

Intel® Core™ Duo Processor

Intel's first mobile-optimized processor

Two mobile-optimized execution cores

Parallel threads and multiple intense applications executed on dedicated resources delivering breakthrough performance and responsiveness

Intel® Smart Cache

Smarter and more efficient dual-core shared cache design enables enhanced performance and power savings

Intel® Dynamic Power Coordination

Efficient dual-core coordinated power savings while delivering increased performance

Intel® Digital Media Boost

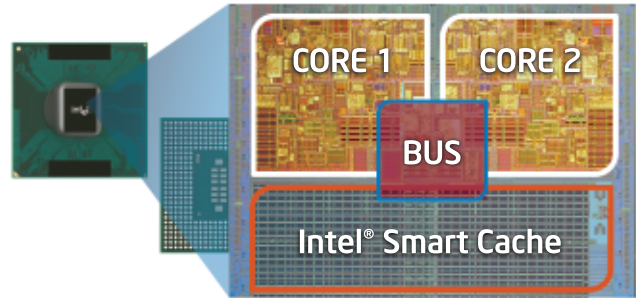
Enhanced multimedia and floating point performance

Enhanced Intel® Deeper Sleep

Optimized processor voltage with dynamic cache sizing enables enhanced power savings

Power-Optimized 667 MHz System Bus

Up to 20% higher performance compared to 533 MHz FSB



Intel® Advanced Thermal Manager

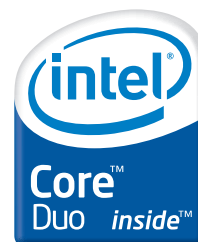
New Digital Temperature Sensing enables enhanced accuracy and precision with dual-core optimized thermal management

65nm foot print

Smaller transistors and improved transistor performance that enables more high performance logic in a given die size and package form factor

The dual-core generation: multitasking with greater responsiveness; more design-in potential; expanded on-the-go capability.

Feature	Intel® Pentium® M processor	Intel® Core™ Duo processor
Performance - Up to a 94% increase in platform mobile performance with dual-core processor ¹	<ul style="list-style-type: none"> Single-core mobile-optimized micro-architecture 2MB L2 cache Power-optimized 533 MHz front-side bus 90nm process technology 	<ul style="list-style-type: none"> Revolutionary mobile-optimized dual-core micro-architecture 2MB shared Intel Smart Cache Intel Digital Media Boost Power-optimized 667 MHz front-side bus Intel's new 65nm process technology
Power Management - Enhanced power savings to enable up to 2X dual-core performance at the same power	<ul style="list-style-type: none"> Enhanced Intel SpeedStep® Technology Intel Deep & Deeper Sleep 	<ul style="list-style-type: none"> Intel Dynamic Power Coordination Dynamic Cache Sizing Enhanced Intel Deeper Sleep Enhanced Intel SpeedStep Technology



Thrilling Leaps in Mobility.

Feature	Benefit
Breakthrough mobile performance	
Intel's first mobile-optimized processor	<ul style="list-style-type: none"> Two mobile-optimized execution cores in a single processor that enable parallel threads or applications to be executed on separate cores with dedicated CPU resources. Breakthrough performance and responsiveness to run multiple demanding applications simultaneously. Enhanced performance on multi-threaded applications.
Intel® Smart Cache	<ul style="list-style-type: none"> Shared 2MB Level-2 cache featuring Advanced Transfer Cache Architecture and system bus running between the two execution cores, delivering a more efficient cache and bus design enables enhanced dual-core performance and power savings. Dynamic cache allocation across both cores enhances performance and reduces cache under-utilization and misses. Efficient data sharing between both cores minimizes front-side bus traffic and reduces cache coherency complexity. Centralized Intel Smart Cache control logic enables power optimization and power savings.
667 MHz System Bus	<ul style="list-style-type: none"> Power-optimized 667 MHz system bus provides a data bus bandwidth of up to 5.33 GB/second.
Multimedia Experience	
Intel's first mobile-optimized processor	<ul style="list-style-type: none"> Enhanced performance and visual quality for high-definition digital entertainment.
Intel® Digital Media Boost	<ul style="list-style-type: none"> Micro-architectural enhancements that include instruction optimizations and performance enhancements for existing Streaming SIMD Extensions 2 (SSE2). 13 new SSE3 instructions for 3D graphics and other entertainment applications such as gaming. Floating point performance enhancements and a faster integer divide.
Enhanced Power Management	
Intel® Dynamic Power Coordination	<ul style="list-style-type: none"> Dual-core coordinated performance on demand with enhanced power management. Individual cores dynamically transition to certain low-power states and coordinate platform transitions between Deeper and Enhanced Deeper Sleep. Shared power management logic coordinates Enhanced Intel SpeedStep and power state transitions in hardware to efficiently manage voltage and frequency.
Enhanced Intel® Deeper Sleep	<ul style="list-style-type: none"> New power-saving mechanism that enables the Level-2 Intel Smart Cache to dynamically flush data to system memory based on demand or during periods of inactivity. Dynamic cache-sizing enables transition to a new power management state that allows the processor to lower its voltage below the Deeper Sleep minimum voltage to enable enhanced power savings.
Enhanced Intel SpeedStep® Technology	<ul style="list-style-type: none"> Dynamically adjusts processor voltage and frequency based on multiple performance modes, optimizing performance and power on the processor.

Intel® Centrino® Duo mobile technology featuring the Intel® Core™ Duo processor helps businesses be more responsive with breakthrough dual-core capabilities and enables consumers to enjoy a thrilling and immersive digital entertainment experience.

To learn more about the new mobile-optimized, Intel Core Duo processor, visit www.intel.com/products/processor.

Find out how you can create custom notebooks for custom performance needs at www.intel.com/go/channelnotebooks.

For the full spectrum of Intel Centrino Duo mobile technology performance and battery life details, visit www.intel.com/performance.

¹ Source: Intel Corporation. Performance tests and ratings are measured using specific computer systems and/or components and reflect the approximate performance of Intel products as measured by those tests. Any difference in system hardware or software design or configuration may affect actual performance. Buyers should consult other sources of information to evaluate the performance of systems or components they are considering purchasing. For more information on performance tests and on the performance of Intel products, visit <http://www.intel.com/performance/resources/limits.htm>.

+ System performance, battery life, high-definition quality and functionality, and wireless performance and functionality will vary depending on your specific operating system, hardware and software configurations. References to enhanced performance as measured by SysMark*2004, PCMark*2005 and 3DMark*2005 refer to comparisons with previous generation Intel® Centrino® mobile technology platforms. References to improved battery life as measured by MobileMark*2005, if applicable, refer to previous generation Intel Centrino mobile technology platforms. Wireless connectivity and some features may require you to purchase additional software, services or external hardware. Availability of public wireless LAN access points is limited, wireless functionality may vary by country and some hotspots may not support Linux-based Intel Centrino mobile technology systems. See http://www.intel.com/products/centrino/more_info for more information

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0106/EWD/WIR/PDF

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