Intel® Product Quick Reference Matrix
Q2 2014 NON–NDA

(intel) Look Inside.™

INTEL® TECHNOLOGY PROVIDER
Intel® Technology Provider
Intel® Channel Products

INTEL® vPRO™ TECHNOLOGY
Intel® vPro™ Technology Solution

GRAPHICS
Client Graphics Highlights

INTEL® SATA SOLID-STATE DRIVES
Intel® SATA Solid-State Drives

DESKTOP
Desktop Highlights
Intel® Small Business Advantage
Intel® Desktop Processors
Desktop Wireless
Intel® Boxed Thermal Solutions
Intel® Desktop Boards
Intel® NUC
Intel® Ethernet Desktop Adapters

MOBILE
Mobile Highlights
Intel® Mobile Processors
Mobile Wireless

SERVER
Server Highlights
Intel® Server Platforms
Intel® Server / Workstation Processors
Intel® Server / Workstation Boards
Intel® Server / Workstation Systems
Server Storage
Intel® Server Chassis
Intel® RAID
Intel® Server Adapters
Intel® Server Management

McAFEE*
McAfee*

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® Technology Provider

Look Inside.™

Your Solutions. Our Technology. Smarter Together.

Whether selling to businesses or consumers, Intel® Technology Providers get the competitive advantage. Access your many benefits as you progress through the program, receiving the support, expertise, and recognition you need to succeed in a fast-moving global marketplace.

SUPPORT	EXPERTISE	RECOGNITION
Build your business with online help, dedicated account management, and marketing materials.	Become a trusted advisor to your customers with training, events, newsletters, and online guides.	Be recognized for the business you do with Intel. Earn points on purchases to spend on rewards and access promotions and membership materials.

This product matrix is just one of the partner-only benefits you receive for being an Intel Technology Provider.

For more information, visit **www.intel.com/technologyprovider**

Technology Provider

Intel® Channel Products

Intel® Channel Products Guide

- An easy and simple smartphone application with product features and comparisons of boxed desktop processors, desktop boards, and Solid-State Drives.

- Find an Intel® Technology Provider based on your location or search criteria.

- Available on iPhone*, iPad*, and Android* mobile devices.

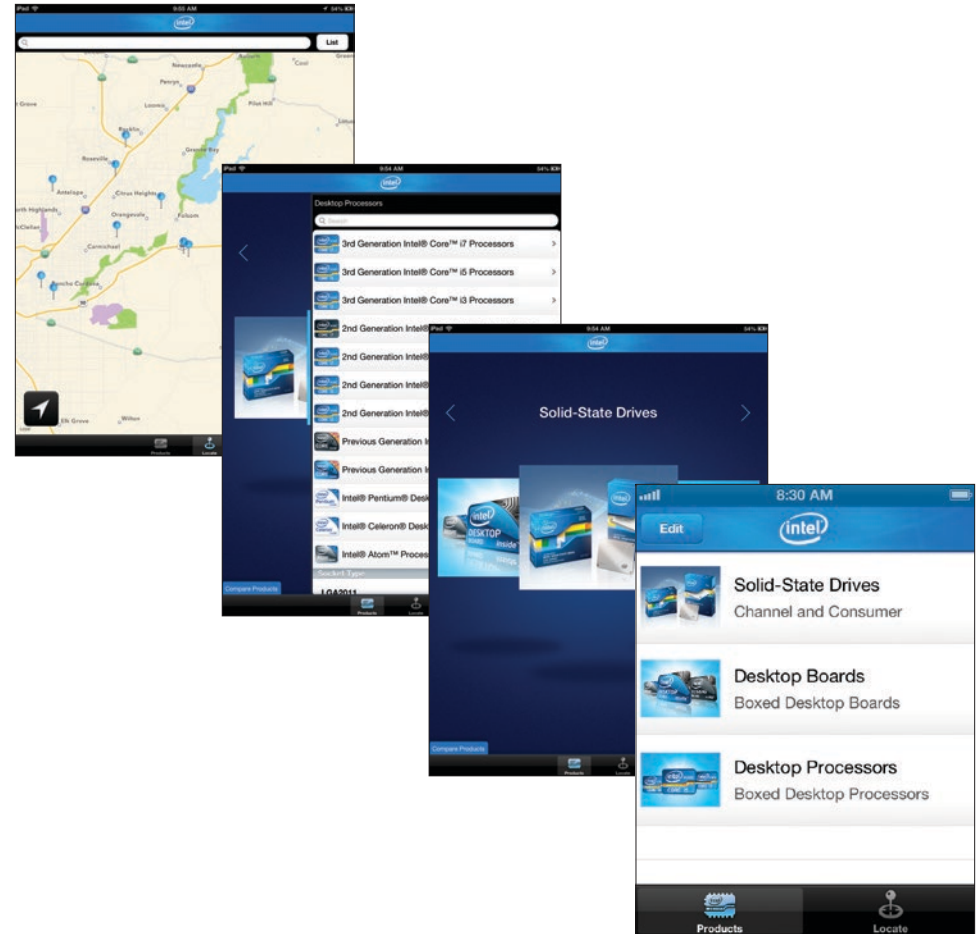### To Download and Install this Smartphone Application, Please Visit the Following Links

iTunes*:

https://itunes.apple.com/us/app/intel-channel-products-guide/id589643956?mt=8

Google Play*:

https://play.google.com/store/apps/details?id=com.intel.masterbrandapp

Intel® vPro™ Technology Solution

2014 Intel® vPro™ Technology[1]

Processor

Intel® Core™ i7 and Intel® Core™ i5 vPro™ Processors[2]

+

Chipset

Intel® Q87 or QM87 Express Chipsets or Haswell[3] 1-Chip Premium Platform

+

Network

Intel® i217LM Gigabit Network Adapter

Sell Intel® Core™ vPro™ to More Small- and Medium-Sized 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[4] • 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	**Host-Based Setup** • Activate Intel® vPro™ technology in minutes • As easy as deploying a patch	**Intel® Identity Protection Technology[5]** • Simple way for web sites and enterprises to allow secure log in • Easy to use, extra layer of security to help protect against online fraud attacks	**Intel® AES-NI Encryption[6]** • Encrypt important business data fast without slowing performance	**Small- and Medium-Sized Business Return on Investment** • Tangible return on investment via reduced support and energy costs[7] • Reduce the need for deskside maintenance visits by 56%[8]

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

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

[1] Intel® vPro™ Technology is sophisticated and requires setup and activation. Availability of features and results will depend upon the setup and configuration of your hardware, software and IT environment. To learn more, visit http://www.intel.com/technology/vpro.

[2] The following SKUs are Intel® vPro™ eligible:
Desktop—i7-4770, i7-4770S, i7-4770T, i7-4765T, i5-4670, i5-4670S, i5-4670T, i5-4570, i5-4570S, i5-4570T.
Mobile—i7-4930MX, i7-4900MQ, i7-4800MQ, i7-4950HQ, i7-4850HQ, i7-4650U, i5-4350U.

[3] Haswell is a code name of Intel Corporation.

[4] Intel KVM Remote Control Specifications:
a. 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.
b. Intel KVM Remote Control is only available on Intel® vPro™ platforms.
c. Other requirements are Intel vPro eligible LAN, and Intel vPro eligible chipsets (Q87, QM87, Haswell 1-Chip Premium Platform), along with requisite BIOS enabling.
d. The client PC does not require additional software.
e. Remote consoles must be enabled with KVM protocol to remotely control Intel KVM Remote Control capable clients.

[5] No computer system can provide absolute security. Requires an Intel® Identity Protection Technology-enabled system, including an enabled Intel® processor, enabled chipset, firmware, software, and Intel integrated graphics (in some cases) and participating website/service. Intel assumes no liability for lost or stolen data and/or systems or any resulting damages. For more information,visit http://ipt.intel.com/. Consult your system manufacturer and/or software vendor for more information.

[6] 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 availibility, consult your reseller or system manufacturer. For more information, see http://software.intel.com/en-us/articles/intel-advanced-encryption-standard-instructions-aes-ni.

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

[8] 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 comissioned by Intel, of various enterprise IT environments; and the 2007 Benefits of Intel vPro Technology in the Enterprise, Wipro Technologoies 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.

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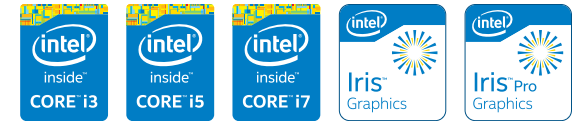* Other names and brands may be claimed as the property of others.

Enhanced Built-In Visuals on the 4th Generation Intel® Core™ Processor Family[1,2,3]

INTEL® BUILT-IN VISUALS—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 games, and get full support for Microsoft* Windows* 7 and Windows* 8. There's no need for an extra add-in graphics card—full graphics and media support is already built in. Enhanced Intel Built-In Visuals are available on the 4th gen Intel® Core™ processor family.

		PROCESSOR SUPPORTED	
FEATURE	**BENEFIT**	**4th generation Intel® Core™ processor family** (Intel® Iris™ Pro graphics 5200 / Intel® Iris™ graphics 5100, Intel® HD graphics 5000 / 4600 / 4400 / 4200)	**3rd generation Intel® Core™ processor family** (Intel® HD graphics 4000 / 2500)
Intel® Iris™ graphics[4]	Intel® Iris™ graphics and Iris™ Pro graphics are trademarked names for the two highest levels of graphics in select 4th gen Intel® Core™ processors. Iris graphics is included in 28 W 4th gen Intel Core processors geared for Ultrabook™. Iris Pro graphics is focused on higher performance notebooks and desktop All-In-One PCs (47 W processors and higher) delivering up to 2X[5] graphics performance.	Yes	No
Intel® HD graphics	Intel® HD graphics is built into the processor and delivers immersive mainstream gaming, 3-D experiences, and a smooth and fast next-generation browser experience.	Yes (Improved performance, support for DirectX* 11.1, OpenCL* 1.2, OpenGL* 4.0)	Yes (Support for DirectX* 11, OpenCL* 1.1, OpenGL* 4.0) (Support for DirectX* 11.1, OpenCL* 1.2 is available with latest graphics drivers)
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 online. Intel® Quick Sync Video uses dedicated media processing to accelerate video encoding. You can also create and edit 3-D videos and convert 2-D videos into 3-D videos at blazing speed, and enjoy premium HD video conferencing at high quality.	Yes (Faster[2])	Yes
Intel® InTru™ 3D[6]	Enjoy the ultimate 3-D visual experience—seamlessly from your PC. Now you can watch your favorite 3-D Blu-ray* movies all delivered in full 1080p resolution on your stereo 3-D monitor.	Yes (HDMI* 1.4 and DisplayPort* 1.2)	Yes (HDMI* 1.4)
Intel® Clear Video HD Technology	Provides visual quality and color fidelity enhancements for spectacular 1080p HD playback and immersive web browsing.	Yes	Yes
Intel® Wireless Display[7]	Intel® Wireless Display lets you beam your apps, personal, and online content such as movies, photos, or music to a TV with a simple wireless connection.	Yes *Features include:* • Touch user interface • Context-aware user experience • Lower latency for gaming • Cinematic sync for smoother video playback • USB over Wi-Fi*	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 4th and 3rd gen 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.

| | | PROCESSOR SUPPORTED | |
| | | 4th generation Intel® Core™ processor family (Intel® Iris™ Pro graphics 5200 / Intel® Iris™ graphics 5100, Intel® HD graphics 5000 / 4600 / 4400 / 4200) | 3rd generation Intel® Core™ processor family (Intel® HD graphics 4000 / 2500) |
FEATURE	BENEFIT		
AVC/H.264 Encode	Saves valuable time when creating and editing Blu-ray* discs and other videos in h.264 format.	Yes	Yes
MPEG2 Encode	Saves valuable time when creating and editing DVDs and other videos in MPEG2 format.	Yes (Full) (Faster encode)	Yes (Partial)
MVC HW Encode	Saves valuable time when creating and editing stereoscopic 3-D videos.	Yes (Full) (Faster encode)	Yes (Partial)
SVC HW Encode[8]	Smoother video streaming and conferencing.	Yes	No
JPEG/MJPEG Hardware Encode	Saves time encoding high-resolution JPEG images and motion JPEG images (video) from webcam.	Yes (Faster)	No (Software only)

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 4th and 3rd gen Intel® Core™ processors lets you view images as they were meant to be seen.

		PROCESSOR SUPPORTED	
FEATURE	BENEFIT	4th generation Intel® Core™ processor family (Intel® Iris™ Pro graphics 5200 / Intel® Iris™ graphics 5100, Intel® HD graphics 5000 / 4600 / 4400 / 4200)	3rd generation Intel® Core™ processor family (Intel® HD graphics 4000 / 2500)
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 (with HDMI* 1.4)	Yes (with HDMI* 1.4)
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 and Windows* 8.	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 and Windows 8 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

Intel® Wireless Display[7]

		PROCESSOR SUPPORTED	
FEATURE	**BENEFIT**	**4th generation Intel® Core™ processor family** (Intel® Iris™ Pro graphics 5200 / Intel® Iris™ graphics 5100, Intel® HD graphics 5000 / 4600 / 4400 / 4200)	**3rd generation Intel® Core™ processor family** (Intel® HD graphics 4000 / 2500)
First Touch User Interface for Intel® WiDi	Touch-friendly modern user interface so you can push PC to TV by just using touch.	Yes	No
Context-Aware User Experience for Intel WiDi	The context-aware Intel WiDi automatically detects what you are doing and adjusts its settings, delivering the best possible experience. (For example, it auto-connects a laptop to a TV, auto-minimizes the application, cinematic sync auto-adjusts your display frame rate to the movie to give you smoother video playback, and low-power panel refresh saves your laptop battery while beaming content.)	Yes	No
Premium Protected Content over Intel WiDi	Bring your movie theater experience home and wirelessly send protected premium content in full HD and 5.1 surround sound such as your Blu-ray* DVDs, UltraViolet* movies, or full-resolution S3D content from PC to TV.	Yes (HDCP 2.1)	Limited (HDCP 2.0 only)
Low Delay Mode for Intel WiDi	Real-time interaction between your PC and TV screens with no lag time, allowing for usages such as PC gaming on TV without any wires.	Yes (<66ms for games)	Limited (<150ms for games)
Wi-Fi Display User Input Back Channel (UIBC) over Intel WiDi	Wirelessly connect your PC's peripherals such as a keyboard, mouse, gamepad, or webcam directly to your TV without any wires.	Yes (USB 2 supports more devices such as a webcam or a TV remote)	Limited (HID devices only such as keyboard / mouse)

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, the 4th and 3rd gen Intel® Core™ processors support high-definition resolutions, including 720p, 1080i, and 1080p.

		PROCESSOR SUPPORTED	
FEATURE	BENEFIT	**4th generation Intel® Core™ processor family** (Intel® Iris™ Pro graphics 5200 / Intel® Iris™ graphics 5100, Intel® HD graphics 5000 / 4600 / 4400 / 4200)	**3rd generation Intel® Core™ processor family** (Intel® HD graphics 4000 / 2500)
Maximum Display Resolution	Higher pixel resolutions allow the PC to show more image detail.	DisplayPort* 1.2 / eDP* H-Processors: 3840 x 2160 @ 60 Hz (Ultra-HD) U-Processors: 3200 x 2000 @ 60 Hz, 3840 x 2160 @ 30 Hz Y-Processors: 2560 x 1600 @ 60 Hz HDMI* 4096 x 2304, 3840 x 2160 @ 24 Hz / 24bpp DVI 1920 x 1200 @ 60 Hz	DisplayPort* 1.1 2560 x 1600, HDMI*, VGA
DISPLAY SUPPORT			
Independent Digital Displays	Allows you to connect multiple displays to the PC.	3	3 (with restrictions on display types)
HDMI* with HDCP	Provides a user-friendly, single-cable connector that enables transmission of superior, uncompressed digital video and audio.	Version 1.4 (3-D, Deep Color, premium audio, auto lip-sync, Ultra-HD)	Version 1.4 (3-D, Deep Color, premium audio, auto lip-sync)
DisplayPort* with HDCP	Highly scalable and efficient display interface for the PC.	Version 1.2 (with audio)	Version 1.1 (with audio)
Embedded DisplayPort	Highly scalable and efficient display interface for notebooks.	Yes (eDP version 1.2 on Desktop and eDP version 1.3 on Mobile)	Yes
DVI with HDCP	Digital video interface that maximizes the visual quality of digital displays such as LCD displays and digital projectors.	Yes	Yes
VGA	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 deliver a responsive, attractive 3-D visual experience for casual and mainstream PC games. When you buy a PC equipped with Intel® Iris™ graphics or Intel® HD graphics, you get a cost-effective solution with the performance for more gaming fun.

<div style="writing-mode: vertical-rl;">CLIENT GRAPHICS HIGHLIGHTS</div>

| | | PROCESSOR SUPPORTED | |
| | | 4th generation Intel® Core™ processor family (Intel® Iris™ Pro graphics 5200 / Intel® Iris™ graphics 5100, Intel® HD graphics 5000 / 4600 / 4400 / 4200) | 3rd generation Intel® Core™ processor family (Intel® HD graphics 4000 / 2500) |
FEATURE	BENEFIT		
Video Memory	Intel® Dynamic Video Memory Technology (DVMT) efficiently allocates memory for graphics, media, and gaming applications.	Up to 1.70 GB[9]	Up to 1.70 GB[9]
DirectX* Support	Standardized programming interface used in games as an interface to the system's graphics through Microsoft* Windows*.	DirectX* 11.1	DirectX* 11
OpenGL* Support	Standardized programming interface used by 2-D and 3-D graphics applications.	4.0	4.0
OpenCL* Support	Standard programming interface for accessing Compute units in CPU and GPU.	1.2	1.1 (1.2 available with latest graphics drivers)

For more information, visit **www.intel.com/graphics** or **www.intel.com/go/biv**

[1] Built-in Visuals available on select SKUs only.

[2] Faster on select SKUs.

[3] Built-in visual features are not enabled on all PCs and optimized software may be required. Check with your system manufacturer. Learn more at http://www.intel.com/go/biv.

[4] Intel® Iris™ graphics is available on select systems. Consult your system manufacturer.

[5] 4th gen Intel® Core™ i5-4558U processor (28W, 2.40 GHz (Turbo up to 2.90 GHz), 2C/4T, Intel® Iris™ graphics 5100 1.10 GHz, Graphics driver: 15.31.3063) compared to 3rd gen Intel® Core™ i3-3687U processor (17W, 1.90 GHz, 2C/4T, Intel® HD graphics 4000 1.10 GHz, Graphics driver: 15.28.2875, 15.31.3063).

[6] Viewing stereo 3-D content requires 3-D glasses and a 3-D-capable display. Physical risk factors may be present when viewing 3-D material.

[7] Requires an Intel® Wireless Display-enabled system, compatible adapter and TV. 1080p and Blu-Ray* or other protected content playback only available on select Intel® processor-based systems with built-in visuals enabled, a compatible adapter and media player, and supporting Intel® WiDi software and graphics driver installed. Consult your PC manufacturer. For more information, see www.intel.com/go/widi.

[8] Feature available on U-processor series only.

[9] System needs a minimum of 4 GB of RAM for maximum video memory of 1.70 GB.

Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products.

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

Intel® SATA Solid-State Drives

Look Inside.™

Intel® Solid-State Drives For Client Applications

INTEL® SOLID-STATE DRIVE	NEW INTEL® SSD 730 SERIES	INTEL® SSD 530 SERIES	INTEL® SSD 525 SERIES	INTEL® SSD 335 SERIES
POSITION VS. OTHER INTEL® SSDS	Data Center DNA Optimized for Enthusiasts, overall highest performance SSD	Optimized for Ultrabook™ and low-power applications	Optimized for small form factor clients	Mainstream client value
INTERFACE	SATA 6.0 Gb/s	SATA 6.0 Gb/s	SATA 6.0 Gb/s	SATA 6.0 Gb/s
FORM FACTOR	2.5" drive	M.2, mSATA, 2.5" drive	mSATA, full size	2.5" drive
CAPACITIES	2.5": 480 GB / 240 GB	M.2 (80mm): 360 GB / 180 GB / 120 GB / 80 GB M.2 (42mm): 120 GB mSATA: 240 GB / 180 GB / 120 GB / 80 GB 2.5": 480 GB / 360 GB / 240 GB / 180 GB / 120 GB / 80 GB	mSATA: 60 GB / 30 GB	2.5": 240 GB / 180 GB / 80 GB
MAXIMUM RANDOM PERFORMANCE[1]	Reads: up to 89K IOPs Writes: up to 74K IOPs[2]	Reads: up to 41K IOPs Writes: up to 80K IOPs[2]	Reads: up to 50K IOPs Writes: up to 80K IOPs[2]	Reads: up to 22.5K IOPs Writes: up to 33K IOPs[2]
MAXIMUM SEQUENTIAL PERFORMANCE	Reads: up to 550 MB/s Writes: up to 470 MB/s	Reads: up to 540 MB/s Writes: up to 490 MB/s	Reads: up to 550 MB/s Writes: up to 520 MB/s	Reads: up to 500 MB/s Writes: up to 450 MB/s
AES ENCRYPTION	No	256 bit	128 bit	No
DATA RELIABILITY	Surplus NAND array	End-to-end data protection	End-to-end data protection	Surplus NAND array
ENDURANCE[1] (MINIMUM USEFUL LIFE)	Up to 70 GB written per day for 5 years	Up to 20 GB written per day for 5 years	Up to 20 GB written per day for 5 years	3 years, up to 20 GB written per day
WARRANTY	5 years	5 years	5 years (3 year warranty for 30 GB capacity)	3 years

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INTEL® DATA MIGRATION SOFTWARE
- Transfer operating system, applications, and files from an old HDD or SSD to a new Intel® Solid-State Drive[3]
- Easy to use
- Free

Download now at **www.intel.com/go/ssdinstallation**

INTEL® SSD TOOLBOX v3.2
- 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**

For more information, visit **www.intel.com/go/channelssd**

INTEL® SATA SOLID-STATE DRIVES

Intel® Solid-State Drives for Enterprise and Data Center Applications

INTEL® SOLID-STATE DRIVE	INTEL® SSD 910 SERIES	INTEL® SSD DC S3700 SERIES	INTEL® SSD DC S3500 SERIES
POSITION VS. OTHER INTEL® SSDS	PCI Express* SSDs optimized for highest performance and endurance	SATA SSD with fast, consistent performance and endurance for write-intensive applications	SATA SSD with fast, consistent performance for read-intensive applications
INTERFACE	PCI Express gen 2 x8	SATA 6.0 Gb/s, ATA8-ACS2	SATA 6.0 Gb/s, ATA8-ACS2
FORM FACTOR	Half-height, half-length	2.5", 1.8" drive	2.5", 1.8" drive
CAPACITIES	800 GB / 400 GB	2.5": 800 GB / 400 GB / 200 GB / 100 GB 1.8": 400 GB / 200 GB	2.5": 800 GB / 600 GB / 480 GB / 300 GB / 240 GB / 160 GB / 120 GB / 80 GB 1.8": 800 GB / 400 GB / 240 GB / 80 GB
MAXIMUM RANDOM PERFORMANCE[1]	Reads: up to 180K IOPs Writes: up to 75K IOPs[2]	Reads: up to 75K IOPs Writes: up to 36K IOPs[2]	Reads: up to 75K IOPs Writes: up to 11.5K IOPs[2]
MAXIMUM SEQUENTIAL PERFORMANCE	Reads: up to 2 GB/s Writes: up to 1 GB/s	Reads: up to 500 MB/s Writes: up to 460 MB/s	Reads: up to 500 MB/s Writes: up to 450 MB/s
POWER	25 W max. / 8 W standby	Up to 6 W active / 650 mW typical	Up to 5 W active / 650 mW typical
LATENCY	Reads: <65μs Writes: <65μs	Reads: 50μs (typical) Writes: 65μs (typical)	Reads: 50μs (average)
ENDURANCE[1]	10 drive writes per day for 5 years	10 drive writes per day for 5 years	Up to 450 TB (4 KB random writes)
DATA PATH PROTECTION	Yes	Yes	Yes
POWER SAFE WRITE CACHE	Yes	Yes, enhanced	Yes, enhanced
TEMPERATURE SENSOR	Yes	Yes, with thermal throttling	Yes, with thermal throttling
CURRENT IN-RUSH LIMITER	Yes	Yes	Yes
SECURITY	No	AES 128-bit encryption End-to-end data protection Power-loss data protection	AES 256-bit encryption End-to-end data protection Power-loss data protection
WARRANTY	10 drive writes / day 5 years	5 years	5 years or E9=1 wear out indicator

INTEL® CACHE ACCELERATION SOFTWARE (INTEL® CAS)

- Server software that caches the most active data on Intel® Data Center SSDs
- Multi-level cache integrates with system DRAM to deliver optimal performance
- Accelerates applications or files on physical or virtual machines

Download a 30-day trial at **www.intel.com/content/www/us/en/software/intel-cache-acceleration-software.html**

4th Gen Intel® Desktop Processors (22nm manufacturing process)

NEW	PRODUCT NAME	CAPACITY	PRODUCT CODE	PRODUCT DESCRIPTION	PACKAGE TYPE	PACKAGE CONTENTS	QUANTITY PER BOX
	Intel® SSD DC S3700 Series	800 GB	SSDSC2BA800G301	25nm HET MLC / 2.5" / 7mm	OEM box	SSD only	1
		400 GB	SSDSC2BA400G301	25nm HET MLC / 2.5" / 7mm	OEM box	SSD only	1
		200 GB	SSDSC2BA200G301	25nm HET MLC / 2.5" / 7mm	OEM box	SSD only	1
		100 GB	SSDSC2BA100G301	25nm HET MLC / 2.5" / 7mm	OEM box	SSD only	1
		400 GB	SSDSC1NA400G301	25nm HET MLC / 1.8" / 5mm	OEM box	SSD only	1
		200 GB	SSDSC1NA200G301	25nm HET MLC / 1.8" / 5mm	OEM box	SSD only	1
	Intel® SSD DC S3500 Series	800 GB	SSDSC2BB800G401	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
		600 GB	SSDSC2BB600G401	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
		480 GB	SSDSC2BB480G401	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
		300 GB	SSDSC2BB300G401	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
		240 GB	SSDSC2BB240G401	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
		160 GB	SSDSC2BB160G401	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
		120 GB	SSDSC2BB120G401	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
		80 GB	SSDSC2BB080G401	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
		800 GB	SSDSC1NB800G401	20nm MLC / 1.8" / 5mm	OEM box	SSD only	1
		400 GB	SSDSC1NB400G401	20nm MLC / 1.8" / 5mm	OEM box	SSD only	1
		240 GB	SSDSC1NB240G401	20nm MLC / 1.8" / 5mm	OEM box	SSD only	1
		80 GB	SSDSC1NB080G401	20nm MLC / 1.8" / 5mm	OEM box	SSD only	1
	Intel® SSD 910 Series	800 GB	SSDPEDPX800G301	25nm HET MLC / PCI Express*	OEM box	SSD only	1
		400 GB	SSDPEDOX400G301	25nm HET MLC / PCI Express	OEM box	SSD only	1
✓	Intel® SSD 730 Series	480 GB	SSDSC2BP480G4R5	20nm MLC / 2.5" / 7mm	Reseller box	SSD with desktop installation kit[4]	1
✓		240 GB	SSDSC2BP240G4R5	20nm MLC / 2.5" / 7mm	Reseller box	SSD with desktop installation kit[4]	1
✓		480 GB	SSDSC2BP480G401	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
✓		240 GB	SSDSC2BP240G401	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1

INTEL® SATA SOLID-STATE DRIVES

NEW	PRODUCT NAME	CAPACITY	PRODUCT CODE	PRODUCT DESCRIPTION	PACKAGE TYPE	PACKAGE CONTENTS	QUANTITY PER BOX
	Intel® SSD 530 Series	480 GB	**SSDSC2BW480A4K5**	20nm MLC / 2.5" / 7mm	Reseller box	SSD with desktop installation kit[5]	1
		360 GB	**SSDSC2BW360A4K5**	20nm MLC / 2.5" / 7mm	Reseller box	SSD with desktop installation kit[5]	1
		240 GB	**SSDSC2BW240A4K5**	20nm MLC / 2.5" / 7mm	Reseller box	SSD with desktop installation kit[5]	1
		180 GB	**SSDSC2BW180A4K5**	20nm MLC / 2.5" / 7mm	Reseller box	SSD with desktop installation kit[5]	1
		120 GB	**SSDSC2BW120A4K5**	20nm MLC / 2.5" / 7mm	Reseller box	SSD with desktop installation kit[5]	1
		80 GB	**SSDSC2BW080A4K5**	20nm MLC / 2.5" / 7mm	Reseller box	SSD with desktop installation kit[5]	1
		480 GB	**SSDSC2BW480A401**	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
		360 GB	**SSDSC2BW360A401**	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
		240 GB	**SSDSC2BW240A401**	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
		180 GB	**SSDSC2BW180A401**	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
		120 GB	**SSDSC2BW120A401**	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
		80 GB	**SSDSC2BW080A401**	20nm MLC / 2.5" / 7mm	OEM box	SSD only	1
		240 GB	**SSDMCEAW240A401**	20nm MLC / mSATA	OEM box	SSD only	1
		180 GB	**SSDMCEAW180A401**	20nm MLC / mSATA	OEM box	SSD only	1
		120 GB	**SSDMCEAW120A401**	20nm MLC / mSATA	OEM box	SSD only	1
		80 GB	**SSDMCEAW080A401**	20nm MLC / mSATA	OEM box	SSD only	1
		360 GB	**SSDSCKHW360A401**	20nm MLC / M.2 / 80mm	OEM box	SSD only	1
		180 GB	**SSDSCKHW180A401**	20nm MLC / M.2 / 80mm	OEM box	SSD only	1
		120 GB	**SSDSCKHW120A401**	20nm MLC / M.2 / 80mm	OEM box	SSD only	1
		80 GB	**SSDSCKHW080A401**	20nm MLC / M.2 / 80mm	OEM box	SSD only	1
		120 GB	**SSDSCIHW120A401**	20nm MLC / M.2 / 42mm	OEM box	SSD only	1
	Intel® SSD 525 Series	60 GB	**SSDMCEAC060B301**	25nm MLC / mSATA	OEM box	SSD only	1
		30 GB	**SSDMCEAC030B301**	25nm MLC / mSATA	OEM box	SSD only	1
	Intel® SSD 335 Series	240 GB	**SSDSC2CT240A4K5**	25nm MLC / 2.5" / 9.5mm	Reseller box	SSD with desktop installation kit[6]	1
		180 GB	**SSDSC2CT180A4K5**	25nm MLC / 2.5" / 9.5mm	Reseller box	SSD with desktop installation kit[6]	1
		80 GB	**SSDSC2CT080A4K5**	25nm MLC / 2.5" / 9.5mm	Reseller box	SSD with desktop installation kit[6]	1

For more information, visit **www.intel.com/go/channelssd**

[1] IOPS and endurance specifications are for client-based workloads.

