



4th Generation Intel® Core™ Processor: Comparison Guide

Small, medium, and large businesses have a variety of computing needs. Whether your goal is to strengthen security, control costs, or improve worker productivity, the 4th generation Intel® Core™ processor family delivers remote manageability, enterprise-ready security, and smart performance that adapts to user needs.

		Responsive Performance			Embedded Security Features Responsive Performance	
		intel inside™ CORE i3	intel inside™ CORE i5	intel inside™ CORE i7	intel inside™ CORE i5 vPro™	intel inside™ CORE i7 vPro™
Strengthened Security & Advanced Manageability	Set up clients faster with Intel® Setup and Configuration Software, and work smarter with remote configuration, diagnosis, isolation, and repair of infected PCs, even if they are unresponsive. ^{1,2}	○	○	○	●	●
	Get behind the keyboard with hardware-based Enhanced KVM Remote Control so you can monitor the client PC through all states ³ without leaving your desk.	○	○	○	●	●
	Find resources fast, like conference rooms, lost PCs, and printers.	○	○	○	●	●
	Remotely unlock encrypted drives requiring pre-boot authentication; manage data security settings even when the PC is off. ^{1,2}	○	○	○	●	●
	Help keep corporate networks safe with two-factor authentication VPN, while simplifying VPN login without a dedicated password. ⁴	○	○	○	●	●
	Help protect data with fully encrypted, IT-manageable drives and increase productivity using Intel® Professional Series SSDs. ^{4,2}	○	○	○	●	●
	Help keep data safe with strengthened encryption from high-quality keys and protect sensitive data in case of lost or stolen PCs. ^{4,5}	●	●	●	●	●
Help protect virtual machines as they boot with hardware-based validation of boot process. ⁶	●	●	●	●	●	
Speed up virtual desktops	Enable users to enjoy a more responsive and secure experience on virtualized desktops. ^{2,7}	○	○	○	●	●
Responsive, adaptive performance for greater productivity	Accelerate meetings by securely sharing from your device to a conference room TV or projector with secure and manageable wireless networks, using Intel® Pro Wireless Display. ⁸	○	○	○	●	●
	Support big projects and Big Data with acceleration for multi-threaded software, like business intelligence and collaboration applications, using Intel® TSX-NI.	○	○	○	●	●
	Work faster with Intel® Turbo Boost Technology 2.0, which adapts performance when needed for more demanding tasks. ⁹	○	●	●	●	●
	Improve productivity with security using hardware-based acceleration of encryption and decryption with Intel® AES-New Instructions. ¹⁰	○	●	●	●	●
	Beauty and performance: built-in visuals provide superb visual performance and sharper images for multimedia applications, digital content creation, and collaboration. ^{11,12}	●	●	●	●	●
	Get more done with multitask processing, enabling the PC to work on more tasks at the same time when working among multiple office applications. ¹³	●	●	●	●	●
Instantly on. Always connected. Always updated. Responsiveness technologies help make users more productive, more often. ^{14,15}	●	●	●	●	●	
Smart investment	Plan PC qualification and deployment strategies with Intel® Stable Image Platform Program (Intel® SIPP). ¹⁶	○	●	●	●	●
	Have the performance and security ⁴ support you need for Windows 8* when your business is ready to migrate.	●	●	●	●	●

4th Generation Intel® Core™ vPro™ Processors for Business PCs

Embedded security. Built-in peace of mind.⁴



New Productivity Technologies

- Intel® Pro Wireless Display⁸ makes meetings more productive with easier data sharing and collaboration using conference room projectors and wireless displays.
- Intel® vPro™ Technology with Location-Based Services helps IT and business professionals easily find assets on campus, such as conference rooms, printers, and lost notebooks.
- Increased CPU performance and new features support more business platforms and innovative form factors, including All-in-Ones (AIOs), Ultrabook™ devices, notebooks, desktops, ultra-small platforms, and tablets, enabling a wide range of business clients that help keep users productive wherever they are.
- Intel® Virtual Machine Control Structure Shadowing helps improve user experiences with virtualized desktops.
- Intel® Transactional Synchronization Extensions-New Instructions (Intel® TSX-NI) help boost performance and scalability for business intelligence and Big Data applications.

