

Applications processor delivers a 30 percent decrease in webpage load time

Texas Instruments today announced that the OMAP4440 applications processor enhancements deliver impressive performance improvements beyond the OMAP4430 processor, including a 1.25x increase in graphics performance, a 30 percent decrease in webpage load time, a 2x increase in 1080p video playback performance and clock speeds as fast as 1.5 GHz per ARM Cortex-A9 MPCore. These marked performance advantages, along with other feature enhancements, reaffirm the OMAP 4 platform's ability to drive today's most coveted Smartphone and tablet user experiences, such as 1080p stereoscopic 3D (S3D), 1080p video conferencing and gesture recognition. For OMAP4440 processor details, visit: www.ti.com/omap4440.

"The increased performance given by the OMAP4440 applications processor illustrates TI's ability to push mobile computing possibilities with the right processor architecture enveloped in the right platform," said Remi El-Ouazzane, vice president, OMAP platform business unit, TI. "We seized an opportunity to enhance the platform capabilities driving the OMAP4430 processor's success today. As OMAP4430 processor-based products hit the market in first half 2011, we're arming our customers with a huge performance boost via an easy migration to OMAP4440 processor for their next wave of exciting devices. The resulting user experiences will radically impact how consumers continue to integrate mobile technology into their daily lives."

OMAP4440 processor: Primed for upgraded mobile user experiences

The OMAP 4 platform is a highly-optimized system-on-chip (SOC) leveraging two ARM Cortex-A9 MPCore general-purpose processors, reaching speeds of 1.5 GHz per core, complemented by two ARM Cortex-M3 cores to power-efficiently offload time-critical and control tasks. High-performance multimedia capabilities are provided by programmable cores including a POWERVR™ 3D graphics engine, TI IVA 3 for high-definition/multi-standard video, TI image signal processor (ISP) for high-quality/high-megapixels imaging, TI low-power audio processor and TI digital signal processor (DSP) based on the TI C64x DSP for natural user interface and signal processing innovations optimized for mobile applications.

The OMAP 4 platform efficiently supports concurrent, high-performance processing and high-definition multimedia with dual, high-bandwidth memory channels. The platform is secured with TI M-Shield™ security, and delivers high performance within the small power budget of mobile devices by leveraging TI SmartReflex power and performance management technologies. As the second member of the OMAP 4 product family, the OMAP4440 processor's upgraded features and benefits include:

Applications processor delivers a 30 percent decrease in webpage load time

Published on Electronic Component News (<http://www.ecnmag.com>)

Feature*	Benefit
Two ARM® Cortex™-A9 MPCores™ optimized to 1.5 GHz each	50% increase in overall performance and 30% decrease in webpage load time
End-to-end graphics acceleration enhancement (triangles per second, fill rate and shaders)	25% increase in overall graphics performance
Support for HDMI v1.4 3D modes	Full 1080p HD S3D playback to 3D displays
1080p60 video format support	2x higher performance video playback
Support for up to two 12-megapixel cameras in parallel	Higher stereoscopic resolution enabling 3D mobile photography, which meets the same quality as desktop photography previously experienced only with 2x the resolution
IVA 3 multimedia hardware accelerator	Industry's highest quality video playback
Complete pin-to-pin hardware and software compatibility	Easy migration from the OMAP4430

*Comparative data is relative to the OMAP4430 processor's performance

The OMAP4440 processor is uniquely positioned to support the widely anticipated mobile video teleconferencing experience. For example, successful mobile video teleconferencing requires a few key components directly addressed by the following OMAP4440 processor features:

Mobile video teleconferencing component	OMAP4440 processor-enabled feature
High-quality mobile video conferencing	Improved video quality in low-light conditions and motion stabilization
Chat software (i.e., Skype or Google Talk)	Video codec support includes H.264 and more
Peer-to-peer (1 local user with one other user) chat functionality	1080p mobile video conferencing
Multi-chat (1 local user with up to 4 other users) functionality	720p resolution with stereo audio support
Cloud access for simultaneous application support (e.g., browsing the web while chatting or document sharing)	Optimized symmetric multiprocessing and hardware acceleration deliver low latency and high bandwidth

Applications processor delivers a 30 percent decrease in webpage load time

Published on Electronic Component News (<http://www.ecnmag.com>)

Availability and pricing

The OMAP4440 applications processor will sample in first quarter 2011, with production expected by the second half of 2011. These products are intended for high-volume wireless OEMs and ODMs and are not available through distributors.

Source URL (retrieved on 12/18/2014 - 2:05pm):

<http://www.ecnmag.com/products/2010/12/applications-processor-delivers-30-percent-decrease-webpage-load-time>