[2] Random 4 KB write performance measured using out-of-box SSD. Performance varies by capacity and form factor. Performance specifications apply to both compressible and non-compressible data.

[3] 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.

[4] Desktop installation kit contents: SATA signal cables, screws, installation guide, and warranty documentation.

[5] Desktop installation kit contents: 2.5mm SSD spacer to support 9.5mm notebook compartment requirements, SATA power and signal cables, 3.5-inch desktop drive bay to 2.5-inch SSD adapter bracket, screws, installation guide, and warranty documentation.

[6] 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.

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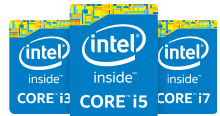
DESKTOP HIGHLIGHTS

Comparing the Intel® Core™ Processor Family for Enthusiasts:
Decide What's Important to Your Customers (and to You)

4TH GEN INTEL® CORE™ PROCESSOR	3RD GEN INTEL® CORE™ PROCESSOR
Recommended Usages • Gaming and media transcoding with Intel® HD graphics • Mainstream overclocking[1] (K SKUs only) • Mainstream consumer applications	**Recommended Usages** • High-end discrete graphics option for gaming • Heavily-threaded media editing • Heavy memory usage applications
Why? • Intel's recommended mainstream processor • Intel® Quick Sync Video (transcoding acceleration) • Potential for higher maximum air-cooled overclocking[1] frequency (K SKUs only)	**Why?** • Four cores / eight threads provide six cores / twelve 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
Intel® Technology Provider Benefits • Offer Intel's newest microarchitecture • Higher performance at all base frequencies vs. previous generations[2]	**Intel® Technology Provider Benefits** • Higher margin potential through system customization and premium MB offerings
Processor Intel® Core™ i7-4790 (4 cores / 8 threads) Intel® Core™ i5-4690 (4 cores / 4 threads) Intel Core i5-4590 (4 cores / 4 threads) Intel Core i7-4790S (4 cores / 8 threads) Intel Core i5-4590S (4 cores / 4 threads)	**Processor** Intel® Core™ i7-4960X processor[1] 3.60 GHz (6 cores / 12 threads, 130 W TDP) Intel Core i7-4930K processor[1] 3.40 GHz (6 cores / 12 threads) Intel Core i7-4820K processor[1] 3.70 GHz (4 cores / 8 threads)

NEW PROCESSOR NAME	CLOCK SPEED	INTEL® TURBO BOOST TECHNOLOGY[3]	INTEL® HD GRAPHICS	MEMORY SPEED	CACHE	PACKAGE
✓ **Intel® Core™ i7-4790 processor**	Up to 4 GHz	Yes	4600	1600 MHZ	8 MB L3 shared	LGA1150
✓ **Intel® Core™ i5-4690 processor**	Up to 3.90 GHz	Yes	4600	1600 MHZ	6 MB L3 shared	LGA1150
✓ **Intel Core i5-4590 processor**	Up to 3.70 GHz	Yes	4600	1600 MHZ	6 MB L3 shared	LGA1150
✓ **Intel Core i7-4790S processor**	Up to 4 GHz	Yes	4600	1600 MHz	8 MB L3 Shared	LGA1150
✓ **Intel Core i5-4590S processor**	Up to 3.70 GHz	Yes	4600	1600 MHz	8 MB L3 Shared	LGA1150

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

Comparing the 4th Gen Intel® Desktop Processor Usages: Decide What's Important to Your Customers (and to You)

NEW GEN INTEL® PENTIUM® PROCESSOR	4TH GEN INTEL® CORE™ i3 PROCESSOR
Recommended Usages • Handle all your daily tasks like checking e-mail, social networks, and productivity applications • Play casual games and enjoy HD videos online with Intel® HD graphics	**Recommended Usages** • Intel® Hyper-Threading Technology[4] allows you to multitask with different applications • Casual gaming with Intel® HD graphics 4400 or 4600 • Fast media transcoding with Intel® Quick Sync Video Technology

Why?
• The Intel® Pentium® processor is ideal for a desktop system that can handle all your basic computing needs
• Intel's newest microarchitecture
• Intel Pentium processor-based PCs are not only reliable, but offer the solid performance needed to run applications simultaneously and efficiently
• Reliable performance at a great value for entry-level PCs
• PCs based on the Intel Pentium processor are well-suited for the home and office
	Why?
	• Responsive performance that wakes in a flash and lets you multitask with ease
	• Excellent balance between performance and cost for mainstream PCs
	• 4th gen Intel® Core™ processors enable Intel's built-in visuals[5] technologies such as:
	  – Improved Intel HD graphics 4400 and 4600 for gaming without the need for a stand-alone graphics card
	  – Intel® Quick Sync Video to accelerate video transcoding
	  – Intel® Wireless Display[6] (Intel® WiDi) to share your favorite content on your TV
	• 4th gen Intel® Core™ i3 processors are the baseline for all the features and performance of 4th gen Intel Core processors

Intel® Technology Provider Benefits • Differentiate by offering Intel's newest microarchitecture • Higher performance at all base frequencies vs. previous generations[2]	**Intel® Technology Provider Benefits** • Increase your revenue by up-selling to PCs based on 4th gen Intel Core processors • For customers who want more performance, there is an excellent sell-up opportunity with Intel® Core™ i5 processors and Core™ i7 processors • Differentiate by offering Intel's newest microarchitecture • Higher performance at all base frequencies vs. previous generations[2]
Processor Intel® Pentium® G3000 processor series (2 cores / 2 threads)	**Processor** Intel® Core™ i3-4000 processor series (2 cores / 4 threads)

4th Gen Intel® Desktop Processors (22nm manufacturing process)

NEW

	PROCESSOR NAME	CLOCK SPEED	INTEL® HD GRAPHICS	MEMORY SPEED	CACHE	PACKAGE
✓	Intel® Core™ i3-4360 processor	3.70 GHz	4600	1600 MHz	4 MB L3 shared	LGA1150
✓	Intel Core i3-4350 processor	3.60 GHz	4600	1600 MHz	4 MB L3 shared	LGA1150
✓	Intel Core i3-4150 processor	3.50 GHz	4400	1600 MHz	3 MB L3 shared	LGA1150
✓	Intel® Pentium® G3450 processor	3.50 GHz	Yes	1600 MHz	3 MB L3 shared	LGA1150
✓	Intel Pentium G3440 processor	3.40 GHz	Yes	1600 MHz	3 MB L3 shared	LGA1150
✓	Intel Pentium G3240 processor	3.10 GHz	Yes	1333 MHz	3 MB L3 shared	LGA1150

NEW

	LOW-POWER PROCESSOR NAME	CLOCK SPEED	INTEL® HD GRAPHICS	MEMORY SPEED	CACHE	PACKAGE
✓	Intel® Core™ i3-4350T processor	3.10 GHz	4600	1600 MHz	4 MB L3 shared	LGA1150
✓	Intel Core i3-4150T processor	3 GHz	4400	1600 MHz	3 MB L3 shared	LGA1150

Introducing the 4th Gen Intel® Celeron® Processor:
Decide What's Important to Your Customers (and to You)

NEW GEN INTEL® CELERON® PROCESSOR

Recommended Usages
• Browse the web, communicate, and share with friends and family—a new PC makes it all fun and easy
• Play casual games and enjoy HD videos online with Intel® HD graphics

Why?
• The Intel® Celeron® processor is ideal for a desktop system that can handle all your everyday computing needs
• Intel's newest microarchitecture
• Intel Celeron offers the ideal combination of value and performance for entry-level computing
• Reliable performance at a great value for entry-level PCs. Great choice for first time buyers
• PCs based on the Intel Celeron processor are well-suited for home and office

Intel® Technology Provider Benefits
• Differentiate by offering Intel's newest microarchitecture
• Higher performance at all base frequencies vs. previous generations[2]

Processor
Intel® Celeron® G1800 processor series (2 cores / 2 threads)

4th Gen Intel® Celeron® Processors

NEW	PROCESSOR NAME	CLOCK SPEED	INTEL® HD GRAPHICS	MEMORY SPEED	CACHE	PACKAGE
✓	**Intel® Celeron® G1850 processor**	3 GHz	Yes	1333 MHz	2 MB L3 shared	LGA1150
✓	**Intel Celeron G1840 processor**	2.90 GHz	Yes	1333 MHz	2 MB L3 shared	LGA1150

DESKTOP HIGHLIGHTS

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

[1] 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.

[2] Measured by SYSmark* 2012. SYSmark 2012 is an application-based benchmark that reflects usage patterns of business users in the areas of office productivity, data/financial analysis, system management, media creation, 3D modeling and web development. SYSmark 2012 features the latest and most popular applications from each of their respective fields. Find out more at http://bapco.com/products/sysmark-2012. Results have been measured by Intel based on software, benchmark or other data of third parties and are provided for informational purposes only. Any difference in system hardware or software design or configuration may affect actual performance. Intel does not control or audit the design or implementation of third party data referenced in this document. Intel encourages all of its customers to visit the web sites of the referenced third parties or other sources to confirm whether the referenced data is accurate and reflects performance.

[3] Intel® Turbo Boost Technology 2.0 requires a PC with a processor with Intel Turbo Boost Technology 2.0 capability. Intel Turbo Boost Technology 2.0 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.

[4] Available on select Intel® Core™ processors. Requires an Intel® HT Technology-enabled system. Consult your PC manufacturer. Performance will vary depending on the specific hardware and software used. For more information including details on which processors support HT Technology, visit http://www.intel.com/info/hyperthreading

[5] Built-in visual features are not enabled on all PCs and optimized software may be required. Check with your system manufacturer. Learn more at http://www.intel.com/go/biv

[6] Requires an Intel® Wireless Display-enabled PC, tablet, or smartphone, a compatible adapter, and a TV. 1080p and Blu-Ray* or other protected content playback only available on select Intel® processors with built-in visuals enabled. Consult your PC manufacturer. For more information, see www.intel.com/go/widi

[7] Intel® Smart Connect Technology requires a select Intel® processor, Intel® software and BIOS update, Intel® Wireless adapter, and Internet connectivity. Solid-state memory or drive equivalent may be required. Depending on system configuration, your results may vary. Contact your system manufacturer for more information.

Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products.

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

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

[1] Haswell is a code name of Intel Corporation.

[2] 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.

[3] 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.

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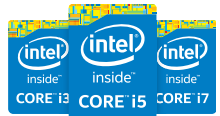* Other names and brands may be claimed as the property of others.

Intel® Desktop Processors

NEW

	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® TURBO BOOST TECHNOLOGY[1]	INTEL® HD GRAPHICS	MEMORY SPEED	CACHE	PACKAGE
	Intel® Core™ i7-4960X processor[2]	BX80633I74960X	Up to 4 GHz	Yes	N/A	1866 MHz	15 MB L3 shared	LGA2011
	Intel Core i7-4930K processor[2]	BX80633I74930K	Up to 3.90 GHz	Yes	N/A	1866 MHz	12 MB L3 shared	LGA2011
	Intel Core i7-4820K processor[2]	BX80633I74820K	Up to 3.90 GHz	Yes	N/A	1866 MHz	10 MB L3 shared	LGA2011

NEW

	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® TURBO BOOST TECHNOLOGY[1]	INTEL® HD GRAPHICS	MEMORY SPEED	CACHE	PACKAGE
✓	Intel® Core™ i7-4790 processor	BX80646I74790	Up to 4 GHz	Yes	4600	1600 MHz	8 MB L3 shared	LGA1150
	Intel Core i7-4770K processor[2]	BX80646I74770K	Up to 3.90 GHz	Yes	4600	1600 MHz	8 MB L3 shared	LGA1150
	Intel Core i7-4770 processor	BX80646I74770	Up to 3.90 GHz	Yes	4600	1600 MHz	8 MB L3 shared	LGA1150

NEW

	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® TURBO BOOST TECHNOLOGY[1]	INTEL® HD GRAPHICS	MEMORY SPEED	CACHE	PACKAGE
✓	Intel® Core™ i5-4690 processor	BX80646I54690	Up to 3.90 GHz	Yes	4600	1600 MHz	6 MB L3 shared	LGA1150
	Intel Core i5-4670K processor[2]	BX80646I54670K	Up to 3.80 GHz	Yes	4600	1600 MHz	6 MB L3 shared	LGA1150
	Intel Core i5-4670 processor	BX80646I54670	Up to 3.80 GHz	Yes	4600	1600 MHz	6 MB L3 shared	LGA1150
✓	Intel Core i5-4590 processor	BX80646I54590	Up to 3.70 GHz	Yes	4600	1600 MHz	6 MB L3 shared	LGA1150
	Intel Core i5-4570 processor	BX80646I54570	Up to 3.60 GHz	Yes	4600	1600 MHz	6 MB L3 shared	LGA1150
	Intel Core i5-4430 processor	BX80646I54430	Up to 3.20 GHz	Yes	4600	1600 MHz	6 MB L3 shared	LGA1150

	LOW-POWER PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® TURBO BOOST TECHNOLOGY[1]	INTEL® HD GRAPHICS	MEMORY SPEED	CACHE	PACKAGE
NEW								
✓	Intel® Core™ i7-4790S processor	BX80646I74790S	Up to 4 GHz	Yes	4600	1600 MHz	8 MB L3 shared	LGA1150
	Intel Core i7-4770S processor	BX80646I74770S	Up to 3.90 GHz	Yes	4600	1600 MHz	8 MB L3 shared	LGA1150
✓	Intel® Core™ i5-4590S processor	BX80646I54590S	Up to 3.70 GHz	Yes	4600	1600 MHz	8 MB L3 shared	LGA1150
	Intel Core i5-4570S processor	BX80646I54570S	Up to 3.60 GHz	Yes	4600	1600 MHz	6 MB L3 shared	LGA1150
✓	Intel® Core™ i3-4350T processor	BX80646I34350T	3.10 GHz	No	4600	1600 MHz	4 MB L3 shared	LGA1150
	Intel Core i3-4330T processor	BX80646I34330T	3 GHz	No	4600	1600 MHz	4 MB L3 shared	LGA1150
✓	Intel Core i3-4150T processor	BX80646I34150T	3 GHz	No	4400	1600 MHz	3 MB L3 shared	LGA1150
	Intel Core i3-4130T processor	BX80646I34130T	2.90 GHz	No	4400	1600 MHz	3 MB L3 shared	LGA1150

Intel® Desktop Processors for Mainstream and Entry-Level Segments (22nm Manufacturing Process)

	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® HD GRAPHICS	MEMORY SPEED	CACHE	PACKAGE
NEW							
✓	Intel® Core™ i3-4360 processor	BX80646I34360	3.70 GHz	4600	1600 MHz	4 MB L3 shared	LGA1150
✓	Intel Core i3-4350 processor	BX80646I34350	3.60 GHz	4600	1600 MHz	4 MB L3 shared	LGA1150
	Intel Core i3-4340 processor	BX80646I34340	3.60 GHz	4600	1600 MHz	4 MB L3 shared	LGA1150
	Intel Core i3-4330 processor	BX80646I34330	3.50 GHz	4600	1600 MHz	4 MB L3 shared	LGA1150
✓	Intel Core i3-4150 processor	BX80646I34150	3.50 GHz	4400	1600 MHz	3 MB L3 shared	LGA1150
	Intel Core i3-4130 processor	BX80646I34130	3.40 GHz	4400	1600 MHz	3 MB L3 shared	LGA1150
✓	Intel® Pentium® G3450 processor	BX80646G3450	3.50 GHz	Yes	1600 MHz	3 MB L3 shared	LGA1150
✓	Intel Pentium G3440 processor	BX80646G3440	3.40 GHz	Yes	1600 MHz	3 MB L3 shared	LGA1150
	Intel Pentium G3430 processor	BX80646G3430	3.30 GHz	Yes	1600 MHz	3 MB L3 shared	LGA1150
	Intel Pentium G3420 processor	BX80646G3420	3.20 GHz	Yes	1600 MHz	3 MB L3 shared	LGA1150
✓	Intel Pentium G3240 processor	BX80646G3240	3.10 GHz	Yes	1333 MHz	3 MB L3 shared	LGA1150
	Intel Pentium G3220 processor	BX80646G3220	3 GHz	Yes	1333 MHz	3 MB L3 shared	LGA1150
✓	Intel® Celeron® G1850 processor	BX80646G1850	3 GHz	Yes	1333 MHz	2 MB L3 shared	LGA1150
✓	Intel Celeron G1840 processor	BX80646G1840	2.90 GHz	Yes	1333 MHz	2 MB L3 shared	LGA1150
	Intel Celeron G1830 processor	BX80646G1830	2.80 GHz	Yes	1333 MHz	2 MB L3 shared	LGA1150
	Intel Celeron G1820 processor	BX80646G1820	2.70 GHz	Yes	1333 MHz	2 MB L3 shared	LGA1150

INTEL® DESKTOP PROCESSORS

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.

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.

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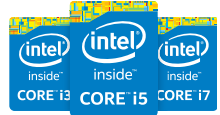
* Other names and brands may be claimed as the property of others.

DESKTOP WIRELESS

Intel® Wireless

Intel® 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 CONSUMER	BUSINESS, EDUCATION, PERFORMANCE CONSUMER
PRODUCT (INTEL CODE NAME)	INTEL® CENTRINO® WIRELESS-N 2200 FOR DESKTOP (MARBLE PEAK)	INTEL® CENTRINO® ADVANCED-N 6205 FOR DESKTOP (TAYLOR PEAK)	INTEL® DUAL BAND WIRELESS-AC 7260 FOR DESKTOP (WILKINS PEAK 2)
FORM FACTOR	PCI Express* x1	PCI Express* x1	PCI Express* x1
ANTENNA	Included	Included	Included
SPEED SPATIAL STREAMS (TX AND RX)	300 Mb/s (2x2)	300 Mb/s (2x2)	867 Mb/s (2x2)
BANDS	Single Band – 2.40 GHz	Dual Band – 2.40 GHz and 5 GHz	Dual Band – 2.40 GHz and 5 GHz
ENTERPRISE / SMB FEATURES	Intel® PROSet / Wireless Software	Intel® PROSet / Wireless Software	Intel® PROSet / Wireless Software Cisco* CCXV4
INTEL® COMMON CONNECTIVITY FRAMEWORK	✓	✓	✓
INTEL® WIRELESS DISPLAY[1]	intel WiDi Wireless Display	intel WiDi Wireless Display	intel WiDi Wireless Display
LAPLINK* PCSYNC* SOFTWARE	✓	✓	✓
INTEL® SMART CONNECT TECHNOLOGY[2]	✓	✓	✓
BLUETOOTH* 4			Bluetooth®
WI-FI* CERTIFICATION (802.11)	WiFi® CERTIFIED 802.11n	WiFi® CERTIFIED 802.11n	WiFi® CERTIFIED 802.11ac, 802.11n
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	7260HMWDTX1G 7260HMWDTX1H 7260HMWDTX1

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

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

[1] 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

[2] Intel® Smart Connect Technology requires a select Intel® processor, Intel® software and BIOS update, Intel® Wireless adapter, and Internet connectivity. Solid-state memory or drive equivalent may be required. Depending on system configuration, your results may vary. Contact your system manufacturer for more information.

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Intel® Boxed Thermal Solutions

INTEL® BOXED THERMAL SOLUTIONS

INTEL® THERMAL SOLUTION RTS2011AC	INTEL® THERMAL SOLUTION TS13X	INTEL® THERMAL SOLUTION HTS1155LP
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.	If you are into extreme gaming and overclocking,[2] the Intel® Thermal Solution TS13X (liquid cooling) is the perfect fit. It is designed for all high-end desktop performance overclocking.	Intel now offers the new low-profile thin mini-ITX Intel® Thermal Solution HTS1155LP for All-In-One and tiny PC desktop systems.

Features
• Low cost
• Shock and vibe compliant and keep out safe
• Supports the LGA2011 socket only
• Compatible with Sandy Bridge-E[1] and Ivy Bridge-E[1] processors
• 3 year limited warranty
	Features
	• Optimized performance
	  – 120mm x 25mm fan
	  – Updated cooler block
	  – Supports 130 W processors
	  – Supports the LGA1366, LGA115X, and LGA2011 sockets
	• Visual improvements
	  – Low-profile pump
	  – Blue LED lighting with ON / OFF switch
	• 3 year limited warranty
		Features
		• New low-profile All-In-One / Small Form Factor thermal solution
		• Supports all 65 W processors in the LGA1155 socket (Sandy Bridge[1] and Ivy Bridge[1])
		• Compatible with the Intel® Desktop Board DH61AG 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# 918700 Product code: **BXRTS2011AC**	MM# 929672 Product code: **BXTS13X**	MM# 917752 Product code: **BXHTS1155LP**

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

[2] 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. Intel assumes no responsibility that the processor, including if used with altered clock frequencies and/or voltages, will be fit for any particular purpose. For more information, visit http://www.intel.com/consumer/game/gaming-power.htm

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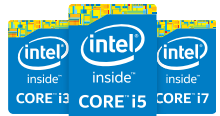
[*] Other names and brands may be claimed as the property of others.

intel inside™ CORE i3 | intel inside™ CORE i5 | intel inside™ CORE i7

Genuine Intel® Desktop Boards

FOCUS	INTEL® DESKTOP BOARD	FORM FACTOR	PACKAGE	MEMORY	DIMMS	INTEGRATED GRAPHICS[1]	PCIe* x16	PCIe x4	PCIe x1	MINI PCIe	PCI	SATA 3 6.0 GB/S (eSATA)	SATA 2 3.0 GB/S (eSATA)	RAID	AUDIO	TOSLINK+ S/PDIF	USB 3 EXT+ INT	USB 2 EXT+ INT	1394 EXT+ INT	LAN	INTEL® CORE™ i7 PROCESSOR 4TH GEN	3RD GEN	INTEL® CORE™ i5 PROCESSOR 4TH GEN	3RD GEN	INTEL® CORE™ i3 PROCESSOR 4TH GEN	3RD GEN	INCLUDED PROCESSORS
Enthusiast & Gaming	DZ87KLT-75K	ATX	LGA1150	DDR3 2400+	4	HDMI*+Thunderbolt™	2	1²	3	1	1	8		•	10-ch	1+1	6+2	2+6	1+1	Dual	•		•		•		
	DH87MC	ATX	LGA1150	DDR3 1600/1333	4	DisplayPort+HDMI+DVI-I	1	1²	2	1³	3	5		•	10-ch	1+1	2+2	4+5		Single	•		•		•		
	DH87RL	MicroATX	LGA1150	DDR3 1600/1333	4	DisplayPort+HDMI+DVI-I	1		3	1³		5		•	10-ch	1+1	4+2	2+5		Single	•		•		•		
Business	DQ87PG	MicroATX	LGA1150	DDR3 1600/1333	4	DisplayPort+DVI-D+VGA	1		1		2	6		•	8-ch		4+2	2+6		Single	•		•		•		
	DQ77CP	MicroATX	LGA1155	DDR3 1600	4	VGA+DVI-D	1		1		2	2	3 (1)	•	8-ch		2+2	4+4		Single		•		•		•	
	DQ77KB	Thin mini-ITX	LGA1155	DDR3 1600 SODIMM	2	eDP*+DisplayPort+HDMI+LVDS		1		2		2	2	•	4-ch		4+0	0+5		Dual		•		•		•	
	DQ77MK	MicroATX	LGA1155	DDR3 1600	4	DisplayPort+DVI-D+DVI-I	1	1	1	1	1	2	3 (1)	•	8-ch		2+2	4+4	1+1	Dual		•		•		•	
	DB85FL	MicroATX	LGA1150	DDR3 1600/1333	4	HDMI+DVI-I	1		2			4	2		8-ch		2+2	4+4		Single	•		•		•		
	DQ67EP	Mini-ITX	LGA1155	DDR3 1333	2	DisplayPort+DVI-D+DVI-I	1			1		2	2 (2)	•	8-ch			2	4+6	Single		•		•		•	
Intel® Atom™	DN2800MT	Thin mini-ITX		DDR3 SODIMM	2	eDP*+HDMI+VGA+LVDS			1	2			2		4-ch			4+4		Single							Intel® Atom™ processor N2800
	D2500CC	Mini-ITX		DDR3 SODIMM	2	DVI-I+VGA+LVDS				1	1		2		8-ch			4+3		Dual							Intel Atom processor D2500
	D2500HN	Mini-ITX		DDR3 SODIMM	2	VGA					1		2		4-ch			4+4		Single							Intel Atom processor D2500

