

FRAUNHOFER-INSTITUT FOR INTEGREATED CIRCUITS IIS

PRESS RELEASE

Revolutionizing Everyday Communications with AAC-ELD

From streaming a favorite TV show on Netflix to listening to music on Pandora, mobile phones have become the Swiss Army knives for enhancing multimedia experiences. However, despite all the advancements in mobile technologies, the audio quality of phone calls has remained stagnant over the last century. It is time for our everyday communications to catch up with the 21st century. At Mobile World Congress, Fraunhofer IIS, the inventor of mp3 and co-developer of AAC, presents audio technologies that significantly improve the communication experience for every type of communication device. Recently, this improved communication technology has been integrated in the popular Android operating system. Fraunhofer IIS now publishes an application bulletin explaining how to boost the audio quality of any Android-based telephony application.

Up to now, whether it's a basic phone call or a VoIP conversation, calls can sound muffled and be difficult to follow, especially in noisy environments, when listening to someone with soft or whispered speech, or following conversations with someone who has an accent. This is because most of today's communication systems employ technologies that are only capable of transmitting speech in an acceptable quality. Any other type of signal, such as background noise or music, is typically heavily distorted.

Full-HD Voice for highest possible audio quality

Fraunhofer solves this problem with the Enhanced Low Delay AAC (AAC-ELD) communication codec that enables telephone conversations with highest possible audio quality. AAC-ELD is based on the AAC music codec, which is widely used for online music distribution, such as Apple iTunes. Optimized for applications in communication systems, AAC-ELD combines the high-end audio quality of AAC with the low coding delay necessary for a natural conversation. The result is CD-like audio that delivers unrivaled communication experiences and elevates the audio quality of phone calls to the same level as other digital media experiences. This new level of audio quality in telephony is referred to as Full-HD Voice.

The technical superiority of the AAC-ELD codec has made it the preferred choice for premium audio quality in communication systems, such as Apple FaceTime and professional video conferencing systems.

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Editorial Notes



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Fraunhofer publishes Full-HD Voice application bulletin

AAC-ELD is also the first Full-HD Voice codec natively included in Android. To make it readily available for VoIP communications, Fraunhofer has published its AAC-ELD Application Bulletin that outlines how software programmers can use AAC-ELD to deliver Full-HD Voice to Android devices. The document includes specific instructions on how developers can integrate AAC-ELD into their Android IP-communications applications for improved voice quality using Java APIs. The guide is available at no cost on the Fraunhofer FDK for Android website, www.iis.fraunhofer.de/fdk.

Fraunhofer is demonstrating Full-HD Voice technology enabled by AAC-ELD at Mobile World Congress, hall 7, stand 7D60, February, 25–28, 2013.

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About Fraunhofer

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 60 Institutes conducting research in a broad range of research areas.

For further information

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

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 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. Fraunhofer estimates that it has enabled more than 5 billion commercial products worldwide using its mp3, AAC and other media technologies.