License Information	Licensed up to 3 physical hosts (maximum 2 procs per host) and 192 GB vRAM)	Licensed up to 3 physical hosts (maximum 2 procs per host) and 192 GB vRAM	Licensed per processor (with 32 GB vRAM entitlement per processor)	Licensed per processor (with 64 GB vRAM entitlement per processor)	Licensed per processor (with 96 GB vRAM entitlement per processor)
VMware vSphere Support and Subscription (SNS)	1-year VMware subscription	1-year VMware Basic (12x5) OR 1-year VMware Production (24x7) SNS	1-year VMware Basic (12x5) OR 1-year VMware Production (24x7) SNS	1-year VMware Basic (12x5) OR 1-year VMware Production (24x7) SNS	1-year VMware Basic (12x5) OR 1-year VMware Production (24x7) SNS
Intel® Order Codes for VMware vSphere	VMW5ESS	VMW5ESSPLUS, VMW5ESSPLUSP	VMW5STD, VMW5STDP, VMW5VCSTD, VMW5VCSTDP	VMW5ENT, VMW5ENTP, VMW5VCSTD, VMW5VCSTDP	VMW5ENTPLUS, VMW5ENTPLUSP, VMW5VCSTD, VMW5VCSTDP

For more information, visit www.intel.com/go/vmwareonintel

¹ One instance of VMware vCenter* Standard required. VMware vCenter Standard is available with 1-year VMware Basic (12x5) or 1-year VMware Production (24x7) SNS.

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Symantec* Backup Exec* 2010 and System Recovery* 2011 Software



DRIVE NEW REVENUES BY ADDING SYMANTEC* BACKUP EXEC* 2010 AND SYMANTEC* SYSTEM RECOVERY 2011 PRODUCTS THAT HAVE BEEN TESTED ON INTEL® SERVER BOARDS AND SYSTEMS

Symantec* Backup Exec* 2010 seamlessly integrates virtual machine protection, deduplication, and archiving technology to help small and mid-sized businesses reduce their backup windows and storage consumed without added complexity. The Backup Exec 2010 SKUs offered by Intel include support for Microsoft* Windows*, Windows* Small Business Server, Microsoft* Exchange, Microsoft* SQL Server*, Microsoft* Hyper-V*, VMware vSphere*, plus options to add deduplication and/or archiving support.

Symantec* System Recovery 2011 (formerly Symantec* Backup Exec System Recovery) delivers fast and reliable complete system recovery across physical and virtual environments. It is a natural add-on to any data protection solution and is an easy sale to customers looking for painless disaster recovery of Windows and Linux* systems. Three SKUs are offered by Intel that support Windows-based servers and desktops.

Available for purchase from Intel® Authorized Distributors in North America, the addition of Symantec Backup Exec products expand Intel's current software offering as part of the Intel® Enabled Solutions Acceleration Alliance (Intel® ESAA) Program. To accelerate the installation and configuration of these software packages by system builders on Intel® Server Products, the Intel ESAA Program offers pre-tested "recipes" that reduce the cost of implementation and speed time to market.

SYMANTEC* SYSTEM RECOVERY 2011 SOFTWARE

Data Protection Need	Recovery for 1 Windows* Server	Recovery for 1 Windows* Small Business Server	Recovery for 1 Windows* based Desktop
Recommended Symantec* System Recovery 2011 Edition	Symantec* System Recovery 2011 Server Edition	Symantec* System Recovery 2011 Small Business Server Edition	Symantec* System Recovery 2011 Desktop Edition
Symantec System Recovery 2011 License Information	Includes <ul style="list-style-type: none"> ▪ One Symantec System Recovery 2011 Server Edition ▪ One Symantec System Recovery 2011 Desktop Edition ▪ One Granular Restore Option 	Includes <ul style="list-style-type: none"> ▪ One Symantec System Recovery 2011 Small Business Server Edition ▪ One Granular Restore Option 	Includes <ul style="list-style-type: none"> ▪ One Symantec System Recovery 2011 Desktop Edition
Symantec* Support	All SKUs include one-year 24x7 Symantec* Essentials Support		
Intel® Order Codes for Symantec System Recovery 2011	SYMCSRSE	SYMCSRBS	SYMCSRDT

SYMANTEC* BACKUP EXEC* 2010 SOFTWARE

Data Protection Need	Backup for 1 Windows* Server	Backup for 1 Windows* Small Business Server	Backup for up to 4 Windows* Servers	Backup for 1 Windows* Server with Microsoft* Exchange	Backup for 1 Windows* Server with Microsoft* SQL	Backup support for VMware* Virtualization Environments	Backup support for Microsoft* Hyper-V* Virtualization Environments	Deduplication	Deduplication and Archiving
Recommended Symantec* Backup Exec* 2010 Suite	Symantec* Backup Exec* 2010	Symantec* Backup Exec* 2010 for Windows Small Business Server	Symantec* Backup Exec* 2010 Multi-Server Suite	Symantec* Backup Exec* 2010 Microsoft Exchange Suite	Symantec* Backup Exec* 2010 Microsoft SQL Suite	Symantec* Backup Exec* 2010 VMware Suite	Symantec* Backup Exec* 2010 Microsoft Hyper-V Suite	Symantec* Backup Exec* 2010 Multi-Server Data Deduplication Suite	Symantec* Backup Exec* 2010 Deduplication and Archiving Suite
Symantec Backup Exec 2010 License Information	Symantec Backup Exec 2010 Microsoft SQL Suite	Symantec Backup Exec 2010 VMware Suite	Includes one Symantec Backup Exec Media Server license and agent for Windows Systems (three licenses) along with the remote agent for Windows Servers and the continuous protection agent capabilities, this agent now also includes the advanced open file option and intelligent disaster recovery option	Includes one Symantec Backup Exec Media Server license and agent for Microsoft Exchange Server 2003, 2007, and 2010 SP1	Includes one Symantec Backup Exec Media Server license and agent for Microsoft SQL Server 2008 R2, 2005, and 2000 users with granular protection on 32- and 64-bit systems down to the individual database or file group	Includes one Symantec Backup Exec Media Server license and one Backup Exec 2010 Agent for VMware Virtual Infrastructures	Includes one Symantec Backup Exec Media Server license and one Backup Exec 2010 Agent for Microsoft Hyper-V license	Includes one Symantec Backup Exec Media Server license, three agents for Microsoft Windows Systems and one deduplication option license which will support your entire media server environment	Includes one Symantec Backup Exec Media Server license, one deduplication option license which will support your entire media server environment, one exchange archive option (10 pack), and one agent for Microsoft Exchange
Symantec* Support	All SKUs include one-year 24x7 Symantec* Essentials Support								
Intel® Order Codes for Symantec Backup Exec 2010	SYMCBE	SYMCBESBS	SYMCBE3WIN	SYMCBEEXC	SYMCBESQL	SYMCBEVMW	SYMCBEHYP	SYMCDEDUP	SYMCDEDUPA

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