

Unleash the True Potential of any Microphone

upHear Microphone Processing

As a highly customizable acoustic front end, upHear Microphone Processing offers high-quality algorithms to optimize performance under varying sonic conditions – no matter how challenging.

Their functionality may be augmented with select AI-based technologies that take performance to a whole new level.

Features (AI-based and classical algorithms)

- Personalized Voice Isolation
- Noise Reduction
- Multichannel Echo Control
- Dereverberation
- Wind Noise Reduction
- Spatial Sound Capturing
- Automatic Gain Control
- Beamforming

Superior Audio Experience
for Consumer Devices

The upHear product portfolio, created by Fraunhofer IIS, comprises technologies for consumer-level products in the fields of microphone processing, home entertainment, and mobile audio.

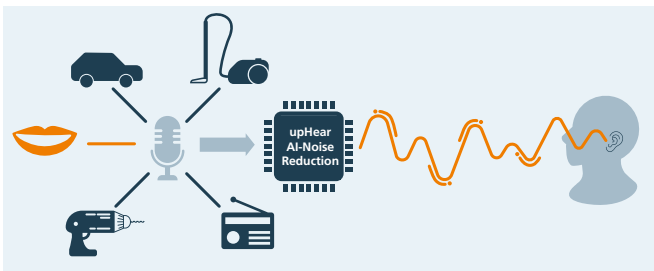


upHear
by Fraunhofer IIS

Technology Highlights

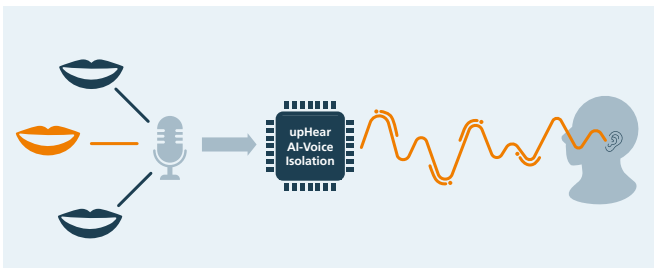
upHear AI-based Noise Reduction

A solution that operates independently of the acoustic front end in use. It suppresses both stationary noises (e.g., air conditioning, vacuum cleaner) and non-stationary noises (e.g., transient noises, keyboard clicks) with minimal distortion of the speech signal.



upHear AI-based Voice Isolation

A tool designed to allow only a pre-selected voice to pass through, efficiently eliminating all other unwanted voices from a conversation. This enables a seamless and focused communication experience in busy environments like never before.



Benefits

- **Flexible low-complexity solution** compatible with all hardware and chip designs.
- **Single microphone operation** for simple, effective setups with reduced equipment cost.
- **Uplink and downlink compatibility** providing user benefits for both incoming or outgoing signals.
- **Easy integration** with low effort, including fast evaluation through an included command line tool.

Find out more on uphear.com or contact an upHear expert via uphear@iis.fraunhofer.de

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