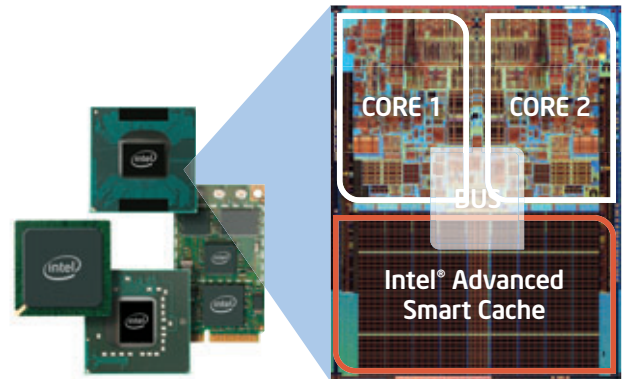


Intel® Centrino® Duo Processor Technology with Intel® Core™2 Duo Processor

More performance. More freedom. More bandwidth.

- Experience over 2X processor performance when doing computing-intensive tasks like multitasking compared to the previous generation of Intel® Centrino® processor technology-based laptops¹
- Enjoy a great Windows Vista* Home Premium experience and enhanced video quality with the Mobile Intel® GM965 Express Chipset featuring Mobile Intel® Graphics Media Accelerator X3100
- Look for systems with new Intel® Turbo Memory for up to 2X faster performance when loading frequently used applications and up to 20% faster boot time on Windows Vista³
- Now up to 5X faster wireless performance and up to 2X greater range than 802.11 a/g solutions with an Intel® Centrino® Duo processor technology-based notebook with optional Intel® Next-Gen Wireless-N and a wireless N home network⁴



Intel® Centrino® Duo processor technology

- Intel® Core™2 Duo processor
- Mobile Intel® 965 Express Chipset Family
- Intel® Next-Gen Wireless-N (Intel® Wireless WiFi Link 4965AGN) or Intel® PRO/Wireless 3945ABG Network Connection
- Intel® Turbo Memory (Optional)

Reinventing Performance, Redefining Efficiency.

Intel Centrino Duo processor technology featuring the new Intel® Core™2 Duo processor engine enables outstanding mobile dual-core performance while enabling improved battery life and enhanced wireless connectivity – all in a variety of laptop designs so you can choose the right one for you, your family or your business.

Discover more about Intel Centrino Duo processor technology with the Intel Core 2 Duo processor now at intel.com/products/centrino/duo/index.htm

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

Featuring the
Intel® Core™2 Duo
processor



Intel's Best Technologies for Notebooks

Feature	Benefit
Intel® Core™2 Duo Processor	
Revolutionary mobile, dual-core processor architecture puts two complete execution cores in the same processor.	Improved performance and responsiveness to run multiple demanding applications simultaneously with new power-saving features, enabling great battery life. ¹
Intel® Advanced Smart Cache	
A shared L2 cache allows both cores access to the full L2 memory area, and allows shared data to be accessed from cache, minimizing bus traffic. It also allows one core to use the entire cache when the other core is inactive. Provides twice the bandwidth to L1 caches compared to Intel® Core™ Duo processor.	Smarter and efficient cache design enables better performance, responsiveness, and power savings.
Intel® Advanced Digital Media Boost	
Improved SIMD streaming extensions, floating-point performance enhancements, and improved thread synchronization. Doubles the rate at which streaming media instructions can be executed.	Enables enhanced performance on floating-point-intensive applications as video editing, digital music, digital photography, and gaming.
Intel® 64 Architecture⁴	
Allows the user to take advantage of 64-bit applications as they become available. Process more in RAM, resulting in less data caching to and from HDD to enable greater performance.	Headroom for the user to take advantage of 64-bit applications such as rich photo-editing applications in the home as well as multi-media mobile entertainment applications as the ecosystem continues to grow.
Power-Optimized 800 MHz Front Side Bus	
Increased process system bus speed.	Provides increased data bus bandwidth, vs. prior generations, for up to 20% faster data transfer rate compared to 667 MHz to help meet the requirements of demanding applications.
Intel® FSB Frequency Switching	
At minimal workloads, Intel FSB Frequency Switching helps to lower FSB data transfer rate.	Enhanced Intel SpeedStep® technology directly benefits from Intel FSB Frequency switching because the reduced CPU frequency allows a lower operating voltage to be used in minimal workloads. This ultimately leads to lower power consumption.
Intel® Intelligent Power Capability	
Ultra fine-grained control over the CPU's logic circuitry to turn on only the parts that are needed.	Power management features that enable the same great battery life as Intel® Centrino® Duo processor technology with Intel Core Duo processor, while boosting performance up to 20%. ⁵
Intel® Dynamic Power Coordination	
Helps manage voltage and power consumption. One core can demand high performance while the other core can independently transition to a low-power state.	Enables reduction in power consumption and enables improved battery life. ⁶
Mobile Intel® GM965 Express Chipset featuring Mobile Intel® Graphics Media Accelerator X3100	
Next-generation graphics include software enhancements enabling	Windows Vista® Home Premium support with highest level of Windows Aero® improved performance and capabilities over previous generation. experience. New display settings and power management features minimize power consumption, enabling improved battery life. Up to 2X performance on graphics applications as measured by 3DMark®06 versus previous graphics engine. ⁷ Great game playability on many top game titles.
Intel® Clear Video Technology	
New video technology delivering enhanced video quality.	Provides outstanding video playback with sharper image quality, increased clarity, and customizable color controls.
Enhanced Support for a high-definition experience	
Support for digital interface with integrated audio and HDCP content protection ⁸ ; Acceleration for MPEG2 and WMV9B* playback.	Enhanced high-definition experience with improved HDTV connectivity and HDMI supporting up to 1080p and easy-to-use TV configuration utility, Intel® TV Wizard. Enhanced hardware acceleration for MPEG2 and WMV9B formats.

