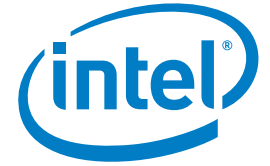
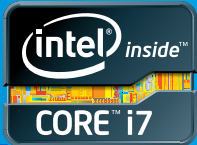


PRODUCT BRIEF

2nd Generation Intel® Core™ i7 Processor
Extreme Edition



Intel® Core™ i7 Processor Extreme Edition



Product Overview

The 2nd generation Intel® Core™ i7 processor Extreme Edition is super-smart, ultra-threaded, and absolutely uncompromising, making it the ultimate desktop processor for content creators and gamers.

The Ultimate Digital Creativity Engine

The 2nd generation Intel® Core™ i7 processor Extreme Edition is the perfect engine for power users who demand unparalleled performance for unlimited digital creativity. Smart features like Intel® Turbo Boost Technology 2.0¹ and Intel® Hyper-Threading Technology¹ give additional performance where and when you need it. As the first desktop platform to feature 4-channel memory, the Core i7-3960X processor has more than twice the memory bandwidth of the previous generation Core i7-990X³ processor. Experience the power you need to optimize your workflow and maximize throughput with the ultimate desktop processor.

Unleash the Ultimate Gaming Processor

Get the edge you need to dominate your gaming competition with the unlocked, unleashed, and uncompromising 2nd generation Intel Core i7 processor Extreme Edition. With a killer combination of features including Intel Turbo Boost Technology 2.0, Intel Hyper-Threading Technology, and over-clocking. The ultra-threaded 2nd generation Intel® Core™ i7 processor Extreme Edition is flexible and devastatingly powerful. It's the ultimate weapon for gamers who demand unmatched PC performance. The only thing holding your gaming domination back now is you.

Unrivalled Performance and Overclocking²

The new 2nd Generation Intel Core i7 processor Extreme Edition will give you the smoothest and most realistic desktop content creation and gaming experience. With Intel Hyper-Threading Technology

delivering unmatched 12-thread performance across six cores, the most memory channels available on any Intel desktop processor, and the largest cache size for super low latency and quick response times, these processors will perform when you need them to, in the applications that you need them in. Add in the ability to enable uncompromised 2 x 16 multi-card NVIDIA* SLI* and AMD CrossFireX* graphics configurations and you have a platform that is unrivaled.

If you are the type that wants to optimize performance on your system, the 2nd generation Intel Core i7 processors on socket LGA2011 are for you. With enhanced system tuning for processor cores, memory, and power levels, you will have the flexibility that allows you to attain extra performance 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 at all.

2nd Generation Intel® Core™ i7 Processor Comparison

	2nd Generation Intel® Core™ i7-3960X Processor Extreme Edition	2nd Generation Intel® Core™ i7-3930K Processor	2nd Generation Intel® Core™ i7-3820 Processor
Number of Processor Cores	6	6	4
Number of Simultaneous Threads with Intel® Hyper-Threading Technology ¹	12	12	8
Intel® Smart Cache Size	15 MB	12 MB	10 MB
Processor Base Frequency	3.3 GHz	3.2 GHz	3.6 GHz
Memory Frequency	1600 MHz	1600 MHz	1600 MHz
Intel® Turbo Boost Technology ¹	2.0	2.0	2.0
Number of DDR3 Memory Channels	4	4	4
Overclocking Enabled ²	YES	YES	YES ³
Intel® Express Chipset	X79	X79	X79
Socket	LGA2011	LGA2011	LGA2011



Features and Benefits of the 2nd Generation Intel® Core™ Processors

Features	Benefits
Six Core/12 Thread Processing ¹	Provides six complete execution cores in a single processor package, delivering 12 computing threads to help operating systems and applications deliver additional performance, so users can experience better multitasking and multi-threaded performance across many types of applications and workloads.
Massive PCIe Graphics Bandwidth	Provides up to 40 lanes of PCIe bandwidth for PCI Express* devices, which can include graphics cards, storage controllers, and additional LAN devices. This processor has more than 2X the PCIe lanes vs. other 2nd Generation Intel Core desktop processors.
Four Channel Integrated Memory Controller	An integrated memory controller with four channels of DDR3 1600 MHz offers memory bandwidth up to 51.2 GB/s. Combined with the processor's efficient prefetching algorithms, this memory controller's lower latency and higher memory bandwidth delivers amazing performance for data-intensive applications.
Intel® Hyper-Threading Technology ¹	Delivers two processing threads per physical core for a total of 12 threads for massive computational throughput, allowing highly threaded applications to get more work done faster.
Intel® Turbo Boost Technology 2.0 ¹	Dynamically increases the processor's frequency as needed by taking advantage of thermal and power headroom when operating below specified limits. Get more performance automatically, when you need it the most.
Intel® Smart Cache	This large last-level cache enables dynamic and efficient allocation of shared cache to all six cores to match the needs of various applications for ultra-efficient data storage and manipulation.
Intel AVX	Processor instructions that significantly improve floating point performance.
Intel HD Boost	Includes the full SSE4 instruction set, significantly improving a broad range of multimedia and compute-intensive applications. The 128-bit SSE instructions are issued at a throughput rate of one per clock cycle, allowing a new level of processing efficiency with SSE4-optimized applications.

¹ 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.

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 Partial Overclocking: Partial overclocking is available on the 4 core LGA 2011 processor. Partial overclocking will allow you to adjust the core multiplier to a preset maximum.

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

