



NVIDIA Introduces Its First Integrated Tegra LTE Processor

Tegra 4i Delivers Highest Performance of Any Single-Chip Smartphone Processor

SANTA CLARA, Calif.—February 19, 2013— NVIDIA today introduced its first fully integrated 4G LTE mobile processor, the NVIDIA® [Tegra® 4i](#), which is significantly faster yet half the size of its nearest competitor.

Previously codenamed “Project Grey,” the Tegra 4i processor features 60 custom NVIDIA GPU cores; a quad-core CPU based on ARM’s newest and most efficient core— the R4 Cortex-A9 CPU— plus a fifth battery saver core; and a version of the [NVIDIA i500](#) LTE modem optimized for integration. The result: an extremely power efficient, compact, high-performance mobile processor that enables smartphone performance and capability previously available only in expensive super phones.

“NVIDIA is delivering for the first time a single, integrated processor that powers all the major functions of a smartphone,” said Phil Carmack, senior vice president of the Mobile business at NVIDIA. “Tegra 4i phones will provide amazing computing power, world-class phone capabilities, and exceptionally long battery life.”

Tegra 4i’s new 2.3 GHz CPU was jointly designed by NVIDIA and ARM, and is the most efficient, highest performance CPU core on the market.

“Tegra 4i is the very latest SoC solution based on the ARM Cortex-A9 processor and demonstrates the ability of ARM and our partners to continue to push the performance of technology and create exciting user experiences,” says Tom Cronk, executive vice president and general manager, processor division, ARM. “ARM and NVIDIA worked closely to further optimize the Cortex-A9 processor to drive performance and efficiency in areas such as

streaming and responsiveness. This is an example of the collaboration and innovation that enables ARM technology-based solutions to be market drivers through multiple generations of SoC solutions.”

Utilizing the same architecture as Tegra 4’s GPU, Tegra 4i features five times the number of GPU cores of Tegra 3 for high-quality, console-quality gaming experiences and full 1080p HD displays. It also integrates an optimized version of the NVIDIA i500 software-defined radio modem which provides LTE capabilities, and makes networking upgradability and scalability fast and easy.

“NVIDIA’s Tegra 4i appears to outperform the leading integrated LTE chip significantly, and also benefits from an integrated ‘soft-modem’ that can be re-programmed over-the-air to support new frequencies and air interfaces - something other modem vendors can only dream of,” said Stuart Robinson, director, Handset Component Technologies Program at Strategy Analytics.”

Tegra 4i mobile processor’s camera capabilities include the NVIDIA Chimera™ Computational Photography Architecture recently announced in [Tegra 4](#). This delivers many advanced features, including the world’s first always-on high dynamic range (HDR) capabilities, first tap to track functionality and first panoramic photos with HDR.

NVIDIA also introduced its “Phoenix” reference smartphone platform for the Tegra 4i processor to demonstrate its unique mobile technologies. Phoenix is a blueprint that phone makers can reference in designing and building future Tegra 4i smartphones to help get them to market quicker.

The Tegra 4i mobile processor will be demonstrated in the NVIDIA booth in Hall 7, Stand #C110, at the 2013 [Mobile World Congress](#) show in Barcelona, Spain, on Feb. 25-28.

As a recap, the Tegra 4 family includes:

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	Tegra 4	Tegra 4i
Quad-Core CPU	A15, plus battery saver core	R4 A9, plus battery saver core
Tegra 4 GPU Cores	72	60
LTE	Optional via NVIDIA i500	Integrated NVIDIA i500 core
Computational Photography Architecture	Yes	Yes

Useful Links

www.nvidia.com/tegra

www.tegrazone.com

Tags/Keywords

NVIDIA, Tegra, LTE, smartphone, mobile, tablet, quad core, gaming, GPU, CPU, GeForce, Chimera, ARM, HDR, TegraZone

About NVIDIA

NVIDIA (NASDAQ: NVDA) awakened the world to computer graphics when it invented the **GPU** in 1999. Today, its **processors** power a broad range of products from **smartphones** to **supercomputers**. NVIDIA's **mobile processors** are used in **cell phones**, **tablets** and **auto infotainment systems**. **PC gamers** rely on GPUs to enjoy spectacularly immersive worlds. Professionals use them to create **3D graphics** and visual effects in movies and to design everything from golf clubs to jumbo jets. And researchers utilize GPUs to advance the frontiers of science with **high performance computing**. The company has more than 5,000 patents issued, allowed or filed, including ones covering ideas essential to modern computing. For more information, see www.nvidia.com.

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manufacture, assemble, package and test our products; the impact of technological development and competition; development of new products and technologies or enhancements to our existing product and technologies; market acceptance of our products or our partners products; design, manufacturing or software defects; changes in consumer preferences or demands; changes in industry standards and interfaces; unexpected loss of performance of our products or technologies when integrated into systems; as well as other factors detailed from time to time in the reports NVIDIA files with the Securities and Exchange Commission, or SEC, including its Form 10-Q for the fiscal period ended October 28, 2012. Copies of reports filed with the SEC are posted on the company's website and are available from NVIDIA without charge. These forward-looking statements are not guarantees of future performance and speak only as of the date hereof, and, except as required by law, NVIDIA disclaims any obligation to update these forward-looking statements to reflect future events or circumstances.

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