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Intel Launches Fastest Processor on the Planet

Intel(R) Core(TM) i7 Processor Provides Performance on Demand, Adds 'Turbo Boost' and 'Hyper-Threading' Technologies

SANTA CLARA, Calif.--(BUSINESS WIRE)-- Intel Corporation introduced its most advanced desktop processor ever, the Intel(R) Core(TM) i7 processor. The Core i7 processor is the first member of a new family of Nehalem processor designs and is the most sophisticated ever built, with new technologies that boost performance on demand and maximize data throughput. The Core i7 processor speeds video editing, immersive games and other popular Internet and computer activities by up to 40 percent without increasing power consumption.

Broadly heralded by the computing industry as a technical marvel, the Intel(R) Core(TM) i7 processor holds a new world record of 117 for the SPECint_base_rate2006* benchmark test that measures the performance of a processor. This is the first time ever for any single processor to exceed a score of 100 points.

"Intel has delivered the fastest desktop processor on Earth to the most demanding users on Earth, the ones who are using their PCs for video, gaming and music," said Patrick Gelsinger, senior vice president and general manager of Intel's Digital Enterprise Group. "When you couple what is Intel's biggest leap in chip design with other incredible innovations like Intel's solid state drives, the Core i7 processor has redefined the computer of tomorrow."

Tech Web sites have been extremely positive in their product reviews. Anandtech states that "Core i7 continues to fuel Intel's beacon of performance." "The Core i7 is everything they promised it would be," says PC Perspective. "Nehalem is a masterpiece," says the Lost Circuits Web site. The Tech Report calls it "one of the most consequential shifts in the industry."

Intel's unique Turbo Boost Technology accelerates performance to match a computer user's needs and workloads. Through a sophisticated on-die power control unit and using new "power gate" transistors based on Intel's advanced 45 nanometer, high-k metal gate manufacturing process, Turbo Boost automatically adjusts the clock speed of one or more of the four individual processing cores for single- and multi-threaded applications to boost performance, without increasing power consumption. The Core i7 also has the latest Intel power-saving technologies, allowing desktops to go into sleep states formerly reserved for Intel-based notebooks.

The Core i7 processor more than doubles the memory bandwidth of previous Intel "Extreme" platforms, speeding the transfer of computer bits and bites in and out of the processor with Intel(R) Quickpath Technology. Designed with Intel's Hyper-Threading Technology, the

processor also allows multiple computing threads to run simultaneously, effectively enabling it to do two things at once. As a result, the Core i7 quad-core processor delivers 8-threaded performance.

The Intel Core i7 processor also offers unrivaled performance for immersive 3-D games - over 40 percent faster than previous Intel high-performance processors on both the 3DMark Vantage CPU* physics and AI tests, popular industry computer benchmarks that measure gaming performance. The Extreme Edition uses 8 threads to run games with advanced artificial intelligence and physics to make games act and feel real.

The Intel(R) Core(TM) i7 processors and Intel(R) X58 Express Chipset-based Intel(R) Desktop Board DX58SO Extreme Series are for sale immediately from several computer manufacturers online and in retail stores, as well as a boxed retail product via channel online sales.

The Core i7 processor is the first member of the Intel Nehalem microarchitecture family; server and mobile product versions will be in production later. Each Core i7 processor features an 8 MB level 3 cache and three channels of DDR3 1066 memory to deliver the best memory performance of any desktop platform. Intel's top performance processor, the Intel(R) Core(TM) i7 Extreme Edition, also removes overspeed protection, allowing Intel's knowledgeable customers or hobbyists to further increase the chip's speed.

Product Information and Pricing:

Processor	Clock Speed (GHz)	Price	QPI Speed (GT/sec)	Cache	Memory Speed Support	TDP	Processor Generation
Intel(R) Core (TM) i7-965 Extreme Edition	3.20	$999	6.4				
Intel(R) Core (TM) i7- 940	2.93	$562	4.8	8 MB	DDR3-1066	130W	New Intel(R) Core(TM) Microarchitecture (Nehalem) 45nm
Intel(R) Core (TM) i7- 920	2.66	$284	4.8				

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For more information about this benchmark go to: www.spec.org

Performance claims based comparing Intel(R) Core(TM) i7-965 processor Extreme Edition to the Intel(R) Core(TM)2 Extreme Edition processor QX9770. Actual performance may vary. See www.intel.com/performance/desktop/extreme/index.htm for more information.

Source: Intel Corporation