3rd Generation Intel® Core™ Processor: Comparison Guide

Small, medium, and large businesses have a variety of computing needs. Whether your goal is to improve security, cut costs, maximize data protection, or improve worker productivity, the 3rd generation Intel® Core™ processor family is built for business and engineered for security.

		SMART PERFORMANCE			SMART PERFORMANCE, IT INTELLIGENT	
		Intel® Core™ i3	Intel® Core™ i5	Intel® Core™ i7	Intel® Core™ i5 vPro™	Intel® Core™ i7 vPro™
Embedded security and manageability	Reduce maintenance costs with remote configuration, diagnosis, isolation, and repair of infected PCs, even if they are unresponsive[1]	○	○	○	●	●
	Enhanced hardware-based KVM Remote Control allows IT to see client PC through all states[2]	○	○	○	●	●
	Remotely unlock encrypted drives requiring pre-boot authentication; manage data security settings even when PC is off[1]	○	○	○	●	●
	Hardware-assisted remote shutdown, wake-up, and update of PCs during off-hours reduce energy costs and enables up to 56% faster time to patch saturation[1,3]	○	○	○	●	●
	New industry-leading proactive security features for a safer business	●	●	●	●	●
Secure virtual environments for desktop virtualization	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[4]	◑	◑	◑	●	●
Responsive, adaptive performance for greater productivity	Intel® Turbo Boost Technology 2.0 adapts performance when needed for more demanding tasks, and saves energy when additional performance is not needed[5]	○	●	●	●	●
	Hardware-based acceleration of encryption and decryption with Intel® AES-New Instructions[6]	○	●	●	●	●
	Built-in visuals provide superb visual performance and sharper images for multimedia applications, digital content creation, and collaboration[7]	●	●	●	●	●
	Multitask processing enables the PC to work on more tasks at the same time—resulting in enhanced multitasking when working among multiple office applications[8]	4-way	4-way	Up to 8-way	4-way	Up to 8-way
	Instantly on. Always connected. Always updated. Responsiveness technologies help make users more productive, more often	●	●	●	●	●
Smart investment	Plan PC qualification and deployment strategy with Intel® Stable Image Platform Program (Intel® SIPP)[9]	○	●	●	●	●
	Automatically disable PCs at the hardware level in the event of loss or theft with Intel® Anti-Theft technology[10]	●	●	●	●	●
	Have the performance you need for Windows* 7 when your business is ready to migrate	●	●	●	●	●

○ Not applicable ◑ Basic capability ● Advanced capability

3rd Generation Intel® Core™ Processors for Business PCs

From the smallest to the largest companies, business PCs based on the 3rd generation Intel® Core™ processor family deliver the performance, security, and manageability features you need to help achieve your goals.

Built for Business. Engineered for Security.

The 3rd generation Intel® Core™ vPro™ processor comes with embedded security that delivers unprecedented protection for your clients and business data.[11,12] These distinctive built-in features are specially designed to address the key concerns of IT security management, from the threat of viruses and malware to secure access and data protection. You'll gain added protection against malware and rootkits in both virtual and physical environments with Intel® Trusted Execution Technology and Intel® Virtualization Technology.[13,4] By strengthening authentication and protecting passwords, Intel® Identity Protection Technology will help keep access points to your enterprise safer.[14] You can also provide seamless protection of important business data with Intel® Advanced Encryption Standard-New Instructions, which encrypts data up to four times faster—without slowing performance.[6,15] In addition, the Intel Core vPro processor family delivers responsive performance that will wake your clients in a flash and adapt to your users' needs, while providing a suite of manageability capabilities.[5,16] With the powerful combination of intelligent performance and built-in security, the only thing more amazing than an Intel Core vPro processor is what your users will do with it.

[1] 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.

[2] 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.

[3] 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 Salamasick; 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_eds_vpro.pdf .

[4] 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.

[5] 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.

[6] 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.

[7] Built-in visual features are not enabled on all PCs and optimized software may be required. Check with your system manufacturer. Learn more at http://www.intel.com/go/biv.

[8] Available on select Intel® Core™ processors. Requires an Intel® HT Technology enabled system. Consult your PC manufacturer. Performance will vary depending on the specific hardware and software used. For more information including details on which processors support HT Technology, visit http://www.intel.com/info/hyperthreading.

[9] 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.

[10] 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.

[11] Intel® vPro™ Technology is sophisticated and requires setup and configuration. Availability of features and results will depend upon the setup and configuration of your hardware, software and IT environment. To learn more about the breadth of security features, visit http://www.intel.com/technology/vpro/.

[12] No computer system can provide absolute security under all conditions. Built-in security features available on select Intel® Core™ processors may require additional software, hardware, services and/or an Internet connection. Results may vary depending upon configuration. Consult your PC manufacturer for more details.

[13] No computer system can provide absolute security under all conditions. Intel® Trusted Execution Technology (Intel® TXT) requires a computer with Intel® Virtualization Technology, an Intel TXT-enabled processor, chipset, BIOS, Authenticated Code Modules and an Intel TXT-compatible measured launched environment (MLE). Intel TXT also requires the system to contain a TPM v1.s. For more information, visit http://www.intel.com/technology/security

[14] No system can provide absolute security under all conditions. Requires an Intel® Identity Protection Technology-enabled system, including a 2nd or 3rd gen Intel® Core™ processor, enabled chipset, firmware, and software, and participating website. Consult your system manufacturer. Intel assumes no liability for lost or stolen data and/or systems or any resulting damages. For more information, visit http://ipt.intel.com <http://ipt.intel.com/> .

[15] 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.

[16] Requires a select Intel® processor, Intel® software and BIOS update, Intel® Solid-State Drive (SSD). Depending on system configuration, your results may vary. Contact your system manufacturer for more information.

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