

FRAUNHOFER INSTITUTE FOR INTEGRATED CIRCUITS IIS

MPEG-H AUDIO

THE NEXT-GENERATION SYSTEM FOR INTERACTIVE AND IMMERSIVE SOUND





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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 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 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. It was recently adopted by SBTVD, the Brazilian Digital Television System, for delivery over existing ISDB-TB system. 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 successfully tested with DVB-T2 and DVB-S2 during major sports and music events in Europe, as well as in streaming applications. MPEG-H Audio support is enabled in professional broadcast equipment including encoders and monitoring solutions from various suppliers, as well as in TV sets, set-top-boxes, soundbars and decoder chipsets.

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, soundbars, or headphones, ensuring the best quality on all end devices using a single bitstream.

BROADCASTERS HAVE FULL CONTROL

The rich MPEG-H metadata set and the flexibility in production provide broadcasters with full control over the features offered to the viewers at home. MPEG-H's seamless configuration change capabilities ensure that any change in production (e.g. one dialog object is removed) will be perceived as seamless by viewers.

MPEG-H AUDIO DELIVERS A MORE PERSONALIZED, INTERACTIVE, AND IMMERSIVE AUDIO EXPERIENCE:

- Interactive "sound mixing" using object-based audio allows viewers to select among different audio presets or mix the audio to their preferences, such as boosting selected commentary or creating a "home team" mix for sports broadcasts.
- It enables 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 being only TV viewers. For listening to immersive sound on mobile devices, the system includes binaural rendering to create a realistic immersive experience on headphones.
- 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 theaters to noisy airport gates.