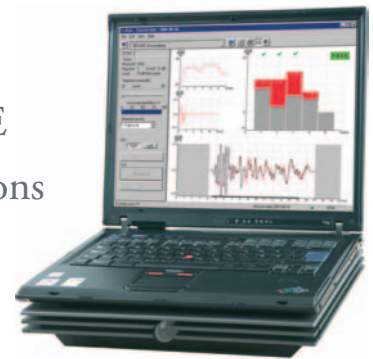




# OAE *precision*

- Automated Screening and Detailed Diagnostics
- Distortion Product OAE and Transient Evoked OAE
- Integration with ABR Platforms and Database Options



**leading diagnostic solutions**



# DPOAE20

-Distortion Product Otoacoustic Emissions



## DPOAE20 Distortion OAE System

DPOAE20 is a clinical OAE device with a complete Windows® software package which allows the clinician to capture and report all pertinent test data. The flexibility of the software lets you evaluate the results in detail while preprogrammed test protocols allow easy testing of DP-grams as well as Input / Output evaluations. Additional specialized test protocols can easily be created, if needed. A time saving report writing function is standard and includes pre-formatted reports.

All data can be saved in NOAH or in the OtoAccess™, allowing database integration with other audiometric data like Tympanometry, ABR and Audiometry.

The DPOAE20 probe is designed to meet strict criteria for dependability and durability. The probe is lightweight and small enough to allow the use of neonatal ear tips beginning with a diameter of 4 mm.

The DPOAE20 can be purchased alone or in combination with the TEOAE25. The DPOAE20 is available for the Eclipse platform. This enables the integration of ABR on the same instrument and database.

## TEOAE25 Transient OAE System

The TEOAE25 shares the same probe, hardware platform and database as the DPOAE20. This means that they also share similar features like preprogrammed test protocols, predefined Pass criteria and detailed clinical OAE test setups. The combination of the TEOAE25 and DPOAE20 creates a versatile and comprehensive OAE test system. It is also possible to add screening and clinical ABR to the same database and hardware platform which is ideal for complete clinical analysis.

## Automated Screening

The automated Pass/Refer algorithm of the TEOAE25 provides a clear indication of the test results yet saves all of the OAE responses in a database for more detailed evaluation by a clinician. A protection mechanism in the TEOAE25 software prevents changes to test protocols by non-authorized personnel and also safeguards the database against changes to the patient's file. The TEOAE25 is flexible, and allows additional Pass/Refer algorithms to be programmed into the instrument.

## Detailed Diagnostics

The TEOAE25 and DPOAE20 provide a complete diagnostic test battery with preprogrammed tests that can be modified by the end-user to meet their clinical needs. This flexibility means that the TEOAE25 and DPOAE20 are suitable for the clinical setting and capable of meeting the demands of a research facility.



*The Interacoustics Eclipse*

# TEOAE25

-Transient Evoked Otoacoustic Emissions



## The OAE Probe

The probe is often the most critical link to successful OAE measurements. That is why the OAE probe was designed to meet strict criteria for dependability and durability. The tiny, lightweight OAE probe produces a very low internal noise level, which permits fast DPOAE and TEOAE recordings. Testers appreciate the detail of this probe system as it will ultimately lead to a higher success rate on initial screenings. Cleaning and maintenance of the probe is quick, easy and inexpensive.

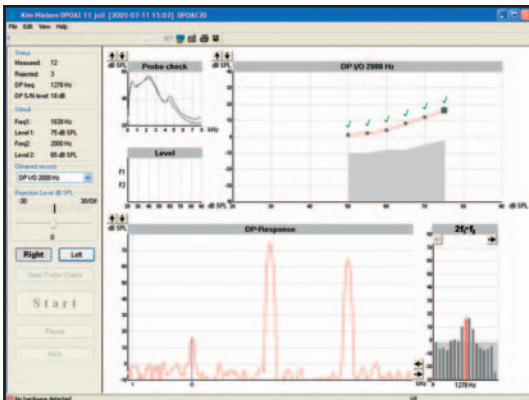
## The Combined Advantage

By combining the OAE and ABR platforms Interacoustics provides a cost effective means to conduct automated hearing screening and immediate diagnostic follow up procedures - all in one instrument!

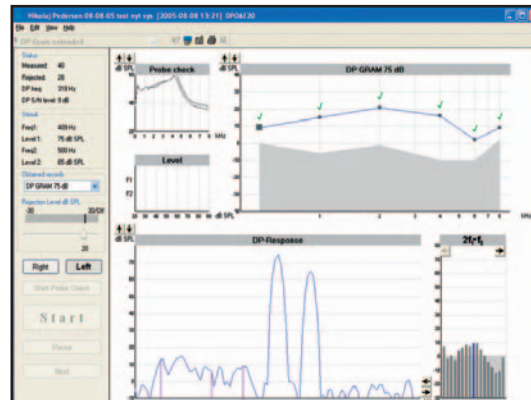
This provides an opportunity to reduce the “no shows” on patients requiring a follow up session. The Interacoustics ABR screener, ABRIS, can complement this already flexible test system. (See separate brochure for more details).

