



Intel® PXA26x Processor Family

An ideal solution for the low-power, space-sensitive cellular phone and PDA market segment, the Intel® PXA26x processor family takes portable multimedia processing and integrated memory to breakthrough application performance levels and physical space savings. The Intel PXA26x processor family continues the promise of delivering leadership building blocks based on the Intel® Personal Internet Client Architecture (Intel® PCA) for the wireless handheld market segment.

While the Intel® PXA260 utilizes an identical footprint in a standalone discrete solution, the Intel® PXA261, PXA262 and PXA263 processors are the first Intel PCA processors based on Intel's Multiple-Chip Product (MCP) packaging technology. This innovative technology utilizes an Intel® XScale™ technology-based processor with integrated peripherals which are "stacked" in a single package with either 16 MegaBytes (Intel PXA261) or 32 MegaBytes (Intel® PXA262 and PXA263) of Intel StrataFlash® memory. This enables higher levels of integration and space savings than previous generations of Intel PCA processor standalone products.

Based on Intel XScale technology, the PXA26x processor family delivers high performance and low power, while providing processing capabilities that allow wireless handsets to respond quickly to performance-intensive applications like MPEG4 video decode, speech and handwriting recognition, and Java* interpretation. Featuring integrated peripherals, the Intel PXA26x processors offer phone and PDA designers expanded functionality, such as an integrated LCD controller with its own Direct Memory Access (DMA) as well as Multi-Media, Secure Digital and CompactFlash (MMC/SD/CF) card support for expandable memory and greater versatility.

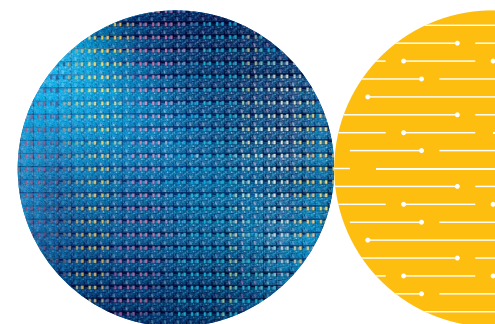


A variety of communication ports, including Universal Serial Bus (USB), Infrared (IrDA), I²S and AC'97 audio codec interfaces, high-speed Bluetooth** and Baseband interfaces, Universal Asynchronous Receive and Transmit (UART), and Synchronous Serial Port (SSP) enable fast synchronization and communication with other devices.

Manufactured using Intel's 0.18-micron process technology, the integrated Intel StrataFlash memory offers high value, performance and reliability, and remains the industry's lowest cost-per-bit NOR Flash memory solution featuring 2-bit-per-cell technology.

The Intel PXA26x processor family uses a small 13 x 13 x 1.4-mm package, reducing board space and placement costs. The Intel PXA261, PXA262 and PXA263 processors

Intel®
XScale™
Technology



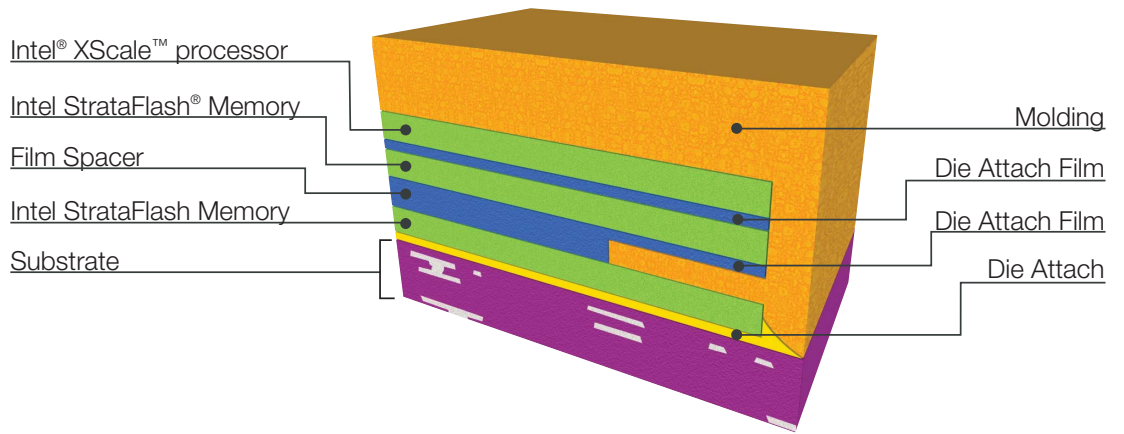
enhance this space savings by using one integrated component instead of multiple discrete Flash and processor components. The Intel PXA26x processor family also provides enhanced scalability within the same envelope, as all derivative configurations utilize the same package and same ball footprint, helping to eliminate the need to redesign a device's main Printed Circuit Board (PCB).

