Panasonic Automotive Systems of America (PASA) and Fraunhofer bring MPEG-H / 360 Reality Audio to Cars

The MPEG-H decoder integrated into the head unit of a GMC Denali showcases impressively that such systems are now ready for serial production.

Today, streaming services provide an ever-increasing number of immersive music titles on mobile and living room devices. Consumers expect the same experience in any listening environment and car manufacturers have long since understood that they can deliver on that demand. They now turn cars into great playback environments thanks to their fixed seating positions and acoustic characteristics as well as the already deployed advanced sound processing. Together with the manufacturers, Tier 1 suppliers and brand partners in the in-car audio solution industry are keen to prove that they can catch up with consumer electronics devices when it comes to immersive sound experiences.

A case in point is that PASA has just integrated MPEG-H Audio decoding in their Android 10-based IVI system. The Qualcomm SoC-powered IVI system outputs 12 channels over A2B to the amplifiers. The MPEG-H Audio decoding, as well as PASA's own audio processing and equalizing, is handled within the IVI system to enable audiences to experience 3D sound on the road.

At the recent Automotive AES in Dearborn, Michigan, PASA showed the IVI system's capabilities already implemented in the head unit of a GMC Denali. The car was tuned for a 7.1+4 loudspeaker configuration and visitors experienced what true immersive audio content can sound like in a car equipped with a 3D-Audio speaker setup and MPEG-H.

Jeffrey Zellen, Group Manager Advanced Engineering Audio at PASA says: "We want to provide the best immersive in-car entertainment and collaborating with Fraunhofer IIS to integrate the MPEG-H Audio decoder into our Klipsch Premium automotive entertainment platform was an important step towards that goal."

PASA's implementation enables the decoding and rendering of MPEG-H Audio and is therefore capable of playing back 360 Reality Audio, one of the major formats in the 3D Audio streaming arena, and available, for example, on the Amazon Music, Deezer and Tidal services. This effort finally closes the gap for immersive audio playback. It is an important milestone on the way to the industry-wide support for immersive audio in vehicles and also for a seamless immersive

consumer experience. With the MPEG-H decoder running in the head unit of a car (or alternatively in the amplifier), it's now easy for OEMs to integrate immersive audio streaming services and to enable consumers to take their immersive audio playlist into their cars – literally without missing a beat.