Fraunhofer Institute for Integrated Circuits IIS

MPEG-H AUDIO

The Next-Generation System for Interactive and Immersive Sound

Fraunhofer Institute for Integrated Circuits IIS

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**MPEG-H AUDIO**

**NEW BREAKTHROUGH CAPABILITIES FOR HOME AND MOBILE AUDIO**

**Immersive and personalized audio**
The MPEG-H Audio system delivers enveloping immersive sound and allows consumers to choose between different audio presets, or to adjust the dialogue volume.

**Universal Delivery**
Regardless of the device, the MPEG-H Audio system delivers the best sound possible – in the home theatre as well as on smartphones, tablets and virtual reality devices.

**A single technology for all applications**
The MPEG-H Audio system is designed to work in streaming and VR systems as well as in existing and future broadcast systems from contribution to emission.

**MPEG-H Audio system on the air**
MPEG-H Audio is part of the ATSC 3.0 standard and DVB A/V codec specification. Since May 2017, it has been part of South Korea’s ATSC 3.0-based terrestrial 4K TV broadcasting system, making MPEG-H Audio the first next-generation audio codec worldwide to be on-air in a regular service. The system also has been tested successfully with DVB-T2 and DVB-S2, as well as streaming applications. Professional broadcast equipment including encoders and monitoring solutions is available from various suppliers, as well as TV sets and decoder chipsets with MPEG-H Audio support.

**Ease of use**
The MPEG-H Audio system is designed to work with today’s streaming and broadcast equipment. The immersive sound features can be played back over any loudspeaker configuration or headphones, ensuring the best quality on all end devices using the same bitstream.

**MPEG-H Audio delivers a more personalized, interactive, and immersive audio experience:**
- Interactive “sound mixing” through object coding allows viewers to select different audio presets or mix the audio to their preferences, such as boosting selected commentary or creating a “home team” mix for sports broadcasts.
- Rich 3D sound with the ability to capitalize on additional front and rear-height speaker channels (for example 7.1+4H). This is a dramatic step beyond surround sound, allowing consumers to become part of the audience on-site instead of TV-viewers.
- For listening to immersive sound on mobile devices, the system includes binaural rendering to create a realistic immersive experience on headphones.
- Scene Based Audio (Higher Order Ambisonics - HOA) provides a fully immersive sound experience that is ideal for live broadcasts and performances, such as sporting events.
- Optimized audio playback across different speaker configurations or headsets allows consumers to enjoy the best sound quality possible – no matter where they are or what device they use – from quiet home theatres to noisy airport gates.