PRESS RELEASE

Fraunhofer Surround Sound Technology Selected for SK Broadband Mobile Video Services

Fraunhofer Cingo to be integrated into SK Telecom smartphones through "Btv mobile"

ERLANGEN, Germany (September 4, 2013) – Cingo, the latest innovation in audio technology from Fraunhofer IIS, is coming to SK Broadband, an affiliate of SK Telecom and South Korea's leading IPTV provider. SK Broadband's ubiquitous "Btv mobile" (Btv) live broadcast TV and video on demand service will now feature superior audio from the world renowned audio experts at Fraunhofer.

August 30, the Btv mobile app has become available for SKB's subscribers on smartphones. New SK Telecom smartphones (e.g. Samsung GalaxyS4, LG G2) will ship with the Cingo-enabled version of the app pre-installed. Existing users can download an app update that incorporates Cingo. All Btv content including live broadcast TV, movies, cable programming and new audio channels will benefit from the enhanced Cingo experience. Initially, users will enjoy enhanced stereo sound (better sound image and improved equalization), improved sound experience in noisy environments, and better intelligibility of dialogue or commentary in TV programs or movies.

"The adoption of Fraunhofer Cingo by a leading service provider in one of the world's largest smartphone markets demonstrates that, as video and display technologies improve, there is an increased demand for high-quality audio," Harald Popp, head of the Audio & Multimedia Business department at Fraunhofer IIS, stated.

Soon, Btv also will offer true 5.1 surround sound using the HE-AAC audio codec. Thanks to Cingo and the native support of HE-AAC Multichannel in all Android 4.1+ devices, the Btv mobile app is ready for playback of surround sound content via headphones or connection to a home theater system via an HDMI cable.

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"Our customers have come to expect the highest quality wherever they are, and the addition of Fraunhofer Cingo represents our commitment towards innovation and continuous improvement of the user experience. Cingo is a true turning point for us as it will again increase the customer satisfaction by creating an intriguing sense of realism," said Mr. Han-Su Kim, Head of Media Business Group at SK Broadband.

Cingo dramatically improves the entertainment experience on mobile devices. It allows for a complete immersion into a film's sound when listening over headphones or stereo speakers in a similar way that multichannel audio systems achieve in theaters. Furthermore, Cingo delivers natural and clear sound even in the noisiest environments.

The efficient delivery of surround sound to mobile devices is made possible by the High Efficiency AAC (HE-AAC) audio codec technology. HE-AAC was co-developed by Fraunhofer IIS and is today's most efficient high-quality surround and stereo audio codec. Android phones and tablets with Android 4.1 and later natively support HE-AAC Multichannel and in combination with Cingo, they become true entertainment centers while on the move or at home.

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 the Nexus 7 and Nexus 10 at IFA, hall 11.1, in Berlin, September 6 -11, and at IBC, booth 8.B80, in Amsterdam, September 13-17.

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

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.

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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.

Screenshot of the Btv mobile app featuring Fraunhofer Cingo. © SKB

About Fraunhofer
The Audio and Multimedia division of Fraunhofer Institute for Integrated Circuits IIS, based in Erlangen, Germany, has been working in compressed audio technology for more than 25 years and remains a leading innovator of technologies for cutting-edge multimedia systems. Fraunhofer IIS is universally credited with the development of mp3 and co-development of the AAC (Advanced Audio Coding) as well as technologies for the media world of tomorrow, including Fraunhofer Cingo for virtual surround, Fraunhofer Symphoria for automotive 3D audio, AAC-ELD for telephone calls with CD-like audio quality, and Dialog Enhancement to allow TV viewers to adjust dialog loudness as they desire.

Through the course of more than two decades, Fraunhofer IIS has licensed its audio codec software and application-specific customizations to at least 1,000 companies. Fraunhofer estimates that it has enabled more than 6 billion commercial products worldwide using its mp3, AAC and other media technologies.

The Fraunhofer IIS organization is part of Fraunhofer-Gesellschaft, based in Munich, Germany. Fraunhofer-Gesellschaft is Europe's largest applied research organization and is partly funded by the German government. With 22,000 employees worldwide, Fraunhofer-Gesellschaft is composed of 66 Institutes conducting research in a broad range of research areas.

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