

Fraunhofer IIS upHear Processing and MPEG-H Audio power the new Sennheiser AMBEO Soundbar Plus

Fraunhofer IIS and the Sennheiser brand continue their partnership to extend the AMBEO product range and deliver its outstanding immersive sound experience into even more living rooms.

The Sennheiser AMBEO soundbar is the benchmark when it comes to bringing immersive audio into living rooms in an unforgettable quality – be it for TV sound or music streaming. The new Sennheiser AMBEO Soundbar Plus condenses the benefits of the original AMBEO into a more compact format. This makes it the perfect choice for those who look for a smaller device footprint but don't want to compromise on the sound experience. The acoustic innovations of the now-available soundbar and the re-imagined AMBEO Sub are made possible by several cutting-edge Fraunhofer technologies: the upHear product family and the MPEG-H Audio system.

Matching the sound to your room: The upHear audio processing

Two upHear technologies are used to perfectly match the immersive sound of the Sennheiser AMBEO Soundbar Plus to the room it is placed in. The upHear Immersive Audio Virtualizer is a codec-agnostic post-processing technology that powers the authentic 3D sound of the soundbar. Thanks to it, the device creates high-quality spatial sound that eliminates the need for the rear speakers typical for traditional surround setups. This is achieved by the technology's sophisticated device-specific processing, which was designed to create high-end sound and deep bass even with more compact devices.

In addition, the advanced upHear Calibration algorithm tunes the upHear Immersive Audio Virtualizer to the room and device position. During the setup process, the calibration technology uses the integrated microphones of the soundbar and subwoofer to analyze the room. Based on the collected data, the soundbar optimizes the playback for the specific environment. To round off the advanced features of the AMBEO Soundbar Plus, the upmix feature of the upHear processing turns even stereo content into a 3D music experience.

"We were keen to partner again with Fraunhofer IIS to bring high-end sound into even more homes through the AMBEO Soundbar Plus. The upHear and MPEG-H Audio technologies are an impressive combination that we rely on to provide outstanding experiences to discerning listeners," says Maximilian Voigt, Product Manager AMBEO soundbars.

MPEG-H Audio and 360 Reality Audio: Turn your space into a home theater or music venue

The powerful combination of upHear technologies creates an ideal sound stage for the immersive experience delivered by the MPEG-H Audio system, which is natively supported in the new soundbar. Its more accessible format and price point open the door to the enjoyment of Next Generation Audio to an even wider audience. This includes the play back of 360 Reality Audio immersive music, which is based on the MPEG-H Audio system and available globally on many streaming services including Amazon Music Unlimited, Tidal, Deezer, WOWOW, and nugs.net. In markets such as South Korea or Brazil, where MPEG-H Audio is the only mandatory audio codec of the latest TV broadcast systems, the AMBEO Soundbar Plus will make immersive, personalized sound available to many households.

“We are excited to be part of the continued AMBEO success story. Our upHear technologies were created for exactly this kind of application and in combination with the Sennheiser brand’s expertise in audio products, both can unleash their full potential,” says Sebastian Meyer, Product Manager at Fraunhofer IIS.