

Signia MaX with Acoustic Intelligence™ and RealTime Conversation Enhancement^{AI} shows superior SNR performance

In a technical study¹, Signia Multi-adaptive Xperience (MaX) outperformed key competitors when measuring the output signal-to-noise ratio (SNR) in a simulated group conversation in noise.

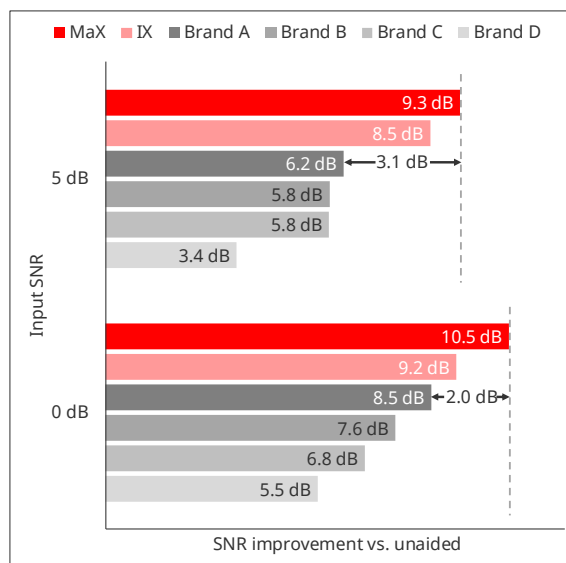
In the study, the test hearing aids were fitted to a KEMAR manikin, which was placed in a test setup where a speech signal was presented alternately from two loudspeakers in the frontal hemisphere (to simulate turn-taking in a conversation) while cafeteria noise mixed with steady-state noise was presented from loudspeakers in the back hemisphere.

By recording the output of the hearing aids in the KEMAR ears with and without phase inversion of the input signals, it was possible to use the well-established Hagerman method to determine the SNR on the output side of the hearing aids.

Besides Signia MaX, the tested hearing aids included Signia Integrated Xperience (IX) and RIC hearing aids from four key competitors (labelled Brand A-D), which at the time of measurement were the newest available premium hearing aids from the various manufacturers.

Measurements were conducted at two input SNRs, 0 dB and +5 dB. The outcome measure was the SII-weighted SNR improvement (in the 'better ear') relative to the SNR measured in the unaided KEMAR ear. The results are shown in the bar graph.

While all hearing aids offered an SNR advantage compared to unaided listening, there were substantial performance differences between the hearing aids. **Signia MaX clearly offered the largest SNR benefit**, reaching levels of 10.5 dB (at 0 dB SNR) and 9.3 dB (at +5 dB SNR).



Signia's unique multi-stream technology, which tracks and enhances multiple talkers in real time, sets Signia hearing aids apart from the competition. In fact, our previous platform, Integrated Xperience (IX), outperformed every single competitor in this technical test. And Signia MaX powered by Acoustic Intelligence with four DNNs increases that gap even further.

Compared to the best-performing competitor (Brand A), Signia MaX provided SNR improvements that were 2.0 dB and 3.1 dB higher at the two input SNRs, respectively. Compared to the other brands, the MaX SNR advantage was 3 dB or more. A 3 dB increase in SNR corresponds to a doubling of the intensity ratio between speech and noise.

The MaX SNR performance is driven by RealTime Conversation Enhancement^{AI} now fueled by Acoustic Intelligence.

1. Jensen, N.S., Samra, B., Kamkar Parsi, H., & Wilson, C. (2026). Signia Multi-adaptive Xperience with Acoustic Intelligence™: Holistic AI-driven enhancement of conversations in noise. Signia White Paper.

LIVE NOISY

This technical study demonstrates the superior SNR performance offered by Signia MaX in group conversations in noise. Powered by Acoustic Intelligence and RealTime Conversation Enhancement^{AI}, Signia MaX outperformed premium hearing aids from four key competitors when tested in a noisy group conversation scenario.

Signia MaX with Acoustic Intelligence changes what AI in hearing aids can be. It simultaneously understands sound across multiple dimensions to deliver hearing that adapts to the full moment, not just the noise. This enables wearers to LIVE NOISY. **Read the white paper here:**