New Hardware-Assisted Security Technologies

- Intel® Platform Protection Technology⁴ helps protect the BIOS, support Windows 8* secure boot and measured boot, helps protect against privilege escalation attacks.
- No-Password VPN Authentication⁴ using Intel® Identity Protection Technology with PKI¹⁷ simplifies user experiences logging into corporate networks by eliminating the need for a dedicated VPN password.

New Manageability for IT

- Enhanced KVM Remote Control³ now supports displays up to 2560x1600 resolution.
- The latest version of Intel® Setup and Configuration software offers additional support for configuring and managing business clients with Intel® Professional Series SSD self-encrypting drives.
- Intel® Professional Series SSDs allow IT to remotely configure, unlock, and re-image encrypted drives that make users more productive.

¹ Requires activation and a system with a corporate network connection, an Intel® AMT enabled chipset, and 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 www.intel.com/content/www/us/en/architecture-and-technology/intel-active-managementtechnology.html.

² 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 www.intel.com/technology/vpro.

³ Enhanced KVM Remote Control (Keyboard, Video, Mouse) is only available with Intel® Core™ i5 vPro™ and Core™ i7 vPro™ processors with Intel® Active Management technology activated and configured and with integrated graphics active. Discrete graphics are not supported.

⁴ 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 system manufacturer for more details. For more information visit www.intel.com/technology/security.

⁵ No system can provide absolute security. Requires an Intel® Secure Key enabled PC with a 3rd gen Intel® Core™ vPro™ processor and software optimized to support Intel Secure Key. Consult your system manufacturer for more information.

⁶ 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 www.intel.com/technology/security.

⁷ 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>.

⁸ (Intel® Wireless Display) Requires an Intel® Wireless Display-enabled PC, tablet, Smartphone, compatible adapter, and TV. 1080p and Blu-ray* or other protected content playback only available on select Intel® processors with built-in visuals enabled. Consult your PC manufacturer. For more information, see www.intel.com/go/widi.

⁹ Requires a system with Intel® Turbo Boost Technology. Intel Turbo Boost Technology and Intel Turbo Boost Technology 2.0 are only available on select Intel® processors. Consult your system manufacturer. Performance varies depending on hardware, software, and system configuration. For more information, visit www.intel.com/go/turbo.

¹⁰ 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. AES-NI is available on select Intel® Core™ processors. For availability, consult your system manufacturer. For more information, see <http://software.intel.com/en-us/articles/intel-advanced-encryption-standard-instructions-aes-ni/>

¹¹ Built-in visual features are not enabled on all PCs and optimized software may be required. Check with your system manufacturer. Learn more at www.intel.com/go/biv.

¹² 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>

¹³ Available on select Intel® Core™ processors requires an Intel® Hyper-Threading Technology-enabled system; consult with your PC manufacturer. Performance will vary depending on the specific hardware and software used. For more information, including details on which processors support Intel HT Technology, visit www.intel.com/info/hyperthreading

¹⁴ Requires a select Intel® processor, Intel® software and BIOS update, and Intel® Solid-State Drive (SSD). Depending on system configuration, your results may vary. Contact your system manufacturer for more information.

¹⁵ Intel® Smart Connect Technology requires a select Intel® processor, Intel® software and BIOS update, Intel® wireless adapter, and Internet connectivity. Solid state memory or drive equivalent may be required. Depending on system configuration, your results may vary. Contact your system manufacturer for more information.

¹⁶ 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. Intel SIPP is a client program only and does not apply to servers or Intel-based handhelds and/or handsets.

¹⁷ No system can provide absolute security under all conditions. Requires an Intel® Identity Protection Technology-enabled system, including a 2nd gen or higher 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>.

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