## Database Options

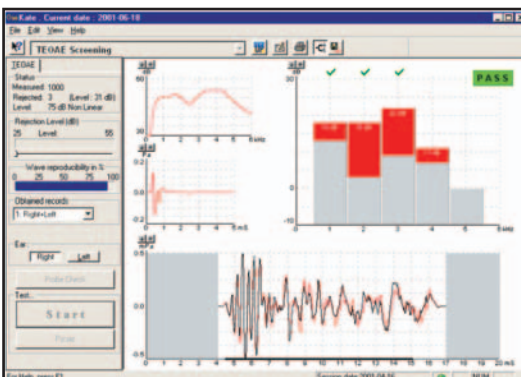
Two database structures are available with the DPOAE20 and TEOAE25 - the OtoAccess™ or NOAH 3.0. The easy to use OtoAccess™ from Interacoustics is designed specifically for the management of patient data in a clinical environment.



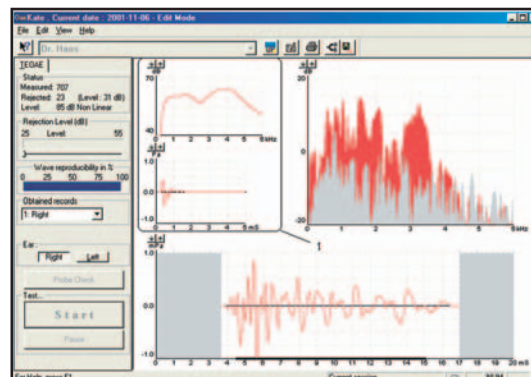
The DPOAE20 Input/Output screen



The DPOAE20 DP-gram screen



The TEOAE25 screen - Screening Mode



The TEOAE25 screen - Diagnostic Mode

# General Technical Specifications

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## Standards:

EN60601-1 (General safety)  
EN60601-1-1 (Safety of system)  
EN60601-1-2 (EMC)  
EN60645-3 Audiometer

## Medical CE-mark:

Interacoustics A/S meets the requirements of the Annex II of the Medical Device Directive 93/42/EEC. Approval of the quality system is made by TÜV – identification no. 0123

## System:

Eclipse for USB PC connection

## Database:

Included - storage only limited by hard drive size

## Hardware:

OAE Probe  
Interacoustics Eclipse.

## Probe:

TEOAE and DPOAE capable  
Weight: 3 grams  
Replaceable probe tip

## Display gain:

**General Display gain:** Applicable during testing

## Upgradable:

EP15 or EP25 ABR system  
ABRIS ABR Screener  
DPOAE20/TEOAE25

## DPOAE20 Specifications:

### Stimulus:

**Frequency Range:** 500-8000 Hz  
**Frequency Step:** 50 Hz  
**Level:** 30-75 dB SPL ( 70 dB for freq. above 6kHz)  
**Level Step:** 1 dB SPL  
**Transducer:** Dedicated DPOAE20/TEOAE25 probe

### Recording:

**Analysis time:** Minimum 2 sec to unlimited test time  
**A/D Resolution:** 16 bit, 3.7 Hz resolution  
**Artifact Reject System:** Adjustable: -30 to 30dB SPL or off. Applicable during testing  
**SNR Criteria:** 1-20 dB SPL

### Displays:

Probe fit - with stimulus and intensity.  
Response  
Level fit  
DP-gram or Input/Output

### Auto tests:

Preprogrammed tests  
Additional tests preprogrammable by user  
Checkmark indication for S/N R passed

## TEOAE25 Specifications:

### Stimulus:

Linear or non linear clicks  
**Level:** 50-90 dB SPL  
**Level Step:** 1 dB SPL  
**Transducer:** Dedicated DPOAE20/TEOAE25 probe  
**Accuracy:** 0.5 dB  
**Bandwidth:** 400 Hz – 4000Hz +/- 2dB  
**Recording:**  
**Analysis time:** 25 to 32000 samples  
**A/D Resolution:** 16 bit, 3.7 Hz resolution  
**Artifact Reject System:** 25 – 55 dB SPL or off. Applicable during testing.  
**SNR Criteria:** 5 individual frequency bands can be set 1-30 dB SPL

### Displays:

Probe fit – with stimulus and frequency response display  
OAE time window, OAE FFT  
1kHz Pass / Refer bands  
1/3 octave bands, 1/6 octave bands, 1/12 octave bands  
dB OAE, dB Signal to Noise ratio

### Auto tests:

Preprogrammed tests  
Additional tests preprogrammable by user  
Checkmark indication for S/N R passed

### Automated screening:

Algorithm included  
Optional user defined algorithms  
Security system - password protection

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## Included Parts Eclipse:

Eclipse  
OAE Probe, complete  
Power Cable  
USB connection cable  
DPOAE20 and/or TEOAE25 software  
OtoAccess™ Software  
BET25 Assortment Box with eartips for OAE  
NEOPT Neonatal Probetip  
Operation Manual  
CE Manual

## Included Parts Kit:

OPT25 Probe with interface  
DPOAE20 and/or TEOAE25 Software  
BET25 Assortment Box with eartips for OAE  
NEOPT Neonatal Probetip  
Operation Manual  
CE Manual



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*Interacoustics A/S*

Phone: +45 6371 3555  
Fax: +45 6371 3522  
E-mail: [info@interacoustics.com](mailto:info@interacoustics.com)  
Web: [www.interacoustics.com](http://www.interacoustics.com)  
Mail: Interacoustics A/S  
DK-5610 Assens, Denmark

*Sales and Service in your area:*

