








# 2<sup>nd</sup> Generation Intel® Core™ Processors for Business PCs

Small, medium, and large businesses have a variety of computing needs. Whether your goal is to improve security, cut costs, maximize data security, or improve worker productivity, the 2<sup>nd</sup> generation Intel® Core™ processor family is a visibly smarter way to power your business PCs.<sup>1</sup>

		ENTRY-LEVEL COMPUTING		SMART PERFORMANCE			SMART PERFORMANCE, IT INTELLIGENT	
		 Intel® Celeron® (Laptop)	 Intel® Pentium® (Desktop)	 Intel® Core™ i3	 Intel® Core™ i5	 Intel® Core™ i7	 Intel® Core™ i5 vPro™	 Intel® Core™ i7 vPro™
<b>Smart security and manageability</b>	Reduce maintenance costs with remote configuration, diagnosis, isolation, and repair of infected PCs, even if they are unresponsive <sup>2</sup>	○	○	○	○	○	●	●
	Hardware-based KVM Remote Control allows IT to remotely see what your users see through all states <sup>3</sup>	○	○	○	○	○	●	●
	Remote unlock of encrypted drives that require pre-boot authentication, and manage data security settings even when the PC is off <sup>2</sup>	○	○	○	○	○	●	●
	Hardware-assisted remote shutdown, wake-up, and update of PCs during off-hours—reduces energy costs and enables up to 56% faster time to patch saturation <sup>2,4</sup>	○	○	○	○	○	●	●
<b>Secure virtual environments for desktop virtualization</b>	Take advantage of hardware-assisted secure, virtual environments to centralize management of operating system and application images, and enable the use of local computing resources for a rich, end-user experience <sup>5</sup>	○	○	◐	◐	◐	●	●
<b>Responsive, adaptive performance</b>	Intel® Turbo Boost Technology 2.0 adapts performance when needed for more demanding tasks, and saves energy when additional performance is not needed <sup>6</sup>	○	○	○	●	●	●	●
	Hardware-based acceleration of encryption and decryption with Intel® AES-New Instructions <sup>7</sup>	○	○	○	●	●	●	●
	Built-in visuals provide superb visual performance and sharper images for multimedia applications, digital content creation, and collaboration <sup>8</sup>	○	○	●	●	●	●	●
	Multitask processing enables the PC to work on more tasks at the same time—resulting in enhanced multitasking when working among multiple office applications <sup>9</sup>	Up to 2-way	Up to 2-way	4-way	4-way	Up to 8-way	4-way	Up to 8-way
<b>Safe investment</b>	Plan PC qualification and deployment strategy with Intel® Stable Image Platform Program (Intel® SIPP) <sup>10</sup>	○	○	○	●	●	●	●
	Disable PCs at the hardware level in the event of loss or theft through optional Intel® Anti-Theft technology <sup>11</sup>	○	○	●	●	●	●	●
	Have the performance you need for Windows* 7 when your business is ready to migrate	◐	◐	●	●	●	●	●
	Help PCs meet ENERGY STAR* requirements <sup>12</sup>	●	●	●	●	●	●	●

○ Not applicable    ◐ Basic capability    ● Advanced capability

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Small, medium, and large businesses have a variety of computing needs. Whether your goal is to improve security, cut costs, maximize data security or improve worker productivity, the 2<sup>nd</sup> generation Intel® Core™ processor family is a visibly smarter way to power your business PCs.<sup>1</sup>



## More secure, manageable, responsive. That's visibly smart.

Business PCs powered by the 2<sup>nd</sup> generation Intel® Core™ vPro™ processor family provide both IT intelligence and smart performance, with hardware-assisted security, easier remote PC management, and greater user responsiveness and adaptability.<sup>1</sup> Intelligent, hardware-assisted security features help you quickly deploy security patches across PCs, remotely unlock encrypted drives, and manage data security settings, even when the PC is off<sup>2</sup>

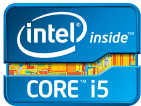


For users, 4-way or 8-way multitask processing allows them to move between business applications quickly and seamlessly.<sup>3</sup> They'll also enjoy better adaptive performance through Intel® Turbo Boost Technology 2.0, along with stunning built-in visuals, all from one processor.<sup>6,8</sup> See the benefits of IT intelligent security, remote manageability, and responsive performance.



