# The Eclipse Designed to meet your every need

AEP, ASSR, VEMP & OAE testing on one dedicated platform





# Design your own diagnostic solution for a perfect result

The Eclipse is a modern and versatile platform. It is designed to fit seamlessly into your everyday workflow and to offer complete reliability and perfect results.



### Have it your way

We all strive towards a common goal: To achieve reliable test results to screen or diagnose patients accurately and efficiently.

Whatever your challenge may be, the Eclipse hardware platform enables you to focus on the job at hand with the assistance of dedicated software modules for all facets of auditory evoked potentials and otoacoustic emissions.

### Are you future-safe?

Every Eclipse software module is developed based on proven technologies and feedback from users and audiology experts. Features are developed in sync with your changing needs and contain the latest technologies making the Eclipse a future-safe investment.

### Making complicated things easy

A range of pre-loaded test protocols are available in each software module ensuring that you will quickly feel confident. After getting acquainted with the software you can add or modify test protocols and tailor them to your specific needs. The clear layouts allow you to easily interpret the results and focus on the essential outcomes of the test, which can be saved into the OtoAccess<sup>TM</sup> database for easy retrieval, review and export to your EMR in XML format.

### A preview of the benefits

- · Solid & noise immune hardware
- · Modular and future-safe platform
- Unique pre-amplifier technology ensures optimum performance in electrically hostile environments
- Intuitive interfaces, well-designed layouts, freedom to customize settings
- Windows 8 and 7 compatible



# Software modules for any challenge

# **Database**

NOAH

Data Storage & Sharing

OtoAccess™

Data Storage & Sharing

### Todd B. Sauter, M.A.

Audiology Associates of Worcester Massachusetts

"The Eclipse has the largest number of clinically-relevant features of any AEP device today. The platform is an excellent blend of parameter flexibility and user-friendliness."



# **ABR**

EP25

ABR, MLR, LLR, P300, MMN, ECOCHG, eABR

EP15

**ABR** 

**ABRIS** 

Automated ABR screening

**ASSR** 

Threshold assessment

# OAE

DPOAE20

Screening and clinical DPOAE

TEOAE25

Screening and clinical TEOAE

# Balance

**VEMP** 

CVEMP OVEMP





# CE-Chirp® Stimulus Family The Gold standard for threshold assessment

# Auditory Evoked Potentials



**Traditional Click** 

CE-Chirp® LS Stimulus



### New technologies. New standards. New ABR.

### Residual Noise Calculation - knowing when to stop

Reducing noise is the single most important factor for improving any evoked potential recording. The residual noise calculator provides you with the knowledge of when to stop averaging, often saving test time and ensuring confidence in response identification.

### CE-Chirp® Stimulus Family - Double your response amplitudes

The revolutionary CE-Chirp® stimulus family for threshold assessment (developed by Claus Elberling) compensates for frequency specific cochlear travel times and generates waveform responses up to twice the size of traditional click or tone burst stimuli.

The original CE-Chirp® was designed for optimal response amplitude at medium stimulation intensities. By using the level specific CE-Chirp®, clearer waveform morphology at high intensities is also available.

The introduction of the CE-Chirp® LS stimulus family is an overall improvement to the original CE-Chirp® stimulus family.

For an easier visual evaluation of the NB CE-Chirp® responses, each of the NB CE-Chirp® stimuli have been time shifted to provide latencies similar to Click and the CE-Chirp® LS stimulus. The time-shifted NB CE-Chirp® are named NB CE-Chirp® LS, as the placements are level specific. Otherwise, the NB CE-Chirp® LS are identical to the original NB CE-Chirp®.

The CE-Chirp® stimulus family is incorporated in the EP25 (\*optional for EP15) and ASSR software modules from Interacoustics.

### Bayesian Weighting saves you valuable time

Using Bayesian Weighting during your ABR recording ensures that waveforms remain stable even during periods of patient activity. The influence of patient noise is minimized during the recording, resulting in continuously lower noise in the running average, saving valuable test time.