Intel's Best Technologies for Notebooks continued

Feature	Benefit
Intel® Turbo Memory (Optional)	
Flash Memory Technology supporting both Windows Vista* ReadyDrive and ReadyBoost functions for read and write information caching. Stores large amounts of frequently used information close to the processor to reduce system bottlenecks.	Look for systems with new Intel® Turbo Memory for up to 2X faster performance when loading frequently used applications and up to 20% faster boot time. ³
Intel® Next-Gen Wireless-N (Intel® Wireless WiFi Link 4965AGN)	
Up to 5X faster compared to 802.11a/g products with data rates up to 300 Mbps. ⁴ Support for legacy and latest high throughput WLAN technologies provides connectivity options for multiple environments.	Helps overcome network capacity issues, allowing increased simultaneous network activity for large file transfers, streaming HD video, multi-player gaming, VOIP and more.
Up to 2X⁴ greater range with MIMO and antenna diversity support	
MIMO technology leverages multipath behavior by using multiple, "smart" transmitters and receivers with an added "spatial" dimension to increase performance and range.	Reduces the number of "dead zones," dropped data packets, network re-connects, and dramatically improves connectivity throughout the home.
"Connect with Intel® Centrino™" Identifier	
Intel has certified access points from leading vendors, through extensive compatibility and real-world performance testing, to help ensure high throughput and seamless connectivity in Draft-N ⁶ mode.	Connect with confidence with a large selection of WLAN AP/router products that enable a great Draft-N ⁶ experience for Intel® Centrino® processor technology customers.
Great battery life⁷ with optimized power modes	
Reduced WLAN power consumption can help deliver great battery life. ⁷	Allows for greater utility, enjoyment, and convenience.
Intel® PRO/Wireless 3945ABG Network Connection	
Connects to most available industry-standards-based wireless LAN (802.11b, 802.11a, and 802.11g) infrastructures.	Flexibility to connect to your wireless home network and public wireless LAN hotspots located in airports, hotels, restaurants, and coffee shops around the world. ⁸

¹ As measured by SPEC®CPU2006 comparing latest generation Intel® Core™2 Duo Processor T7700 & T7100 with a comparable frequency single core Intel® Pentium® M Processor. Actual performance may vary. See <http://www.intel.com/performance/mobile/benchmarks.htm> for important additional information. SPEC, SPECint, SPECfp, SPECrate, SPECweb, SPECjbb are trademarks of the Standard Performance Evaluation Corporation. See: <http://www.spec.org> for more information on the benchmarks.

² As measured by 3DMark®06 comparing latest generation Intel® Centrino® processor technology-based notebooks including Intel integrated graphics with previous generations of Intel Centrino processor technology. Actual performance may vary. See <http://www.intel.com/performance/mobile/benchmarks.htm> for important additional information.

³ Tests run on customer reference boards and preproduction latest generation Intel® Centrino® processor technology with optional Intel® Turbo Memory enabled against like systems without Intel® Turbo Memory. Results may vary based on hardware, software and overall system configuration. All tests and ratings reflect the approximate performance of Intel products as measured by those tests. All testing was done on Microsoft Vista® Ultimate (build 6000). Application load and runtime acceleration depend on Vista's preference to pre-load those applications into the Microsoft ReadyBoost cache. See http://www.intel.com/performance/mobile/Intel_Turbo_Memory.htm for more information.

⁴ Up to 2x greater range and up to 5x better performance with optional Intel® Next-Gen Wireless N technology enabled by 2x3 Draft N implementations with 2 spatial streams. Actual results may vary based on your specific hardware, connection rate, site conditions, and software configurations. See <http://www.intel.com/performance/mobile/wireless/index.htm> for more information. Also requires a Connect with Intel® Centrino® processor technology certified wireless n access point. Wireless n access points without the Connect with Intel Centrino processor technology identifier may require additional firmware for increased performance results. Check with your PC and access point manufacturer for details.

⁵ As measured by SPEC® CPU2000* (SPECfp*_rate_base2000 and SPECint*_rate_base2000) comparing Intel® Core™ Duo Processor T2400 with Intel® Core™2 Duo Processor T5600. Actual performance may vary. See www.intel.com/performance/mobile/benchmarks.htm for important additional information.

⁶ "Draft-N" refers to: IEEE P802.11n/D1.0 Draft Amendment to STANDARD [FOR] Information Technology-Telecommunications and information exchange between systems-Local and Metropolitan networks-Specific requirements-Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications: Enhancements for Higher Throughput.

⁴64-bit computing on Intel architecture requires a computer system with a processor, chipset, BIOS, operating system, device drivers and applications enabled for Intel® 64 architecture. Processors will not operate (including 32-bit operation) without an Intel® 64 architecture-enabled BIOS. Performance will vary depending on your hardware and software configurations. Consult with your system vendor for more information.

⁵ System performance, battery life, power savings, high-definition quality, video playback and functionality, and wireless performance and functionality will vary depending on your specific operating system, hardware, chipset, connection rate, site conditions, and software configurations. References to enhanced performance refer to comparisons with previous generation Intel technologies. See <http://www.intel.com/products/centrino/index.htm> and <http://www.intel.com/performance/mobile/benchmarks.htm> for more information on performance, power savings and energy efficiency.

⁶ Some features and security solutions may not be supported by your PC's operating system and may require additional software and/or certain hardware as well as wireless LAN infrastructure support. Check with your PC manufacturer for details.

⁷ Wireless functionality may vary by country and some hotspots may not support Linux-based Intel® Centrino® processor technology systems. See www.intel.com/products/centrino/index.htm for more information.

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