## Get results and performance that you can see

The 2<sup>nd</sup> gen Intel Core processor family brings visibly smart performance to your business PCs. These processors help you increase productivity and user satisfaction with up to 2x faster multitask processing, and up to 60% faster processing for business productivity applications.<sup>1,3</sup> These processors deliver extra speed whenever you need it—via Intel Turbo Boost Technology 2.0—so PCs stay responsive for demanding tasks, but dial down energy usage when additional processor performance is not needed.<sup>6</sup>



The 2<sup>nd</sup> gen Intel Core processor family also features built-in graphics that offer superb visual performance for sharper images and richer color, without the added cost burden and power requirements of a dedicated graphics card.<sup>9</sup> With smart performance, built-in visuals, and adaptive energy efficiency, it's easy to see why the 2<sup>nd</sup> gen Intel Core processor family translates into visible benefits in the most important area of your business—the bottom line.



## Entry-level business computing

When you use an Intel® Pentium® processor-based desktop PC for business computing, you're making sure you have the proven reliability you need for your basic applications. For laptops, get entry-level business computing with an Intel® Celeron® processor. Ensure your value PC has Intel Inside.<sup>5</sup>

<sup>1</sup> Intel® vPro™ Technology is sophisticated and requires setup and activation. Availability of features and results will depend upon the setup and configuration of your hardware, software, and IT environment. To learn more visit <http://www.intel.com/technology/vpro>.

<sup>2</sup> Intel® Active Management Technology (Intel® AMT) requires activation and a system with a corporate network connection, an Intel® AMT-enabled chipset, network hardware, and software. For notebooks, Intel AMT may be unavailable or limited over a host OS-based VPN, when connecting wirelessly, on battery power, sleeping, hibernating or powered off. Results dependent upon hardware, setup and configuration. For more information, visit <http://www.intel.com/technology/platform-technology/intel-amt>.

<sup>3</sup> KVM Remote Control (Keyboard Video Mouse) is only available with Intel® Core™ i5 vPro™ processors and Core™ i7 vPro™ processors with active integrated graphics. Discrete graphics are not supported.

<sup>4</sup> Results shown are from: the 2007 EDS Case Studies "An Analysis of Early Testing of Intel® vPro™ Technology in Large IT Departments," by LeGrand and Salamack; third-party audit commissioned by Intel, of various enterprise IT environments; and the 2007 Benefits of Intel® vPro™ Technology in the Enterprise, Wipro Technologies study, commissioned by Intel. The EDS studies compare test environments of Intel® vPro™ Technology-based PC environments vs. non-Intel® Core™ vPro™ processor technology-based PC environments. Tested PCs were in multiple OS and power states to mirror a typical working environment. The Wipro study models projected ROI of deploying Intel® vPro™ Technology. Actual results may vary and may not be representative of the results that can be expected for smaller businesses. The study is available at [http://www.intel.com/Assets/PDF/casestudies/cs\\_edv\\_vpro.pdf](http://www.intel.com/Assets/PDF/casestudies/cs_edv_vpro.pdf).

<sup>5</sup> Intel® Virtualization Technology requires a computer system with an enabled Intel® processor, BIOS, virtual machine monitor (VMM). Functionality, performance or other benefits will vary depending on hardware and software configurations. Software applications may not be compatible with all operating systems. Consult your PC manufacturer. For more information, visit <http://www.intel.com/go/virtualization>.

<sup>6</sup> Requires a system with Intel® Turbo Boost Technology capability. Intel Turbo Boost Technology 2.0 is the next generation of Turbo Boost Technology and is only available on 2nd gen Intel Core processors. Consult your PC manufacturer. Performance varies depending on hardware, software and system configuration. For more information, visit <http://www.intel.com/technology/turboboost>.

<sup>7</sup> Intel® Advanced Encryption Standard-New Instructions (Intel® AES-NI) requires a computer system with an AES-NI enabled processor, as well as non-Intel software to execute the instructions in the correct sequence. For availability, consult your reseller or system manufacturer. For more information, see <http://software.intel.com/en-us/articles/intel-advanced-encryption-standard-instructions-aes-ni>.

