TI's OMAP™ Platform Delivers a Comprehensive Mix of Processors, Software and Support for a Wide Range of Real-Time, Multimedia-Rich Products

Serving the Internet Age

As the technology industry moves into the Internet Age, hardware and software developers who are creating the next wave of exciting new products are searching for another level of real-time processing power combined with low power consumption and they are finding it in TI's OMAP™ platform. As they devise innovative ways to deliver the benefits of modern electronics to consumers and business users around the world, the high-performance, power-efficient processors, robust software infrastructure and comprehensive support embodied in TI's OMAP platform will provide the proven capabilities today that are needed for tomorrow's real-time centric, multimedia-enhanced devices.

New end products and software applications based on TI's OMAP platform will include connected systems in a variety of forms that provide data, voice, and engaging multimedia experiences anywhere and anytime. The OMAP platform is well suited for the diverse markets that are emerging, such as 2.5G and 3G wireless handsets and PDAs, web pads, telematics, gaming consoles, medical instrumentation, point-of-sale terminals and more.

Equipment manufacturers and software developers striving to offer products across many broad segments of today's marketplace will benefit from the OMAP platform's scalable processors, re-usable software and support that begins at the initial stages of development and continues through volume manufacturing. The broad adoption of the OMAP platform in the wireless industry demonstrates its adaptability for diverse market segments. Wireless equipment manufacturers like Nokia, Hewlett Packard, NEC, and Palm, as well as wireless design manufacturers like Sendo, HTC and Compal, have chosen the OMAP platform for products serving every segment of the wireless market, from low-end voice-centric handsets to high-end multimedia devices and wireless PDAs.

OMAP Processors

The OMAP family of processors, which include application processors and integrated baseband and application processors, deliver high-performance, real-time processing coupled with very low power consumption.

OMAP Processors for 2.5G and 3G Wireless Handsets and PDAs

Tailored to support the real-time processing needs of high-end, multimedia-rich wireless handsets and PDAs, the OMAP1510 device is a dual-core applications processor that consists of a TMS320C55x™ DSP plus a TI-enhanced ARM925 microprocessor.

The OMAP310 device, another application processor, features a TI-enhanced ARM925 microprocessor and a rich set of peripherals to support multimedia functionality in wireless handsets and PDAs.

Also targeted at wireless solutions, the OMAP710 device is a single chip that combines a TI DSP-based GSM/GPRS modem baseband subsystem and a TI-enhanced ARM925 microprocessor for real-time voice and multimedia applications. By including all of these capabilities on a single chip, the OMAP710 is the most integrated smartphone processor available.

The First OMAP Processor for the Broad Market

Extending the OMAP platform to support a broader range of markets such as telematics, web pads and industry-specific PDAs is the newest member of the OMAP family, the OMAP5910 device. Like the OMAP1510 solution, the OMAP5910 is a dual-core applications processor that consists of a C55x™ DSP plus a TI-enhanced ARM925 microprocessor.

OMAP™
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OMAP Software

Another aspect of the OMAP platform is software that allows developers to effectively harness the potential of the underlying processors. OMAP processors feature an open, easy-to-develop and comprehensive software infrastructure supporting the industry's most prevalent operating systems, including Linux, Microsoft® Windows™, Windows CE, Nucleus™, Palm OS®, Symbian OS™, VxWorks™, and other familiar development environments such as Java™. Software developers who want to optimize their applications to take advantage of the DSP in the dual-core OMAP1510 and OMAP5910 devices, can easily do so through familiar and easy-to-use tools and APIs.

From the OMAP Developer Network, a myriad of third-party applications are being developed, such as Beatnik's Wavetable Synthesizer for high-quality audio, a location-based mapping engine from ISMAP, Lockstream's digital rights management, text-to-speech technologies from Speechworks and many more. In addition, OMAP Developers are developing ready-to-implement software modules that provide core technology for functions like streaming media, security, voice recognition and others to software application developers. TI also offers software libraries with numerous algorithms, drivers and other software components, which reduce a new application's time-to-market.

OMAP Platform Support

TI's longstanding track record for comprehensive support programs speaks volumes about the critical role that support plays in quickly transforming technology into exciting new products. Time-to-market is of the essence and OMAP platform support programs like reference designs, development tools such as the Innovator™ Development Kit for the OMAP platform, training, technical documentation, an online knowledge base and interactive discussion groups all speed the development process and have been instrumental in quickly delivering product to market.

Additionally, TI's worldwide network of independent OMAP Technology Centers is available to provide manufacturers and developers with development support, systems integration and training for OMAP processor-based development. Each independent OMAP Technology Center provides top-notch facilities and a staff of experts who are available to support as much of the design process as is necessary, from the early stages of hardware design and layout, through software development and up to volume manufacturing.

Serving Diverse Segments

The diverse capabilities of the OMAP platform have facilitated its migration into widely different market segments. Beginning with its proven and expanding heritage in wireless communications, the versatility of OMAP processors, support and software is now being demonstrated in new market segments where this powerful blend of real-time processing prowess and low power consumption is needed.

For more information about TI's OMAP platform, please visit **www.omap.com.**

For more information about the OMAP Developer Network and a list of OMAP developers, please visit **www.ti.com/rd/omapdevelopers.**

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