



News Fact Sheet

4th Generation Intel® Core™ Processor Family for Intelligent Systems

June 4, 2013 – The [4th generation Intel® Core™ processor family](#) features significant upgrades in graphics capabilities and improvements in compute performance and power consumption. These upgrades will help drive new opportunities for connected, managed and secure intelligent systems. This new technology platform is ideal for the design of high-performance, low-power intelligent systems for retail, industrial, media servers, medical and digital surveillance environments.

Amazing Graphics for Richer, Interactive Content

With improved 3-D graphics and media performance, the new integrated HD graphics in the 4th generation Intel Core processor platform will deliver outstanding HD media playback for highly visual retail and digital signage solutions. Without the need for a discrete graphics card, the built-in graphics features deliver smoother visual quality, improved ability to decode and transcode simultaneous video streams. Additionally, the new platform can also support up to three independent displays, enabling one system to drive multiple screens.

Advanced Extension Instruction Set for Faster Processing

The upgrade to the Intel® Advanced Vector Extensions (Intel® AVX) 2.0 instruction set delivers improved integer/matrix-based calculation abilities. For example, the faster calculations enable the rapid collection and interpretation of sound waves in an ultrasound machine and quick connectivity for delivery of the visible images to the radiologist for a timely diagnosis.

Intel AVX 2.0 also improves performance due to wider vectors, new extensible syntax and rich functionality. This results in better management of data and general purpose applications such as image, audio/video processing, scientific simulations, financial analytics and 3-D modeling and analysis.

Security and Manageability

The 4th generation Intel Core processor family also features the latest Intel security and management technology to enable faster data encryption for securing data in applications that range from top-secret process data in factory automation to medical records.

Intel® Advanced Encryption Standard New Instruction (Intel® AES-NI) for data encryption enable intelligent systems to quickly encrypt and decrypt data running over a range of applications and transactions. With Intel® Active Management (Intel® AMT), the OS can now

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be easily shut down remotely, thus expanding the overall manageability tools available to customers. This platform enables businesses to more easily activate, deploy and securely manage unattended systems, saving time and cost through a centralized IT administration.

Ultra Low Power Series (U-Series)

The lower-power 4th generation Intel Core processor will help drive more stylish and interactive point-of-sale solutions that have a smaller footprint and deliver new experiences through great performance while consuming less power compared to Intel's previous generation processors.

The 4th generation Intel Core processor family will feature a one-chip U-series processor with 15-watt thermal design power (TDP) packing higher performance processing into a smaller chip package. This enables device OEMs to design thinner, lighter and sleeker medical devices such as portable ultrasound equipment and patient monitors or wearable PCs for fire and police department employees. In industrial market segments, this also enables support for smaller form factors in compute intensive applications while helping equipment manufacturers address new environments and save factory floor space. This U-series also opens the door for lower-power and smaller form factor devices mobile industrial devices used for data acquisition, such as barcode scanners. The U-series processor will be available later this year.

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