

FRAUNHOFER INSTITUTE FOR
INTEGRATED CIRCUITS IIS

SONAMIC® ENHANCEMENT

A CLEAR VISION FOR YOUR EARS



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In order to ensure very high audio quality, audio codecs should be run at sufficiently high bit rates. These can easily achieve a quality equal to audio CDs or lossless codecs. However, low to very low data rates are often selected for commercial use in order to reduce transmission costs, which can result in audible artifacts.

Using intelligent, blind detection, Fraunhofer Sonamic Enhancement technology can significantly reduce those artifacts. It does not require any additional information about the codecs or bit rates. High-quality audio material remains unchanged. All relevant audio codecs can be processed, such as MP3, AAC, AC3, or codecs for satellite radio. It does not matter what type of content (music, speech, or a mix) is played or how the audio contents are transmitted and received (streaming, satellite radio, etc.).



Sonamic Enhancement is a toolbox with which the required repairs and optimization are performed in real time following an analysis. The semantic algorithms restore high-frequency signal components, among other items, remove scratching and roughness, and reconstruct lost auditory source width.

High-quality 3D sound in cars is now ready for series production, thanks to Symphoria by Fraunhofer IIS. The new Fraunhofer Sonamic technology family expands the spectrum of offerings with intelligent audio processing technologies that raise the customer experience of automobile entertainment systems to completely new levels of comfort and quality.

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