

# Press Release

Erlangen  
February 2, 2010

## Fraunhofer demonstrates the world's first CD quality mobile phone calls

At the Mobile World Congress show, Fraunhofer IIS demonstrates mobile phone calls in stereo CD quality over a 4G cellular network. For the first time, telephone conversations sound as clear and natural as if talking to someone in the same room.

Fraunhofer, a 20-year innovator in audio coding and inventor of mp3 as well as co-developer of AAC, brings its leading-edge digital audio technology to the communications world. At the Mobile World Congress in Barcelona, the Fraunhofer Institute for Integrated Circuits introduces the Fraunhofer Audio Communication Engine for LTE-A (Long Term Evolution) 4th Generation cellular networks. This package of audio technologies allows for a new communication experience: Mobile subscribers can all but forget about distance, as voices sound as clear and natural as if talking to someone in the same room. In addition, rich media content such as music and sounds will be reproduced at their original quality as well.

With this technology, Fraunhofer enables 4G network operators to provide a dramatically improved, highly differentiated communications experience compared to current network technologies: Conference calls will be easy to follow and much less exhausting, phone calls in noisy environments will be easier to understand, and being on hold will sound as if listening to a concert on an mp3 player.

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Visitors to the Mobile World Congress can experience this new dimension in communication at the Fraunhofer booth E41 in hall 2. An office setting will be connected to a car mock-up using, using an LTE-A demonstration network provided by Fraunhofer HHI, and the Fraunhofer Audio Communication Engine.

The Fraunhofer Audio Communication Engine combines several elements that may be incorporated in future 4G handsets to ensure highest possible communication quality. First, the specifically designed MPEG audio communications codec "AAC Enhanced Low Delay" ensures CD quality audio at very low coding delays and bit rates. Second, robust, multi-channel echo control software reliably removes echoes, providing hands-free convenience and complete freedom to move around in a room. Finally, a specially matched IP streaming stack and error concealment tools allow for high-quality audio even under adverse network conditions.

For more information on the Fraunhofer Audio Communication Engine please visit [www.iis.fraunhofer.de/amm](http://www.iis.fraunhofer.de/amm) or watch this video: <http://www.youtube.com/watch?v=R1DLw9aDQJg> (or <http://bit.ly/8EmqjK> )

#### About Fraunhofer IIS

The Fraunhofer IIS Audio and Multimedia division, based in Erlangen, Germany, has been working in compressed audio technology for more than 20 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 AAC (Advanced Audio Coding) as well as technologies for the media world of tomorrow, including MPEG Surround, MPEG Spatial Audio Object Coding and the Fraunhofer Audio Communication Engine.

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.

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Fraunhofer estimates that it has enabled more than 1 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 17,000 employees worldwide, Fraunhofer-Gesellschaft is composed of 59 Institutes conducting research in a broad range of research areas. For more information, contact Matthias Rose, [matthias.rose@iis.fraunhofer.de](mailto:matthias.rose@iis.fraunhofer.de), or visit [www.iis.fraunhofer.de/amm](http://www.iis.fraunhofer.de/amm).

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