PRESS RELEASE

DAB+ software library upgrade improves in-vehicle reception of digital radio

Erlangen, Germany: With its DAB+ software library, the Fraunhofer Institute for Integrated Circuits IIS offers a software defined radio solution that enables the implementation of digital radios with DAB+ (Digital Audio Broadcasting) functionality. Available now, the update to the established library uses efficient spur suppression technology to significantly improve the quality of digital radio reception. It moreover enhances the reception sensitivity of the radio receivers. In turn, this extends the range of coverage for broadcasters and increases the number of channels that can be received in vehicles.

The Fraunhofer IIS DAB+ software solution paves the way for radio and chip manufacturers to implement DAB+ in radio systems. In concrete terms, the software library serves as the baseband decoder for DAB+ signals. An added advantage is the library's compatibility with audio and data decoding components also developed at Fraunhofer IIS. Available as C- or object code, the DAB+ software solution is optimized for typical software defined radio platforms for automotive applications. It follows stringent coding standards to fulfil the automotive industry's strict quality requirements.

Efficient spur suppression for higher in-vehicle reception quality

"Thanks to improved baseband processing algorithms, the solution offers dynamic resistance to interference. Using a method developed specially for the purpose, the upgraded version of our DAB+ software library automatically suppresses any sporadic narrowband interference. Electronic vehicle components can generate interfering signals of this nature," explains Martin Speitel, Group Manager Infotainment at Fraunhofer IIS.

Newer vehicles, and electric vehicles in particular, feature complex open- and closed-loop electronic control systems. These can interfere with digital radio reception, causing brief but repeated signal disruptions. The newly integrated technique enhances the radio receiver robustness to interference, which significantly improves the quality of digital radio reception and the listening experience in the car.

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Wider selection of stations and Emergency Warning Functionality (EWF)

The optimized DAB+ software solution greatly improves radio reception characteristics. Notably, it increases the sensitivity of the radio receivers, making more stations available over even greater distances while maintaining perfect reception.

The software upgrade moreover includes the DAB+ Emergency Warning Functionality (EWF) that enables the radio receivers to automatically switch to emergency broadcasts – a simple, reliable and extremely quick way to alert the public to natural disasters and emergencies. In addition to audio announcements, detailed multilingual text information can be received. Not only do radios with integrated EWF switch to the emergency broadcast in a crisis situation, they also wake up automatically if they are on standby mode.

You can find more information about the DAB Receiver Kit from Fraunhofer IIS here: https://www.iis.fraunhofer.de/en/ff/kom/digitaler-rundfunk/dek.html