### Fmp - improving confidence

Imagine having an objective waveform confidence indicator to assist you in confirming the presence or absence of a response. The Fmp graph provides objective, mathematical and quantitative information based on multiple points within the recording to assist with your waveform analysis. Use of the Fmp provides a reduction in test time and confidence in your diagnosis.



The online display of the Fmp serves as a calculated response confidence. In this example, 99% response confidence was exceeded after only 1500 sweeps.



Rather than testing for a certain number of sweeps, the residual noise should be used as a stop criteria.

# EP15, EP25 and ABRIS From screening ABR to specialized AEP

### Vestibular EP

We offer a special version for the vestibular clinic with protocols such as VEMP, ECochG and rate study tests.

### **ABRIS**

# Fast and objective ABR screening

ABRIS is a fast screening software that can be used for all age groups. It returns a simple pass/refer result, requires minimal tester training and is automatic and objective.

### Just click "START"

After attaching the electrodes and making a quick impedance check – simply click "Start" and you are set to go. EEG monitoring is provided with a continuous graphical display and no measurements are collected during periods of unacceptable noise. Results are clearly displayed in: Green for Pass and Red for Refer – it's that easy!

### 99.7% - don't settle for less

ABRIS specificity (the ability to correctly exclude normal hearing babies) is as high as 99.7% in large scale clinical trials using two stage screening. ABRIS sensitivity (the ability to correctly identify babies with hearing problems) is 99.99% based on large-scale simulations.



# **EP15**Diagnostic ABR

Developed for clinics performing standard threshold and neurological ABR testing, the EP15 will allow you to do a common task surprisingly well.

### A new standard

The contemporary interface delivers unrivalled ease-of-use and superior clarity, which will help you achieve clear and reproducible results in a confident and timely manner. Pre-loaded protocols peer-reviewed by key-experts, easy tailoring of manual and automatic test protocols and a multitude of useful tools make the Eclipse the preferred choice for threshold and neurological ABR.

### For your daily routine

- Threshold & neurological ABR testing & eABR
- · Bayesian weighting
- Residual noise calculator
- Fmp calculator
- SNR 3:1 ratio calculator
- · CR, RA, INC waveform markers
- Normative latency data for click, CE-Chirp®, NB CE-Chirp®, CE-Chirp® LS & NB CE-Chirp® LS
- · Single/split screen
- CE-Chirp®, NB CE-Chirp®, CE-Chirp® LS & NB CE-Chirp® LS for optimized threshold assessment (optional)
- · CM & ECochG testing (optional)

### **EP25** Clinical AEP

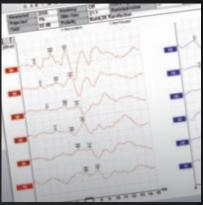
For those who need specialized procedures requiring the full spectrum of AEPs: Go for the advanced EP25 software.

### The benefits of specialized features

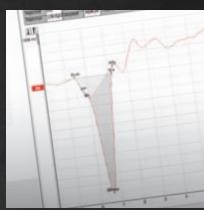
The EP25 contains all the useful features found in the EP15, but adds the extra functionality needed by more specialized clinics. The EP25 incorporates a full range of test protocols covering the early, middle and late latency tests.

### EP25 - all the features of EP15 and this:

- · AMLR, ALLR & P300/MMN testing
- · CM & ECochG testing
- ECochG Area Ratio Calculation by John Ferraro
- CE-Chirp®, NB CE-Chirp®, CE-Chirp® LS
   NB CE-Chirp® LS for optimized threshold assessment



Displaying Right and Left ear in a split screen format is beneficial when performing threshold work.



Unique ECochG Area Ratio Calculation implementation.

# ASSR Where speed meets accuracy

The Interacoustics ASSR system reduces test times by 50% thanks to Narrow Band CE-Chirp® stimuli and new powerful automated dual response detection methods.



