

FRAUNHOFER INSTITUTE FOR INTEGRATED CIRCUITS IIS

MPEG-H AUDIO

The next-generation system for interactive and immersive sound



MPEG-H AUDIO THE NEXT-GENERATION SYSTEM FOR II

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 dialog volume.

Universal Delivery:

Regardless of the device, the MPEG-H Audio system delivers the best sound possible – in the home theater 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 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 candidate standard and DVB AVV codec specification. It will be the first next-generation audio codec to go on the air: Korea has chosen MPEG-H Audio for its terrestrial 4K TV broadcasting system starting in spring 2017. Professional broadcast equipment including encoders and monitoring solutions as well as TV sets and decoder chipsets with MPEG-H support are already available.

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 over headphones.

NTERACTIVE AND IMMERSIVE SOUND

The MPEG-H Audio System: New breakthrough capabilities for home and mobile audio

MPEG-H Audio delivers a more personalized, interactive, and immersive audio experience:

- Interactive "sound mixing" through object coding, which allows viewers to select different audio presets or mix the audio to their preferences – boosting selected commentary or creating a "home team" mix for sports broadcasts, for example.
- Rich 3D sound with the ability to capitalize on additional frontand rear-height speaker channels (for example 7.1+4H). This is a dramatic step beyond surround sound and lets consumers become part of the audience instead of viewers. For listening to immersive sound on mobile devices, the system includes binaural rendering to create a realistic immersive listening experience on headphones.
- Scene Based Audio (Higher Order Ambisonics HOA), to provide 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, allowing consumers to enjoy the best sound quality possible no matter where they are or what device they use, from quiet home theaters to noisy airport gates.

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