<sup>8</sup> Available on the 2nd gen Intel® Core™ processor family. Includes Intel® HD Graphics, Intel® Quick Sync Video, Intel® Clear Video HD Technology, Intel® InTru™ 3D Technology, and Intel® Advanced Vector Extensions. Also optionally includes Intel® Wireless Display depending on whether enabled on a given system or not. Whether you will receive the benefits of built-in visuals depends upon the particular design of the PC you choose. Consult your PC manufacturer whether built-in visuals are enabled on your system. Learn more about built-in visuals at <http://www.intel.com/technology/visualtechnology/index.htm>.

<sup>9</sup> Requires an Intel® Hyper-Threading Technology enabled system, consult with your PC manufacturer. Performance will vary depending on the specific hardware and software used. Not available on all Intel® Core™ processors. For more information including details on which processors support Intel HT Technology, visit <http://www.intel.com/info/hyperthreading>.

<sup>10</sup> Check with your PC vendor for availability of computer systems that meet Intel SIPP guidelines. A stable image computer system is a standardized hardware configuration that IT departments can deploy into the enterprise for a set period of time, which is usually 12 months.

<sup>11</sup> Intel® Anti-Theft Technology (Intel® AT). No system can provide absolute security under all conditions. Requires an enabled chipset, BIOS, firmware and software and a subscription with a capable Service Provider. Consult your system manufacturer and Service Provider for availability and functionality. Intel assumes no liability for lost or stolen data and/or systems or any other damages resulting thereof. For more information, visit <http://www.intel.com/go/anti-theft>.

<sup>12</sup> ENERGY STAR is a system-level energy specification, defined by the Environmental Protection Agency, that relies on all system components, such as processor, chipset, power supply, etc.) For more information, visit <http://www.intel.com/technology/epa/index.htm>.

<sup>13</sup> Cross-client claim based on lowest performance data number when comparing desktop and mobile benchmarks. Configurations and performance test as follows:

Mobile: Comparing pre-production Intel® Core™ i5-2410M Processor (2C4T, 2.3GHz, 3MB cache), Intel Emerald Lake CRB, 4GB (2x2GB) PC3-10700 (DDR3-1333)-CL9, Hitachi Travelstar 320GB hard-disk drive, Intel® HD Graphics 3000, Driver: 2185 (BIOS:v.34, Intel v.9.2.0.1009), Microsoft Windows 7 Ultimate 64-bit RTM Intel® Core™ 2 Duo Processor T7250 (2M Cache, 2.00 GHz, 800 MHz FSB), Intel Silver Cascade Fab2 CRB, Micron® 4 GB (2x2GB) PC3-8500B (DDR3-1066)-400, Hitachi 320GB hard-disk drive, Mobile Intel 4 Series Express Chipset Family w/ 8.15.10.2182 (BIOS: American Megatrends AMIACRB1.86C.0104.B00.0907270557.9.1.2.1008).

Desktop: Pre-production Intel® Core™ i5-2400 Processor (4C4T, 3.1GHz, 6MB cache), Intel Los Lunas CRB, Micron® 4GB (2x2GB) PC3-10700 (DDR3-1333)-CL9, Seagate® 1 TB, Intel® HD Graphics 2000, Driver: 2185 (BIOS:v.35, Intel v.9.2.0.1009), Microsoft Windows 7 Ultimate 64-bit RTM Intel® Core™ 2 Duo E6550 (2C2T, 2.33GHz, 4MB cache), Intel DG945GCL Motherboard, Micron 2GB (2x1GB) DDR2 667MHz, Seagate 320 GB hard-disk drive, Intel® GMA 950, Driver: 7.14.10.1329, (BIOS:CL94510J.86A.0034, INF: 9.0.0.1011), Microsoft Windows 7 Ultimate 64-bit RTM.

Business productivity claims based on SYSmark™ 2007, which is the latest version of the mainstream office productivity and Internet content creation benchmark tool used to characterize the performance of the business client. SYSmark 2007 preview features user-driven workloads and usage models developed by application experts. Multitasking claims based on PCMark Vantage, a hardware performance benchmark for PCs running Windows 7 or Windows Vista, includes a collection of various single and multi-threaded CPU, Graphics, and HDD test sets with a focus on Windows' application tests. Security workload consists of SISoftware Sandra™ 2010 - AES256 CPU Cryptographic subtest measures CPU performance while executing AES (Advanced Encryption Standard) encryption and decryption algorithm. For more information go to <http://www.intel.com/performance>.

Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions.

Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products. Configurations: [describe config + what test used + who did testing]. For more information go to <http://www.intel.com/performance>.

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