### A new (and faster) generation

Interacoustics ASSR represents a true breakthrough and a new generation in ASSR threshold estimation. The ASSR software enables 8 frequencies to be tested simultaneously to threshold in less than 20-30 minutes through the use of Narrow Band CE-Chirp® stimuli and a patented detection engine.

### Full control - full speed

You will dramatically shorten test time as you are in full control of selecting the appropriate stimulus levels independently for each frequency based on current and previous results. Also, you are able to change the stimulation rate during testing depending on the state of your patient. All in all: Full control allows full agility and speed.

### Cut test times in half

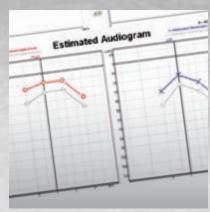
The Interacoustics ASSR software uses the Narrow Band CE-Chirp® stimuli to generate a maximal response, which makes the detection fast and efficient. The dual detection engine evaluates both the phase and the response magnitude from 12 of the higher harmonics of the fundamental modulation rate. This patented technology can reduce test time by 50% compared to traditional ASSR systems and offers unsurpassed accuracy.

### Save data directly to NOAH

The estimated audiogram generated by the Interacoustics ASSR can be saved to NOAH. The estimated audiogram can easily be transferred to Genie or other similar hearing aid fitting software, ensuring a smooth and accurate hearing aid fitting.



ASSR detection.



ASSR audiogram.



# DPOAE20 TEOAE25 Otoacoustic emissions

The Eclipse hardware platform accommodates both DPOAE & TEOAE capabilities.

### Shared features and benefits

- Lightweight probe with low internal noise
- · Easy to place in the ear
- · Inexpensive to maintain
- Auto probe check determines correct placement
- Validity checkmarks for OAE detection confirmation
- User-controlled noise sensitivity and rejection for easier collection

### **DPOAE20**

### **Distortion product emissions**

The DPOAE20 module produces detailed DP Grams with protocols designed by the user for their preferences or requirements. Build your own customized normative data sets or use the supplied norms from Interacoustics.

### TEOAE25

### Transient evoked emissions

The TEOAE25 uses linear or non-linear broad band clicks to evoke otoacoustic emissions. The extensive range of clinical options provide a full clinical evaluation of TEOAE3. The TEOAE25 also has protocol settings for automatic display of a pass/refer result for hearing screening. Factory defaults are also available.





# Optimize VEMP through visual feedback

### **Vestibular Investigation**

The Eclipse ovemP and cveMP tests measure and analyse the vestibular evoked myogenic potential generated by a loud stimulus.

### Instant visual feedback - increased quality

Valid cVEMP results are dependent on correct and controlled EMG tonus. The VEMP software provides visual feedback of the muscle contraction to assist you in helping the patient to obtain correct muscle tonus throughout the entire test. This can be done from the software or on a separate patient monitor for cVEMP testing.

### EMG-based scaling - a reliable result

By applying EMG-based scaling of the obtained waveforms, you are ensured a crucially important balanced presentation of responses from Left and Right – ensuring a confident and reliable result.

### High output stimuli

The Eclipse VEMP can stimulate up to 100dB nHL with clicks, 250Hz, 500Hz, 1kHz, 2kHz and 4kHz tone bursts.

Complete system
Combine VEMP with
the Interacoustics
VNG system for a
complete balance
system.





### Interacoustics a/s

Interacoustics is a world leading diagnostic solutions provider in the field of hearing and balance assessment. We help the professional audiological world reach new milestones through continuous developments and a constant focus on integration and direct customer value.

### With you at all times

Whenever you purchase audiological equipment with the Interacoustics brand on it, you are not just guaranteed a quality product but also highly trained support personnel with specialized knowledge. We operate in over 100 countries worldwide through a carefully selected network of distributors and service centres to ensure that you receive total support and service.

### **Product specifications**

All technical and hardware specifications concerning software modules and the Eclipse platform can be downloaded from our website.

Read more at interacoustics.com

### Interacoustics a/s

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ABR/OAE Balance Assessment Fitting Systems Middle Ear Analyzers Audiometers