

Interacoustics ASSR Feature Overview

New Stimuli to Maximize Response

Traditional ASSR stimuli do not compensate for the cochlear travel time involved when a stimulus moves across a band of hair cells around the test frequency. Not compensating for this causes the response to be wider and smaller. This is one factor in the weak performance of some ASSR systems. The patented stimuli used by Interacoustics ASSR cause all the hair cells in the target area to fire simultaneously and thereby generate a maximum response. This gives a stronger, sharper evoked potential that is easier to detect, especially near threshold.

Full Spectrum Detection Engine

ASSR responses are known to occur at frequencies other than the fundamental. For this reason, the Interacoustics detection engine uses information from seven harmonics above the fundamental modulation frequency. Both phase coherence and response magnitude are measured at these frequencies. This feature alone significantly reduces test time

Full stimulus Control

Each of the 8 stimulus channels (2 ears x 4 frequencies) can be modified independently of the others. This includes Intensity levels and start/stop times. You can also switch between a 40Hz and 90Hz stimulation rate in the middle of a test session. This flexibility allows the tester to select appropriate start levels based on already achieved results and significantly shorten test time.

Accurate Correction Tables

All ASSR systems depend on correction factors to convert ASSR thresholds into estimates of behavioral thresholds. Diagnostic trials* have shown that thresholds derived from Interacoustics ASSR are significantly closer to behavioral thresholds than those reported in studies on other ASSR systems. The hearing correction factors for Interacoustics ASSR are based on diagnostic studies and are both frequency and hearing loss specific. Hence the accuracy.

Comprehensive Reports

Interacoustics ASSR produces a comprehensive printed report that includes tester comments and observations entered during the test session.

NOAH Compatible

Interacoustics ASSR can deliver results directly to any NOAH compatible system where they are immediately available for fitting software.

* Claus Elberling, Mario Cebulla and Ekkehard Stüzebecher. "Simultaneous multiple stimulation of the ASSR". Paper presented at the International Symposium on Auditory and Audiological Research (ISAAR), Denmark (2007)