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

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

PRODUCT FAMILY	INTEL® DESKTOP BOARD DZ87KLT-75K	INTEL® DESKTOP BOARD DH87MC	INTEL® DESKTOP BOARD DH87RL
FORM FACTOR	ATX	ATX	MicroATX
PRODUCT CODE / UPC	**BOXDZ87KLT75K / 00735858263412**	**BOXDH87MC / 00735858263474**	**BOXDH87RL / 00735858263443**
5-PACK OUTERCASE UPC	00735858263429	00735858263481	00735858263450
10-PACK PRODUCT CODE / UPC	N/A	BLKDH87MC / 00735858263498	BLKDH87RL / 00735858263467
PROCESSOR SUPPORT	**4th gen Intel® Core™ i7, Intel® Core™ i5, and other Intel® processors in the LGA1150 package, highly optimized for the Intel® K SKU processors**	**4th gen Intel® Core™ i7, Intel® Core™ i5, and other Intel® processors in the LGA1150 package**	**4th gen Intel® Core™ i7, Intel® Core™ i5, and other Intel® processors in the LGA1150 package**
CHIPSET	Intel® Z87 chipset	Intel® H87 chipset	Intel® H87 chipset
SUPPORTS HT TECHNOLOGY[4]	Yes	Yes	Yes
INTEGRATED GRAPHICS CORE[1]	HDMI*	Intel® HD graphics (DisplayPort* + HDMI* + DVI-I), supports triple independent display	Intel® HD graphics (DisplayPort* + HDMI* + DVI-I), supports triple independent display
DISCRETE GRAPHICS CONNECTOR	Two PCI Express* 3.0 x16 connectors (switchable to x8 or x4) PCI Express 2.0 x16 connector ATI* CrossFire* and NVIDIA* SLI* multi-GPU platform support	One PCI Express* 3.0 x16 connector	One PCI Express* 3.0 x16 connector
MEMORY SUPPORT	Dual-channel DDR3 with four connectors for 2400+ MHz (overclocked[6]) or DDR3 1600 / 1333 MHz (32 GB[7] max) Intel® Extreme Memory Profiles support	Dual-channel DDR3 with four connectors for 1600 / 1333 MHz (32 GB[7] max) Intel® Extreme Memory Profiles support	Dual-channel DDR3 with four connectors for 1600 / 1333 MHz (32 GB[7] max) Intel® Extreme Memory Profiles support
EXPANSION CONNECTORS	Three PCI Express* 2.0 x1 connectors, one PCI connector One full-size / half-size PCI Express Mini Card connector	Two PCI Express 2.0 x1 connectors, one PCI Express 2.0 x4 connector, and three PCI connectors One full-size / half-size PCI Express Mini Card connector	Three PCI Express 2.0 x1 connectors One full-size / half-size PCI Express Mini Card connector
AUDIO[5]	Ten-channel Intel® High Definition Audio (7.1+2 independent multi-streaming) Five analog audio outputs and one optical S/PDIF out port Internal S/PDIF header and front panel audio header	Ten-channel Intel® High Definition Audio (7.1+2 independent multi-streaming) Five analog audio outputs and one optical S/PDIF out port Internal S/PDIF header and front panel audio header	Ten-channel Intel® High Definition Audio (7.1+2 independent multi-streaming) Five analog audio outputs and one optical S/PDIF out port Internal S/PDIF header and front panel audio header
USB PORTS	Eight Super-Speed USB 3.0 ports (six external ports and two additional ports via internal header) and eight Hi-Speed USB 2.0 ports (two external ports and six additional ports via internal headers)	Four Super-Speed USB 3.0 ports (two external ports and two additional ports via internal header) and ten Hi-Speed USB 2.0 ports (four external ports and five additional ports via internal headers, one via PCI Express Mini Card connector)	Six Super-Speed USB 3.0 ports (four external ports and two additional ports via internal header) and eight Hi-Speed USB 2.0 ports (two external ports and five additional ports via internal headers, one via PCI Express Mini Card connector)
1394 PORTS	Two IEEE 1394a ports (one external port and one additional port via internal header)	No	No
STORAGE	Eight SATA ports (6.0 Gb/s)	Five SATA ports (6.0 Gb/s)	Five SATA ports (6.0 Gb/s)
RAID	Intel® Rapid Storage Technology[8] for RAID 0, 1, 5, and 10	Intel® Rapid Storage Technology[8] for RAID 0, 1, 5, and 10	Intel® Rapid Storage Technology[8] for RAID 0, 1, 5, and 10
ONBOARD LAN	Dual Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 integrated NIC	Intel® PRO 10/100/1000 integrated NIC
TRUSTED PLATFORM MODULE	N/A	Yes, via internal header	Yes, via internal header
LEAD FREE	Yes	Yes	Yes
SOFTWARE	Intel® Desktop Utilities Intel® Integrator Toolkit Intel® Visual BIOS ESET* Smart Security* 4	Intel® Desktop Utilities Intel® Integrator Toolkit	Intel® Desktop Utilities Intel® Integrator Toolkit
BIOS	Intel Visual BIOS 64Mb Flash EEPROM with Intel® Platform Innovation Framework for EFI Plug and Play Advanced Configuration and Power Interface V3.0b, SMBIOS 2.5 Intel® Express BIOS update support Fast Boot	Intel® Visual BIOS 64Mb Flash EEPROM with Intel® Platform Innovation Framework for EFI Plug and Play Advanced Configuration and Power Interface V3.0b, SMBIOS 2.5 Intel® Express BIOS update support Fast Boot	Intel® Visual BIOS 64Mb Flash EEPROM with Intel® Platform Innovation Framework for EFI Plug and Play Advanced Configuration and Power Interface V3.0b, SMBIOS 2.5 Intel® Express BIOS update support Fast Boot
WINDOWS* AND WHQL SUPPORT	Windows* 8 Hardware certification Windows* WHQL certified	Windows* 8 Hardware certification Windows* WHQL certified	Windows* 8 Hardware certification Windows* WHQL certified
WARRANTY	3 year limited warranty	3 year limited warranty	3 year limited warranty

PRODUCT FAMILY	INTEL® DESKTOP BOARD DQ87PG	INTEL® DESKTOP BOARD DQ77CP	INTEL® DESKTOP BOARD DQ77KB
FORM FACTOR	MicroATX	MicroATX	Thin Mini-ITX
PRODUCT CODE / UPC	**N/A**	**N/A**	**BOXDQ77KB / 00735858240796**
5-PACK OUTERCASE UPC	N/A	N/A	N/A
10-PACK PRODUCT CODE / UPC	BLKDQ87PG / 00735858263672	BLKDQ77CP / 00735858249805	BLKDQ77KB / 00735858240819
PROCESSOR SUPPORT	**4th gen Intel® Core™ vPro™ processors in the LGA1150 package**	**2nd and 3rd gen Intel® Core™ i7, Intel® Core™ i5, and other Intel® processors in the LGA1555 package**	**Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3 processors in the LGA1155 package**
CHIPSET	Intel® Q87 chipset	Intel® Q77 Express Chipset	Intel® Q77 Express Chipset
SUPPORTS HT TECHNOLOGY[4]	Yes	Yes	Yes
INTEGRATED GRAPHICS CORE[1]	Intel® HD graphics (DisplayPort* + DVI-D + VGA)	Intel® HD graphics (VGA + DVI-D)	Intel® HD graphics (eDisplayPort* + DisplayPort* + HDMI* + LVDS)
DISCRETE GRAPHICS CONNECTOR	One PCI Express* 3.0 x16 connector	One PCI Express* 3.0 x16 connector	One PCI Express* 3.0 x16 connector
MEMORY SUPPORT	Dual-channel DDR3 with four connectors for 1600 / 1333 MHz memory (32 GB[7] max) Intel® Extreme Memory Profiles support	Dual-channel DDR3 with four connectors for 1600 / 1333 MHz memory (32 GB[7] max)	Dual-channel DDR3 with two connectors for 1600 / 1333 MHz memory (16 GB[7] max)
EXPANSION CONNECTORS	One PCI Express 2.0 x1 connector and two PCI connectors	One PCI Express 2.0 x1 connector and two PCI connectors	One PCI Express 2.0 x4 connector and two PCI Express Mini Card connectors
AUDIO[5]	Eight-channel Intel® High Definition Audio (5.1+2 independent multi-streaming) Three analog audio outputs Internal S/PDIF header, front panel audio header and internal speaker header	Eight-channel Intel® High Definition Audio	Four-channel Intel® High Definition Audio codec with multi-streaming support
USB PORTS	Six Super-Speed USB 3.0 ports (four external ports and two additional ports via internal header) and eight Hi-Speed USB 2.0 ports (two external ports and six additional ports via internal headers)	Four Super-Speed USB 3.0 ports (two external ports and two additional ports via internal header) and eight Hi-Speed USB 2.0 ports (four external ports and four additional ports via internal headers)	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	N/A
STORAGE	Six SATA ports (6.0 Gb/s)	Two SATA ports (6.0 Gb/s), two SATA ports (3.0 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[8] for RAID 0, 1, 5, and 10	Intel® Rapid Storage Technology[8] for RAID 0, 1, 5, and 10	Intel® Rapid Storage Technology[8] for RAID 0, 1, 5, and 10
ONBOARD LAN	Intel® PRO 10/100/1000 integrated NIC	Intel® PRO 10/100/1000 Network Connection Integrated NIC	Dual Intel® PRO 10/100/1000 Network Connection
TRUSTED PLATFORM MODULE	Yes	Yes (discrete)	Yes (discrete)
LEAD FREE	Yes	Yes	Yes
SOFTWARE	Intel® Desktop Utilities Intel® Integrator Toolkit	Intel® Desktop Utilities Intel® Integrator Toolkit	Intel® Desktop Utilities Intel® Identity Protection Technology[9] Intel® Integrator Toolkit 5 Intel® Visual BIOS Splashtop* Remote Desktop — ESET* Smart Security* Laplink* PCmover* Professional McAfee* AntiVirus Plus RealVNC* Viewer Plus Spiceworks* IT Desktop
BIOS	Intel® Visual BIOS 96Mb Flash EEPROM with Intel® Platform Innovation Framework for EFI Plug and Play Advanced Configuration and Power Interface V3.0b, SMBIOS 2.5 Intel® Express BIOS update support Fast Boot	N/A	N/A
WINDOWS* AND WHQL SUPPORT	Windows* 8 Hardware certification Windows* WHQL certified	Windows* 7 WHQL certified with plans to support Windows* 8	Windows* 7 WHQL certified with plans to support Windows* 8
WARRANTY	3 year limited warranty	3 year limited warranty	3 year limited warranty

PRODUCT FAMILY	INTEL® DESKTOP BOARD DQ77MK		INTEL® DESKTOP BOARD DB85FL	INTEL® DESKTOP BOARD DQ67EP
FORM FACTOR	MicroATX		MicroATX	Mini-ITX
PRODUCT CODE / UPC	**BOXDQ77MK / 00735858240727**		**BOXDB85FL / 00735858263627**	**BOXDQ67EPB3 / 00735858221269**
5-PACK OUTERCASE UPC	N/A		00735858263634	N/A
10-PACK PRODUCT CODE / UPC	BLKDQ77MK / 00735858240734		BLKDB85FL / 00735858263641	BLKDQ67EPB3 / 00735858221276
PROCESSOR SUPPORT	**Intel® Core™ i7, Intel® Core™ i5, and Intel® Core™ i3 processors in the LGA1155 package**		**4th gen Intel® Core™ i7, Intel® Core™ i5, and other Intel® processors in the LGA1150 package**	**Intel® Core™ i7, Intel® Core™ i5, and other Intel® processors in the LGA1155 package**
CHIPSET	Intel® Q77 Express Chipset		Intel® B85 chipset	Intel® Q67 Express Chipset
SUPPORTS HT TECHNOLOGY[4]	Yes		Yes	Yes
INTEGRATED GRAPHICS CORE[1]	Intel® HD graphics (DisplayPort* + DVI-D + DVI-I)		Intel® HD graphics (HDMI* + DVI-I), supports dual independent display	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* 2.0 x16 connector
MEMORY SUPPORT	Dual-channel DDR3 with four connectors for 1600 / 1333 MHz memory (32 GB[7] max)		Dual-channel DDR3 with four connectors for 1600 / 1333 MHz memory (32 GB[7] max) Intel® Extreme Memory Profiles support	Dual-channel DDR3 with two connectors for 1333 / 1066 MHz memory (16 GB[7] 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		Two PCI Express 2.0 x1 connectors	PCI Express Mini Card connector (half length)
AUDIO[5]	Eight-channel Intel® High Definition Audio Codec with multi-streaming support		Eight-channel Intel® High Definition Audio (5.1+2 independent multi-streaming) Three analog audio outputs Internal S/PDIF header, front panel audio header and internal speaker header	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		Four Super-Speed USB 3.0 ports (two external ports and two additional ports via internal header) and eight Hi-Speed USB 2.0 ports (four external ports and four additional ports via internal headers)	Four Super-Speed USB 3.0 ports (two external ports and two additional ports via internal headers) and eight Hi-Speed USB 2.0 ports (four external ports and four additional ports via internal headers)
1394 PORTS	Two IEEE 1394a ports (one external port and one via internal header)		N/A	N/A
STORAGE	Two SATA ports (6.0 Gb/s), three SATA (3.0 Gb/s), and one eSATA back panel port (3.0 Gb/s)		Four SATA ports (6.0 Gb/s) and two SATA ports (3.0 Gb/s)	Two SATA ports (6.0 Gb/s), two SATA ports (3.0 Gb/s), and two eSATA back panel ports (3.0 Gb/s)
RAID	Intel® Rapid Storage Technology[8] for RAID 0, 1, 5, and 10		N/A	Intel® Rapid Storage Technology[8] for RAID 0, 1, 5, and 10
ONBOARD LAN	Dual Intel® PRO 10/100/1000 Network Connection		Intel® PRO 10/100/1000 integrated NIC	Intel® PRO 10/100/1000 Network Connection Integrated NIC
TRUSTED PLATFORM MODULE	Yes (discrete)		Yes, via internal header	Yes (discrete)
LEAD FREE	Yes		Yes	Yes
SOFTWARE	Intel® Desktop Utilities Intel® Identity Protection Technology[9] Intel® Integrator Toolkit 5 Intel® Visual BIOS Splashtop* Remote Desktop	ESET* Smart Security* Laplink* PCmover* Professional McAfee* AntiVirus Plus RealVNC* Viewer Plus Spiceworks* IT Desktop	Intel® Desktop Utilities Intel® Integrator Toolkit	Intel® Desktop Utilities Intel® Integrator Toolkit
BIOS	N/A		Intel® Visual BIOS 96Mb Flash EEPROM with Intel® Platform Innovation Framework for EFI Plug and Play Advanced Configuration and Power Interface V3.0b, SMBIOS 2.5 Intel® Express BIOS update support Fast Boot	N/A
WINDOWS* AND WHQL SUPPORT	Windows* 7 WHQL certified with plans to support Windows* 8		Windows* 7 and Windows* 8 WHCK Certification	Windows* Vista* Premium Windows* 7
WARRANTY	3 year limited warranty		3 year limited warranty	3 year limited warranty

PRODUCT FAMILY	INTEL® DESKTOP BOARD DN2800MT	INTEL® DESKTOP BOARD D2500CC	INTEL® DESKTOP BOARD D2500HN
FORM FACTOR	Thin Mini-ITX	Mini-ITX	Mini-ITX
PRODUCT CODE / UPC	**BOXDN2800MT / 00735858240376**	**N/A**	**BOXD2500HN / 00735858221733**
5-PACK OUTERCASE UPC	N/A	N/A	N/A
10-PACK PRODUCT CODE / UPC	BLKDN2800MT / 00735858240383	BLKD2500CC / 00735858223935	BLKD2500HN / 00735858221740
PROCESSOR SUPPORT	**Intel® Atom™ processor N2800 integrated**	**Intel® Atom™ processor D2500 integrated**	**Intel® Atom™ processor D2500 integrated**
CHIPSET	Intel® NM10 Express Chipset	Intel® NM10 Express Chipset	Intel® NM10 Express Chipset
SUPPORTS HT TECHNOLOGY[4]	Yes	N/A	N/A
INTEGRATED GRAPHICS CORE[1]	Intel® Graphics Media Accelerator 3650 (Embedded DisplayPort* + HDMI* + VGA + LVDS)	Intel® Graphics Media Accelerator 3600 (DVI-I + VGA + LVDS)	Intel® Graphics Media Accelerator 3600 (VGA)
DISCRETE GRAPHICS CONNECTOR	N/A	N/A	N/A
MEMORY SUPPORT	DDR3 with two SODIMM connectors for 1066 / 800 MHz memory (4 GB[7] max)	DDR3 with two SODIMM connectors for 1066 / 800 MHz memory (4 GB[7] max)	DDR3 with two SODIMM connectors for 1066 / 800 MHz memory (4 GB[7] 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
AUDIO[5]	Four-channel Intel® High Definition Audio	Eight-channel Intel® High Definition Audio	Four-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)	Eight Hi-Speed USB 2.0 ports (four external ports and four 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	Dual Integrated 10/100/1000 Network Connection	Integrated 10/100/1000 Network Connection
TRUSTED PLATFORM MODULE	N/A	Yes	N/A
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

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

1 Requires a processor with Intel® HD graphics.

2 Connector is x16 in length, but only x4 electrically.

3 Mini PCI Express* connector has SATA 6.0 Gb/s.

4 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

5 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

6 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.

7 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.

8 Requires a 4th generation Intel® Core™ processor, enabled chipset, and Intel® Rapid Storage Technology (Intel® RST) software.

9 No computer system can provide absolute security. Requires an Intel® Identity Protection Technology-enabled system, including an enabled Intel® processor, enabled chipset, firmware, software, and Intel integrated graphics (in some cases) and participating website/service. Intel assumes no liability for lost or stolen data and/or systems or any resulting damages. For more information, visit http://ipt.intel.com/. Consult your system manufacturer and/or software vendor for more information.

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Intel® NUC

Look Inside.™

INTEL® NUC

FOCUS	INTEL® NUC	PROCESSOR	SODIMM MEMORY	DIMMS	SUPPORT FOR 2.5" DRIVE	DISPLAY OUTPUT	MINI PCIe*	AUDIO	USB 3 EXT+INT	USB 2 EXT+INT	LAN	3 YEAR PRODUCT LIFE	OTHER
Intel® NUC Kit[1]	D54250WYK	Intel® Core™ i5-4250U processor	DDR3L	2	N/A	mHDMI* + mDP*	2	8-ch + 2-ch	4 + 0	0 + 2	GbE	N/A	mSATA 3.0 + CIR
	D54250WYKH	Intel Core i5-4250U processor	DDR3L	2	Yes	mHDMI + mDP	2	8-ch + 2-ch	4 + 0	0 + 2	GbE	N/A	mSATA 3.0 + CIR
	D34010WYK	Intel® Core™ i3-4010U processor	DDR3L	2	N/A	mHDMI + mDP	2	8-ch + 2-ch	4 + 0	0 + 2	GbE	N/A	mSATA 3.0 + CIR
	D34010WYKH	Intel Core i3-4010U processor	DDR3L	2	Yes	mHDMI + mDP	2	8-ch + 2-ch	4 + 0	0 + 2	GbE	N/A	mSATA 3.0 + CIR
	DC5342HYE	Intel Core i5-3427U processor	DDR3	2	N/A	HDMI + dual mDP	2	8-ch	1 + 0	2 + 2	GbE	Yes	mSATA 3.0 + Intel® vPro™
	D3217IYE	Intel Core i3-3217U processor	DDR3	2	N/A	Dual HDMI	2	8-ch	0 + 0	3 + 2	GbE	Yes	mSATA 3.0
	DN2820FYKH	Intel® Celeron® processor N2820	DDR3L	1	Yes	HDMI	1	8-ch + 2-ch	1 + 0	2 + 0	GbE + WiFi*	N/A	CIR
	DE3815TYKHE	Intel® Atom™ processor E3815	DDR3L	1	Yes	HDMI + VGA + eDP	1	8-ch + 2-ch	1 + 0	2 + 3	GbE	Yes	Fanless + 4 GB on-board memory
	DCCP847DYE	Intel Celeron processor 847	DDR3	2	N/A	Dual HDMI	2	8-ch	0 + 0	3 + 2	GbE	Yes	mSATA 3.0
Intel® NUC Board	D54250WYB	Intel Core i5-4250U processor	DDR3L	2	Yes	mHDMI + mDP	2	8-ch + 2-ch	4 + 0	0 + 2	GbE	N/A	mSATA 3.0 + CIR
	D34010WYB	Intel Core i3-4010U processor	DDR3L	2	Yes	mHDMI + mDP	2	8-ch + 2-ch	4 + 0	0 + 2	GbE	N/A	mSATA 3.0 + CIR
	D5342RKE	Intel Core i5-3427U processor	DDR3	2	N/A	HDMI + dual mDP	2	8-ch	1 + 0	2 + 2	GbE	Yes	mSATA 3.0 + Intel vPro
	D33217GKE	Intel Core i3-3217U processor	DDR3	2	N/A	Dual HDMI	2	8-ch	0 + 0	3 + 2	GbE	Yes	mSATA 3.0
	DE3815TYBE	Intel Atom processor E3815	DDR3L	1	Yes	HDMI + VGA + eDP	1	8-ch + 2-ch	1 + 0	2 + 3	GbE	Yes	Fanless + 4 GB on-board memory
	DCP847SKE	Intel Celeron processor 847	DDR3	2	N/A	Dual HDMI	2	8-ch	0 + 0	3 + 2	GbE	Yes	mSATA 3.0

For more information, visit **www.intel.com/NUC**

PRODUCT FAMILY	D54250WYK (H)	D34010WYK (H)	DC53427HYE
KIT / BOARD	**Intel® NUC Kit¹**	**Intel® NUC Kit¹**	**Intel® NUC Kit¹**
5-PACK OUTERCASE	BOXD54250WYK Suffix: H for HDD option, 1 for Type B cord, 2 for Type E cord, 3 for Type G cord	BOXD34010WYK Suffix: H for HDD option, 1 for Type B cord, 2 for Type E cord, 3 for Type G cord	BOXDC53427HYE
10-PACK PRODUCT CODE	N/A	N/A	BLKDC53427HYE
PROCESSOR	**Intel® Core™ i5-4250U**	**Intel® Core™ i3-4010U**	**Intel® Core™ i5-3427U**
CHIPSET	N/A	N/A	Intel® QS77 Express Chipset
INTEGRATED GRAPHICS CORE²	Intel® HD graphics 5000	Intel® HD graphics 4400	Intel® HD graphics 4000
DISPLAY OUTPUTS	Mini HDMI* Mini DisplayPort*	Mini HDMI* Mini DisplayPort*	HDMI* Dual mini DisplayPort*
MEMORY SUPPORT	Dual-channel SODIMM DDR3L 1333 / 1600MHz, 1.35V, 16 GB⁴ maximum	Dual-channel SODIMM DDR3L 1333 / 1600MHz, 1.35V, 16 GB⁴ maximum	Dual-channel SODIMM DDR3 1333 / 1600MHz, 1.5V, 16 GB⁴ maximum
2.5" HDD SUPPORT	Yes for D54250WYKH SKU	Yes for D34010WYKH SKU	N/A
EXPANSION CONNECTORS	One full-size PCI Express* Mini Card with mSATA support and one half-size PCI Express Mini Card	One full-size PCI Express* Mini Card with mSATA support and one half-size PCI Express Mini Card	One full-size PCI Express* Mini Card with mSATA support and one half-size PCI Express Mini Card
AUDIO³	Eight-channel (7.1) digital audio via HDMI 1.4a output, two-channel via headphone jack	Eight-channel (7.1) digital audio via HDMI 1.4a output, two-channel via headphone jack	Eight-channel (7.1) digital audio via HDMI 1.4a output
USB PORTS	Four USB 3.0 ports (two front panel, two back panel) and two USB 2.0 ports (via internal header)	Four USB 3.0 ports (two front panel, two back panel) and two USB 2.0 ports (via internal header)	Five USB 2.0 ports (three external ports and two additional ports via internal headers)
ONBOARD LAN	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection
POWER CORD OPTION	Type B, E, G or none	Type B, E, G, or none	N/A
TRUSTED PLATFORM MODULE	N/A	N/A	Yes
LEAD FREE	Yes	Yes	Yes
BIOS	Intel® Visual BIOS BIOS Vault Technology Fast Boot	Intel® Visual BIOS BIOS Vault Technology Fast Boot	Intel® Visual BIOS BIOS Vault Technology Fast Boot
WARRANTY	3 year limited warranty	3 year limited warranty	3 year limited warranty

PRODUCT FAMILY	DC3217IYE	DN2820FYKH	DE3815TYKHE
KIT / BOARD	Intel® NUC Kit[1]	Intel® NUC Kit[1]	Intel® NUC Kit[1]
5-PACK OUTERCASE	BOXDC3217IYE	BOXDN2820FYKH0	BLKDE3815TYKH0E
10-PACK PRODUCT CODE	N/A	N/A	N/A
PROCESSOR	Intel® Core™ i3-3217U	Intel® Celeron® N2820	Intel® Atom™ E3815
CHIPSET	Intel® QS77 Express Chipset	N/A	N/A
INTEGRATED GRAPHICS CORE[2]	Intel® HD graphics 4000	Intel® HD graphics	Intel® HD graphics
DISPLAY OUTPUTS	Dual HDMI*	HDMI*	HDMI* VGA eDP*
MEMORY SUPPORT	Dual-Channel SODIMM DDR3 1333 / 1600MHz, 1.5V, 16 GB[4] maximum	Single-Channel SODIMM DDR3L 1333 / 1600MHz, 1.35V, 8 GB[4] maximum	Single-Channel SODIMM DDR3L 1333 / 1600MHz, 1.35V, 8 GB[4] maximum
2.5" HDD SUPPORT	N/A	Yes	Yes
EXPANSION CONNECTORS	One full-size PCI Express* Mini Card with mSATA support and one half-size PCI Express Mini Card	One half-size PCI Express* Mini Card – Populated with Intel® Wireless-N 7260BN wireless/bluetooth card	One half-size PCI Express* Mini Card
AUDIO[3]	Eight-channel (7.1) digital audio via HDMI 1.4a output	Eight-channel (7.1) digital audio via HDMI 1.4a output, two-channel via headphone jack	Eight-channel (7.1) digital audio via HDMI 1.4a output, two-channel via headphone jack
USB PORTS	Five USB 2.0 ports (three external ports and two additional ports via internal headers)	One USB 3.0 port (front panel), two USB 2.0 ports (back panel)	One USB 3.0 port (front panel), five USB 2.0 ports (two external ports and three additional ports via internal headers)
ONBOARD LAN	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection
POWER CORD OPTION	N/A	Multi-country plug (Types A/C/G/I) included	Multi-country plug (Types A/C/G/I) included
TRUSTED PLATFORM MODULE	N/A	N/A	N/A
LEAD FREE	Yes	Yes	Yes
BIOS	Intel® Visual BIOS BIOS Vault Technology Fast Boot	Intel® Visual BIOS BIOS Vault Technology Fast Boot	Intel® Visual BIOS BIOS Vault Technology Fast Boot
WARRANTY	3 year limited warranty	3 year limited warranty	3 year limited warranty
OTHER	N/A	Intel® Wireless-N 7260BN wireless / Bluetooth* card included	4 GB eMMC storage device soldered down, custom solutions header, watchdog timer, fanless design

PRODUCT FAMILY	DCCP847DYE	D54250WYB	D34010WYB
KIT / BOARD	Intel® NUC Kit[1]	Intel® NUC Board	Intel® NUC Board
5-PACK OUTERCASE	BOXDCCP847DYE	N/A	N/A
10-PACK PRODUCT CODE	N/A	BLKD54250WYB	BLKD34010WYB
PROCESSOR	Intel® Celeron® 847	Intel® Core™ i5-4250U	Intel® Core™ i3-4010U
CHIPSET	Intel® QS77 Express Chipset	N/A	N/A
INTEGRATED GRAPHICS CORE[2]	Intel® HD graphics 2000	Intel® HD graphics 5000	Intel® HD graphics 4400
DISPLAY OUTPUTS	Dual HDMI*	Mini HDMI* Mini DisplayPort*	Mini HDMI* Mini DisplayPort*
MEMORY SUPPORT	Dual-channel SODIMM DDR3 1066 / 1333 MHz, 1.5V, 16 GB[4] maximum	Dual-channel SODIMM DDR3L 1333 / 1600MHz, 1.35V, 16 GB[4] maximum	Dual-channel SODIMM DDR3L 1333 / 1600MHz, 1.35V, 16 GB[4] maximum
2.5" HDD SUPPORT	N/A	Yes	Yes
EXPANSION CONNECTORS	One full-size PCI Express* Mini Card with mSATA support and one half-size PCI Express Mini Card	One full-size PCI Express* Mini Card with mSATA support and one half-size PCI Express Mini Card	One full-size PCI Express* Mini Card with mSATA support and one half-size PCI Express Mini Card
AUDIO[3]	Eight-channel (7.1) digital audio via HDMI 1.4a output, two-channel via headphone jack	Eight-channel (7.1) digital audio via HDMI 1.4a output, two-channel via headphone jack	Eight-channel (7.1) digital audio via HDMI 1.4a output, two-channel via headphone jack
USB PORTS	Five USB 2.0 ports (three external ports and two additional ports via internal headers)	Four USB 3.0 ports (two front panel, two back panel) and two USB 2.0 ports (via internal header)	Four USB 3.0 ports (two front panel, two back panel) and two USB 2.0 ports (via internal header)
ONBOARD LAN	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection
POWER CORD OPTION	N/A	Type B, E, G, or none	Type B, E, G, or none
TRUSTED PLATFORM MODULE	N/A	N/A	N/A
LEAD FREE	Yes	Yes	Yes
BIOS	Intel® Visual BIOS BIOS Vault Technology Fast Boot	Intel® Visual BIOS BIOS Vault Technology Fast Boot	Intel® Visual BIOS BIOS Vault Technology Fast Boot
WARRANTY	3 year limited warranty	3 year limited warranty	3 year limited warranty
OTHER	N/A	Consumer IR sensor on front panel	Consumer IR sensor on front panel

PRODUCT FAMILY	D53427RKE	D33217GKE	DE3815TYBE	DCP847SKE
KIT / BOARD	Intel® NUC Board	Intel® NUC Board	Intel® NUC Board	Intel® NUC Board
5-PACK OUTERCASE	N/A	N/A	N/A	N/A
10-PACK PRODUCT CODE	BLKD53427RKE	BLKD33217GKE	BLKDE3815TYBE	BLKLDCP847SKE
PROCESSOR	Intel® Core™ i5-3427U	Intel® Core™ i3-3217U	Intel® Atom™ E3815	Intel® Celeron® 847
CHIPSET	Intel® QS77 Express Chipset	Intel® QS77 Express Chipset	N/A	Intel® QS77 Express Chipset
INTEGRATED GRAPHICS CORE[2]	Intel® HD graphics 4000	Intel® HD graphics 4000	Intel® HD graphics	Intel® HD graphics 2000
DISPLAY OUTPUTS	HDMI* Dual mini DisplayPort*	Dual HDMI*	HDMI* VGA eDP*	Dual HDMI*
MEMORY SUPPORT	Dual-channel SODIMM DDR3 1333/1600MHz, 1.5V, 16 GB[4] maximum	Dual-channel SODIMM DDR3 1333/1600MHz, 1.5V, 16 GB[4] maximum	Single-channel SODIMM DDR3L 1333/1600MHz, 1.35V, 8 GB[4] maximum	Dual-Channel SODIMM DDR3 1066 / 1333 MHz, 1.5V, 16 GB[4] maximum
2.5" HDD SUPPORT	N/A	N/A	Yes	N/A
EXPANSION CONNECTORS	One full-size PCI Express* Mini Card with mSATA support and one half-size PCI Express Mini Card	One full-size PCI Express* Mini Card with mSATA support and one half-size PCI Express Mini Card	One half-size PCI Express* Mini Card	One full-size PCI Express* Mini Card with mSATA support and one half-size PCI Express Mini Card
AUDIO[3]	Eight-channel (7.1) digital audio via HDMI 1.4a output	Eight-channel (7.1) digital audio via HDMI 1.4a output	Eight-channel (7.1) digital audio via HDMI 1.4a output, two-channel via headphone jack	Eight-channel (7.1) digital audio via HDMI 1.4a output, 2 channel via headphone jack
USB PORTS	Five USB 2.0 ports (three external ports and two additional ports via internal headers)	Five USB 2.0 ports (three external ports and two additional ports via internal headers)	One USB 3.0 port (front panel), Five USB 2.0 ports (two external ports and three additional ports via internal headers)	Five USB 2.0 ports (three external ports and two additional ports via internal headers)
ONBOARD LAN	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection	Intel® PRO 10/100/1000 Network Connection
POWER CORD OPTION	N/A	N/A	N/A	N/A
TRUSTED PLATFORM MODULE	Yes	N/A	N/A	N/A
LEAD FREE	Yes	Yes	Yes	Yes
BIOS	Intel® Visual BIOS BIOS Vault Technology Fast Boot	Intel® Visual BIOS BIOS Vault Technology Fast Boot	Intel® Visual BIOS BIOS Vault Technology Fast Boot	Intel® Visual BIOS BIOS Vault Technology Fast Boot
WARRANTY	3 year limited warranty	3 year limited warranty	3 year limited warranty	3 year limited warranty
OTHER	N/A	N/A	4 GB eMMC storage device soldered down, custom solutions header, watchdog timer, fanless design	N/A

INTEL® NUC

For more information, visit **www.intel.com/NUC**

[1] Intel® NUC Kit: Each kit contains motherboard, chassis, and power supply.

