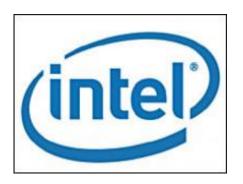# Intel Unveils 16 Next-Generation Processors, Including First Notebook Chips Built on 45nm Technology

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Intel Corporation unveiled 16 products today, including the company's first 45 nanometer (nm) processors for Intel Centrino Processor Technology based laptops.

All of these new chips include the company's new transistor formula and 45nm manufacturing process that boost a PC's speed, reduces power requirements, saves on battery life, helps the environment and comes in smaller packages for more fashionable and compact computer designs. With the introduction of the new processors, Intel will be offering a total of 32 desktop, laptop and server processors based on these industry-leading innovations.

The company also highlighted how it will take advantage of its transistor and manufacturing advances to spur a category of small form-factor, low-powered, high-performance devices that deliver broadband Internet access "in your pocket." The processors are up to 25 percent smaller than previous versions so computer makers can create sleek, new designs for consumers ranging from stylish all-in-one desktop PCs to smaller notebooks.

Among the 16 new products, 12 are designed for new laptops and desktops products and four are for servers. All are now lead-free and, starting this year, halogen-free, making the processors more eco-friendly.

"The new products we're announcing today provide consumers and businesses with the benefit of sleeker and higher-performing laptops and more powerful and fashionable PCs that deliver for the most hard-core gamer, high-definition enthusiast and just about every other consumer demand," said Mooly Eden, vice president and general manager, mobile platforms group, Intel. "And later this year, Intel will begin delivering the mobile Internet with much smaller, lighter and powerful Internet-enabled devices that ultimately will fit right into your pocket."

Intel Adds Mobile Processors to Line-up

Intel is shipping five new mobile processors, enabling breakthrough performance and improved battery life, providing consumers with the ability to be more productive or just enjoy their digital entertainment while on the go. Helping to extend battery life is also a new Intel Core microarchitecture design feature for advanced power management state called Deep Power Down Technology that reduces the power of the processor when it's not running data or instructions to the laptop.

The processors are the foundation for the company's popular Intel

Centrino technology for laptops, and deliver improved content and video capabilities with HD DVD and Blu-Ray support with an optional third-party decoder. Centrino-based notebooks also come with the Mobile Intel 965 Express Chipset and wireless networking including the optional support for 802.11n networks with Intel Next-Gen Wireless-N.

Intel has also added new video and graphics capabilities with Intel HD Boost that includes Intel Streaming SIMD Extensions 4 (SSE4) for speeding up workloads including video encoding for high-definition and photo manipulation.

Intel will also use this mobile technology foundation and energy-efficient performance to enable a variety of smaller, cooler and quieter, stylish desktop designs. These computers, including the increasingly popular "all-in-one" category, provide the performance to run a variety of digital media and the latest software simultaneously, as well as enhanced high-definition video and smoother playback using Intel Clear Video Technology.

More Mobility on Tap: in Your Pocket; Wireless WiMAX

Pushing the power of the full Internet "in your pocket," Intel's strategy for using low-power Intel Architecture platforms that drastically reduce CPU and chipset power, and package size continues to gain momentum. Intel plans to ship in the first half of this year its first-generation low-power platform chipset that will help deliver a range of ultra mobile and mobile Internet devices from a growing ecosystem of customers.

Intel also continues to work closely with carriers around the world to deploy mobile WiMAX networks. These networks will help deliver true high-speed mobile Internet experiences to a variety of digital devices

starting later this year.

Mainstream Desktop PCs Get 45nm Performance and Efficiency Boost

Building on its November 2007 introduction (the Intel Core 2 Extreme quad-core processor QX9650), Intel announced three quad core and four dual core 45nm-based processors for mainstream desktop PCs arriving later this month and throughout the first quarter of the year.

The new Intel Core 2 Quad and Intel Core 2 Duo processor offerings will speed the transition to Intel's newest processor line and multicore adoption, and are arriving at a time when digital and high-definition content, including photos, home videos, music, television shows and social networking, continues to grow exponentially.

Consumers will realize more performance at a variety of PC purchase prices as these processors feature a range of clock speeds, large L2 caches, and also come equipped with Intel HD Boost (SSE4 instructions). These 45nm processors are also a requirement for computer-makers carrying the Intel Core 2 Processor with Viiv technology brand, making it easier for consumers to select a great entertainment PC with Intel's most innovative technologies.

Dual core desktop processor-based PCs using these new processors begin shipping this month; quad core-based systems plan to arrive later this quarter.

The company also introduced four Intel Xeon processors for servers and workstations; they are expected to ship this quarter.

Source: Intel

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