Use case brief

Precise voice command recognition using XENSIV™ MEMS microphones

High-SNR microphones that can hear commands from the other room

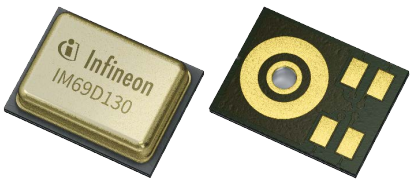
Voice is a natural, instinctive way for us to communicate. As such, voice user interfaces and smart assistants are becoming more and more prevalent in today's consumer devices. A key part of the performance of such devices lies in their ability to accurately 'hear' and recognize voice commands so that they can act upon them promptly and correctly.

Infineon tests have shown that microphones with a high signal to noise ratio (SNR) provide better input for voice processing algorithms than those with low SNR, leading to more accurate command recognition. The difference in performance between high and low SNR microphones becomes especially evident in real life scenarios, where commands are whispered to a device or given from another room.

Our XENSIV™ MEMS microphones have a superb signal to noise ratio (SNR) of 69 dB and greater, making them very well suited for voice user interface applications. Be it smart speakers, sound bars or a smart household appliances – our microphones make sure that you are heard!

Use case's and product's benefits for your application

- High SNR improves performance of voice user interfaces
- Enables devices to perform better in real life scenarios like when a command is whispered or given across rooms
- MEMS technology advantages over electret condenser microphones (ECMs)





Explore our Audio Hub Nano Board with the IM69D130 to see how easy they are to integrate into your VUI design.

www.infineon.com/mems-microphones

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