[2] Requires a processor with Intel® HD graphics.

[3] 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

[4] 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.

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

PRODUCT FAMILY	INTEL® GIGABIT CT DESKTOP ADAPTER	INTEL® PRO/1000 GT DESKTOP ADAPTER
PRODUCT CODE— SINGLES	EXPI9301CT	PWLA8391GT
PRODUCT CODE— BULK TWENTY PACKS (FULL-HEIGHT END BRACKETS)	EXPI9301CTBLK[1]	PWLA8391GTBLK
PRODUCT CODE— BULK TWENTY PACKS (LOW-PROFILE END BRACKETS)	EXPI9301CTBLK[1]	PWLA8391GTLBLK
CONNECTOR	1 RJ-45	1 RJ-45
ETHERNET CONTROLLERS	Intel® 82574L	Intel® 82541PI
BUS WIDTH AND TYPE	PCI Express* x1	32-bit PCI 2.3

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

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

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MOBILE HIGHLIGHTS

Mobile Processors

The latest Intel® mobile processors offer a variety of features such as Intel® Turbo Boost Technology2.0,[1] Intel® HD graphics 4600 with 4K display support, Intel® Quick Sync Video 2.0 with fast video decoding, and up to 8 MB cache for great mobile performance.

				INTEL® TURBO BOOST TECHNOLOGY 2.0[1]									
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
✓	i7-4910MQ	BX80647I74910MQ	2.90	3.90	3.80	3.70	Intel® HD graphics 4600	400 / 1300	1600	1600	8 MB	47 W	rPGA
✓	i7-4810MQ	BX80647I74810MQ	2.80	3.80	3.70	3.60	Intel HD graphics 4600	400 / 1300	1600	1600	6 MB	47 W	rPGA

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.

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Intel® Mobile Processors

Look Inside.™

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 inside™ CORE™ i3   intel inside™ CORE™ i5   intel inside™ CORE™ i7

| | 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™ 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													
✓	i7-4910MQ	BX80647I74910MQ	2.90	3.90	3.80	3.70	Intel HD graphics 4600	400 / 1300	1600	1600	8 MB	47 W	rPGA
✓	i7-4810MQ	BX80647I74810MQ	2.80	3.80	3.70	3.60	Intel HD graphics 4600	400 / 1300	1600	1600	6 MB	47 W	rPGA
	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
	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
	i7-3612QM	AV8063801130704	2.10	3.10	3	2.80	Intel HD graphics 4000	650 / 1100	1600	1600	6 MB	35 W	rPGA, 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

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

	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™ i5 — DC PROCESSORS													
	i5-4330M	BX80647I54330M	2.80	3.50	3.40	N/A	Intel® HD graphics 4600	400 / 1250	1600	1600	3 MB	37 W	rPGA
	i5-4300M	BX80647I54300M	2.60	3.30	3.20	N/A	Intel HD graphics 4600	400 / 1250	1600	1600	3 MB	37 W	rPGA
	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
INTEL® CORE™ i3 — DC PROCESSORS													
	i3-3110M	AW8063801032700	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

INTEL® TURBO BOOST TECHNOLOGY 2.0[1]

NEW

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[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.

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Mobile Wireless

Look Inside.™

SEGMENT	SIMPLE CONNECTIVITY	DUAL-STREAM
INTEL® WIRELESS (INTEL CODE NAME)	INTEL® DUAL BAND WIRELESS-AC 3160 (WILKINS PEAK 1)	INTEL® WIRELESS-N 7260 (WILKINS PEAK 2)
SPEED SPATIAL STREAMS (TX AND RX)	433 Mb/s (1x1)	300 Mb/s (2x2)
BANDS	Dual Band – 2.40 GHz and 5 GHz	Single Band – 2.40 GHz
FORM FACTOR	Half Mini-Card, M.2	Half Mini-Card, M.2
ENTERPRISE / SMB FEATURES	Intel® PROSet / Wireless Software Cisco* CCXv4	Intel® PROSet / Wireless Software Cisco* CCXv4
INTEL® vPRO™ TECHNOLOGY[1]	✓	
INTEL® COMMON CONNECTIVITY FRAMEWORK	✓	✓
INTEL® WIRELESS DISPLAY[2]	intel WiDi Wireless Display	intel WiDi Wireless Display
INTEL® SMART CONNECT TECHNOLOGY[3]	✓	✓
BLUETOOTH* 4	Bluetooth®	Bluetooth®
Wi-Fi* CERTIFICATION (802.11)	WiFi CERTIFIED 802.11ac, 802.11n	WiFi CERTIFIED 802.11n
ORDER CODES – HMC **100 PIECES** **10 PIECES**	3160.HMWG 3160.HMWWB	7260.HMWBNG 7260.HMWBNWB
ORDER CODES – M.2 **100 PIECES**	3160.NGWG	7260.NGWBNG

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

MOBILE WIRELESS

SEGMENT	DUAL BAND		ULTIMATE
INTEL® WIRELESS (INTEL CODE NAME)	INTEL® DUAL BAND WIRELESS-N 7260 (WILKINS PEAK 2)	INTEL® DUAL BAND WIRELESS-N 7260 with BLUETOOTH* (WILKINS PEAK 2)	INTEL® DUAL BAND WIRELESS-AC 7260 (WILKINS PEAK 2)
SPEED SPATIAL STREAMS (TX AND RX)	300 Mb/s (2x2)	300 Mb/s (2x2)	867 Mb/s (2x2)
BANDS	Dual Band – 2.40 GHz and 5 GHz	Dual Band – 2.40 GHz and 5 GHz	Dual Band – 2.40 GHz and 5 GHz
FORM FACTOR	Half Mini-Card, M.2	Half Mini-Card, M.2	Half Mini-Card, M.2
ENTERPRISE / SMB FEATURES	Intel® PROSet / Wireless Software Cisco* CCXv4	Intel® PROSet / Wireless Software Cisco* CCXv4	Intel® PROSet / Wireless Software Cisco* CCXv4
INTEL® vPRO™ TECHNOLOGY[1]	✓	✓	✓
INTEL® COMMON CONNECTIVITY FRAMEWORK	✓	✓	✓
INTEL® WIRELESS DISPLAY[2]	Intel WiDi Wireless Display	Intel WiDi Wireless Display	Intel WiDi Wireless Display
INTEL® SMART CONNECT TECHNOLOGY[3]	✓	✓	✓
BLUETOOTH* 4		Bluetooth®	Bluetooth®
Wi-Fi* CERTIFICATION (802.11)	WiFi CERTIFIED 802.11n	WiFi CERTIFIED 802.11n	WiFi CERTIFIED 802.11ac, 802.11n
ORDER CODES – HMC 100 PIECES 10 PIECES	7260.HMWNBG 7260.HMWNBWB	7260.HMWANG 7260.HMWANWB	7260.HMWG 7260.HMWWB
ORDER CODES – M.2 100 PIECES	7260.NGWNBG	7260.NGWANG	7260.NGWG

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

[1] Intel® vPro™ Technology is sophisticated and requires setup and activation. Availability of features and results will depend upon the setup and configuration of your hardware, software and IT environment. To learn more visit:http://www.intel.com/technology/vpro.

[2] Requires an Intel® Wireless Display-enabled system, compatible adapter and TV. 1080p and Blu-Ray* or other protected content playback only available on select Intel® processor-based systems with built-in visuals enabled, a compatible adapter and media player, and supporting Intel® WiDi software and graphics driver installed. Consult your PC manufacturer. For more information, see www.intel.com/go/widi.

[3] Intel® Smart Connect Technology requires a select Intel® processor, Intel® software and BIOS update, Intel® Wireless adapter, and Internet connectivity. Solid-state memory or drive equivalent may be required. Depending on system configuration, your results may vary. Contact your system manufacturer for more information.

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![Intel logo] **Server Highlights**
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SERVER HIGHLIGHTS

New Server Processor Product Families[1]

INTEL® XEON® PROCESSOR E5-4600/2600/2400/1600 V2 PRODUCT FAMILIES
The Intel® Xeon® processor E5-2600/1600 v2, E5-2400 v2, and E5-4600 v2 product families are at the heart of an agile, efficient data center. Deploy a more trusted private cloud with the technology foundational for greater security. Put the "instantaneous" into data analysis with the performance to quickly process big data. These new Intel Xeon processor families enable greater energy efficiency and power management for a range of enterprise applications.

INTEL® XEON® PROCESSOR E7-8800/4800/2800 V2 PRODUCT FAMILIES
Rapidly process and analyze large amounts of data in near real time with the Intel® Xeon® processor E7-8800/4800/2800 v2 product families.

Keep data local with up to 1.5 TB of memory per socket to manage data-demanding, transaction-intensive workloads. Intel® Run Sure Technology[2] increases system uptime and data integrity for business-critical solutions. Hardware-embedded security features help better protect data and provide a safer environment.

INTEL® XEON PHI™ COPROCESSORS
Power breakthrough innovations with the highly parallel processing of the Intel® Xeon Phi™ coprocessor. Languages, tools, and applications run smoothly across the full spectrum of Intel® Xeon® processor family-based platforms. Intel Xeon Phi coprocessors provide up to 61 cores, 244 threads, and 1.2 teraFLOPS of performance,[3,4,5] and they come in a variety of configurations to address diverse hardware, software, workload, performance, and efficiency requirements.

Intel® Server Software and Support

Intel offers a variety of management and server software to help resellers provide a full solution—from software to hardware and even warranty and professional services—creating a more competitive advantage and increased revenue potential.

Intel continues to provide hardware management software at no additional cost that can be integrated into many larger cloud and enterprise management solutions or used as walk-up management.

In addition to free software, Intel also offers many optional software products:

- **Intel® Distribution of Apache Hadoop* –** This solution provides big data analytics software plus the Intel® Manager for Apache Hadoop* for ease in deployment and management. This distribution has been optimized to work with Intel® processors, networking, and storage for better overall performance.

- **Intel® Enterprise Edition for Lustre* Software –** This file system is designed for HPC customers who need an incredibly fast file system. The open source Lustre* parallel file system is the most popular, powerful, scalable data storage system currently available. An Intel® Manager is also available.

- **Intel® Data Center Manager (DCM) Console –** This console complements the DCM SDK by providing a standalone console to help customers better manage their power and thermal requirements in the data center. The console is available in 10, 25, 50, and 100 licenses from Intel.

- **Intel® Cache Acceleration Software –** This product increases the performance of storage by keeping the most important and hot data in a small number of SSDs to provide the performance equal to many or all SSDs, but in a more cost-effective manner.

Reminder: Resellers will continue to get pass-through certifications of operating systems available from third parties as well as recommendations for management software from third parties that are heavily tested on Intel® Server Boards and Systems. Contact your Intel Field Representative for more information on these pass-through certifications and recommended products.

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WE'RE NOW OFFERING ROBUST SOLUTIONS FEATURING INTEL® HARDWARE AND SOFTWARE

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Exceptional Performance, Extraordinary Value

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http://intelserveredge.com/bundles

AVAILABLE NOW: BIG DATA (APACHE HADOOP*), HPC COMPUTE, AND HPC STORAGE

Featuring Intel® Server Products, Intel® Enterprise Edition for Lustre* software, Intel® Distribution for Apache Hadoop* software, and Intel® True Scale Fabric products.

	HIGH-DENSITY	HIGH-DENSITY PERFORMANCE	MAXIMUM I/O
BIG DATA BUNDLE OPTIONS (ALL COMPONENTS ARE REQUIRED)[6]:			
Compute Node	Select Intel® Server Systems based on S2600WP/GZ		
Software	Intel® Manager and Distribution for Apache Hadoop* subscription (Premium or Standard one-year license)		
Optional[6]	Intel® Data Center Software Division Professional Services (40-hour time block of professional services)		
HPC COMPUTE BUNDLE OPTIONS (ALL COMPONENTS ARE REQUIRED)[6]:			
Compute Node	Intel® Server Board S2600JF plus compatible chassis	Intel® Server Board S2600WP plus compatible chassis	Select Intel® Server Systems based on S2600GL/GZ
InfiniBand*	Intel® True Scale Fabric Host Channel Adapter QLE7340CK for InfiniBand		
HPC STORAGE BUNDLE OPTIONS (ALL COMPONENTS ARE REQUIRED)[6]:			
MDS Server	Intel® Server Board S2600JF plus compatible chassis	Intel® Server Board S2600WP plus compatible chassis	Select Intel® Server Systems based on S2600IP
OSS Server	Select Intel® Server Systems based on S2600IP		
Software	Intel® Enterprise Edition for Lustre* (two licenses)		

10–30% savings is based on comparison of components being purchased separately. Promotion requires products be purchased together.

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

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[3] Software and workloads used in performance tests may have been optimized for performance only on Intel® microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations, and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products. For more information, go to www.intel.com/performance.

[4] Claim based on calculated theoretical peak double precision performance capability for a single coprocessor. 16 DP FLOPS/clock/core * 61 cores * 1.238 GHz = 1.208 TeraFLOPS.

[5] Results have been estimated based on internal Intel analysis and are provided for informational purposes only. Any difference in system hardware or software design or configuration may affect actual performance.

[6] Check with your Intel® Authorized Distributor for current bundle pricing.

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Intel® Server Platforms

Look Inside.™

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 E7-8800 v2 product family	8	Up to 15	3.40 GHz	105–155 W	Up to 8 GT/s	Up to 37.5 MB	Intel® C602J Chipset
	Better	Intel Xeon processor E7-4800 v2 product family	4	Up to 15	2.80 GHz	105–155 W	Up to 8 GT/s	Up to 37.5 MB	Intel C602J Chipset
	Good	Intel® Xeon® processor E5-4600 v2 product family	4	Up to 12	3.30 GHz	70–130 W	Up to 8 GT/s	Up to 30 MB	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 v2 product family	2	Up to 10	3.30 GHz	60–130 W	Up to 8 GT/s	Up to 30 MB	Intel C600 Chipset
	Better	Intel Xeon processor E5-2400 v2 product family	2	Up to 10	2.50 GHz	60–95 W	Up to 8 GT/s	Up to 25 MB	Intel C600 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 v2 product family	2	Up to 10	2.50 GHz	60-95 W	Up to 5.86 GT/s	Up to 25 MB	Intel C600 Chipset
	Better	Intel® Xeon® processor E3-1200 v3 product family	1	4	3.70 GHz	16–95 W	N/A	Up to 8 MB	Intel® C222, C224, or C226 Chipset
	Good	Intel Xeon processor E3-1200 v2 product family	1	4	3.50 GHz	17–95 W	N/A	Up to 8 MB	Intel® C202, C204, or C206 Chipset

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

INTEL® SERVER PLATFORMS

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
HPC **Optimized for high-performance analytics** **Target usage:** Bandwidth-intensive applications, high-performance clusters, and complex computation	Best	Intel® Xeon® processor E7-8800/4800/2800 v2 product family	8	Up to 15	3.40 GHz	155–105 W	Up to 8 GT/s	Up to 37.5 MB	Intel® C602J Chipset
	Better	Intel® Xeon® processor E5-4600 v2 product family	4	Up to 12	3.30 GHz	70–130 W	Up to 8 GT/s	Up to 30 MB	Intel® C600 Chipset
	Good	Intel Xeon processor E5-2600 v2 product family	2	Up to 10	3.30 GHz	60–130 W	Up to 8 GT/s	Up to 30 MB	Intel C600 Chipset
	Coprocessors	Intel® Xeon Phi™ Coprocessors	PCI Express*, varies per system	Up to 61	1.238 GHz	225–300 W	N/A	Up to 30.5 MB	Refer to Intel® Xeon® Processors
WORKSTATION **Optimized for complex analysis / visualization** **Target usage:** Graphics rendering, multimedia content development, engineering applications (CAD / CAM), and software development	Best	Intel Xeon processor E5-2600 v2 product family	2	Up to 10	3.30 GHz	60–130 W	Up to 8 GT/s	Up to 30 MB	Intel C600 Chipset
	Better	Intel Xeon processor E5-1600 v2 product family	1	Up to 6	3.70 GHz	130 W	N/A	Up to 15 MB	Intel C600 Chipset
	Good	Intel® Xeon® processor E3-1200 v3 product family	1	4	3.70 GHz	95 W	N/A	Up to 8 MB	Intel® C226 Chipset
	Coprocessors	Intel Xeon Phi Coprocessors	PCI Express, varies per system	Up to 61	1.238 GHz	225–300 W	N/A	Up to 30.5 MB	Refer to Intel Xeon Processors

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.

Software and workloads used in performance tests may have been optimized for performance only on Intel® microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products.

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Intel® Xeon® Processor E3-1200 v3 Product Family for Server and Workstation Systems Featuring One LGA1150 Socket
(Thermal Solution Included with Box SKUs)

	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 E3-1285 v3	CM8064601466703 (tray only)	3.60 GHz	4 GHz	8 MB	1600 MHz	4 / 8	Intel® HD graphics P4700	✓	✓	84 W	N/A
	Intel Xeon processor E3-1285L v3	CM8064601466804 (tray only)	3.10 GHz	3.90 GHz	8 MB	1600 MHz	4 / 8	Intel HD graphics P4700	✓	✓	65 W	N/A
	Intel Xeon processor E3-1280 v3	CM8064601467001 (tray only)	3.60 GHz	4 GHz	8 MB	1600 MHz	4 / 8		✓	✓	80 W	N/A
	Intel Xeon processor E3-1275 v3	BX80646E31275V3 (box) CM8064601466508 (tray)	3.50 GHz	3.90 GHz	8 MB	1600 MHz	4 / 8	Intel HD graphics P4600	✓	✓	84 W	7 35858 25934 7
	Intel Xeon processor E3-1270 v3	BX80646E31270V3 (box) CM8064601467101 (tray)	3.50 GHz	3.90 GHz	8 MB	1600 MHz	4 / 8		✓	✓	80 W	7 35858 25952 1
	Intel Xeon processor E3-1245 v3	BX80646E31245V3 (box) CM8064601466509 (tray)	3.40 GHz	3.80 GHz	8 MB	1600 MHz	4 / 8	Intel HD graphics P4600	✓	✓	84 W	7 35858 25940 8
	Intel Xeon processor E3-1240 v3	BX80646E31240V3 (box) CM8064601467102 (tray)	3.40 GHz	3.80 GHz	8 MB	1600 MHz	4 / 8		✓	✓	80 W	7 35858 25958 3
	Intel Xeon processor E3-1230 v3	BX80646E31230V3 (box) CM8064601467202 (tray)	3.30 GHz	3.70 GHz	8 MB	1600 MHz	4 / 8		✓	✓	80 W	7 35858 25970 5
	Intel Xeon processor E3-1230L v3	CM8064601467601 (tray only)	1.80 GHz	2.80 GHz	8 MB	1600 MHz	2 / 4		✓	✓	25 W	N/A
	Intel Xeon processor E3-1225 v3	BX80646E31225V3 (box) CM8064601466507 (tray)	3.20 GHz	3.60 GHz	8 MB	1600 MHz	4 / 4	Intel HD graphics P4600		✓	84 W	7 35858 25946 0
	Intel Xeon processor E3-1220 v3	BX80646E31220V3 (box) CM8064601467204 (tray)	3.10 GHz	3.50 GHz	8 MB	1600 MHz	4 / 4			✓	80 W	7 35858 25976 7
✓	Intel Xeon Processor E3-1220L v3	CM8064601481914 (tray only)	1.10 GHz	1.50 GHz	4 MB	1600 MHz	2 / 4		✓	✓	13 W	N/A

NEW

Intel® Xeon® Processor E3-1200 v2 Product Family for Server and Workstation Systems Featuring One LGA1155 Socket
(Thermal Solution Included with Box SKUs)

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 v2	CM8063701099102 (tray only)	3.70 GHz	4.10 GHz	8 MB	1600 MHz	4 / 8		✓	✓	87 W	N/A
Intel Xeon processor E3-1280 v2	BX80637E31280V2 (box) CM8063701098404 (tray)	3.60 GHz	4 GHz	8 MB	1600 MHz	4 / 8		✓	✓	69 W	7 35858 24236 3
Intel Xeon processor E3-1275 v2	BX80637E31275V2 (box) CM8063701098702 (tray)	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 E3-1270 v2	BX80637E31270V2 (box) CM8063701098301 (tray)	3.50 GHz	3.90 GHz	8 MB	1600 MHz	4 / 8		✓	✓	69 W	7 35858 24242 4
Intel Xeon processor E3-1265L v2	BX80637E31265L2 (box) CM8063701098602 (tray)	2.50 GHz	3.50 GHz	8 MB	1600 MHz	4 / 8	Intel HD graphics	✓	✓	45 W	7 35858 24218 9
Intel Xeon processor E3-1245 v2	BX80637E31245V2 (box) CM8063701098602 (tray)	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 E3-1240 v2	BX80637E31240V2 (box) CM8063701098201 (tray)	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 (box) CM8063701098101 (tray)	3.30 GHz	3.70 GHz	8 MB	1600 MHz	4 / 8		✓	✓	69 W	7 35858 24255 4
Intel Xeon processor E3-1225 v2	BX80637E31225V2 (box) CM8063701160603 (tray)	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 E3-1220 v2	BX80637E31220V2 (box) CM8063701160503 (tray)	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	N/A

Intel® Xeon® Processor E5-2600 v2 Product Family for Server / Workstation Systems Featuring Two LGA2011 Sockets
(Thermal Solution Sold Separately)

INTEL® SERVER / WORKSTATION PROCESSORS

NEW

PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® QPI[3] 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 E5-2697 v2	BX80635E52697V2 (box) CM8063501288843 (tray)	2.70 GHz	8 GT/s	30 MB	1866 MHz	12 / 24	✓	✓	130 W	7 35858 26666 6
Intel Xeon processor E5-2695 v2	BX80635E52695V2 (box) CM8063501288706 (tray)	2.40 GHz	8 GT/s	30 MB	1866 MHz	12 / 24	✓	✓	115 W	7 35858 26671 0
Intel Xeon processor E5-2690 v2	BX80635E52690V2 (box) CM8063501374802 (tray)	3 GHz	8 GT/s	25 MB	1866 MHz	10 / 20	✓	✓	130 W	7 35858 26832 5
Intel Xeon processor E5-2687W v2	BX80635E52687V2 (box) CM8063501287203 (tray)	3.10 GHz	8 GT/s	20 MB	1866 MHz	8 / 16	✓	✓	150 W	7 35858 26922 3
Intel Xeon processor E5-2680 v2	BX80635E52680V2 (box) CM8063501374901 (tray)	2.80 GHz	8 GT/s	25 MB	1866 MHz	10 / 20	✓	✓	130 W	7 35858 26837 0
Intel Xeon processor E5-2670 v2	BX80635E52670V2 (box) CM8063501375000 (tray)	2.50 GHz	8 GT/s	20 MB	1866 MHz	10 / 20	✓	✓	115 W	7 35858 26842 4
Intel Xeon processor E5-2667 v2	CM8063501287304 (tray only)	3.30 GHz	8 GT/s	25 MB	1866 MHz	8 / 16	✓	✓	130 W	N/A
Intel Xeon processor E5-2660 v2	BX80635E52660V2 (box) CM8063501452503 (tray)	2.20 GHz	8 GT/s	25 MB	1866 MHz	10 / 20	✓	✓	95 W	7 35858 26847 9
Intel Xeon processor E5-2650 v2	BX80635E52650V2 (box) CM8063501375101 (tray)	2.60 GHz	8 GT/s	20 MB	1866 MHz	8 / 16	✓	✓	95 W	7 35858 26852 3
Intel Xeon processor E5-2650L v2	CM8063501287602 (tray only)	1.70 GHz	7.20 GT/s	25 MB	1600 MHz	10 / 20	✓	✓	70 W	N/A
Intel Xeon processor E5-2643 v2	CM8063501287403 (tray only)	3.50 GHz	8 GT/s	25 MB	1866 MHz	6 / 12	✓	✓	130 W	N/A
Intel Xeon processor E5-2640 v2	BX80635E52640V2 (box) CM8063501288202 (tray)	2 GHz	7.20 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	95 W	7 35858 26857 8
Intel Xeon processor E5-2637 v2	CM8063501520800 (tray only)	3.50 GHz	8 GT/s	15 MB	1866 MHz	4 / 8	✓	✓	130 W	N/A
Intel Xeon processor E5-2630 v2	BX80635E52630V2 (box) CM8063501288100 (tray)	2.60 GHz	7.20 GT/s	15 MB	1600 MHz	6 / 12	✓	✓	80 W	7 35858 26884 4
Intel Xeon processor E5-2630L v2	CM8063501376200 (tray only)	2.40 GHz	7.20 GT/s	15 MB	1600 MHz	6 / 12	✓	✓	60 W	N/A
Intel Xeon processor E5-2620 v2	BX80635E52620V2 (box) CM8063501288301 (tray)	2.10 GHz	7.20 GT/s	15 MB	1600 MHz	6 / 12	✓	✓	80 W	735858 26889 9
Intel Xeon processor E5-2609 v2	BX80635E52609V2 (box) CM8063501375800 (tray)	2.50 GHz	6.40 GT/s	10 MB	1333 MHz	4 / 4			80 W	7 35858 26894 3
Intel Xeon processor E5-2603 v2	BX80635E52603V2 (box) CM8063501375902 (tray)	1.80 GHz	6.40 GT/z	10 MB	1333 MHz	4 / 4			80 W	7 35858 26899 8

Intel® Xeon® Processor E5-1600 v2 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 v2	BX80635E51660V2 (box) CM8063501291808 (tray)	3.70 GHz	15 MB	1866 MHz	6 / 12	✓	✓	130 W	7 35858 26927 8
Intel Xeon processor E5-1650 v2	CM8063501292204 (tray only)	3.50 GHz	12 MB	1600 MHz	6 / 12	✓	✓	130 W	N/A
Intel Xeon processor E5-1620 v2	CM8063501292405 (tray only)	3.70 GHz	10 MB	1600 MHz	4 / 8	✓	✓	130 W	N/A

