

PRESS RELEASE

PRESS RELEASEMarch 31, 2014 || Page 1 | 3

Fraunhofer Cingo adds Surround Sound to LG U+ Mobile Video Services

Erlangen, Germany, March 31, 2014 – The Fraunhofer Cingo mobile audio suite is now available to subscribers of the LG U+ ‘U-HDTV’ smartphone service. Subscribers can enjoy movies with immersive surround sound anywhere and anytime on their mobile devices with any pair of stereo headphones.

South Korea boasts the second highest smartphone penetration rate worldwide with 73 percent of the population owning a smartphone¹. The majority of those smartphone owners watch videos or TV episodes on their devices and expect audio quality to be on par with other types of media such as HDTV. The LG U+ mobile video service ‘U-HDTV’ now provides excellent audio quality delivered by the highly efficient AAC audio codec and Fraunhofer’s Cingo mobile audio suite. The service will be available for LG U+ subscribers on Android smartphones. All new smartphones from LG U+ will come with the Cingo-enhanced ‘U-HDTV’ app pre-installed.

Harald Popp, head of the Audio & Multimedia Business department at Fraunhofer IIS, says “With 14 million subscribers, LG U+ is one of the largest telecommunication companies in Korea, this adoption of Fraunhofer Cingo is especially important to us. Now LG U+ users can make the most of their mobile video content with excellent sound and enjoy a complete ‘cinema-on-the-go’ experience.”

“Our subscribers love to watch premium content on their mobile devices because we care about quality,” said LG U+, Contents Business Division, Head of Division, Joon-Dong Park. “Thanks to our collaboration with the world renowned audio experts at Fraunhofer and the integration of Cingo, our service now provides an excellent audio-visual experience at any location.”

Head of Corporate Communications

Thoralf Dietz | Phone +49 9131 776-1630 | thoralf.dietz@iis.fraunhofer.de | Fraunhofer Institute for Integrated Circuits IIS | Am Wolfsmantel 33 | 91058 Erlangen, Germany | www.iis.fraunhofer.de |

Marketing Communications Audio & Multimedia

Mandy Garcia | Phone +49 9131 776-6178 | mandy.garcia@iis.fraunhofer.de | Fraunhofer Institute for Integrated Circuits IIS | www.iis.fraunhofer.de

US Contact

Jan Nordmann | Phone +1 408 573 9900 | Cell +1 408 390 6698 | press@dmf.fraunhofer.org | Fraunhofer USA, Inc. | Digital Media Technologies* | 100 Century Center Court | Suite 504 | San José, California 95112 | www.dmf.fraunhofer.org

* Fraunhofer USA Digital Media Technologies, a division of Fraunhofer USA, Inc., promotes and supports the products of Fraunhofer IIS in the U.S.

¹ Source: Our Mobile Planet by Google

FRAUNHOFER INSTITUTE FOR INTEGRATED CIRCUITS IIS

Cingo dramatically improves the entertainment experience on mobile devices. It allows for a complete immersion into a film's sound when listening over headphones similar to the way multichannel audio systems achieve an immersive audio experience in theaters. Furthermore, Cingo delivers natural and clear sound even in the noisiest environments with better intelligibility of dialog or commentary in TV programs or movies.

PRESS RELEASEMarch 31, 2014 || Page 2 | 3

At the outset, users of the 'U-HDTV' service will enjoy enhanced stereo sound (better sound image and improved equalization) on live-TV, TV on-demand and movie content. In the coming months LGU+ will also add true 5.1 sound with the HE-AAC Multichannel audio codec.

HE-AAC was co-developed by Fraunhofer IIS and is today's most efficient high-quality surround and stereo audio codec. HE-AAC Multichannel is the native surround codec in all Android 4.1+ devices.

Cingo is available from Fraunhofer as a product-ready software implementation for mobile device manufacturers, chip set vendors and providers of multimedia services.

Fraunhofer IIS will demonstrate Cingo and HE-AAC on Google Nexus devices at NAB 2014 on stand SU6117.

For more information about Fraunhofer Cingo, please visit www.fraunhofer-cingo.com.

FRAUNHOFER INSTITUTE FOR INTEGRATED CIRCUITS IIS**About Cingo**

Fraunhofer Cingo creates an enhanced stereo and realistic surround sound impression when listening over stereo speakers or headphones. Based on the latest developments in audio technology, Fraunhofer Cingo contains a complete set of tools to deliver an exceptional level of audio quality, unmatched on mobile devices.

With the virtual surround sound mode each audio channel is presented as a virtual sound source in such a way that it is heard from a specific location and distance, for example a loudspeaker of a 5.1 surround setup in a living room. This enables the playback of stereo or surround sound over the built-in speakers or any type of headphones with an authentic surround effect.

The loudness optimization feature of Cingo delivers a natural and clear sound even in the most challenging situations. Together with the equalizing algorithm, which compensates for the common audio quality deficiencies often encountered with smartphones and tablets, Fraunhofer Cingo ensures significantly improved audio quality in any listening situation.

PRESS RELEASEMarch 31, 2014 || Page 3 | 3

About Fraunhofer

When it comes to innovative audio technologies for the rapidly evolving media world, Fraunhofer IIS stands alone. For more than 25 years, digital audio technology has been the principle focus of the Audio and Multimedia division of Fraunhofer Institute for Integrated Circuits (IIS). From the creation of mp3 and the co-development of the AAC to the future of audio entertainment for broadcast, Fraunhofer IIS brings innovations in sound to reality.

Today, technologies such as Fraunhofer Cingo for virtual surround sound, Fraunhofer Symphoria for automotive 3D audio, AAC-ELD for telephone calls with CD-like audio quality, and Dialogue Enhancement that allows television viewers to adjust dialogue volume to suit their personal preferences are among the division's most compelling new developments.

Fraunhofer IIS technologies enable more than 7 billion devices worldwide. The audio codec software and application-specific customizations are licensed to more than 1,000 companies. The division's mp3 and AAC audio codecs are now ubiquitous in mobile multimedia systems.

Fraunhofer IIS is based in Erlangen, Germany and is a division of Fraunhofer-Gesellschaft. With more than 23,000 employees worldwide, Fraunhofer-Gesellschaft is comprised of 67 institutes and research units making it Europe's largest research organization.

For more information, contact Mandy Garcia, mandy.garcia@iis.fraunhofer.de, or visit www.iis.fraunhofer.de/amm.