

FRAUNHOFER INSTITUTE FOR INTEGRATED CIRCUITS IIS

## EXCELLENCE IN AUDIO AND MEDIA ENGINEERING

**Audio and Media Technologies by Fraunhofer IIS** 



#### Communications

We watch HD video with high quality sound on our smartphones, but the quality of phone calls has not improved over the last 100 years. With AAC communications codecs or the 3GPP codec EVS, phone conversations finally sound like talking to someone in the same room.

#### Moving picture production

Production and post-production tools by Fraunhofer IIS such as the easyDCP software suite rank first among solutions for authoring, play-back and validation of Digital Cinema Packages DCPs and Interoperable Master Format IMF packages. Developments for light-field enable the processing of multi-camera data and application of VFX for live-action content as known from CGI.

#### **Automotive**

A new sense of dimensionality and the crisp, natural sound delivered by Fraunhofer Symphoria® turn cars into concert halls.



#### **Broadcast and Streaming**

From radio and TV to music streaming and virtual reality: The AAC codec family and MPEG-H Audio ensure a smooth and efficient transmission of sound and music to the audience. For professional broadcast systems, lightweight image codecs such as Lici® adapt data streams for high resolution images to the available infrastructure and bandwidth.

#### **Digital radio**

Digital radio solutions by Fraunhofer IIS are used worldwide in radio transmission systems and to enhance the radio experience of end users with services such as Journaline or EWF (Emergency Warning Function).

#### Mobile entertainment and VR

Fraunhofer audio technologies such as Cingo® deliver the best immersive sound experience to mobile devices. Their stunning level of realism creates the experience of "being there", thus bringing true audio immersion, for example to VR devices and applications.



#### Without audio and media technologies developed by Fraunhofer IIS, today's media world would be silent and dark:

- Fraunhofer IIS is known as the principal inventor of mp3 and AAC, the audio codecs powering audio delivery in broadcast, streaming and multimedia systems around the globe.
- Fraunhofer audio technologies enable over 8 billion devices
   from smartphones and tablets to TV sets and automobiles.
- Half of the world's digital broadcast TV sound and most digital radio systems are enabled by audio codecs developed by Fraunhofer IIS.
- The majority of streaming systems around the globe use
   Fraunhofer audio codecs to deliver content to the audience.
- The majority of today's Full-HD Voice videoconferencing and telecommunications services are based on Fraunhofer audio solutions.
- The 3GPP communication codec EVS, co-developed by Fraunhofer IIS, is in use worldwide, for example in Germany, USA, Japan and South Korea.
- The easyDCP software suite for movie content mastering and packaging is one of the most reliable tools in the industry with over 1.500 licensees worldwide.

### THE TRUE AUDIO AN

#### Unrivaled experience with online audio delivery

Over the past two decades, Fraunhofer IIS has become a synonym for audio distribution. Thanks to excellent quality and their innovative features, our audio technologies are the preferred standards for any high quality application scenario.

#### **Experts in Digital Cinema and Digital Media Solutions**

As developer of the test plan for the DCI specifications for the 6 major Hollywood studios and for digital cinema worldwide Fraunhofer IIS provides scientific excellence in imaging technologies, standardization, professional media and industrial applications.

#### Trusted technology provider

We have licensed our audio codec software and applicationspecific customizations to over 1,000 companies. With more than 25 years of experience, our scientists and engineers design and build complete end-to-end audio solutions tailored to the needs of professionals and consumers.

# ND MEDIA EXPERTS

#### Reliable business partner worldwide

Our partners and team members are located around the globe, providing easy and efficient access to Fraunhofer audio and media technologies.

#### **Faster time to market**

Fraunhofer IIS' team of more than 200 scientists and engineers guarantees instant access to turnkey software solutions encompassing the latest audio coding and multimedia technologies.

#### **Research powerhouse**

Fraunhofer IIS is dedicated to the science of audio and media. It is part of Europe's largest applied research organization Fraunhofer-Gesellschaft.





#### www.iis.fraunhofer.de/audio www.iis.fraunhofer.de/image





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