Intel® Xeon® Processor E5-2400 v2 Product Family for Server / Workstation Systems Featuring Two LGA2011 Sockets
(Thermal Solution Sold Separately)

NEW

PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® QPI[3] 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 v2	BX80634E52470V2 (box) CM8063401286102 (tray)	2.40 GHz	8 GT/s	25 MB	1600 MHz	10 / 20	✓	✓	95 W	7 35858 27206 3
Intel Xeon processor E5-2450 v2	BX80634E52450V2 (box) CM8063401376400 (tray)	2.50 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	95 W	7 35858 27211 7
Intel Xeon processor E5-2450L v2	CM8063401287001 (tray only)	1.70 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	70 W	N/A
Intel Xeon processor E5-2440 v2	BX80634E52440V2 (box) CM8062000862604 (tray)	1.90 GHz	7.20 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	95 W	7 35858 27201 8
Intel Xeon processor E5-2430 v2	BX80634E52430V2 (box) CM8063401286400 (tray)	2.50 GHz	7.20 GT/s	15 MB	1600 MHz	6 / 12	✓	✓	80 W	7 35858 27196 7
Intel Xeon processor E5-2430L v2	CM8063401376704 (tray only)	2.40 GHz	7.20 GT/s	15 MB	1600 MHz	6 / 12	✓	✓	60 W	N/A
Intel Xeon processor E5-2420 v2	BX80634E52420V2 (box) CM8063401286503 (tray)	2.20 GHz	7.20 GT/s	15 MB	1600 MHz	6 / 12	✓	✓	80 W	7 35858 27191 2
Intel® Xeon® processor E5-2407 v2	BX80634E52407V2 (box) CM8063401286600 (tray)	2.40 GHz	6.40 GT/s	10 MB	1333 MHz	4 / 4			80 W	7 35858 27186 8
Intel Xeon processor E5-2403 v2	BX80634E52403V2 (box) CM8063401286702 (tray)	1.80 GHz	6.40 GT/s	10 MB	1333 MHz	4 / 4			80 W	7 35858 27181 3

Intel® Xeon® Processor E5-4600 v2 Product Family for Server Systems Featuring Four LGA2011 Sockets
(Thermal Solution Sold Separately)

NEW

PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® QPI[3] 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 E5-4657L v2	CM8063501285605 (tray only)	2.40 GHz	8 GT/s	30 MB	1866 MHz	12 / 24	✓	✓	115 W	N/A
Intel Xeon processor E5-4650 v2	CM8063501541700 (tray only)	2.40 GHz	8 GT/s	25 MB	1866 MHz	10 / 20	✓	✓	95 W	N/A
Intel Xeon processor E5-4640 v2	CM8063501285713 (tray only)	2.20 GHz	8 GT/s	20 MB	1866 MHz	10 / 20	✓	✓	95 W	N/A
Intel Xeon processor E5-4627 v2	CM8063501454002 (tray only)	3.30 GHz	7.20 GT/s	16 MB	1866 MHz	8 / 8		✓	130 W	N/A
Intel Xeon processor E5-4624L v2	CM8063501293407 (tray only)	1.90 GHz	8 GT/s	25 MB	1866 MHz	10 / 20	✓	✓	70 W	N/A
Intel Xeon processor E5-4620 v2	CM8063501393202 (tray only)	2.60 GHz	7.20 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	95 W	N/A
Intel Xeon processor E5-4610 v2	CM8063501521600 (tray only)	2.30 GHz	7.20 GT/s	16 MB	1600 MHz	8 / 16	✓	✓	95 W	N/A
Intel Xeon processor E5-4607 v2	CM8063501377604 (tray only)	2.60 GHz	6.40 GT/s	12 MB	1333 MHz	6 / 12	✓	✓	95 W	N/A
Intel Xeon processor E5-4603 v2	CM8063501453800 (tray only)	2.20 GHz	6.40 GT/s	10 MB	1333 MHz	4 / 8	✓	✓	95 W	N/A

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[3] 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 E5-2687W	BX80621E52687W (box) CM8062107184308 (tray)	3.10 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	150 W	7 35858 22396 6
Intel Xeon processor E5-2690	BX80621E52690 (box) CM8062101122501 (tray)	2.90 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	135 W	7 35858 24086 4
Intel Xeon processor E5-2680	BX80621E52680 (box) CM8062107184424 (tray)	2.70 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	130 W	7 35858 22397 3
Intel Xeon processor E5-2670	BX80621E52670 (box) CM8062101082713 (tray)	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	N/A
Intel Xeon processor E5-2665	BX80621E52665 (box) CM8062101143101 (tray)	2.40 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	155 W	7 35858 22400 0
Intel Xeon processor E5-2660	BX80621E52660 (box) CM8062107184801 (tray)	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[3] 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	N/A
Intel Xeon processor E5-2650	BX80621E52650 (box) CM8062100856218 (tray)	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	N/A
Intel Xeon processor E5-2648L	CM8062100854905 (tray only)	1.80 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	70 W	N/A
Intel Xeon processor E5-2643	CM8062107185605 (tray only)	3.30 GHz	6.40 GT/s	10 MB	1600 MHz	4 / 8	✓	✓	130 W	N/A
Intel Xeon processor E5-2640	BX80621E52640 (box) CM8062100856401 (tray)	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 (box) CM8062101038801 (tray)	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	N/A
Intel Xeon processor E5-2620	BX80621E52620 (box) CM8062101048401 (tray)	2 GHz	7.20 GT/s	15 MB	1333 MHz	6 / 12	✓	✓	95 W	7 35858 22405 5
Intel Xeon processor E5-2609	BX80621E52609 (box) CM8062107186604 (tray)	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 (box) CM8062100856501 (tray)	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 (box) CM8062107284111 (tray)	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	N/A
Intel Xeon processor E5-1620	CM8062101038606 (tray only)	3.60 GHz	10 MB	1600 MHz	4 / 8	✓	✓	130 W	N/A

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[3] 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 (box) CM8062007187242 (tray)	2.30 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	95 W	7 35858 23023 9
Intel Xeon processor E5-2450	BX80621E52450 (box) CM8062000862501 (tray)	2.10 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	95 W	7 35858 23003 1
Intel Xeon processor E5-2440	BX80621E52440 (box) CM8062000862604 (tray)	2.40 GHz	7.20 GT/s	15 MB	1333 MHz	8 / 16	✓	✓	95 W	7 35858 23008 6
Intel Xeon processor E5-2450L	CM8062007283711 (tray only)	1.80 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	70 W	N/A
Intel Xeon processor E5-2430	BX80621E52430 (box) CM8062001122601 (tray)	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 (tray only)	2 GHz	7.20 GT/s	15 MB	1600 MHz	6 / 12	✓	✓	60 W	N/A
Intel Xeon processor E5-2420	BX80621E52420 (box) CM8062001183000 (tray)	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 (box) CM8062001048200 (tray)	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 (box) CM8062001048300 (tray)	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® SERVER / WORKSTATION PROCESSORS

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® QPI³ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY¹	INTEL® TURBO BOOST TECHNOLOGY²	POWER	UPC CODE
	Intel® Xeon® processor E5-4650	BX80621E54650 (box) CM8062101229200 (tray)	2.70 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	130 W	7 35858 23290 6
	Intel Xeon processor E5-4650L	BX80621E54650L (box) CM8062101229300 (tray)	2.60 GHz	8 GT/s	20 MB	1600 MHz	8 / 16	✓	✓	115 W	7 35858 23305 7
	Intel Xeon processor E5-4640	BX80621E54640 (box) CM8062101229400 (tray)	2.40 GHz	8 GT/s	20 MB	1600 MHz	6 / 12	✓	✓	95 W	7 35858 23350 7
	Intel Xeon processor E5-4620	BX80621E54620 (box) CM8062101145500 (tray)	2.20 GHz	7.20 GT/s	16 MB	1333 MHz	8 / 16	✓	✓	95 W	7 35858 23295 1
	Intel Xeon processor E5-4617	CM8062101145700 (tray only)	2.90 GHz	7.20 GT/s	15 MB	1600 MHz	6 / 6		✓	95 W	N/A
	Intel Xeon processor E5-4610	BX80621E54610 (box) CM8062100862401 (tray)	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 (box) CM8062101038501 (tray)	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 (box) CM8062101190400 (tray)	2 GHz	6.40 GT/s	10 MB	1066 MHz	4 / 8	✓	✓	95 W	7 35858 23315 6

Intel® Xeon® Processor E7-8800 v2 Product Family for Server / Workstation Systems Featuring Eight LGA2011-1 Sockets

NEW

	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® QPI³ SPEED	SHARED L3 CACHE	MAX. MEMORY SPEED	NO. OF CORES / THREADS	INTEL® HYPER-THREADING TECHNOLOGY¹	INTEL® TURBO BOOST TECHNOLOGY²	POWER	UPC CODE
✓	Intel® Xeon® processor E7-8893 v2	CM8063601454907 (tray only)	3.40 GHz	8 GT/s	37.5 MB	1600 MHz	6 / 12	✓	✓	155 W	N/A
✓	Intel Xeon processor E7-8891 v2	CM8063601377422 (tray only)	3.20 GHz	8 GT/s	37.5 MB	1600 MHz	10 / 20	✓	✓	155 W	N/A
✓	Intel Xeon processor E7-8890 v2	CM8063601213513 (tray only)	2.80 GHz	8 GT/s	37.5 MB	1600 MHz	15 / 30	✓	✓	155 W	N/A
✓	Intel Xeon processor E7-8880 v2	CM8063601271810 (tray only)	2.50 GHz	8 GT/s	37.5 MB	1600 MHz	15 / 30	✓	✓	130 W	N/A
✓	Intel Xeon processor E7-8880L v2	CM8063601275812 (tray only)	2.20 GHz	8 GT/s	37.5 MB	1600 MHz	15 / 30	✓	✓	105 W	N/A
✓	Intel Xeon processor E7-8870 v2	CM8063601272006 (tray only)	2.30 GHz	8 GT/s	30 MB	1600 MHz	15 / 30	✓	✓	130 W	N/A
✓	Intel Xeon processor E7-8857 v2	CM8063601275912 (tray only)	3 GHz	8 GT/s	30 MB	1600 MHz	12 / 12		✓	130 W	N/A
✓	Intel Xeon processor E7-8850 v2	CM8063601272306 (tray only)	2.30 GHz	7.20 GT/s	24 MB	1333 MHz	12 / 24	✓	✓	105 W	N/A

Intel® Xeon® Processor E7-4800 v2 Product Family for Server / Workstation Systems Featuring Four LGA2011-1 Sockets

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® QPI[3] 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 E7-4890 v2	CM8063601272412 (tray only)	2.80 GHz	8 GT/s	37.5 MB	1600 MHz	15 / 30	✓	✓	155 W	N/A
✓	Intel Xeon processor E7-4880 v2	CM8063601272512 (tray only)	2.50 GHz	8 GT/s	37.5 MB	1600 MHz	15 / 30	✓	✓	130 W	N/A
✓	Intel Xeon processor E7-4870 v2	CM8063601272606 (tray only)	2.30 GHz	8 GT/s	30 MB	1600 MHz	15 / 30	✓	✓	130 W	N/A
✓	Intel Xeon processor E7-4860 v2	CM8063601453406 (tray only)	2.60 GHz	8 GT/s	30 MB	1600 MHz	12 / 24	✓	✓	130 W	N/A
✓	Intel Xeon processor E7-4850 v2	CM8063601272906 (tray only)	2.30 GHz	7.20 GT/s	24 MB	1333 MHz	12 / 24	✓	✓	105 W	N/A
✓	Intel Xeon processor E7-4830 v2	CM8063601374506 (tray only)	2.20 GHz	7.20 GT/s	20 MB	1333 MHz	10 / 20	✓	✓	105 W	N/A
✓	Intel Xeon processor E7-4820 v2	CM8063601521707 (tray only)	2 GHz	7.20 GT/s	16 MB	1333 MHz	8 / 16	✓	✓	105 W	N/A
✓	Intel Xeon processor E7-4809 v2	CM8063601537106 (tray only)	1.90 GHz	6.40 GT/s	12 MB	1066 MHz	6 / 12	✓		105 W	N/A

Intel® Xeon® Processor E7-2800 v2 Product Family for Server / Workstation Systems Featuring Two LGA2011-1 Sockets

NEW	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® QPI[3] 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 E7-2890 v2	CM8063601375306 (tray only)	2.80 GHz	8 GT/s	37.5 MB	1600 MHz	15 / 30	✓	✓	155 W	N/A
✓	Intel Xeon processor E7-2880 v2	CM8063601273306 (tray only)	2.50 GHz	8 GT/s	37.5 MB	1600 MHz	15 / 30	✓	✓	130 W	N/A
✓	Intel Xeon processor E7-2870 v2	CM8063601273406 (tray only)	2.30 GHz	8 GT/s	30 MB	1600 MHz	15 / 30	✓	✓	130 W	N/A
✓	Intel Xeon processor E7-2850 v2	CM8063601275706 (tray only)	2.30 GHz	7.20 GT/s	24 MB	1333 MHz	12 / 24	✓	✓	105 W	N/A

Intel® Xeon® Processor E7-4800 Product Family for Server / Workstation Systems Featuring Four LGA1567 Sockets

NEW

PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	INTEL® QPI[3] 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 (box) AT80615007263AA (tray)	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	N/A
Intel Xeon processor E7-4850	AT80615007449AA (tray only)	2 GHz	6.40 GT/s	24 MB	1066 MHz	10 / 20	✓	✓	130 W	N/A
Intel Xeon processor E7-4830	BX80615E74830 (box) AT80615007089AA (tray)	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	N/A
Intel Xeon processor E7-4807	AT80615006432AB (tray only)	1.86 GHz	4.80 GT/s	18 MB	1066 MHz	6 / 12	✓		95 W	N/A

Intel® Xeon Phi™ Coprocessor Product Family for Server Systems

NEW

	PROCESSOR NAME	PRODUCT CODE	CLOCK SPEED	CACHE	NO. OF CORES	INTEL® TURBO BOOST TECHNOLOGY[2]	POWER	THERMAL	UPC CODE
✓	Intel® Xeon Phi™ Coprocessor 7120P	SC7120P	1.238 GHz	30.5 MB	61	✓	300 W	Passive thermal	7 35858 25903 3
✓	Intel Xeon Phi Coprocessor 7120X	SC7120X	1.238 GHz	30.5 MB	61	✓	300 W	No thermal	7 35858 26332 0
✓	Intel Xeon Phi Coprocessor 5120D	SC5120D	1.053 GHz	30 MB	60		245 W	No thermal, dense form factor	7 35858 25910 1
✓	Intel Xeon Phi Coprocessor 5110P	SC5110P	1.053 GHz	30 MB	60		225 W	Passive thermal	7 35858 25382 6
✓	Intel Xeon Phi Coprocessor 3120A	SC3120A	1.10 GHz	28.5 MB	57		300 W	Active thermal	7 35858 25906 4
✓	Intel Xeon Phi Coprocessor 3120P	SC3120P	1.10 GHz	28.5 MB	57		300 W	Passive thermal	7 35858 25908 8

Software And Warranty Options for Intel® Xeon Phi™ Coprocessor Product Family

NEW

	NAME	PRODUCT CODE	DESCRIPTION	UPC CODE
✓	Optional 3 Year Warranty	XPX100WRNTY	Optional 3 year limited warranty that must be purchased at the same time as Intel® Xeon Phi™ coprocessor	N/A
✓	Starter Kit #1	SC3120AKIT	Intel Xeon Phi Coprocessor 3120A and Parallels Studio XE software	N/A
✓	Starter Kit #2	SC5110PKIT	Intel Xeon Phi Coprocessor 5110P and Cluster Studio XE software	N/A

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] 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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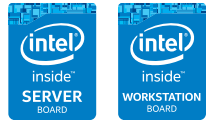
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Intel® Server / Workstation Boards

Intel® Server Boards Supporting the Intel® Xeon® Processor E5-2600 v2 Family

GET POWERFUL. GET FLEXIBLE. GET EFFICIENT.

Designed to optimize the features of the Intel® Xeon® processor E5-2600 v2 product family, Intel has unleashed an entire 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® COMPUTE MODULE HNS2600JF	INTEL® COMPUTE MODULE HNS2600WP
DESCRIPTION	The Intel® Compute Module HNS2600JF family provides cost-optimized performance and memory throughput with optional integrated QDR / FDR InfiniBand*. Support for up to three PCI Express* 3.0 x16 slots. (Extended life product.)	The ideal solution for high-performance computing, the Intel® Compute Module HNS2600WP family delivers a larger memory footprint and support for up to four 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	HNS2600JF: No InfiniBand HNS2600JFF: Integrated InfiniBand FDR (56 Gb/s) HNS2600JFQ: Integrated InfiniBand QDR (40 Gb/s)	HNS2600WP: No InfiniBand HNS2600WPF: Integrated InfiniBand FDR (56 Gb/s) HNS2600WPQ: 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 Chassis H2000KR family	Intel® Server Chassis H2000KR family
PROCESSOR SUPPORT[1]	2 Intel® Xeon® processors E5-2600 v2 product family	2 Intel® Xeon® processors E5-2600 v2 product family
CHIPSET	Intel® C600 Chipset	Intel® C600 Chipset
TOTAL PCI SLOTS	3	4
PCI SLOT TYPES	3 PCI Express 3.0 x16	4 PCI Express 3.0 x16
MEMORY CAPACITY	8 LR / U / RDIMMs 1333 / 1600 / 1866 (E5-v2 only) MHz ECC DDR3 256 GB max	16 LR / U / RDIMMs 1333 / 1600 / 1866 (E5-v2 only) MHz ECC DDR3 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[2] (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, 5, 10	Intel® Rapid Storage Technology[2] (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (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, optional 2 year extended warranty available when combined with an Intel® Chassis	3 year limited warranty, optional 2 year extended warranty available when combined with an Intel® Chassis

INTEL® SERVER / WORKSTATION BOARDS

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 eight single-width cards or four 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 storage capacity, mainstream performance, and I/O flexibility. (Extended life product.)
TARGET MARKET	Data center / cloud	Enterprise / storage	Small- to medium-sized 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 DBS2600CP2IOC: Dual 1 GbE, 8-port 6 Gb SAS PCI Express* card DBS2600CP4IOC: Quad 1 GbE, 8-port 6 Gb SAS PCI Express card
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 P4308CP4 family Intel® Server Chassis P4000S/M family
PROCESSOR SUPPORT[1]	2 Intel® Xeon® processors E5-2600 v2 product family	2 Intel® Xeon® processors E5-2600 v2 product family	2 Intel® Xeon® processors E5-2600 v2 product family
CHIPSET	Intel® C600 Chipset	Intel® C600 Chipset	Intel® C600 Chipset
TOTAL PCI SLOTS	2	8+2	6
PCI 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 x LR / U / RDIMMs 1066 / 1333 / 1600 / 1866 (E5-v2 only) MHz ECC DDR3 512 or 768 GB max	16 x LR / U / RDIMMs 1066 /1333 / 1600 / 1866 (E5-v2 only) MHz ECC DDR3 512 GB max	16 x LR / U / RDIMMs 1066 / 1333 / 1600 / 1866 (E5-v2 only) MHz ECC DDR3 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[2] (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, 5, 10	Intel® Rapid Storage Technology[2] (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, 5, 10	Intel® Rapid Storage Technology[2] (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (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 Trusted Platform Module	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Trusted Platform Module	Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Trusted Platform Module
WARRANTY	3 year limited warranty, optional 2 year extended warranty available	3 year limited warranty, optional 2 year extended warranty available	3 year limited warranty, optional 2 year extended warranty available

PRODUCT NAME	INTEL® SERVER BOARD S2600CO	INTEL® WORKSTATION BOARD W2600CR	INTEL® SERVER BOARD S1600JP
DESCRIPTION	An ideal server building block for embedded or 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 solution that supports a maximum TDP processor, 16 DDR3 / DDR3L DIMM slots, dual 1 GbE LOM support, Firewire*, and high-end PCI Express* graphics cards.	The Intel® Server Board S1600JP is 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-sized businesses	Data-intensive applications	Embedded / storage / small- to medium-sized 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 family	Intel® Workstation System P4304CR2LFKN	Intel® Server System R1000JP family
PROCESSOR SUPPORT[1]	**2 Intel® Xeon® processors E5-2600 v2 product family**	**2 Intel® Xeon® processors E5-2600 v2 product family**	**1 Intel® Xeon® processor E5-2600 v2 / E5-1600 v2 product family**
CHIPSET	Intel® C600 Chipset	Intel® C600 Chipset	Intel® C600 Chipset
TOTAL PCI SLOTS	6	8+2	3
PCI 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 1066 / 1333 / 1600 / 1866 (E5-v2 only) MHz ECC DDR3 512 GB max	16 x LR / U / RDIMMs 1333 / 1600 / 1866 (E5-v2 only) MHz ECC DDR3 512 GB max	8 x LR / U / RDIMMs 1066 / 1333 / 1600 / 1866 (E5-v2 only) MHz ECC DDR3 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[2] (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, 5, 10	Intel® Rapid Storage Technology[2] (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, 5, 10	Intel® Rapid Storage Technology[2] (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, 5, 10
MODULE UPGRADES	Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Trusted Platform Module	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Trusted Platform Module	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4
WARRANTY	3 year limited warranty, optional 2 year extended warranty available when combined with an Intel® Chassis	3 year limited warranty, optional 2 year extended warranty available	3 year limited warranty, optional 2 year extended warranty available

Intel® Server Boards Supporting the Intel® Xeon® Processor E5-4600 v2 Family

CONTROL THE ENTERPRISE WITH THE INTEL® SERVER BOARD S4600LH

Intel's density- and cost-optimized four-socket (4S) server board extends the capabilities of the Intel® Xeon® processor E5-4600 v2 product family with 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.

PRODUCT NAME	INTEL® SERVER BOARD S4600LH
DESCRIPTION	The Intel® Server Board S4600LH is a four-socket, incredibly dense server board with excellent floating-point performance and performance-per-watt for enterprise and HPC applications utilizing the Intel® Xeon® processor E5-4600 v2 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 R2208LT2HKC4 Intel Server System R2304LH2HKC
PROCESSOR SUPPORT[1]	**4 Intel® Xeon® processors E5-4600 v2 product family**
CHIPSET	Intel® C600 Chipset
TOTAL PCI SLOTS	6+2
PCI SLOT TYPES	6 PCI Express* 3.0 x16 2 PCI Express 3.0 x8 via I/O expansion module
MEMORY CAPACITY	48 x LR / U / DIMMs 1066 / 1333 / 1600 / 1866 (E5-v2 only) MHz ECC DDR3 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[2] (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (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 Trusted Platform Module
WARRANTY	3 year limited warranty, optional 2 year extended warranty available

Intel® Server Boards Supporting the Intel® Xeon® Processor E5-2400 v2 Family

INTEL® SERVER BOARDS AND SYSTEMS BASED ON THE INTEL® XEON® PROCESSOR E5-2400 V2 PRODUCT FAMILY FURTHER EXPAND INTEL'S SERVER LINE UP
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.

PRODUCT NAME	INTEL® SERVER BOARD S1400FP	INTEL® SERVER BOARD S1400SP	INTEL® SERVER BOARD S2400LP
DESCRIPTION	The Intel® Server Board S1400FP is 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. (Extended life product.)	The Intel® Server Board S1400SP is a 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. (Extended life product.)	The Intel® Server Board S2400LP is 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. (Extended life product.)
TARGET MARKET	First server	Embedded	IPDC / HPC
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**	**S2400LP: No InfiniBand***
FORM FACTOR	SSI ATX (12" x 9.6")	SSI ATX-like (12" x 9.6")	Custom (6.8" x 16.6")
INTEL® SERVER CHASSIS OR SYSTEM	Intel® Server Chassis P4000SH family	Intel® Server System R1304SP2SHBN Intel Server System R1304SP4SHOC	N/A
PROCESSOR SUPPORT[1]	**1 Intel® Xeon® processor E5-2400 v2 product family**	**1 Intel® Xeon® processor E5-2400 v2 product family**	**2 Intel® Xeon® processors E5-2400 v2 product family**
CHIPSET	Intel® C600 Chipset	Intel® C600 Chipset	Intel® C600 Chipset
TOTAL PCI SLOTS	4+1	1+1+1	2
PCI 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	1 PCI Express 3.0 x16 1 PCI Express 3.0 x8
MEMORY CAPACITY	6 x R / U / DIMMs 1066 / 1333 / 1600 MHz ECC DDR3 96 GB max	6 x R / U / DIMMs 1066 / 1333 / 1600 MHz ECC DDR3 96 GB max	12 LR / U / RDIMMs 1333 / 1600 MHz ECC DDR3 384 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)	5-port SATA (4 3.0 Gb/s, 1 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	4 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)	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® Server Management Software Integrated BMC with IPMI 2.0
INTEL® RAID SUPPORT	Intel® Rapid Storage Technology[2] (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, 5, 10	Intel® Rapid Storage Technology[2] (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, 5, 10	Intel® Rapid Storage Technology[2] (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, 5, 10
MODULE UPGRADES	Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Trusted Platform Module	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Trusted Platform Module	Intel® I/O Module[3] Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4[3]
WARRANTY	3 year limited warranty, optional 2 year extended warranty available when combined with an Intel® Chassis	3 year limited warranty, optional 2 year extended warranty available	3 year limited warranty, optional 2 year extended warranty available when combined with an Intel® Chassis

PRODUCT NAME	INTEL® SERVER BOARD S2400EP	INTEL® SERVER BOARD S2400BB	INTEL® SERVER BOARD S2400SC
DESCRIPTION	The Intel® Server Board S2400EP is a value dual-socket board in 1U rack that supports embedded environments with 28 PCI Express* Gen3 I/O lanes and 8 DIMMs. 1U rack available with dual GbE. (Extended life product.)	The Intel® Server Board S2400BB is the 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.)	The Intel® Server Board S2400SC, with its expanded I/O with 33 total PCI Express* lanes and dual processor sockets, brings cost-effective features to small- and medium-sized businesses. Flexible storage and server management capabilities in rack or pedestal configurations.
TARGET MARKET	Embedded	IPDC / cloud	Medium business
ORDER CODE	S2400EP2: Dual Port Ethernet Controller 1 GbE S2400EP4: Quad Port Ethernet Controller 1 GbE	S2400BB4	S2400SC2
FORM FACTOR	SSI CEB (12" x 10.5")	Custom (13.5" x 13.5")	SSI CEB (12" x 10.5")
INTEL® SERVER CHASSIS OR SYSTEM	Intel® Server System R1304EP2SHFN	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
PROCESSOR SUPPORT[1]	2 Intel® Xeon® processors E5-2400 v2 product family	2 Intel® Xeon® processors E5-2400 v2 product family	2 Intel® Xeon® processors E5-2400 v2 product family
CHIPSET	Intel® C600 Chipset	Intel® C600 Chipset	Intel® C600 Chipset
TOTAL PCI SLOTS	1+1+1	8+1	4+1
PCI SLOT TYPES	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	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
MEMORY CAPACITY	8 LV / R / U / DIMMs 1066 / 1333 / 1600 MHz ECC DDR3 128 GB max	12 LR / U / RDIMMs 1066 / 1333 / 1600 MHz ECC DDR3 384 GB max	8 LV / R / U / DIMMs 1066 / 1333 / 1600 MHz ECC DDR3 128 GB max
SATA PORTS	2-port SATA (2 6.0 Gb/s)	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)
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	1 or 2 Integrated Dual Port Intel® Ethernet Controllers I350 (1 GbE)	2 Integrated Dual Port Intel® Ethernet Controllers I350 (1 GbE)	1 Integrated Dual Port Intel® Ethernet Controller 82574L (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[2] (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, 5, 10	Intel® Rapid Storage Technology[2] (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (ESRT2) RAID levels 0, 1, 5, 10	Intel® Rapid Storage Technology[2] (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (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 Trusted Platform Module	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Trusted Platform Module	Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Trusted Platform Module
WARRANTY	3 year limited warranty, optional 2 year extended warranty available	3 year limited warranty, optional 2 year extended warranty available	3 year limited warranty, optional 2 year extended warranty available

Intel® Server Boards Supporting the Intel® Xeon® Processor E3-1200 v2 and v3 Family

ENTRY-LEVEL SERVER BOARDS FOR EASY AND AFFORDABLE SOLUTIONS

Single-socket server boards featuring the Intel® Xeon® processor E3-1200 v2 and E3-1200 v3 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 available for easy integration.

