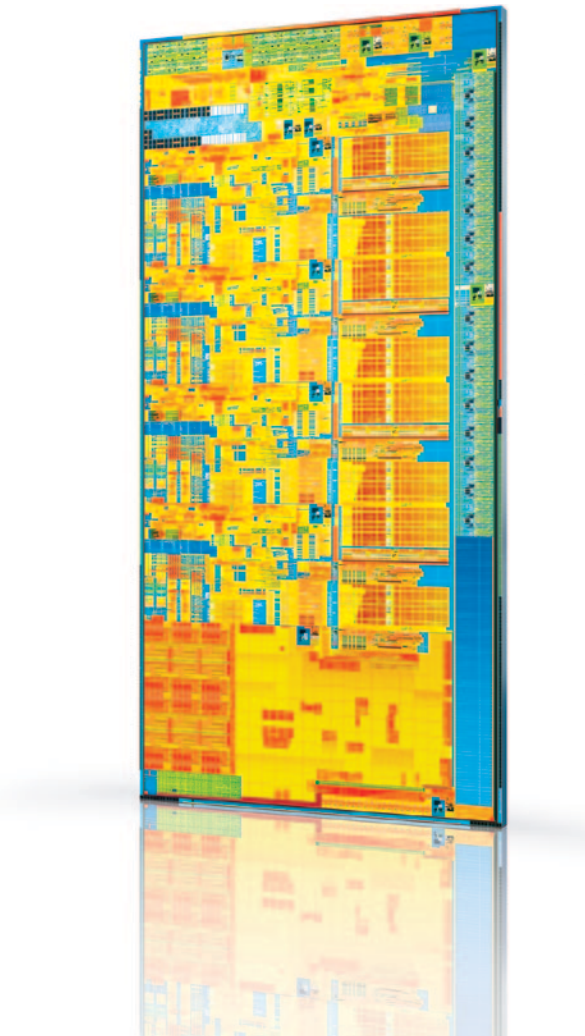
PRODUCT BRIEF
Intel® Core™ Desktop Processors

Intel® Core™ Processor Family For Enthusiasts

Processors Built For What You Want To Do



2nd Generation Intel® Core™ Processors in the LGA2011 Socket

If you are looking for pure, raw, adrenaline-pumping power, then the 2nd gen Intel® Core™ processors in the LGA2011 socket are for you. These processors provide you with the most cores, I/O options, memory channels, and raw computing power of any Intel® desktop processor. These are not the processors of the past. Lay waste to everything in your path in whatever game you choose to dominate, or dive into the world of multimedia editing like a modern-day Picasso. Combining a 2nd gen Intel Core processor with one, two, three, or even four discrete video cards and up to 64 GB of memory across four channels gives you heart-stopping performance no matter what application you choose. If a super-smart, ultra-threaded, absolutely uncompromised processor is on your wish list, then your search is over.

4th Generation Intel® Core™ Processors in the LGA1150 Socket

Want a system that can not only rock the latest game but also rip through your media? Then combining a 4th gen Intel Core processor in the LGA1150 socket with the latest Intel® 8 Series Z chipset will get you the results you want. The built-in visuals of the 4th gen Intel Core processors deliver everything you need to enjoy a stunning and seamless graphic experience when viewing and interacting with pictures and media on your PC without the need for a discrete graphics card, thanks to Intel® HD Graphics 4600—the new baseline for all 4th gen Intel® Core™ i5 and Intel® Core™ i7 processors. Intel® Quick Sync Video allows the conversion of media from one device to another and prepares your media to share it online at incredible speeds. And when the need to frag a zombie arises, the Intel 8 Series Z chipset, paired with Lucidlogix* Virtu* software, allows you to switch over to a discrete graphics card for high-end 3-D gaming.[1]

Unlock Your Full Potential

Unlocked Intel Core processors[2,3] enable system tuning for the processor cores, memory, and power. Adjusting these settings provides extra performance and flexibility for more complex multimedia applications and immersive gaming. Whether you are a novice overclocker or a seasoned veteran, these processors will have you singing their praises in no time.

