

# Press Release

Erlangen/Barcelona  
February 14, 2011

Visit us at Mobile World Congress 2011  
from February 14 – 17  
Hall 2, Booth 2E41

**Fraunhofer Institute for  
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\* Fraunhofer USA Digital Media Technologies,  
a division of Fraunhofer USA, Inc., promotes  
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in the U.S.

## Mobile Phone Conversation in Highest Quality: **Fraunhofer Presents First True HD Com- munication over 4G Networks to Elim- inate Distance Barriers in Communication**

Fraunhofer's HD audio and video communication technologies enable a  
"same-room" experience over next-generation networks

Fraunhofer IIS, the world's renowned source of audio and multimedia technologies, is presenting HD communication over an LTE-A (Long Term Evolution Advanced) 4G cellular network, featuring low delay, CD quality audio and HD video at Mobile World Congress 2011. Fraunhofer's technology allows users to experience completely natural mobile phone conversation, just as if the participants were sitting in the same room.

Fraunhofer's solutions for high quality HD communication over LTE includes its Audio Communication Engine, which combines several components to vastly improve the sound quality and clarity of phone calls. This audio package includes high-quality, low-delay audio codecs, robust acoustic echo control and a low delay IP streaming system. Fraunhofer also shows its matching low delay video solution. This combination of technologies delivers the highest audio and video quality along with imperceptible latency, enabling 4G network operators to provide a dramatically improved communications experience compared to current network technologies.

"As next generation networks roll out, Fraunhofer provides a next generation communication experience by combining its Audio Communication Engine with low delay video technology," said Harald Popp at Fraunhofer IIS. "With consumers'

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increasing demand for HD quality, Fraunhofer is meeting expectations by delivering a new communication experience to mobile subscribers allowing them to forget about distance, as voices sound as clear and natural as if talking to someone in the same room.”

Fraunhofer’s low delay video technology consists of high-quality video encoding and decoding based on H.264. This enables HD video at 4G compatible bit-rates.

Fraunhofer’s Audio Communication Engine includes the MPEG audio communication codec “AAC Enhanced Low Delay” to ensure CD quality audio at very low coding delays and bit rates. In addition, 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.

Fraunhofer will demonstrate its HD communication technologies for CD-quality phone calls over a LTE-A network at the Fraunhofer IIS booth 2E41 in Hall 2 at Mobile World Congress 2011.

For more information, visit [www.iis.fraunhofer.de/amm](http://www.iis.fraunhofer.de/amm)

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## **About Fraunhofer IIS**

Fraunhofer IIS, based in Erlangen, Germany, has been working in compressed audio and digital broadcasting technology for more than 20 years and remains a leading innovator of technologies for cutting-edge multimedia systems. Fraunhofer IIS is

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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 and data services like Journaline. In addition Fraunhofer IIS is active in the area of standardization, overall broadcast system design, receiver core development, and OEM broadcast server equipment. The technologies developed at Fraunhofer IIS have established themselves globally in satellite-based and terrestrial broadcasting systems, such as Digital Radio Mondiale DRM, DAB Digital Radio, Digital Video Broadcasting DVB, WorldSpace and Sirius XM Radio.

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 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 nearly 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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