INTEL® SERVER / WORKSTATION BOARDS

PRODUCT NAME	INTEL® ENTRY SERVER BOARD S1200V3RPL	INTEL® ENTRY SERVER BOARD S1200V3RPS	INTEL® ENTRY SERVER BOARD S1200V3RPO	INTEL® ENTRY SERVER BOARD S1200V3RPM
DESCRIPTION	The Intel® Entry Server Board S1200V3RPL is an entry server board for pedestal integration with optional management capabilities.	The Intel® Entry Server Board S1200V3RPS is a lowest-cost entry server board with basic server features.	The Intel® Entry Server Board S1200V3RPO is a rack-optimized entry server board with maximum I/O expansion and optional management.	The Intel® Entry Server Board S1200V3RPM is a rack-optimized entry server board with maximum I/O expansion, where application needs processor graphics computation.
TARGET MARKET	First server	First server	Small business, data center	Small business, data center
ORDER CODE	**S1200V3RPL**	**S1200V3RPS**	**S1200V3RPO**	**S1200V3RPM**
FORM FACTOR	MicroATX (9.6" x 9.6")	MicroATX (9.6" x 9.6")	MicroATX (9.6" x 9.6")	MicroATX (9.6" x 9.6")
INTEL® SERVER CHASSIS OR SYSTEM	Intel® Server Chassis P4000SF family Intel® Server System P4308RPLSHDR	Intel® Server Chassis P4000SF family Intel® Server System R1304RPSSFBN	Intel® Server System R1304RPOSHBN Intel Server System R1208RPOSHOR Intel Server System R1208RPMSHOR	Intel® Server System R1304RPMSHOR
PROCESSOR SUPPORT[1]	**1 Intel® Xeon® processor E3-1200 v3 product family**	**1 Intel® Xeon® processor E3-1200 v3 product family**	**1 Intel® Xeon® processor E3-1200 v3 product family**	**1 Intel® Xeon® processor E3-1200 v3 product family**
CHIPSET	Intel® C226 Chipset	Intel® C222 Chipset	Intel® C224 Chipset	Intel® C226 Chipset
TOTAL PCI SLOTS	4+1	4	1+1	1+1
PCI SLOT TYPES	2 x PCI Express* 3.0 x8 1 x PCI Express 2.0 x4 1 x PCI Express 2.0 x1 1 x internal mezzanine connector x8	2 x PCI Express* 3.0 x8 1 x PCI Express 2.0 x4 1 x PCI Express 2.0 x1	1 x PCI Express* 3.0 x8 1 x internal or external mezzanine connector x8 OR 2 x mezzanine connectors x4	1 x PCI Express* 3.0 x8 1 x internal or external mezzanine connector x8 OR 2 x mezzanine connectors x4
MEMORY CAPACITY	4 x LR / UDIMMs 1333 / 1600 ECC 32 GB max	4 x LR / UDIMMs 1333 / 1600 ECC 32 GB max	4 x LR / UDIMMs 1333 / 1600 ECC 32 GB max	4 x LR / URDIMMs 1333 / 1600 ECC 32 GB max
SATA PORTS	6-port SATA (6 x 6.0 Gb/s)	6-port SATA (2 x 6.0 Gb/s)	6-port SATA (4 x 6.0 Gb/s)	6-port SATA (6 x 6.0 Gb/s)
SAS OPTIONS	Optional via mezzanine connector	N/A	Optional via mezzanine connector	Optional via mezzanine connector
INTEGRATED LAN	Dual Integrated Intel® Ethernet Controller I210 (1 GbE)	Dual Integrated Intel® Ethernet Controller I210 (1 GbE)	Dual Integrated Intel® Ethernet Controller I210 (1 GbE)	Dual Integrated Intel® Ethernet Controller I210 (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® Server Management Software Integrated BMC with IPMI 2.0
INTEL® RAID SUPPORT	Intel® Rapid Storage Technology[2] (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (0, 1, 5, and 10)	Intel® Rapid Storage Technology[2] (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (0, 1, 5, and 10)	Intel® Rapid Storage Technology[2] (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (0, 1, 5, and 10)	Intel® Rapid Storage Technology[2] (0, 1, 5, and 10 + JBOD) Intel® Embedded Server RAID Technology 2 (0, 1, 5, and 10)
MODULE UPGRADES	Intel® Storage I/O Module Intel® Remote Management Module 4 Intel Remote Management Module 4 Lite Trusted Platform Module	Trusted Platform Module	Intel® I/O Module Intel® Storage I/O Module Intel® Remote Management Module 4 Intel Remote Management Module 4 Lite Trusted Platform Module	Intel® I/O Module Intel® Storage I/O Module Intel® Remote Management Module 4 Intel Remote Management Module 4 Lite Trusted Platform Module
WARRANTY	3 year limited warranty, optional 2 year extended warranty available	3 year limited warranty, optional 2 year extended warranty available	3 year limited warranty, optional 2 year extended warranty available	3 year limited warranty, optional 2 year extended warranty available

PRODUCT NAME	INTEL® ENTRY SERVER BOARD S1200BTS	INTEL® ENTRY SERVER BOARD S1200BTL
DESCRIPTION	The Intel® Entry Server Board S1200BTS is a recommended first server where lowest price with reliability are key. Basic server features with room to grow.	The Intel® Entry Server Board S1200BTL is an entry server board with management options that expands deployment opportunities for remote access with low price point and basic server features.
TARGET MARKET	First server	First server / remote branch office
ORDER CODE	**S1200BTSR**	**S1200BTLR, S1200BTLRM for use with Intel® RAID Modules RMS25PB080/040, RMT3PB080, and RMS25KB080/040**
FORM FACTOR	MicroATX (9.6" x 9.6")	ATX (12" x 9.6")
INTEL® SERVER CHASSIS OR SYSTEM	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 SUPPORT[1]	**1 Intel® Xeon® processor E3-1200 v2 product family**	**1 Intel® Xeon® processor E3-1200 v2 product family**
CHIPSET	Intel® C202 Chipset	Intel® C204 Chipset
TOTAL PCI SLOTS	4	5
PCI SLOT TYPES	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	4 DDR3 UDIMMs 1066 / 1333 / 1600 MHz ECC 32 GB max	4 DDR3 UDIMMs 1066 / 1333 / 1600 MHz ECC 32 GB max
SATA PORTS	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	Optional SAS or SAS RAID via I/O Expansion Modules
INTEGRATED LAN	Intel® Dual-Gigabit Controllers 82574L and 82579	Intel® Dual-Gigabit Controllers 82574L and 82579
MANAGEMENT SUPPORT	Intel® Deployment Assistant only	Intel® Server Management Software Integrated BMC with IPMI 2.0
INTEL® RAID SUPPORT	Intel® Rapid Storage Technology[2] (0, 1, 5, and 10)	Intel® Rapid Storage Technology[2] (0, 1, 5, and 10) Intel® Embedded Server RAID Technology (0, 1, and 10)
MODULE UPGRADES	Trusted Platform Module	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 Trusted Platform Module
WARRANTY	3 year limited warranty, optional 2 year extended warranty available	3 year limited warranty, optional 2 year extended warranty available

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] Requires a 4th generation Intel® Core™ processor, enabled chipset, and Intel® Rapid Storage Technology (Intel® RST) software.

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

Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products.

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INTEL® SERVER / WORKSTATION SYSTEMS

Intel® Compute Module HNS2600JF and Intel® Server Chassis H2000XXKR

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
SUPPORTED COMPUTE MODULES (Sold separately, chassis supports up to 4 total)	**4 x HNS2600JF:** No InfiniBand **4 x HNS2600JFF:** Integrated InfiniBand FDR (56 Gb/s) **4 x HNS2600JFQ:** Integrated InfiniBand QDR (40 Gb/s)
PROCESSORS SUPPORTED	**2 x Intel® Xeon® processors E5-2600 v2 product family per module**
TOTAL PCI SLOTS	3 per module
PCI SLOT TYPES	4 x 3 PCI Express* 3.0 x16
MEMORY CAPACITY	4 x 8 LR / U / RDIMMs up to 1866 MT/s, ECC 256 GB max per module
MODULE UPGRADES	Intel® I/O Module[1] Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4[1]

FOUR MODULE 2U RACK CHASSIS

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 module
Power Supply	1600 W AC Common Redundant PSU (Platinum Efficiency)
Thermal Solution	Included with Compute Module
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 CHASSIS SKUs

H2216XXKR	16 x 2.5" hot-swap HDD 2 x 1600 W AC Common Redundant PSU
H2312XXKR	12 x 3.5" hot-swap HDD 2 x 1600 W AC Common Redundant PSU

Note: Systems based on Intel® Server Boards S2600JF have been disaggregated to chassis and compute module. Module plus chassis pricing has changed to equate the original integrated system price.

For the latest product SKUs and specifications, visit **ark.intel.com**

Intel® Compute Module HNS2600WP and Intel® Server Chassis H2000XXKR

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
SUPPORTED COMPUTE MODULES (Sold separately, chassis supports up to 4 total)	**4 x HNS2600WP:** No InfiniBand **4 x HNS2600WPF:** Integrated InfiniBand FDR (56 Gb/s) **4 x HNS2600WPQ:** Integrated InfiniBand QDR (40 Gb/s)
PROCESSORS SUPPORTED	**2 x Intel® Xeon® processors E5-2600 v2 product family per module**
TOTAL PCI SLOTS	4 per module
PCI SLOT TYPES	4 x 4 PCI Express* 3.0 x16
MEMORY CAPACITY	4 x 16 LR / U / RDIMMs up to 1866 MT/s, ECC 512 GB max per module
MODULE UPGRADES	Intel® I/O Module[1] Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4[1]

FOUR MODULE 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 module
Power Supply	1600 W AC Common Redundant PSU (Platinum Efficiency)
Thermal Solution	Included with Compute Module
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 CHASSIS SKUs

H2216XXKR	16 x 2.5" hot-swap HDD 2 x 1600 W AC Common Redundant PSU
H2312XXKR	12 x 3.5" hot-swap HDD 2 x 1600 W AC Common Redundant PSU

Note: Systems based on Intel® Server Boards S2600WP have been disaggregated to chassis and compute module. Module plus chassis pricing has changed to equate the original integrated system price.

For the latest product SKUs and specifications, visit **ark.intel.com**

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 DIMM and 4 x 1 Gb Ethernet ports **S2600GZ4:** 24 DIMM and 4 x 1 Gb Ethernet ports
PROCESSORS SUPPORTED	**2 x Intel® Xeon® processors E5-2600 v2 product family**
TOTAL PCI SLOTS	2
PCI SLOT TYPES	2 x PCI Express* Gen3 x24 Riser Slots
MEMORY CAPACITY	16 or 24 x LR / U / RDIMMs up to 1866 MT/s, ECC DDR3 512 or 768 GB max
MODULE UPGRADES	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 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
PCI Riser Slots	1 x PCI Express* x16 (x16 mechanical)
Other Components	Intel® System Management Software, iBMC with IPMI 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 Intel® Remote Management Module 4
R1208GZ4GC	8 x 2.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU Software RAID Key RKSATA8 Intel Remote Management Module 4
R1208GZ4GS9	8 x 2.5" hot-swap HDD 24 DIMM 750 W AC Redundant PSU
R1304GL4DS9	4 x 3.5" hot-swap HDD 16 DIMM 460 W AC Redundant PSU
R1304GZ4GC	4 x 3.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU Intel Remote Management Module 4
R1304GZ4GS9	4 x 3.5" hot-swap HDD 24 DIMM 750 W AC Redundant PSU

For the latest product SKUs and specifications, visit **ark.intel.com**

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
PCI Riser Slots	2 x PCI Express* x8 (x16 mechanical), 1 x8 (x8 mechanical) 1 x PCI Express x16 (x16 mechanical), 1 x8 (x8 mechanical) 2 x PCIx 133 MHz, 1 PCI Express x8 (x8 mechanical)
Other Components	Intel® System Management Software, iBMC with IPMI 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 Intel® Remote Management Module 4
R2208GZ4GC	8 x 2.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU Software RAID Key RKSATA8 Intel Remote Management Module 4
R2208GZ4GS9	8 x 2.5" hot-swap HDD 24 DIMM 750 W AC Redundant PSU
R2216GZ4GC	16 x 2.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU Software RAID Key RKSAS8 Intel® RAID Expander RES2CV240 24-port Intel Remote Management Module 4
R2224GZ4GC4	24 x 2.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU Intel Remote Management Module 4

SPECIFIC SKUs

R2308GL4GS	8 x 3.5" hot-swap HDD 16 DIMM 750 W AC Redundant PSU Software RAID Key RKSATA8 Intel® Remote Management Module 4
R2308GZ4GC	8 x 3.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU Software RAID Key RKSATA8 Intel Remote Management Module 4
R2308GZ4GS9	8 x 3.5" hot-swap HDD 24 DIMM 750 W AC Redundant PSU
R2312GL4GS	12 x 3.5" hot-swap HDD 16 DIMM 750 W AC Redundant PSU Intel Remote Management Module 4
R2312GZ4GC4	12 x 3.5" hot-swap HDD 24 DIMM 2 x 750 W AC Redundant PSU Intel Remote Management Module 4
R2312GZ4GS9	12 x 3.5" hot-swap HDD 24 DIMM 750 W AC Redundant PSU

INTEL® SERVER / WORKSTATION SYSTEMS

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:** 16 DIMM and 4 x 1 Gb Ethernet ports
PROCESSORS SUPPORTED	**2 x Intel® Xeon® processors E5-2600 v2 product family**
TOTAL PCI SLOTS	8+2
PCI 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 up to 1866 MT/s, ECC DDR3 512 GB max
MODULE UPGRADES	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 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	Intel® System Management Software, iBMC with IPMI 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 2 x 750 W AC Redundant PSU Software RAID Key RKSAS8 Intel® Remote Management Module 4
R2308IP4LHPC	8 x 3.5" hot-swap HDD 2 x 750 W AC Redundant PSU Software RAID Key RKSATA8 Intel Remote Management Module 4
R2312IP4LHPC	12 x 3.5" hot-swap HDD 2 x 750 W AC Redundant PSU Intel® RAID Expander RES2SV240 Intel® Integrated RAID Module RMS25CB080 Intel Remote Management Module 4

For the latest product SKUs and specifications, visit **ark.intel.com**

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	1200 W AC Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Intel® System Management Software, iBMC with IPMI Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUs

P4216IP4LHJC	16 x 2.5" hot-swap HDD 2 x 1200 W AC Redundant PSU Software RAID Key RKSAS8
P4308IP4LHJC	8 x 3.5" hot-swap HDD 2 x 1200 W AC Redundant PSU Software RAID Key RKSATA8

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-sized business and storage segments. (Extended life product.)
TARGET MARKET	Small- to medium-sized businesses
SERVER BOARD INCLUDED	**S2600CP4:** Quad 1 GbE Ethernet Controllers
PROCESSORS SUPPORTED	**2 x Intel® Xeon® processors E5-2600 v2 product family**
TOTAL PCI SLOTS	6
PCI SLOT TYPES	1 x PCI Express* 3.0 x16 5 x PCI Express 3.0 x8
MEMORY CAPACITY	16 x LR / U / RDIMMs up to 1866 MT/s, ECC DDR3 512 GB max
MODULE UPGRADES	Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 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 Contoller RMS25PB080 pro-vides 6 Gb/s to enable 8 SAS / SATA drives Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUs

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

For the latest product SKUs and specifications, visit **ark.intel.com**

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-sized businesses
SERVER BOARD INCLUDED	**S1600JP4:** Integrated Quad 1 GbE Ethernet Controllers
PROCESSORS SUPPORTED	**1 x Intel® Xeon® processor E5-2600 v2 product family or Intel Xeon processor E5-1600 v2 product family**
TOTAL PCI SLOTS	3
PCI SLOT TYPES	2 x PCI Express* 3.0 x16 1 x PCI Express 3.0 x8
MEMORY CAPACITY	8 x LR / U / RDIMMs up to 1866 MT/s, ECC DDR3 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 DC Redundant PSU, 450 W AC Redundant PSU (Gold Efficiency), 750 W AC Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Intel® System Management Software, iBMC with IPMI Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUs

R1208JP4OC	8 x 2.5" hot-swap HDD 2 x 450 W AC Redundant PSU
R1208JP4TC	8 x 2.5" hot-swap HDD 2 x 450 W DC Redundant PSU
R1208JP4GS	8 x 2.5" hot-swap HDD 750 W AC Redundant PSU
R1304JP4OC	4 x 3.5" hot-swap HDD 2 x 450 W AC Redundant PSU
R1304JP4TC	4 x 3.5" hot-swap HDD 2 x 450 W DC Redundant PSU
R1304JP4GS	4 x 3.5" hot-swap HDD 750 W AC Redundant PSU

For the latest product SKUs and specifications, visit **ark.intel.com**

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 v2 product family**
TOTAL PCI SLOTS	8+2
PCI 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 up to 1866 MT/s, ECC DDR3 512 GB max
MODULE UPGRADES	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 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	1600 W AC Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Intel® System Management Software, iBMC with IPMI Hardware RAID Contoller RMS25PB080 provides 6 Gb/s to enable 8 SAS / SATA drives Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUs

P4304CR2LFKN	4 x 3.5" fixed HDD 1600 W AC Redundant PSU

For the latest product SKUs and specifications, visit **ark.intel.com**

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 four Intel® Xeon® processors 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 v2 product family**
TOTAL PCI SLOTS	6+2
PCI 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 up to 1866 MT/s, ECC DDR3 1500 GB max
MODULE UPGRADES	Intel® I/O Module: Ethernet and InfiniBand* Intel® Integrated RAID ROC or IOC Module (in PCI Express FF) Intel® Remote Management Module 4 (included) 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)
Thermal Solution	Included
Other Components	Intel® System Management Software, iBMC with IPMI Intel® Remote Management Module 4 Optional optical disk drive Optional Local Control Panel
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUs

R2208LT2HKC4	8 x 2.5" hot-swap HDD Hardware RAID Contoller 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 Intel® Remote Management Module 4
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 Intel Remote Management Module 4

For the latest product SKUs and specifications, visit **ark.intel.com**

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 v2 product family**
TOTAL PCI SLOTS	1+1+1
PCI 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 MHz ECC DDR3 96 GB max
MODULE UPGRADES	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 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 PSU (Gold Efficiency)
Thermal Solution	Included
Other Components	Intel® System Management Software, iBMC with IPMI Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUs

R1304SP2SHBN	4 x 3.5" hot-swap HDD Intel® S1400SP2 Server Board with Integrated Dual 1 GbE Ethernet Controllers 350 W AC Fixed PSU
R1304SP4SHOC	4 x 3.5" hot-swap HDD Intel® S1400SP4 Server Board with Integrated Quad 1 GbE Ethernet Controllers 2 x 450 W AC Redundant PSU

For the latest product SKUs and specifications, visit **ark.intel.com**

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 v2 product family**
TOTAL PCI SLOTS	1+1+1
PCI 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 MHz ECC DDR3 128 GB max
MODULE UPGRADES	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 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	Intel® System Management Software, iBMC with IPMI Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUs

R1304EP2SHFN	4 x 3.5" hot-swap HDD 600 W AC Fixed PSU

For the latest product SKUs and specifications, visit **ark.intel.com**

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:** 12 DIMM and 4 x 1 Gb Ethernet ports
PROCESSORS SUPPORTED	**2 x Intel® Xeon® processors E5-2400 v2 product family**
TOTAL PCI SLOTS	8+1
PCI 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 1066 / 1333 / 1600 MHz ECC DDR3 384 GB max
MODULE UPGRADES	Intel® I/O Module Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 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	Intel® System Management Software, iBMC with IPMI 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 Intel® Remote Management Module 4
R1304BB4DC	4 x 3.5" hot-swap HDD 2 x 460 W AC Redundant PSU Intel Remote Management Module 4
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

For the latest product SKUs and specifications, visit **ark.intel.com**

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	Intel® System Management Software, iBMC with IPMI Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUs

R2208BB4GS9	8 x 2.5" hot-swap HDD 750 W AC Redundant PSU
R2308BB4GC	8 x 3.5" hot-swap HDD 2 x 750 W AC Redundant PSU Software RAID Key RKSATA8 Intel® Remote Management Module 4
R2312BB4GS9	12 x 3.5" hot-swap HDD 750 W AC Redundant PSU

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 return on investment while delivering affordable server-level performance.
TARGET MARKET	Medium business / RBO
SERVER BOARD INCLUDED	**S2400SC**
PROCESSORS SUPPORTED	**2 x Intel® Xeon® processors E5-2400 v2 product family**
TOTAL PCI SLOTS	4+1
PCI 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 MHz ECC DDR3 128 GB max
MODULE UPGRADES	Intel® Integrated RAID ROC or IOC Module Intel® Remote Management Module 4 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), 750 W AC Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Intel® System Management Software, iBMC with IPMI Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUs

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

For the latest product SKUs and specifications, visit **ark.intel.com**

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), 750 W AC Redundant PSU (Platinum Efficiency)
Thermal Solution	Included
Other Components	Intel® System Management Software, iBMC with IPMI Optional optical disk drive
Warranty	3 year limited warranty, optional 2 year extended warranty available

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
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 R1000RP and P4000RP Based on the Intel® Server Board S1200RP

DESCRIPTION	Entry Server systems with management options expand deployment opportunities with low price point and basic server features.
TARGET MARKET	First server
SERVER BOARD INCLUDED	**S1200RPS:** Lowest cost with basic server features **S1200RPL:** Pedestal solution with optional management **S1200RPO:** Rack optimized to support IOM and Storage Modules **S1200RPM:** Can support processors with GT2 graphics
PROCESSORS SUPPORTED	**Intel® Xeon® processor E3-1200 v3 product family**
TOTAL PCI SLOTS	4
PCI SLOT TYPES	**S1200RPS:** 2 x PCI Express* 3.0 x8, 1 x PCI Express 2.0 x4, 1 x PCI Express 2.0 x1 **S1200RPL:** 2 x PCI Express 3.0 x8, 1 x PCI Express 2.0 x4, 1 x PCI Express 2.0 x1, 1 x internal mezzanine connector x8 **S1200RPO:** 1 x PCI Express 3.0 x8, 1 x internal or external mezzanine connector x8 OR 2 x mezzanine connectors x4 **S1200RPM:** 1 x PCI Express 3.0 x8, 1 x internal or external mezzanine connector x8 OR 2 x mezzanine connectors x4
MEMORY CAPACITY	4 x DDR3 UDIMMs 1333 / 1600 ECC 32 GB max
MODULE UPGRADES	**S1200RPS:** Trusted Platform Module **S1200RPL:** Intel® Storage I/O slot, Intel® Remote Management Module 4, Trusted Platform Module **S1200RPO / S1200RPM:** Intel® I/O Modules, Intel Storage I/O slot, Intel Remote Management Module 4, 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	450 W Redundant or 350 W Fixed PSU (Silver Efficiency)
Thermal Solution	Sold separately
Other Components	Optional optical disk drive
Warranty	3 year limited warranty

SPECIFIC SKUs

R1304RPSSFBN	4 x 3.5" fixed HDD Intel® Server Board S1200RPS 350 W Fixed PSU
R1304RPOSHBN	4 x 3.5" hot-swap HDD Intel Server Board S1200RPO 350 W Fixed PSU
R1304RPMSHOR	4 x 3.5" hot-swap HDD Intel Server Board S1200RPM 2 x 450 W hot-swap Redundant PSU
R1208RPOSHOR	8 x 2.5" hot-swap HDD Intel Server Board S1200RPO 2 x 450 W hot-swap Redundant PSU
R1208RPMSHOR	8 x 2.5" hot-swap HDD Intel Server Board S1200RPM 2 x 450 W hot-swap Redundant PSU

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For the latest product SKUs and specifications, visit **ark.intel.com**

Intel® Server Systems R1000RP and P4000RP Based on the Intel® Server Board S1200RP *continued*

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	460 W hot-swap PSU (Silver Efficiency)
Thermal Solution	Sold separately
Other Components	Optional optical disk drive
Warranty	3 year limited warranty

SPECIFIC SKUs

P4308RPLSHDR	8 x 3.5" hot-swap HDD Intel® Server Board S1200RPL 2 x 460 W hot-swap Redundant PSU
P4304XXSFCN	KDK
P4304XXSHCN	KDK

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 / E3-1200 v2 product family / Intel® Core™ i3 processor series**
TOTAL PCI SLOTS	4 or 5
PCI 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 MHz ECC DDR3 32 GB max
MODULE UPGRADES	**S1200BTSR:** Trusted Platform Module **S1200BTLR:** Intel® Integrated RAID ROC or IOC Module, Intel® Remote Management Module 4, 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

For the latest product SKUs and specifications, visit **ark.intel.com**

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

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 / WORKSTATION SYSTEMS

![Intel Look Inside logo] **Server Storage**

SERVER STORAGE

Intel® Storage Systems

DESCRIPTION	A flexible and expandable storage system with single- and multi-cable connectivity, redundant fans, and options for redundant power supplies simplifies your server configuration. Features 12 x 3.5" drives or 24 x 2.5" drives and works seamlessly with Intel® Servers and Intel® RAID for a complementary storage solution. Up to 48 TB storage capacity possible. Cascading up to 2 levels. (Extended life product.)
TARGET MARKET	Enterprise / storage

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 Redundant PSU (Gold Efficiency)
Other Components	Dual-port backplane for full redundancy Single or redundant SAS/SATA 6.0 Gb/s via SFF-8088 connection Fan and PSU monitoring via SES
Warranty	3 year limited warranty, optional 2 year extended warranty available

SPECIFIC SKUs

JBOD2312S2SP	12 x 3.5" hot-swap HDD 36-port SAS expander 460 W AC PSU 2 x external SFF-8088 connectors
JBOD2224S2DP	24 x 2.5" hot-swap HDD 2 x 36-port SAS expander 2 x 460 W AC PSU 4 x external SFF-8088 connectors

The Intel® Storage System JBOD2000 product family works seamlessly with Intel® Server Systems and Intel® RAID and can even be used as a virtual RBOD by using Intel® RAID Controller RS25SB008 or an Intel® Intelligent RAID module. Combine with Intel® Solid-State Drives using Intel® SSD Cache Technology, or set up a network using a SAS switch to serve multiple servers. With several configuration options available, it is a flexible and expandable storage system that simplifies your server environment.

For the latest product SKUs and specifications, visit **http://ark.intel.com**
For more information, visit **www.intel.com/go/serverproducts**

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Intel® Server Chassis

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.

	INTEL® SERVER CHASSIS P4000S FAMILY A general purpose pedestal chassis optimized for thermal and acoustic performance.	
CHASSIS		
MODEL	Fixed drive models	Hot-swap drive models
CHASSIS ORDER CODE¹	P4304XXSFCN, P4304XXSFEN	P4304XXSHCN, P4304XXSHDR
SPARES KIT ORDER CODE²	Mechanical Spares Kit: FUPSMSK Electrical Spares Kit: FUPSESK Air ducts sold separately based on board purchased	Mechanical Spares Kit: FUPSMSK Electrical Spares Kit: FUPSESK Air ducts sold separately based on board purchased
FORM FACTOR	4U Pedestal	4U Pedestal
INTEL® SERVER BOARD SUPPORT¹	P4304XXSFCN: S1200BTS, S1200BTL, S1200V3RPL, S1200V3RPS, S2600CP2J P4304XXSFEN: S2400SC2, S2600CP2J	P4304XXSHCN: S1200BTL, S1200V3RPL, S1200V3RPS, S2600CP2J P4304XXSHDR: S2400SC2, S2600CP2J, 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: convert to four slot hot-swap drive bays using the following Drive Bay upgrade kit: (FUP4X35HSDK), supports four SAS / SATA hot-swap drives	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)	P4304XXSHCN: (1) Fixed 365 W (Silver 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 drive carriers, hot-swap drive bay, 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 drive bays, two USB ports	Black, control panel, three 5.25" peripheral drive bays, four hot-swap 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 processors, memory, and add-in devices Side cover: Intrusion switch Back panel: Kensington* cable lock mounting hole	Front door: Security lock (available on hot-swap drive SKUs only) Side cover: A padlock loop slot available at the rear of the system access cover to prevent access to the processors, memory, and add-in devices Side cover: Intrusion switch Back panel: Kensington* cable lock mounting hole

INTEL® SERVER CHASSIS P4000M FAMILY
A general purpose pedestal chassis targeted at small- to medium-sized businesses supporting CEB and EEB form factor server boards.