Boost Your Performance

The Intel Core processor family delivers a great PC experience. Whether you are looking for improved performance, greater adaptability, or differentiated visual features, Intel has the processor to fit your needs. If you are using your PC for creativity, playing games, or everyday tasks such as homework and e-mail, these new processors make it easier to design, render, edit, play, and share.

Intel Core processors feature Intel® Turbo Boost Technology[4] 2.0, which delivers a burst of processor speed automatically when the workload demands additional performance.

And for Intel® Core™ i7 processors, Intel® Hyper-Threading Technology[4] allows each processor core to work on two tasks at the same time, improving multitasking, speeding up the workflow, and accomplishing more in less time.

With 4th gen Intel® Core™ processors, you can boot your PC, load applications, and resume from sleep faster thanks to Intel's responsiveness technologies such as Intel® Smart Response Technology,[5] and Intel® Rapid Start Technology.[6]

Increased Security

The 4th gen Intel Core processor family offers hardware-level security that helps protect your devices, your data, and your online transactions.

Better Connectivity

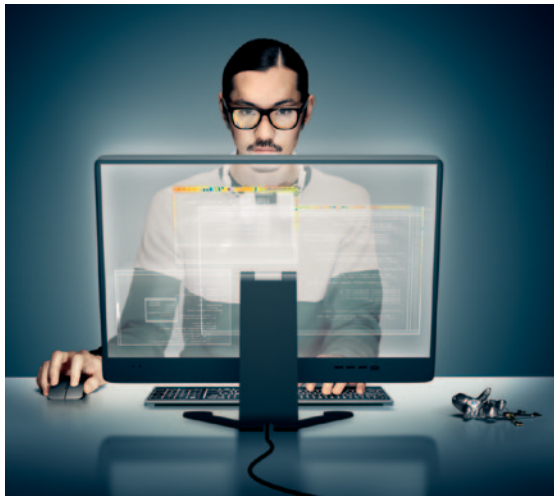
The 4th gen Intel Core processor family automatically connects to wireless hotspots. Your e-mail, social media, and apps are always updated thanks to Intel® Smart Connect Technology.[7] Finally, wirelessly stream your HD / 3-D video and games to your TV or projector for presentations and entertainment using Intel® Wireless Display Technology.[8]

2ND GENERATION INTEL® CORE™ PROCESSOR FAMILY IN THE LGA2011 SOCKET FEATURES

	INTEL® CORE™ i7 PROCESSOR (LGA2011)
Number of Processor Cores / Threads	6 / 12 or 4 / 8
Intel® Turbo Boost Technology[4] 2.0	Yes
Number of Memory Channels	4 (DDR3 1600 MHz)
PCI Express* Lanes	40
PCI Express 3.0	Yes
Unlocked[2,3] Core Multiplier	Yes (partial[9])
Intel® Hyper-Threading Technology[4]	Yes
Intel® Smart Cache	15 / 12 / 10 MB L3 shared
Built-in Visuals	N/A
AES New Instructions (AES-NI)	Yes
Intel® Advanced Vector Extensions (AVX)	Yes
Overclocking Enabled[2]	Yes
Intel® Virtualization Technology (Intel® VT-x)[4]	Yes
Recommended Intel® Chipset	X79

4TH GENERATION INTEL® CORE™ PROCESSOR FAMILY IN THE LGA1150 SOCKET FEATURES

	INTEL® CORE™ i7 PROCESSOR (LGA1150)	INTEL® CORE™ i5 PROCESSOR (LGA1150)
Number of Processor Cores / Threads	4 / 8	4 / 4
Intel® Turbo Boost Technology[4] 2.0	Yes	Yes
Number of Memory Channels	2 (DDR3 1333 / 1600 MHz)	2 (DDR3 1333 / 1600 MHz)
PCI Express* Lanes	16	16
Unlocked[2,3] Core Multiplier	Yes	Yes
Intel® Hyper-Threading Technology[4]	Yes	No
Intel® Smart Cache	8 MB L3 shared	6 MB L3 shared
AES New Instructions (AES-NI)	Yes	Yes
Intel® Advanced Vector Extensions (AVX)	Yes	Yes
Built-in Visuals	Yes	Yes
Intel® HD graphics 4600	Yes	Yes
Intel® Quick Sync Video	Yes	Yes
Intel® Wireless Display[8] (Intel® WiDi)	Yes	Yes
Overclocking Enabled[2]	Yes	Yes
PCI Express 3.0	Yes	Yes
Intel® Virtualization Technology (Intel® VT-x)[4]	Yes	Yes
Recommended Intel® Chipset	Z87	Z87



The Intel® Core™ processor family for enthusiasts delivers a great PC experience.

