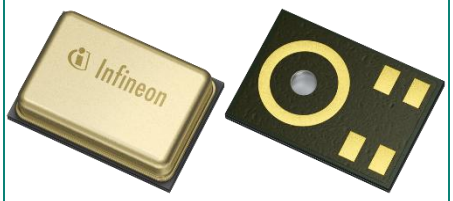
Proactivaudio – Adaptive audio intelligence for professionals on the move

Associated Partner

Solution for clear, hands-free speech capture in dynamic environment



Enabled by



XENSIV IM69D120 MEMS microphones

High-precision, low-noise digital microphones that deliver the tight tolerances and high SNR required for advanced beamforming and real-time speech enhancement in compact, battery-powered devices

proactivaudio provides an ML-driven, real-time audio processing stack that turns everyday microphones into intelligent front ends for speech interfaces and communications.

In collaboration with Infineon and Speech Processing, proactivaudio's technology powers the new Philips SpeechMike Ambient Wearable AI Assistant – a device designed for high-quality, hands-free documentation wherever professionals work.

The solution supports wearable, docked, and on-table modes, so users can move seamlessly between quiet offices, busy corridors, or noisy wards without sacrificing recognition accuracy.

To make this possible, proactivaudio combines sophisticated beamforming and voice-processing algorithms with the reliable acoustic performance of Infineon's XENSIV™ IM69D120 MEMS microphones.

Core technologies

- **Adaptive beamforming**
  Dynamically steers the microphone array toward the active speaker, whether they are sitting, standing, or walking, and adapts to changing acoustic scenes in real time.
- **Advanced voice processing**
  Separates the primary speaker from background talkers and ambient noise, enabling conversational recording in "single user mode" while effectively suppressing interfering voices.

- **Lightweight, power-efficient firmware**
  Highly optimized software allows up to around 10 hours of continuous recording on a single battery charge – essential for long professional shifts.
- **High-precision MEMS microphone array**
  Infineon IM69D120 microphones provide the low variance and high SNR that beamforming and separation algorithms depend on, ensuring consistent performance across devices and production lots.

Key solution benefits

- **Consistent speech quality in motion** – Users can dictate while walking, consulting at the bedside, or switching rooms without needing to return to a fixed workstation.
- **Superior noise suppression** – Targeted cancellation of ambient voices and background noise leads to cleaner input for downstream ASR and AI systems, outperforming generic smartphone or PC microphones.
- **Hands-free workflows** – Wearable and on-table operation free up the user's hands for patient care, inspection, or other critical tasks while documentation happens in parallel.
- **All-day usability** – Energy-efficient firmware and hardware enable long runtimes between charges, fitting naturally into demanding daily schedules.
- **Reliable hardware foundation** – Infineon's XENSIV™ MEMS microphones offer the matching, stability, and acoustic performance that allow proactivaudio's software to deliver predictable, field-ready results.

By tightly integrating proactivaudio's intelligent audio software with Infineon's microphone technology, the Philips SpeechMike Ambient Wearable AI Assistant delivers "moving-target ready" speech capture that keeps up with modern, mobile workstyles.

The collaboration demonstrates how the Infineon Partner Ecosystem brings together specialized software and hardware expertise to solve complex audio challenges and accelerate the deployment of next-generation, AI-ready voice solutions.

Target applications



Discover more

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