CHASSIS		
MODEL	Fixed drive models	Hot-swap drive models
CHASSIS ORDER CODE¹	**P4308XXMFEN**	**P4208XXMHGC, P4216XXMHGC, P4216XXMHJC, P4308XXMHDR, P4308XXMHEN, P4308XXMHGC, P4308XXMHGN**
SPARES KIT ORDER CODE²	Mechanical Spares Kit: FUPMMSK Electrical Spares Kit: FUPMESK Air ducts sold separately based on board purchased	Mechanical Spares Kit: FUPMMSK Electrical Spares Kit: FUPMESK Air ducts sold separately based on board purchased
FORM FACTOR	4U Pedestal	4U Pedestal
INTEL® SERVER BOARD SUPPORT¹	**P4308XXMFEN:** all S2600CP, all S2600CO, all S2400GP, S2400SC2	**P4208XXMHGC, P4216XXMHGC, P4308XXMHDR, P4308XXMHEN, P4308XXMHGC, P4308XXMHGN:** all S2600CP, all S2600CO, all S2400GP, S2400SC2 **P4216XXMHJC:** 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 eight 3.5" hot-swap SAS / SATA drives
HOT-SWAP DISK DRIVE BAY (ORDER CODE)	Upgrade: convert to eight slot hot-swap drive bays using the following Drive Bay upgrade kit: (FUP8X25HSDK), supports eight SAS / SATA hot-swap drives	Share the same hot-swap drive bay kit (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
POWER SUPPLIES	P4308XXMFEN: (1) Fixed 550 W (Silver Efficiency) No redundant PSU	P4208XXMHGC: (2) Common Redundant 750 W (Platinum Efficiency) P4216XXMHGC: (2) Common Redundant 750 W (Platinum Efficiency) P4216XXMHJC: (2) Common Redundant 1200 W (Platinum 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)
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 drive carriers, hot-swap 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 slots, eight internal drive carriers, two USB ports	Black, control panel, three 5.25" peripheral drive slots, eight and sixteen hot-swap drive 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 processors, 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 processors, memory, and add-in cards Side cover: Intrusion switch Back panel: Kensington* cable lock mounting hole

INTEL® SERVER CHASSIS H2000 FAMILY[3]
A 2U rack chassis optimized for compute density, supporting up to four Intel® Compute Modules.

CHASSIS		
MODEL	3.5" drive model	2.5" drive model
CHASSIS ORDER CODE[1]	**H2312XXKR**	**H2216XXKR**
SPARES KIT ORDER CODE[2]	1600 W PSU Spares: FXX1600PCRPS HSBP Spares: FHW12X35HSBP Node Tray Blank Filler: FH2000BNF Power Distribution Board Spares: FXXCRPSDB Control Panel Spares: FH2000FPANEL HDD Drive Bay Spares: FXX35HSADPB	1600 W PSU Spares: FXX1600PCRPS HSBP Spares: FHW16X25HSBP Node Tray Blank Filler: FH2000BNF Power Distribution Board Spares: FXXCRPSDB Control Panel Spares: FH2000FPANEL HDD Drive Bay Spares: FXX25HSCAR
FORM FACTOR	2U Rack	2U Rack
INTEL® SERVER BOARD SUPPORT[1]	**HNS2600JF, HNS2600JFQ, HNS2600JFF, HNS2600WP, HNS2600WPQ, HNS2600WPF**	**HNS2600JF, HNS2600JFQ, HNS2600JFF, HNS2600WP, HNS2600WPQ, HNS2600WPF**
DRIVE BAYS	Up to twelve 3.5" hot-swap SAS / SATA drives	Up to sixteen 2.5" hot-swap SAS / SATA drives
HOT-SWAP DISK DRIVE BAY (ORDER CODE)	FXX35HSADPB	FXX25HSCAR
SYSTEM COOLING	40mm x 56mm Dual Rotor Fan Spare: FXX4056DRFAN	40mm x 56mm Dual Rotor Fan Spare: FXX4056DRFAN
POWER SUPPLIES	H2312XXKR: 2x 1600 W Platinum PSU (FXX1600PCRPS)	H2216XXKR: 2x 1600 W Platinum PSU (FXX1600PCRPS)
I/O SLOTS	N/A	N/A
BACKPLANE	Included	Included
TOOL-LESS FEATURES	PSU, Compute Node, HDD bays are all hot swap	PSU, Compute Node, HDD bays are all hot swap
DIMENSIONS (H x W x D)	2U Rack: 17.24" x 3.46" x 30.35" (438mm x 87.9mm x 771mm)	2U Rack: 17.24" x 3.46" x 28.86" (438mm x 87.9mm x 733mm)
BEZEL FEATURES	2U Rack Bezel Spares: A2UBEZEL	2U Rack Bezel Spares: A2UBEZEL
FRONT CONNECTORS	N/A	N/A
SYSTEM SECURITY	N/A	N/A

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

[1] Refer to http://support.intel.com/support/motherboards/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 Spare Parts list and configuration guide at http://support.intel.com/support/motherboards/server

[3] Intel® Server Chassis H2000 series requires the separate purchase of Intel® Compute Modules. See the Accessories and Spare Parts section of the chosen Intel® Server Board configuration guide for recommended part numbers.

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

Intel® RAID

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.

Controller Cards and Modules

- Excellent: 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.

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

Intel® Integrated RAID SAS 3.0 Generation Products

CONTROLLER	INTEL® INTEGRATED RAID MODULE RMS3CC080 / 040	INTEL® INTEGRATED RAID MODULE RMS3HC080	INTEL® INTEGRATED RAID MODULE RMS3JC080
DESCRIPTION	12 Gb/s SAS 3.0 intelligent hardware RAID module with storage I/O connector	12 Gb/s SAS 3.0 IOC-based RAID module with advanced management and storage I/O connector	12 Gb/s SAS 3.0 IOC-based RAID module with storage I/O connector
MARKET SEGMENT	Mainstream	Entry-level with Advanced Management	Entry-Level/Limited Feature
ORDER CODE	**RMS3CC080 / RMS3CC040**	**RMS3HC080**	**RMS3JC080**
PROCESSOR	**LSI* 3108 ROC**	**LSI* 3008 IOC**	**LSI* 3008 IOC**
MEMORY	Embedded 1 GB ECC DDR3 SDRAM	6 MB context memory for entry-level hardware RAID calculations	6 MB context memory for entry-level hardware RAID calculations
PCI BUS	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 12 Gb/s data-transfer rates	8 SAS / SATA ports supporting point-to-point 6 Gb/s data-transfer rates	8 SAS / SATA ports supporting point-to-point 6 Gb/s data-transfer rates
FORM FACTOR	1U capable system board	1U capable system board	1U capable system board
RAID LEVELS	0, 1, 5, 6, 10, 50, and 60	0, 1, 10, Hybrid 5/50 (firmware-based, but requires system resources) and JBOD mode	0, 1, and 1E and JBOD mode
CACHE BACKUP OPTIONS	AXXRMFBU5	N/A	N/A
CABLES	Purchased separately	Purchased separately	Purchased separately
INTEL® SERVER BOARD SUPPORT	Select Intel® Xeon® server boards with a storage I/O module connector	Select Intel® Xeon® server boards with a storage I/O module connector	Select Intel® Xeon® server boards with a storage I/O module connector
AVAILABILITY	Q3 '14	Q3 '14	Q3 '14
WARRANTY	3 year limited warranty	3 year limited warranty	3 year limited warranty

INTEL® RAID

Intel® Integrated RAID SAS 2.1 Generation Products

CONTROLLER	INTEL® INTEGRATED RAID MODULE RMS25CB080 / 040	INTEL® INTEGRATED RAID MODULE RMT3CB080	INTEL® INTEGRATED RAID MODULE RMS25JB080 / 040
DESCRIPTION	6 Gb/s SAS 2.1 intelligent hardware RAID Module with storage I/O connector	6 Gb/s SATA 3.0 intelligent hardware RAID Module with storage I/O connector	6 Gb/s SAS 2.1 entry-level hardware RAID Module with storage I/O connector
MARKET SEGMENT	Mainstream	Mainstream	Entry / Limited Feature
ORDER CODE	**RMS25CB080 / RMS25CB040**	**RMT3CB080**	**RMS25JB080 / RMS25JB040**
PROCESSOR	**LSI* 2208 ROC**	**LSI* 2208 ROC**	**LSI* 2308 ROC**
MEMORY	Embedded 1 GB ECC DDR3 SDRAM	Embedded 512 MB ECC DDR3 SDRAM	2 MB context memory for entry-level hardware RAID calculations
PCI BUS	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 Gb/s data-transfer rates	8 SATA ports supporting point-to-point 6 Gb/s data-transfer rates	8 / 4 SAS / SATA ports supporting point-to-point 6 Gb/s data-transfer rates
FORM FACTOR	1U capable system board	1U capable system board	1U capable system board
RAID LEVELS	0, 1, 5, 6, 10, 50, and 60	0, 1, 5, 6, 10, 50, and 60	0, 1, and 1E
CACHE BACKUP OPTIONS	AXXRSBBU9 (battery backup) AXXRMFBU2 (flash and supercap)	AXXRSBBU9 (battery backup) AXXRMFBU2 (flash and supercap)	N/A
CABLES	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
AVAILABILITY	Now	Now	Now
WARRANTY	1 year limited warranty (AXXRSBBU9) 3 year limited warranty (AXXRMFBU2)	1 year limited warranty (AXXRSBBU9) 3 year limited warranty (AXXRMFBU2)	3 year limited warranty

INTEL® RAID

CONTROLLER	INTEL® INTEGRATED RAID MODULE RMS25PB080 / 040	INTEL® INTEGRATED RAID MODULE RMT3PB080	INTEL® INTEGRATED RAID MODULE RMS25KB080 / 040
DESCRIPTION	6 Gb/s SAS 2.1 intelligent hardware RAID Module with standard PCI Express* x8 connector	6 Gb/s SATA 3.0 intelligent hardware RAID Module with standard PCI Express* connector	6 Gb/s SAS 2.1 entry-level hardware RAID Module with standard PCI Express* connector
MARKET SEGMENT	Mainstream	Mainstream	Entry / Limited Feature
ORDER CODE	RMS25PB080 / RMS25PB040	RMT3PB080	RMS25KB080 / RMS25KB040
PROCESSOR	LSI* 2208 ROC	LSI* 2208 ROC	LSI* 2308 IOC
MEMORY	Embedded 1 GB ECC DDR2 SDRAM	Embedded 512 MB ECC DDR2 SDRAM	2 MB context memory for entry-level hardware RAID calculations
PCI BUS	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 Gb/s data-transfer rates	8 SATA ports supporting point-to-point 6 Gb/s data-transfer rates	8 / 4 SAS / SATA ports supporting point-to-point 6 Gb/s data-transfer rates
FORM FACTOR	Low-profile PCI Express add-in card	Low-profile PCI Express add-in card	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
CACHE BACKUP OPTIONS	AXXRSBBU9 (battery backup) AXXRMFBU2 (flash and supercap)	AXXRSBBU9 (battery backup) AXXRMFBU2 (flash and supercap)	N/A
CABLES	Purchased separately	Purchased separately	Purchased separately
INTEL® SERVER BOARD SUPPORT	Intel® Xeon® E5 Series server boards	Intel® Xeon® E5 Series server boards	Intel® Xeon® E5 Series server boards
AVAILABILITY	Now	Now	Now
WARRANTY	1 year limited warranty (AXXRSBBU9) 3 year limited warranty (AXXRMFBU2)	1 year limited warranty (AXXRSBBU9) 3 year limited warranty (AXXRMFBU2)	3 year limited warranty

SAS 3.0 Intel® RAID Controller Add-In Cards

CONTROLLER	INTEL® RAID CONTROLLER RS3DC080	INTEL® RAID CONTROLLER RS3DC040	INTEL® RAID CONTROLLER RS3SC008	INTEL® RAID CONTROLLER RS3MC0440
DESCRIPTION	12 Gb/s SAS, 6 Gb/s SATA intelligent hardware RAID Controller with 8 internal ports for SAS / SATA drives	12 Gb/s SAS, 6 Gb/s SATA intelligent hardware RAID Controller with 4 internal ports for SAS / SATA drives	12 Gb/s SAS, 6 Gb/s SATA intelligent hardware RAID Controller with 8 external ports for SAS / SATA drives	12 Gb/s SAS, 6 Gb/s SATA intelligent hardware RAID Controller with 4 internal and 4 external ports for SAS / SATA drives
MARKET SEGMENT	Mainstream	Mainstream	Scalable Performance	Scalable Performance
ORDER CODE	**RS3DC080**	**RS3DC040**	**RS3SC008**	**RS3MC044**
PROCESSOR	**LSI* SAS3108 ROC**	**LSI* SAS3108 ROC**	**LSI* SAS3108 ROC**	**LSI* SAS3108 ROC**
MEMORY	1 GB DDR3	1 GB DDR3	1 GB DDR3	1 GB DDR3
PCI BUS	PCI Express* 3.0 x8	PCI Express* 3.0 x8	PCI Express* 3.0 x8	PCI Express* 3.0 x8
CHANNELS	8 internal SAS / SATA ports	4 internal SAS / SATA ports	8 internal SAS / SATA ports	8 internal SAS / SATA ports
FORM FACTOR	Low-profile, half-length (MD2 compliant)	Low-profile, half-length (MD2 compliant)	Low-profile, half-length (MD2 compliant)	Low-profile, half-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
CACHE BACKUP OPTIONS	AXXRFMBU4	AXXRFMBU4	AXXRFMBU4	AXXRFMBU4
CABLES	Purchased separately	Purchased separately	Purchased separately	Purchased separately
AVAILABILITY	Now	Now	Q3 '14	Q3 '14
WARRANTY	3 year limited warranty	3 year limited warranty	3 year limited warranty	3 year limited warranty

INTEL® RAID

CONTROLLER	INTEL® RAID CONTROLLER RS3WC080	INTEL® RAID CONTROLLER RS3UC080	INTEL® RAID CONTROLLER RS3FC044	INTEL® RAID CONTROLLER RS3GC008
DESCRIPTION	12 Gb/s SAS, 6 Gb/s SATA entry-level hardware RAID Controller with advanced management and 8 internal ports for SAS / SATA drives	12 Gb/s SAS, 6 Gb/s SATA entry-level hardware RAID Controller with 8 internal ports for SAS / SATA drives	12 Gb/s SAS, 6 Gb/s SATA entry-level hardware RAID Controller with 4 internal and 4 external ports for SAS / SATA drives	12 Gb/s SAS, 6 Gb/s SATA entry-level hardware RAID Controller with 8 external ports for SAS / SATA drives
MARKET SEGMENT	Entry-level	Entry-level	Entry-level	Entry-level
ORDER CODE	**RS3WC080**	**RS3UC080**	**RS3FC044**	**RS3GC008**
PROCESSOR	**LSI* SAS3008 IOC**	**LSI* SAS3008 IOC**	**LSI* SAS3008 IOC**	**LSI* SAS3008 IOC**
MEMORY	N/A	N/A	N/A	N/A
PCI BUS	PCI Express* 3.0 x8	PCI Express* 3.0 x8	PCI Express* 3.0 x8	PCI Express* 3.0 x8
CHANNELS	8 internal SAS / SATA ports	8 internal SAS / SATA ports	4 internal and 4 external SAS / SATA ports	8 external SAS / SATA ports
FORM FACTOR	Low-profile, half-length (MD2 compliant)	Low-profile, half-length (MD2 compliant)	Low-profile, half-length (MD2 compliant)	Low-profile, half-length (MD2 compliant)
RAID LEVELS	0, 1, 10, and hybrid RAID 5 / 50	0, 1, 1E, 10, and JBOD	0, 1, 1E, 10, and JBOD	0, 1, 1E, 10, and JBOD
CACHE BACKUP OPTIONS	N/A	N/A	N/A	N/A
CABLES	Purchased separately	Purchased separately	Purchased separately	Not included
AVAILABILITY	Now	Now	Now	Now
WARRANTY	3 year limited warranty	3 year limited warranty	3 year limited warranty	3 year limited warranty

SAS 2.0 Intel® RAID Controller Add-In Cards

CONTROLLER	INTEL® RAID SSD CACHE CONTROLLER RCS25ZB040	INTEL® RAID CONTROLLER RS2SG244	INTEL® RAID CONTROLLER RS2WG160	INTEL® RAID CONTROLLER RS25NB008
DESCRIPTION	4-port intelligent hardware RAID card with a large capacity integrated NAND cache to significantly boost performance.	6 Gb/s SAS RAID Controller with 24 internal and 4 external ports for SAS / SATA drives	6 Gb/s SAS RAID Controller with 16 internal ports for SAS / SATA drives	Dual-core 6 Gb/s SAS RAID Controller with 8 external ports for SAS / SATA drives
MARKET SEGMENT	Scalable performance	Scalable performance	Scalable performance	Scalable performance
ORDER CODE	**RCS25ZB040 (256 GB cache)** **RCS25ZB040LX (1024 GB cache)**	**RS2SG244**	**RS2WG160**	**RS25NB008**
PROCESSOR	**LSI* SAS2208 ROC**	**LSI* SAS2108 ROC**	**LSI* SAS2108 ROC**	**LSI* SAS2208 ROC**
MEMORY	1 GB embedded DDR3 ECC memory plus either 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 Gb/s and 3 Gb/s data-transfer rates	24 internal and 4 external SAS / SATA ports supporting point-to-point 6 Gb/s and 3 Gb/s data-transfer rates	16 internal SAS / SATA ports supporting point-to-point 6 Gb/s and 3 Gb/s data-transfer rates	8 external SAS / SATA ports supporting point-to-point 6 Gb/s and 3 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
CACHE BACKUP OPTIONS	AXXRMFBU3	AXXRSBBU7 AXXRSBBU8 (improved)	AXXRSBBU7 AXXRSBBU8 (improved)	AXXRSBBU9
CABLES	Purchased separately	Included	Included	Not included
AVAILABILITY	Now	Now	Now	Now
WARRANTY	3 year limited warranty	1 year limited warranty	1 year limited warranty	1 year limited warranty

CONTROLLER	INTEL® RAID CONTROLLER RS25SB008	INTEL® RAID CONTROLLER RS2MB044	INTEL® RAID CONTROLLER RS25AB080
DESCRIPTION	Scalable performance dual-core 6 Gb/s SAS RAID Controller with 8 external ports for SAS / SATA drives and maintenance-free backup unit included (Flash-based)	Scalable performance 6 Gb/s SAS RAID Controller with 4 internal and 4 external ports for SAS / SATA drives	Mainstream dual-core 6 Gb/s SAS RAID Controller with 8 internal ports for SAS / SATA drives and maintenance-free backup unit included (Flash-based)
ORDER CODE	RS25SB008	RS2MB044	RS25AB080
PROCESSOR	LSI* SAS2208 ROC	LSI* SAS2108 ROC	LSI* SAS2208 ROC
MEMORY	1 GB embedded DDR2 ECC memory	512 MB embedded DDR2 ECC memory	1 GB embedded DDR2 ECC memory
PCI BUS	PCI Express* 3.0 x8	PCI Express* 2.0 x8	PCI Express* 3.0 x8
CHANNELS	8 external SAS / SATA ports supporting point-to-point 6 Gb/s and 3 Gb/s data-transfer rates	4 internal and 4 external SAS / SATA ports supporting point-to-point 6 Gb/s and 3 Gb/s data-transfer rates	8 internal SAS / SATA ports supporting point-to-point 6 Gb/s and 3 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
CACHE BACKUP OPTIONS	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
CABLES	Not included	One 8087 to four 7-pin SATA cable included	Purchased separately
AVAILABILITY	Now	Now	Now
WARRANTY	3 year limited warranty	1 year limited warranty	3 year limited warranty

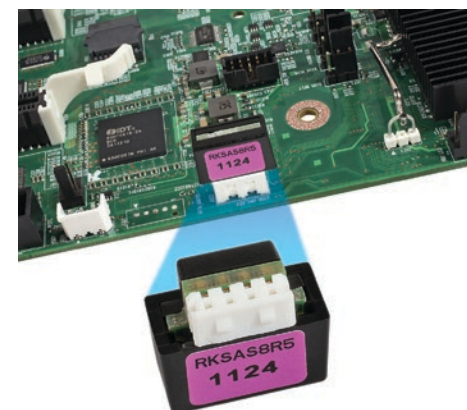| CONTROLLER	INTEL® RAID CONTROLLER RS25DB080	INTEL® RAID CONTROLLER RS2VB080 / 040	INTEL® RAID CONTROLLER RT3WB080
DESCRIPTION	Mainstream dual-core 6 Gb/s SAS RAID Controller with 8 internal ports for SAS / SATA drives	Mainstream 6 Gb/s SAS RAID Controller with 8 internal ports for SAS / SATA drives and maintenance-free backup unit included (Flash-based)	Mainstream SATA-only RAID Controller with 8 ports and SAS expansion support for up to 16 SATA drives
ORDER CODE	RS25DB080	RS2VB080 / RS2VB040	RT3WB080
PROCESSOR	LSI* SAS2208 ROC	LSI* SAS2108 ROC	LSI* SAS2108 ROC
MEMORY	1 GB embedded DDR3 ECC memory	512 MB embedded DDR2 ECC memory	256 MB embedded DDR2 ECC memory
PCI BUS	PCI Express* 3.0 x8	PCI Express* 2.0 x8	PCI Express* 2.0 x8
CHANNELS	8 internal SAS / SATA ports supporting point-to-point 6 Gb/s and 3 Gb/s data-transfer rates	8 / 4 internal SAS / SATA ports supporting point-to-point 6 Gb/s and 3 Gb/s data-transfer rates	8 internal SATA ports supporting SAS expansion and point-to-point 6 Gb/s and 3 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
CACHE BACKUP OPTIONS	AXXRSBBU9	Maintenance-free backup unit (Flash-based) included with add-in card	AXXRSBBU7 AXXRSBBU8 (new longer life)
CABLES	AXXCBL740MS7P (purchased separately)	Included	Included
AVAILABILITY	Now	Now	Now
WARRANTY	1 year limited warranty	3 year limited warranty	1 year limited warranty

INTEL® RAID

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 4 SCU storage ports and Intel Embedded Server RAID Technology 2, which provides RAID 0, 1, and 10 for SATA devices. Additional storage ports, SAS, and RAID 5 are available with activation keys corresponding to the following table.

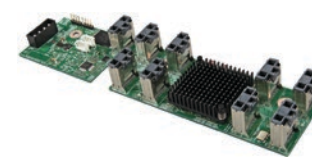| ACTIVATION KEY	PRODUCT NAME	SCU STORAGE FUNCTIONALITY
None	N/A	4-port SATA key with Intel® Embedded Server RAID Technology 2, RAID 0, 1, and 10, and Intel® Rapid Storage Technology Enterprise RAID 0, 1, 5, and 10 (no key)
RKSATA4R5	Intel® RAID C600 Upgrade Key RKSATA4R5	4-port SATA key with Intel Embedded 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

Intel® RAID Expander Boards (SAS Expanders)

NEW

NEW

EXPANDER BOARD	INTEL® RAID EXPANDER RES3FV288	INTEL® RAID EXPANDER RES3TV360	INTEL® RAID EXPANDER RES2SV240	INTEL® RAID EXPANDER RES2CV360 / 240
DESCRIPTION	28 internal port and 8 external port, 12 Gb/s-capable expander card for use with Intel® RAID products	36-port, 12 Gb/s-capable expander card for use with Intel® RAID products	24-port, 6 Gb/s-capable expander card for use with Intel® RAID products	36 / 24-port, 6 Gb/s-capable expander card for use with Intel® RAID products
ORDER CODE	**RES3FV288 (includes 2 short cables to connect to RAID card or module)**	**RES2CV360 (includes short cables to connect up to 24-ports to backplane)**	**RES2SV240 (with 6 cables)** **RES2SV240NC (no cables)**	**RES2CV360 (no cables)** **RES2CV240 (no cables)**
PROCESSOR	**12 Gb/s Expander featuring 6 Gb/s data aggregration for 12 Gb/s data transfer with 6 Gb/s devices**	**12 Gb/s Expander featuring 6 Gb/s data aggregration for 12 Gb/s data transfer with 6 Gb/s devices**	**6 Gb/s Expander**	**6 Gb/s Expander**
CHANNELS	36 total SAS / SATA ports supporting point-to-point 12, 6, and 3 Gb/s data-transfer rates	36 total SAS / SATA ports supporting point-to-point 12, 6, and 3 Gb/s data-transfer rates	24 SAS / SATA ports supporting point-to-point 6 Gb/s and 3 Gb/s data-transfer rates	36 / 24 SAS / SATA ports supporting point-to-point 6 Gb/s and 3 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	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	Standard PCI Express* x4 connector or RA 4-pin power connector	RA 4-pin power connector
MANAGEMENT	SGPIO	SGPIO	SGPIO	SGPIO
FAULT LED HEADERS	Includes 2 pin headers to support each SAS port	Includes 2 pin headers to support each SAS port	Includes 2 pin headers to support each SAS port	Includes 2 pin headers to support each SAS port
AVAILABILITY	Q2 '14	Q3'14	Now	Now
WARRANTY	3 year limited warranty	3 year limited warranty	3 year limited warranty	3 year limited warranty

INTEL® RAID

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	• SSD Cache allows Solid-State Drives (SSD) 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.	• 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.	• 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 gain confidence knowing that bootable snapshots exist, should operating system corruption occur.
Order Code	AXXRPFKSSD	AXXRPFKDE	AXXRPFKSNSH
Availability	Now	Now	Now

These features are available as an upgrade for all LSI* SAS2208 and SAS3108 processor-based Intel® RAID products. To identify products with these processors, 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	• SSD Cache allows Solid-State Drives (SSD) 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.	• 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.	• 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 gain confidence knowing that bootable snapshots exist, should operating system corruption occur.
Order Code	AXXRPFKSSD2	AXXRPFKDE2	AXXRPFKSNSH2
Availability	Now	Now	Now

Intel® RAID High Availability Storage Kit

- The High Availability Storage solution provides fault tolerance capabilities as a key part of a high-availability data storage system by combining redundant RAID controllers, computer nodes, cable connections, SAS expanders, and dual-port SAS drives.

- Shared storage across two servers can improve performance and at the same time support either failover clustering or cluster-in-a-box configurations. Also supported is Microsoft* failover clustering, controller-to-controller intercommunication over SAS, write-back cache coherency, shared and exclusive DB I/O policies, and exclusive access that allows the operating system to boot from the controller.

Order code: AXXRPFKHA2
Availability: 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.
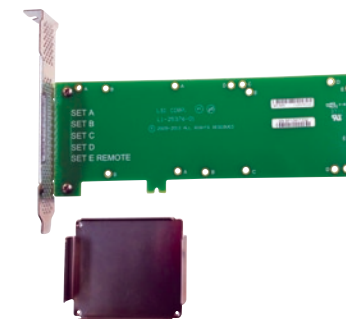
CABLE KIT ORDER CODE	NUMBER OF CABLES INCLUDED IN KIT	INITIATOR CONNECTOR	TARGET CONNECTOR	LENGTH
AXXCBL650HDMS	2	HD mini-SAS straight[1]	8087 mini-SAS straight[1]	650mm
AXXCBL730HDMS	2	HD mini-SAS straight[1]	8087 mini-SAS straight[1]	730mm
AXXCBL750MS7P	2	8087 mini-SAS straight	Four x 7-pin SATA style	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

MOUNTING BRACKET	ORDER CODE	DESCRIPTION	INTERNAL CONNECTORS	EXTERNAL CONNECTORS
Intel RAID® Battery Remote Mounting Bracket	AXXBBUBRKTP	A mounting bracket that fits in a low-profile PCI Express* slot and holds two RAID batteries or Maintenance Free Backup Units.	None	None

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

1 Cable is reversable so that either connector can be on the target or initiator side.

Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products.