Intel® Core™ Desktop Processors

For more information on the 4th generation Intel® Core™ processor family, visit **www.intel.com**

FEATURES AND BENEFITS OF THE 4TH GENERATION INTEL® CORE™ PROCESSOR FAMILY

FEATURE	BENEFIT
Intel® Turbo Boost Technology[4] 2.0	Dynamically increases the processor's frequency as needed by taking advantage of thermal and power headroom when operating below specified limits.
Intel® Hyper-Threading Technology[4]	Delivers two processing threads per physical core. Highly threaded applications can get more work done in parallel, completing tasks sooner.
Built-In Visuals	**Intel® HD graphics**—Enhanced 3-D[1] performance for immersive mainstream and casual gaming. Can support up to three UltraHD* (4K) displays and collage display. **Intel® Wireless Display[8]**—Wirelessly stream HD / 3-D video and games to your TV or projector for presentations and entertainment. **Intel® Quick Sync Video**—Delivers fast conversion of video for portable media players, online sharing, and video editing and authoring. **Intel® Clear Video HD**—Visual quality and color fidelity enhancements for HD playback and immersive Web browsing. **Intel® InTru™ 3D[1]**—Stereoscopic 3-D Blu-ray* playback in full 1080p resolution over HDMI* 1.4 and premium audio. **Intel® Advanced Vector Extensions**—A set of new instructions to improve software performance for floating point-intensive applications such as audio processing, audio codecs, and image and video editing applications.
Integrated Memory Controller	An integrated memory controller offers stunning memory read/write performance through efficient prefetching algorithms, lower latency, and higher memory bandwidth.
Intel® Smart Cache	The shared cache is dynamically allocated to each processor core, based on workload. This significantly reduces latency, improving performance.
Intel® Virtualization Technology[4]	Allows one hardware platform to function as multiple "virtual" platforms. Offers improved manageability by limiting downtime and maintaining productivity by isolating computing activities into separate partitions.
Advanced Encryption Standard New Instructions	New AES instructions add hardware acceleration to AES algorithms and speeds up the execution of AES applications.
Thermal Solution for Boxed Processors	Includes a four-pin connector for fan speed control to help minimize the acoustic noise levels generated from running the fan at higher speeds for thermal performance.[10]

[1] 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.

[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.

[3] Intel® Core™ i7 and Intel® Core™ i5 processors designated by "K" in the processor number are unlocked for performance tuning.

[4] Intel® Turbo Boost Technology, Intel® Hyper-Threading Technology, and Intel® Virtualization Technology require a computer system with a processor, chipset, BIOS, enabling software and/or operating system, device drivers, and applications designed for these features. Performance will vary depending on your configuration. Contact your vendor for more information.

[5] Requires an Intel® Core™ processor, Intel® 6 Series Express Chipsets, Intel® Rapid Storage Technology (Intel® RST) software 10.5 or above, SATA HDD, SSD 18.6 GiB. Depending on system configuration, your results may vary. Contact your system manufacturer for more information. Intel® Smart Response Technology is not available on the Intel® Z75 Express Chipset.

[6] Intel® Rapid Start Technology requires a select Intel® processor, Intel® software and BIOS update, and Intel® Solid-State Drive (Intel® SSD). Depending on system configuration, your results may vary. Contact your system manufacturer for more information.

[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.

[8] Requires an Intel® Wireless Display enabled PC, compatible adapter, and TV. 1080p and Blu-Ray* or other protected content playback only available 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

[9] Partial overclocking: Partial overclocking is available on the four-core LGA2011 Intel® Core™ processor. Partial overclocking will allow you to adjust the core multiplier to a preset maximum.

[10] The acoustic benefits of the 4-pin header are reliant on a properly designed motherboard. Contact your board manufacturer for compatibility.