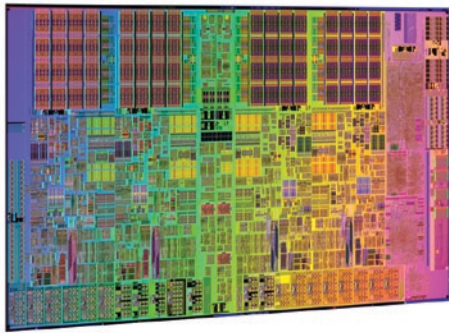


Intel® Core™ i7 Mobile Processor



Product Overview

Now available for laptops, the Intel® Core™ i7 mobile processor delivers unmatched technology for intelligent performance on the most demanding tasks, such as creating digital video and playing intense games.

The Intel® Core™ i7 Family of Laptop Processors—The World’s Best¹

Hardcore multitaskers rejoice. The Intel Core i7 mobile processor family delivers maximum processing performance in response to peak demands. You’ll fly through everything you do on your PC—from playing intense games to creating and editing digital video, music, and photos. With Intel® Turbo Boost Technology² and Intel® Hyper-Threading Technology,³ you get intelligent performance when you need it most.

Content creators are often frustrated with the wait time associated with processing a video. Today the waiting is over. Whether

you’re editing a video, composing a song, or playing a game, the Intel Core i7 mobile processor adapts to provide the right processing power for the task—wherever you are—giving you more time and flexibility. Whether you’re editing a video or updating your Facebook* status, the Intel Core i7 mobile processor will deliver the performance that matches your on-the-go needs.

The Intel® Core™ i7-800 mobile processor series and the Intel® Core™ i7-700 mobile processor series, in combination with the Intel® PM55 Express Chipset, offers best-in-class performance with two-channel DDR3 1333 MHz memory support and full 1 x16 or 2 x8 PCI Express* 2.0 graphics for the most demanding, compute-intensive environments.

Intel® Core™ i7-800 and i7-700 Mobile Processor Series

	INTEL® CORE™ i7-820QM MOBILE PROCESSOR	INTEL® CORE™ i7-720QM MOBILE PROCESSOR
Processor Frequency	1.73 GHz	1.60 GHz
Intel® Smart Cache	8 MB	6 MB
Intel® Turbo Boost Technology ²	Single-core performance up to 3.06 GHz	Single-core performance up to 2.80 GHz
Number of Simultaneous Threads	8 (with Intel® HT Technology ³)	8 (with Intel® HT Technology ³)
Processor Integrated Memory Controller	Yes	Yes
Number of Memory Channels	2 (DDR3 1333 MHz)	2 (DDR3 1333 MHz)
Intel® Express Chipset	PM55	PM55
Microsoft* Windows* 7 Ready	Yes	Yes

Intel® Core™ i7 Mobile Processor Features and Benefits

For more information on the Intel® Core™ i7 mobile processor, visit www.intel.com/products/processor/corei7/mobile/index.htm

Features and Benefits of the Intel® Core™ i7 Mobile Processor Family

Feature	Benefit
Quad-Core Processing	Provides four complete execution cores in a single processor package. Four dedicated physical cores help operating systems and applications deliver additional performance, so users can experience better multitasking and multithreaded performance across many types of applications and workloads.
Intel® Hyper-Threading Technology (Intel® HT Technology) ³	Delivers two processing threads per physical core for a total of eight threads for massive computational throughput. With Intel® HT Technology, highly threaded applications can get more work done in parallel, completing tasks sooner. With more threads available to the operating system, multitasking becomes even easier. This amazing processor can handle multiple applications working simultaneously, allowing you to do more with less wait time.
Intel® Turbo Boost Technology ²	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.
Up to 8 MB Intel® Smart Cache	This large last-level cache enables dynamic and efficient allocation of shared cache to all four cores to match the needs of various applications for ultra-efficient data storage and manipulation.
Integrated Memory Controller	An integrated memory controller offers stunning memory read/write performance through efficient prefetching algorithms, lower latency, and higher memory bandwidth making the Intel® Core™ i7 mobile processor family ideal for data-intensive applications.
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.



With faster, intelligent multi-core technology that dynamically accelerates performance to match your workload, the Intel® Core™ i7 mobile processor delivers an incredible breakthrough in mobile performance.

¹ As based on the overall features and Intel® technologies in the Intel® Core™ i7 processor family. Performance will vary depending on specific hardware and software used. See www.intel.com/products/processor/corei7 for more information.

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® Hyper-Threading Technology requires a computer system with a processor supporting Intel® HT technology and Intel 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 Intel HT Technology, see www.intel.com/info/hyperthreading. Intel, the Intel logo, Intel Core, and Core Inside are trademarks of Intel Corporation in the U.S. and other countries.

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

