

# A Phone That Lets You Watch 3D Without Glasses!

By Jan Howells, ARM

**K**orean company LG Electronics (LG) is hoping it can steal a march on its rivals and entice consumers by adding 3D capabilities to a phone, without the need for glasses.

The ARM® powered LG Optimus 3D handheld phone is the first of a number of 3D devices set to launch this year that will be competing for our attention – and a sale as 3D fever hits!



The big downer on 3D until now is the need to sport some rather ludicrous geeky glasses – but LG has come up with a smartphone that does without 3D glasses.

“Early adopters will undoubtedly be interested in this phone and we are expecting them to influence the masses,” Alex Windle, head of mobile marketing at LG explained to IQ Magazine. “However, we are not limiting our target audience to early adopters – anyone who wants to view, create and share 3D content with friends and family will be interest in the this device.”

The LG Optimus 3D is capable of capturing and playing 3D images. It features a 4.3 inch WVGA touch screen, offering 2D up to 1080p and 3D up to 720p and a 5MP dual-lens camera. It is powered by a 1 GHz dual-core, dual channel OMAP™ 4430 processor from Texas Instruments. TI’s OMAP™ 4 platform features a dual core ARM Cortex™-A9 MPCore™ SMP-based architecture and utilizes parallel processing for increased performance and reduced power consumption. It also features a PowerVR SGX540 graphics accelerator and runs Google’s Android.

“Unlike other dual-core smartphones that only have a single-channel and single-memory, LG Optimus 3D’s simultaneous dual-channel and dual-memory technology, with the TI OMAP 4, doubles the transfer rate between the memory controller and the RAM memory. This allows users to access web pages, browse the net, toggle through programs, and run applications quickly. Games and movies are as a result smoother,” Windle explained. “As well as being a 3D smartphone, the Optimus 3D is equally a very powerful and quick 2D smartphone.”

The LG Optimus, like the recently announced Nintendo 3DS, uses parallax barrier technology to create the notion of 3D. Basically a slim extra layer of material with tiny precision slits is placed on top of the display. Light projected onto the screen is split, allowing each eye to see a different set of pixels, creating a sense of three dimension. To get the full 3D effect users have to be sitting in a so-called ‘sweet spot,’ around 18-20 inches from the screen to get the full 3D effect. The downside is that if you move your head the illusion disappears.

LG have worked on making the Optimus 3D as intuitive as possible. Users can navigate through the smartphone’s 3D interface via a 3D hot key, which presents five 3D dedicated user interfaces, including gallery, camera, game and apps, YouTube 3D and 3D guide. Regular 2D features are accessible via a standard menu.

To help switch consumers on to 3D, LG has announced a partnership with YouTube to enable Optimus 3D footage to be uploaded to the Web. 3D content can be shared on 3D TVs and monitors via a HDMI connection or can be uploaded and streamed to YouTube’s dedicated 3D channel (youtube.com/3D). The LG Optimus also comes preloaded with three games: Asphalt 6: Adrenaline, Let’s Golf 2 and Near Orbit Vanguard Alliance (NOVA) from French games developer Gameloft, which specializes in downloadable content for consoles and smartphones.

“3D technology has traditionally been reserved for the major Hollywood movie studios,” said Francisco Varela, Head of YouTube Platform Partnerships in a statement. “With the new LG Optimus 3D, anyone anywhere in the world can shoot 3D videos, upload them to YouTube and share them with their friends. We’re excited to see the creative videos our community captures and shares with this new technology.”

LG is all too aware that content is key. “We will also be collaborating with Sky to showcase Sky 3D content in the future. Further partnerships in the movie, gaming and media space will be made in due time,” Windle told IQ Magazine.

The LG Optimus will be available second quarter 2011. The smartphone will initially be released with Android 2.2 and will be upgraded to Android 2.3 (Gingerbread). LG will announce an upgrade schedule for local markets over the coming months, Windle said.

LG has come up with answers to two hurdles that have traditionally hobbled 3D – glasses and limited mobility. Expect other smartphone manufacturers to follow its lead soon!

**END**

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