Complementing the Intel PXA26x processor family is a robust software and hardware development environment. Developers have access to a large library of ARM*-compliant applications and tools plus an abundant set of key wireless operating systems and tool chains, including real-time and interactive development systems. Developers can use these resources to build libraries of new feature-rich, industry-leading applications for Intel XScale technology-based products and helping to reduce overall time-to-market.

Finally, Intel delivers Intel® Integrated Performance Primitives (Intel® IPP) for Intel XScale technology-based processors that helps enable designers to develop applications that can be ported to run on any Intel® PCA processor and the Intel® Flash Data Integrator (Intel® FDI) for Intel StrataFlash Memory which helps designers enable handheld devices to handle the complex features and demands of Internet storage data. This combination allows highly optimized platforms for wireless handheld devices that incorporate all the benefits of Intel PCA.

Key Applications

- Data-enabled Cellular phones
- Smartphones
- Wireless Communicators
- PDAs



Intel® PXA262 and PXA263 Processor Cross Section

Feature	Benefit
Multi-Chip Product Packaging Technology	Helps reduce board size and placement costs by using one component instead of three discrete components
Small package	Features 13 x 13 x 1.4-mm package, 0.65 ball pitch, 294 balls
Scalability within same footprint	Reduces design cycles by allowing derivative configurations (from high end to entry level) in the same package and same ball footprint, helping eliminate the need to redesign PCB and allows pin-for-pin drop-in of alternate configurations
High-performance, low-power Intel® XScale™ core at 200, 300 and 400 MHz	Ideal for wireless devices that require low power and advanced application performance. ARM® v.5TE ISA compliant.
Micro-power management	Offers low-power modes and “Turbo mode” application to improve processing acceleration with efficient power consumption
Intel® Media Processing Technology	Helps optimize audio and video multimedia functionality through an integrated 40-bit accumulator
Enhanced Memory Controller	Supports low power 2.5V to 3.3V 32- and 16-bit memories as well as glue-less burst and page mode interfaces with synchronous Intel StrataFlash® memory
Storage Card support	Supports industry-standard expandable storage and I/O devices, including Multi-Media, Secure Digital and CompactFlash cards
USB Client	Fast host synchronization with USB host
Cellular baseband interface	Efficient communications integration with cellular baseband
920-Kbs Bluetooth** interface	Broad inter-device communication through industry-standard wireless link
Intel StrataFlash memory 16 MegaBytes or 32 MegaBytes K3	Utilizes reliable and proven two-bit-per-cell technology. High-performance and high-density Intel® Flash memory. Synchronous burst mode maximizes MIPS

Support Collateral

Item	Description	Order Number
Developer Manual	Intel® PXA26x Processor Family	278638
Design Guide	Intel® PXA26x Processor	278639
Datasheet	Intel® PXA26x Processor Family—Electrical, Mechanical and Thermal Specification	278640
Specification Update	Intel® PXA26x Processor	278641

Intel Access

Developer Web Site	developer.intel.com
Intel® PCA Processors Home Page	developer.intel.com/design/pca/applicationsprocessors
Intel® Technical Documentation Center	intel.com/go/techdoc 800 548-4725 7 am–7 pm CST (USA and Canada)
General Information Hotline	800 628-8686 or 916 356-3104 5 am–5 pm PST

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