

Processor for cell phone and PDA

A new family of processors based on Intel XScale technology can provide cell phones with full motion video conferencing capabilities and PDAs with DVD-quality video playback. The processors include a set of new technologies designed to meet the multimedia, low power and security requirements of advanced cell phones and wireless PDAs.

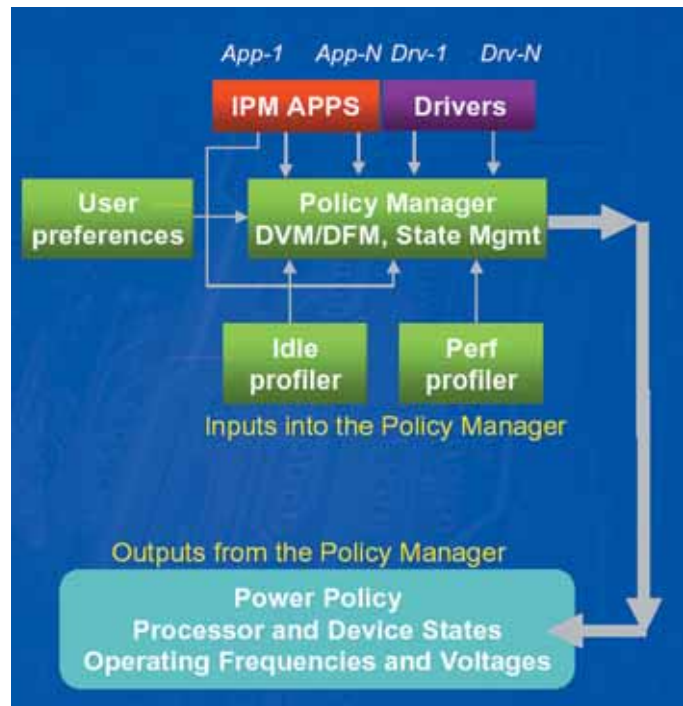
Intel is also providing key technologies in addition to processing power including the next-generation of stacked packaging for added flash memory, a new multimedia accelerator for 3D rendering, optimized software and reference concept designs that allow cell phone and PDA makers to bring mobile devices to market faster.

The Intel PXA27x family of processors, formerly code-named 'Bulverde', adds a number of new technologies to address the needs of cell phone and PDA users. It is the first product to integrate the Intel Wireless MMX technology, providing additional performance for 3-D games and advanced video while improving battery-life.

The chip uses Wireless Intel SpeedStep technology, providing power savings by intelligently managing voltage and frequency changes similar to the technology used in the company's notebook processors.

Also for the first time, Intel has integrated security features through its Intel Wireless Trusted Platform to provide services such as trusted boot, secure storage of private information and cryptographic keys, and support for common security protocols. To help increase camera phone capabilities and quality, Intel has also incorporated Intel Quick Capture technology to support cameras delivering up to four or more megapixels of image quality.

The Intel PXA27x processor family will be offered in multiple configurations of clock speeds running from 312 up to 624MHz, and with as much as 64Mbytes of stacked Intel StrataFlash memory.



Wireless Intel SpeedStep Power Manager technology

Also available and optimized to compliment the Intel PXA27x processor family, the Intel 2700G multimedia accelerator delivers advanced video and graphic capabilities to enable full screen video at full frame rates without sacrificing

battery life. The Intel 2700G multimedia accelerator delivers DVD-quality video playback on VGA displays and supports a wide range of video formats such as MPEG-2, MPEG-4 and Microsoft Windows Media Video9.

Intrinsyc Carbonado support

Intrinsyc's PDA Reference Design, Carbonado, was designed in collaboration with Intel, and is a flexible platform that is a starting point for next generation wireless handheld device. Its multimedia capability – full VGA support with video and 3D graphics acceleration – and connection options make it a solution to test proof-of-concept designs, or use as a development platform.

The schematics are available free of charge by contacting Intrinsyc. The four-inch display, driven by the Marathon multimedia accelerator uses a high-contrast 64K color 480x640 VGA TFT LCD with CCFL backlighting and a resistive touch screen.



Depending on the operating system, the display can be operated in landscape or portrait mode.

The Intel 2700G enables crisp graphics and the high resolution (up to SXVGA) dual display features enable business users to view two independent images simultaneously. This allows for a variety of business activities, such as video conferencing or running presentations directly from a PDA or other wireless device. For entertainment purposes, the Intel 2700G delivers an outstanding mobile gaming experience, giving users exciting, 3D content on their mobile device.

Intel is also providing a number of the key technologies and platforms. The Intel cell phone concept design provides customers and developers with an example of how to utilize many of the application and communications technologies needed to build an advanced smart phone with multi-operating system (OS) support.

The platform is the first design from Intel to support a number of wireless networks, or 'modes' including cellular GSM/GPRS, Wi-Fi (802.11b) and Bluetooth technologies. The phone platform supports operating systems from companies like Microsoft, Palm, Symbian as well as MontaVista Linux and Java environments.

Developed in conjunction with system integrator Intrinsyc, (see box) the handheld concept design uses Intel's processor along with the Intel 2700G multimedia accelerator and 64MB of Wireless Intel StrataFlash memory to bring new levels of performance and capabilities to PDAs.

Intel also developed the Intel Mobile Scaleable Link, a high-speed interface that helps speed the data delivery process from wireless networks to the processor. By moving data at speeds of up to 416Mbits/s, the technology results in more responsive applications and overall performance improvements. Intel is extending its flash and processor stacking technology to enable more memory and higher performance in less than half the space of typical memory packaging.