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

Intel® Server Adapters

Look Inside.™

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

Connectivity For Copper Networks

NEW

10 GIGABIT-OVER-COPPER

INTEL® SERVER ADAPTERS

ADAPTER	INTEL® ETHERNET CONVERGED NETWORK ADAPTER X520-QDA1	INTEL® ETHERNET CONVERGED NETWORK ADAPTER X520-DA2 DUAL PORT	INTEL® ETHERNET CONVERGED NETWORK ADAPTER X520-T2	INTEL® ETHERNET CONVERGED NETWORK ADAPTER X540-T1	INTEL® ETHERNET CONVERGED NETWORK ADAPTER X540-T2
PRODUCT CODE— SINGLES	X520QDA1	E10G42BTDA	E10G42BT	X540T1	X540T2
PRODUCT CODE— FIVE PACKS	N/A	E10G42BTDABLK	N/A	X540T1BLK	X540T2BLK
CONNECTOR(S)	1 QSFP+ Direct Attach Copper	2 SFP+ Direct Attach Copper	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® 82599ES	Intel® 82599ES	Intel® X540	Intel® X540
BUS WIDTH AND TYPE	PCI Express* 3.0 (5 GT/s) x8	PCI Express* 2.0 (5 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	Yes	No	Yes	Yes

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 PT DUAL PORT SERVER ADAPTER	INTEL® GIGABIT ET2 QUAD PORT SERVER ADAPTER	INTEL® GIGABIT ET DUAL PORT SERVER ADAPTER
PRODUCT CODE— SINGLES	EXPI9404PTL	EXPI9402PT	E1G44ET2	E1G42ET
PRODUCT CODE— FIVE PACKS	EXPI9404PTLBLK	EXPI9402PTBLK	E1G44ET2BLK	E1G42ETBLK
CONNECTOR(S)	4 RJ-45	2 RJ-45	4 RJ-45	2 RJ-45
END-BRACKETS	Low-profile, full-height	Low-profile, full-height	Low-profile, full-height	Low-profile, full-height
ETHERNET CONTROLLER	Intel® 82571GB	Intel® 82571GB	Intel® 82576	Intel® 82576
BUS WIDTH AND TYPE	PCI Express* x4	PCI Express* x4	PCI Express* 2.0 (2.50 GT/s) x4	PCI Express* 2.0 (2.50 GT/s) x4
VIRTUAL MACHINE DEVICE QUEUES (VMDQ) SUPPORT	N/A	N/A	Yes	Yes
SECURITY FEATURES	N/A	N/A	IPsec	IPsec
HALOGEN FREE	N/A	N/A	No	No

INTEL® SERVER ADAPTERS

Connectivity For Copper Networks

	10/100/1000 MB/S-OVER-COPPER MULTI-PORT			10/100/1000 MB/S-OVER-COPPER SINGLE PORT
ADAPTER	**INTEL® ETHERNET SERVER ADAPTER I340-T4**	**INTEL® ETHERNET SERVER ADAPTER I350-T2**	**INTEL® ETHERNET SERVER ADAPTER I350-T4**	**INTEL® ETHERNET SERVER ADAPTER I210-T1**
PRODUCT CODE— SINGLES	E1G44HT	I350T2	I350T4	I210T1
PRODUCT CODE— FIVE PACKS	E1G44HTBLK	I350T2BLK	I350T4BLK	I210T1BLK
CONNECTOR(S)	4 RJ-45	2 RJ-45	4 RJ-45	1 RJ-45
END-BRACKETS	Low-profile, full-height	Low-profile, full-height	Low-profile, full-height	Low profile, full-height
ETHERNET CONTROLLER	Intel® 82580	Intel® I350	Intel® I350	Intel® I210
BUS WIDTH AND TYPE	PCI Express* 2.0 (5 GT/s) x4	PCI Express* 2.0 (5 GT/s) x4	PCI Express* 2.0 (5 GT/s) x4	PCI Express* 2.1 (2.50 GT/s) x1
AUDIO VIDEO BRIDGING (AVB)	N/A	N/A	N/A	Yes
VIRTUAL MACHINE DEVICE QUEUES (VMDQ) SUPPORT	Yes	Yes	Yes	N/A
SECURITY FEATURES	No	No	No	N/A
HALOGEN FREE	Yes	Yes	Yes	N/A
EEE / DMA COALESCING	N/A	Yes	Yes	N/A

Connectivity For Fiber Networks

	10 GIGABIT-OVER-FIBER SINGLE PORT		**10 GIGABIT-OVER-FIBER MULTI-PORT**
ADAPTER	**INTEL® ETHERNET CONVERGED NETWORK ADAPTER X520-SR1**	**INTEL® ETHERNET CONVERGED NETWORK ADAPTER X520-LR1**	**INTEL® ETHERNET CONVERGED NETWORK ADAPTER X520-SR2 DUAL PORT**
PRODUCT CODE— SINGLES	E10G41BFSR	E10G41BFLR	E10G42BFSR
PRODUCT CODE— FIVE PACKS	E10G41BFSRBLK	E10G41BFLRBLK	E10G42BFSRBLK
CONNECTOR(S)	1 LC	1 LC	2 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® 82599ES
BUS WIDTH AND TYPE	PCI Express* 2.0 (5 GT/s) x8	PCI Express* 2.0 (5 GT/s) x8	PCI Express* 2.0 (5 GT/s) x8
OPEN FCoE SUPPORT	Yes	Yes	Yes

INTEL® SERVER ADAPTERS

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® GIGABIT EF DUAL PORT SERVER ADAPTER	INTEL® ETHERNET SERVER ADAPTER I350-F4	INTEL® ETHERNET SERVER ADAPTER I340-F4
PRODUCT CODE— SINGLES	I350F2	EXPI9402PF	E1G42EF	I350F4	E1G44HF
PRODUCT CODE— FIVE PACKS	I350F2BLK	EXPI9402PFBLK	E1G42EFBLK	I350F4BLK	E1G44HFBLK
CONNECTOR(S)	2 LC	2 LC	2 LC	4 LC	4 LC
FIBER OPTIC CABLING	MMF 62.5µm up to 275m MMF 50µm up to 550m	MMF 62.5 / 50µm up to 275m	MMF 62.5µm up to 275m MMF 50µm up to 550m	MMF 62.5µm up to 275m MMF 50µm up to 550m	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	Full-height	Full-height
ETHERNET CONTROLLER	Intel® I350	Intel® 82571GB	Intel® 82576	Intel® I350	Intel® 82580
BUS WIDTH AND TYPE	PCI Express* 2.1 (5 GT/s) x4	PCI Express* x4	PCI Express* 2.0 (2.50 GT/s) x4	PCI Express* 2.1 (5 GT/s) x4	PCI Express* 2.0 (5 GT/s) x4
VIRTUAL MACHINE DEVICE QUEUES (VMDQ) SUPPORT	Yes	No	Yes	Yes	Yes
SECURITY FEATURES	No	No	IPsec	No	No
EEE / DMA COALESCING	Yes	No	No	Yes	No

INTEL® SERVER ADAPTERS

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

Intel® Server Management

INTEL® SERVER MANAGEMENT

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 more 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.

SIMPLE	MORE SECURE	SMART
• Makes it easy to set up and maintain a more reliable and secure IT infrastructure • Streamlines tasks throughout server lifecycle with remote management • Manages IT functions with a single suite of tools	• Keeps IT informed with automated daily health reports and alerts • Improves reliability and stability with rapid application and patch deployment	• Designed specifically for small- to medium-sized 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.

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

Intel® System Management Software

Intel® System Management Software is a set of management applications comprised of Intel® Active System Console 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.

FEATURES	INTEL® ACTIVE SYSTEM CONSOLE	INTEL® SNMP SUBAGENT
Server Environment	1 to 10 servers	Enterprise
User Interface	Web-based	Integrates into enterprise tools such as HP* OpenView
Operating System Support	Windows*, Linux*	Windows*, Linux*
Single, Easy-to-Use Console	Yes	N/A
Hardware Predictive Failure Analysis	Yes	Yes
Sensor Readings	Yes	Yes
Hardware Event Log	Yes	N/A
Alerting	Yes (e-mail and SNMP)	Yes (SNMP)
Reporting	Yes	N/A
BMC Configuration	Yes	N/A
Power Management	Yes	N/A
Remote Management	N/A	Yes
OEM Customization	Yes	N/A

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.

INTEL® REMOTE MANAGEMENT MODULE 4

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.

MODULE				
ORDER CODE	AXXRMM4Lite	AXXRMM4	AXXRMM4IOM	AXXRMM4IOMW
SUPPORTED SYSTEMS[1]	**Select systems based on Intel® Server Boards S1200V3RPL, S1200V3RPO, S1200V3RPM, S1200BTL, S1400FP, S1400SP, S2400LP, S2600JF, S2600WP, S2400EP, S2400BB, S2400SC, S2400GP, S1600JP, S2600GL, S2600GZ, S2600IP, S2600CP, S2600CO, S4600LH, W2600CR**	**Select systems based on Intel® Server Boards S1200V3RPL, S1200V3RPO, S1200V3RPM, S1200BTL, S1400FP, S1400SP, S2400LP, S2600JF, S2600WP, S2400EP, S2400BB, S2400SC, S2400GP, S1600JP, S2600GL, S2600GZ, S2600IP, S2600CP, S2600CO, 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] For the latest Intel® Server Board support, 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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* Other names and brands may be claimed as the property of others.

You live your digital life.
We keep it secure.

McAfee
An Intel Company

LiveSafe™

Protection for your data,
identity, and all your devices

Unlimited* Device License

Windows 8 Compatible   Mac

iOS and Kindle Fire Devices

SYSTEM REQUIREMENTS
• Windows* 8.1 (32- and 64-bit)
• Windows* 8 (32- and 64-bit)
• Windows* 7 (32- and 64-bit)
• Windows* XP SP3 or higher (32-bit)
• Windows* Vista* SP1 (32- and 64-bit)
• Mac* OS X 10.7 and 10.8
• Google* Android* smartphones and tablets 2.3 or later
• iOS* 5 or higher (only supported by McAfee* SafeKey password manager and McAfee* Personal Locker)

INTERNET CONNECTION REQUIRED
• High-speed connection recommended

SUPPORTED BROWSERS FOR ANTI-PHISHING
• Internet Explorer* 7.0 or later
• Firefox* 12 or later
• Google Chrome* 6.0 or later
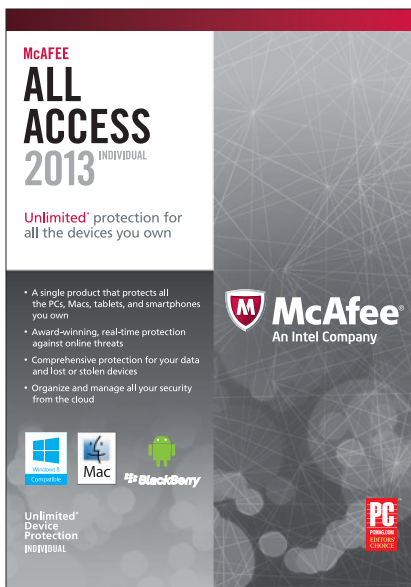• Safari* 5 or later

REQUIRED FOR McAFEE* ANTI-SPAM TOOLBAR
• Windows Mail* or Outlook Express* 6.0+
• Outlook* XP+
• Thunderbird* 5.0
• McAfee* Anti-Spam also supports other POP3 e-mail clients (without SSL) and web accounts

McAfee LiveSafe*

Surf, shop, bank, share, and enjoy your life online with confidence. McAfee LiveSafe* service secures your entire digital life. Designed to fit the way you live, the McAfee LiveSafe service protects your data, your identity, and all your devices.

McAfee® An Intel Company

McAfee LiveSafe* Features

FEATURE	WHAT IT DOES	HOW IT PROTECTS
Unlimited Cross-Device Protection[1]	One annual subscription helps protect your PC, Mac*, smartphone, and tablet	Provides comprehensive protection for your various platforms with one license
Antivirus and Anti-Malware Protection	Powerful combination of protection services helps keep your data safe from malware threats	Helps protect your devices with vulnerability scanner, real-time anti-malware, two-way firewall, file shredder, and more
Parental Control	Keeps you in control of what your family sees and does online	Helps you protect your children from exposure to inappropriate content, and control how much time they spend online
Home Network Defense	Helps protect your network and PCs	Helps prevent intruders from accessing your home network
Social Network Protection	Helps safeguard URL sharing	Helps protect your friends and family if a link you send becomes risky
Remotely Wipe Data	Preserves your privacy on mobile devices	Allows you to remotely wipe all contacts, photos, calendars, text messages, browsing history, and SD card content
Backup and Restore Mobile Data	Preserves your irreplaceable personal information	Makes a restorable copy of your content in the event that you need a new phone
Track and Lock	Helps track and lock your mobile devices remotely	Track and lock your tablets and smartphones if they are lost or stolen
App Protection	Helps you share apps safely and helps safeguard your information from risky apps	Helps control which apps family members—or even strangers—can access. Monitors mobile device apps and alerts you of suspicious activity
Call and SMS Filter	Filters spam, wrong numbers, and unwanted SMS/MMS messages	Helps keep unwanted content out of your mobile device
Uninstall Protection	Provides password protection for app uninstall	Helps prevent intruders from bypassing your McAfee* mobile protection and wiping apps and device data
McAfee* SafeKey	Simplifies password management	One password will allow you to access securely-stored usernames and passwords on all your devices
McAfee* Personal Locker	Helps protect your personal data in the cloud	Biometric authentication scans your voice and face to ensure that only you can access your files

McAfee LiveSafe* Features Across Devices

FEATURES	PC	MAC*	SMARTPHONES AND TABLETS (ANDROID*, BLACKBERRY*, iOS*)
Antivirus	●	●	●
Anti-spyware	●	●	●
Anti-phishing	●	●	●
Firewall	●	●	○
Safe Search and Surf	●	●	●
Anti-spam	●	●	○
Parental Control	●	○	○
Home Network Defense	●	○	○
Social Network Protection	●	○	○
File Shredder	●	○	○
Vulnerability Scanner	●	○	○
Mobile Device Lock	○	○	●
Remotely Wipe Data (Mobile Devices)	○	○	●
Backup and Restore Mobile Data	○	○	●
Track (Mobile Devices)	○	○	●
App Protection	○	○	●
Call and SMS Filter	○	○	●
Uninstall Protection	○	○	●
Password Manager	●	●	● (iOS only)
Secure Cloud Storage	●	○	● (iOS only)

● Supported
○ Not supported

McAFEE*

McAfee* All Access

McAfee* All Access is a single solution that provides comprehensive protection for your PC, Mac*, smartphone, and tablet. It delivers comprehensive security that allows you to apply the protection you need to all the devices you own and safeguard them wherever you connect. McAfee All Access is the ultimate way to protect your digital lifestyle and enjoy peace of mind.

McAfee* All Access Features

FEATURE	WHAT IT DOES	HOW IT PROTECTS
McAfee* SafeKey	Helps protect account usernames and passwords	Helps prevent unauthorized access to critical information
Unlimited Cross-Device Protection[1]	One license protects your PC, Mac*, smartphone, and tablet	Provides comprehensive protection for your various platforms with a single license
Cloud-Based Security Management and Organization	New dashboard allows visibility, and new click-to-act allows quick adjustment of settings	Helps keep system security up-to-date even with mobile devices
Smartphone and Tablet Protection	Scans for viruses and malware, secures data, and more. Remotely locks, backs up, and wipes lost or stolen devices	Helps keep your mobile devices secure by removing viruses and malware. Prevents hackers and thieves from accessing your personal information
Mac* Protection	Provides Mac users security	Helps keep your Mac secure with antivirus, anti-malware, anti-phishing, firewall, safe searching, and more
Social Network Protection	Safe URL sharing	Helps protect your friends if a link you send becomes risky
Protection Against Hackers and Thieves	Wireless network protection and anti-phishing	Helps keep eavesdroppers from your passwords and personal files. Helps to avoid risky and phishing URLs sent through e-mail and instant messaging
Identity Protection	Encrypted storage for confidential files	Locks confidential files in a personal password-protected vault
Spam and Dangerous E-mail Protection	Stronger anti-spam filter	Fine-grained, accurate, dynamic filters get rid of offensive and dangerous messages
Family Protection	Parental controls, surf report, and improved summaries	Applies adjustable rules to block inappropriate sites and limit online time. Check user login times and see usage reports for all your kids
Antivirus and Anti-Malware Protection	Powerful combination of performance, accuracy, and reinforcing protections keep criminals away from your PC and data	Helps protect with high-speed scanning engine, vulnerability scanner, real-time anti-malware, two-way firewall, malicious ad protection, digital data shredder, and more

SYSTEM REQUIREMENTS
• Windows* 8.1 (32- and 64-bit)
• Windows* 8 (32- and 64-bit)
• Windows* 7 (32- and 64-bit)
• Windows* XP SP3 or higher (32-bit)
• Windows* Vista* SP1 (32- and 64-bit)
• Mac* OS X 10.6 or higher
• Google* Android* smartphones and tablets 2.3 and 4.0 (runs on Kindle Fire* devices)
• BlackBerry* 4.5, 4.6, 4.7, 5.0, 6.0, 7.0
• iOS* 5 or higher (only supported by McAfee* SafeKey password manager)

INTERNET CONNECTION REQUIRED
• High-speed connection recommended

SUPPORTED BROWSERS FOR ANTI-PHISHING
• Internet Explorer* 7.0 or later
• Firefox* 12 or later
• Chrome* 6.0 or later
• Safari* 5 or later

REQUIRED FOR McAFEE* ANTI-SPAM TOOLBAR
• Windows Mail* or Outlook Express* 6.0+
• Outlook XP+
• Thunderbird* 5.0
• McAfee* Anti-Spam also supports other POP3 e-mail clients (without SSL) and web accounts

McAFEE
MOBILE SECURITY

Simple, powerful, and comprehensive security for your smartphone and Android tablet

Key Features:
• Real-time safeguards from viruses and spyware
• Safe searching and shopping
• Device lock
• Remotely wipe data
• Backup and restore data
• Locate, track, and recover
• Call and SMS filtering
• App privacy protection
• Uninstall protection

Available for
Smartphones and Tablets

Minimum System Requirements:
Supported Device Operating Systems
• Google Android 2.1 or higher
• BlackBerry 4.5, 4.6, 4.7, 5.0, 6.0, 7.0
• S60 3rd and 5th Edition, Symbian ^3

Online Management Portal Browser Support
• Internet Explorer 7.0 or higher
• Firefox 3.5 or higher
• Safari 3.0 or higher

Support and Warranty
Free Support: You get free support for the duration of your subscription.
Go to http://service.mcafee.com to learn more about McAfee's support tools; including online and phone support.

SYSTEM REQUIREMENTS
• Google* Android* 2.3 or later (runs on Kindle Fire* devices)
• BlackBerry* 4.5, 4.6, 4.7, 5.0, 6.0, 7.0
• S60 3rd and 5th Edition, Symbian^3

ONLINE MANAGEMENT PORTAL BROWSER SUPPORT
• Internet Explorer* 7.0 or later
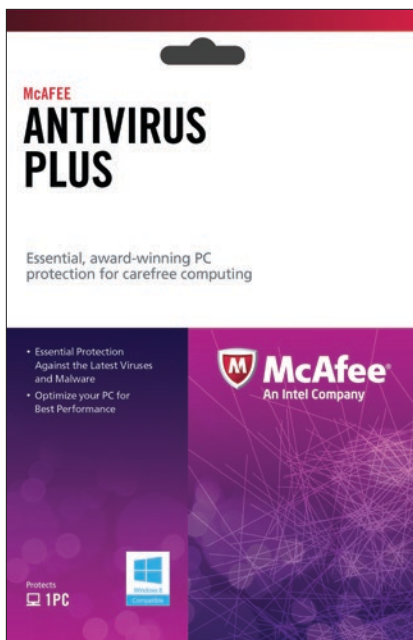• Firefox* 3.5 or later
• Safari* 3.0 or later
• Chrome*

McAfee* Mobile Security

COMPREHENSIVE SECURITY FOR YOUR MOBILE LIFE
Explore everything the new mobile world has to offer, and do it safely and confidently with industry-leading McAfee* Mobile Security. When you select new apps, shop online, browse social networks, or use your device for banking and payments, McAfee Mobile Security is there to protect you.

McAfee* Mobile Security Features

FEATURE	WHAT IT DOES	HOW IT PROTECTS
McAfee Active Protection*	Provides real-time protection	Scans for malicious code in apps, SD cards, and Internet downloads
Uninstall Protection	Password protection for app uninstall	Helps prevent thieves from bypassing your McAfee* mobile protection and wiping your apps and device data
McAfee* App Alert	Notifies you when unusual access is requested	Allows you to determine if you trust the app
App Lock	Helps prevent app usage by unauthorized users	Helps block access to private, personal apps such as banking, medical, etc.
Call and SMS Filter	Filters spam, wrong numbers, and unwanted SMS / MMS messages	Helps keep unwanted content out of your smartphone
Locate	Locates your device quickly via GPS	Helps recover lost, stolen, or misplaced devices
Lock	Helps prevent access to your mobile device	Helps prevent personal content from being exposed to the person in possession of the mobile device
Remotely Wipe Data	Preserves privacy	Allows you to wipe all contacts, photos, calendars, text messages, browsing history, and SD card content
Backup and Restore Mobile Data	Preserves irreplaceable personal information	Makes a restorable copy of your content in the event that you need a new mobile device
Web Protection	Actively checks web pages in real-time	Helps block potential phishing sites, browser exploits, and malicious links

McAfee* AntiVirus Plus*

When you surf, shop, and socialize, the last thing you want to think about is online risk. That's why McAfee* is relentless when it comes to digital security, working hard to stay ahead of the latest Internet threats. Our 24/7 obsession means reliable protection for your Intel-powered systems—so you can work and play online with complete confidence.

WHY SECURITY?
- Q4 of 2012 and Q1 of 2013 saw record highs for master boot record (MBR) threats, at 600,000 and 800,000, respectively[2]
- 2 million Facebook*, Google*, and Yahoo* passwords were stolen in 2013[3]
- 30,000 hard drives were wiped clean in 2013 in a cyber espionage attack on South Korea[4]
- In 2013, new attack surfaces opened up as 52% of developers used HTML5 to create mobile apps[5]

McAfee* AntiVirus Plus* Features

FEATURE	WHAT IT DOES	HOW IT PROTECTS
High-Performance Scanning Engine	Uses next-generation technology to scan systems for the latest viruses, trojans, spyware, and other threats. It works in the background without slowing the system	Helps identify and block system threats
Firewall (2-way)	Helps protect system from incoming threats and safeguards personal information from being stolen	Helps keep threats out and private information in
Vulnerability Scanner	Scans system for missing updates and recommends solutions to keep the PC safe	Proactively protects systems by keeping updates current
NetGuard Anti-Bot Protection	Disables hackers from sending out personal information	Preventative protection of personal information
Site Advisor Social	Helps detect malicious links in social networks	Surf social networks confidently
Safe Search	Features color-coded icons next to every search and social media result to identify sites that are safe	Helps you stay away from potentially risky sites
Touch Interface	Works effectively with Windows* 8 and systems with touch and provides a touch-friendly home screen	Easy system management
QuickClean	Removes unused applications and files to speed up the system	Helps keep system running optimally and removes potentially sensitive, unused files
Enhanced Digital Data Messages	Includes the location of blocked IP addresses and identifies what makes connections unsafe	Identifies potential threatening web sites and connections
Enhanced Security Reports	Redesigned to give the user information in fresh and engaging ways, including an easier-to-understand snapshot of what's happening in the world of security	Keeps you informed of security information
Malicious Ad and Pop-up Protection	Web sites do not always monitor their advertising—offers protection against malicious pop-ups and ads	Automatically blocks suspicious content

SYSTEM REQUIREMENTS
- Windows* 8.1 (32- and 64-bit)
- Windows* 8 (32- and 64-bit)
- Windows* 7 (32- and 64-bit)
- Windows* Vista* SP1 (32- and 64-bit)
- Windows* XP SP3 or higher (32-bit)
- 512 MB RAM for XP, 2 GB RAM for Vista, Windows 7, Windows 8, and Windows 8.1
- 500 MB free drive space
- 1 GHz processor

INTERNET CONNECTION REQUIRED
- High-speed connection recommended

McAFEE

SAAS ENDPOINT PROTECTION SUITE

Always on, always up-to-date cloud-managed security for your computers

- Protect desktops, laptops, and file servers against the latest threats
- Comprehensive protection with automatic updates and upgrade
- 24/7 McAfee® Gold Technical Support

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Protects
🖥 1PC

Windows 8
Compatible

SYSTEM REQUIREMENTS
- Intel® Pentium® processor or compatible architecture
- 1 GB RAM (2 GB recommended)
- Microsoft* mouse or compatible pointing device
- 256-color or higher VGA monitor

BROWSER REQUIREMENTS
- Internet Explorer* 7.0 or later
- Firefox* 3.0 or later
- Chrome* 4.0 or later
- Safari* 4.0 or later (Browser protection service features not supported.)

McAfee* SaaS Endpoint Protection Suite*

Cybercriminals are targeting growing businesses like yours. They're zeroing in, believing that your business is an easier target because you can't afford a sophisticated security framework. Maintaining an up-to-date defense perimeter around your systems is increasingly difficult in the face of rapidly changing attack strategies and the realities of limited budgets. Still, there's an answer to this dilemma—cloud-based solutions that deliver the most effective, up-to-date security solutions that are both scalable and affordable. With Security-as-a-Service (SaaS) suites covering e-mail, web, desktops, and mobile devices, McAfee* can help protect your business against the growing list of known and unknown threats.

KEY BENEFITS
- McAfee* SecurityCenter* for centralized visibility through an online management console
- Desktop and file server antivirus and anti-spyware scan and block out malware
- Desktop firewall helps block hackers and intrusions
- Web security for safe surfing

McAfee* SaaS Endpoint Protection Suite* Features

FEATURE	WHAT IT DOES	HOW IT PROTECTS
Comprehensive Coverage in a Single Solution	McAfee* SaaS security solutions are designed for all types and sizes of businesses, helping you put an end to point products with single, integrated suites	One solution for all types of businesses
Always On-Guard Security	No matter what security technology is being used, the protection profile is never obsolete with daily, automated updates and continual service upgrades	Helps ensure protection profile is kept up-to-date without interruption
Relentless Security	McAfee* Global Threat Intelligence* reputation technology is always-on protection that uses behavioral-based scanning to reduce exposure from unknown threats	Quarantines and blocks threats in real-time and closes protection gaps
Quick Deployment to All Users	Simple management over the Internet so users are protected more quickly and stay up-to-date	Centralized deployment and configuration settings
Simplified Security Management	Via a web browser, access the secured McAfee SecurityCenter to customize reporting widgets, schedule reports and upgrades to local assets, or even run virus and spyware scans on endpoints	Web-based security management
Integrated Web Security	Warns users before they visit a potentially dangerous web site and helps them avoid online threats in real-time	Tests web sites and delivers safety ratings
E-mail Security Beyond Spam	Helps block inbound and internal threats, keeps businesses running, and helps IT meet compliance with built-in regulatory compliance templates and encryption capabilities	Helps block inappropriate and malicious content

HOW TO BEGIN SELLING McAFEE* PRODUCTS
1. Contact your local Intel® Authorized Distributor (IAD)
2. Purchase activation cards or electronic keys from IAD
3. Sell to your customers
4. Backend support is provided by McAfee

McAfee* AntiVirus Plus* vs. McAfee* SaaS Endpoint Protection Suite* Comparison Chart

FEATURE	BENEFIT	MAV+ (HOME/OFFICE WITH > 5 COMPUTERS WITH DEDICATED IT)	MEP (BUSINESSES WITH < 5 EMPLOYEES WITHOUT DEDICATED IT)
Antivirus / Anti-spyware	Helps block, scan, and remove malware and threats like viruses, spyware, trojans, and rootkits	●	●
Desktop Firewall	Helps block hackers and intrusions	●	●
Site Advisor	Web site safety indicator—allows you to safely surf, search, and browse the web	●	●
McAfee* Global Threat Intelligence* (GTI)	Connect with McAfee Global Threat Intelligence (GTI) for real-time threat information	●	●
Easy and Fast Installation	Automatically removes incompatible security software	●	●
Web Filtering	Helps block malicious sites or unwanted site categories	◒	●
McAfee* SecurityCenter	Web-based management console for centralized management reporting	○	●
Rumor	Multiple computers on the same network will only need to download the daily threat updates once and then updates are shared automatically	○	●
Reporting	Scheduled reports can be automatically delivered on a regular basis	◒	●
Protected Platforms	Helps protect Windows*-based PCs and file servers	◒	●
Support for Windows*	Windows* 8 support	●	●

● Supported
◒ Supported in part
○ Not supported

To learn more about McAfee* products, visit **www.intel.com/mcafee-reseller**

1 Subject to limitations on reasonable use and purpose of the product. Certain limitations may apply; see System Requirements for supported platforms.

2 McAfee. "McAfee Threats Report: First Quarter 2013." http://www.mcafee.com/us/resources/reports/rp-quarterly-threat-q1-2013.pdf.

3 McAfee. "'Pony' Botnet Gallops Off With 2 Million Passwords." December 2013. https://blogs.mcafee.com/consumer/pony-botnet-steals-2-million-passwords.

4 McAfee. "Dissecting Operation Troy: Cyberespionage in South Korea." July 2013. http://www.mcafee.com/us/resources/white-papers/wp-dissecting-operation-troy.pdf.

5 Developer Economics. "The Kaleidoscope of HTML5 App Development." 2013. http://www.developereconomics.com/report/q3-2013-html5-app-development.

No system can provide absolute security under all conditions. Requires an enabled chipset, BIOS, firmware, and software. Consult your system manufacturer more information. Intel assumes no liability for lost or stolen data and/or systems or any other damages resulting thereof.

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