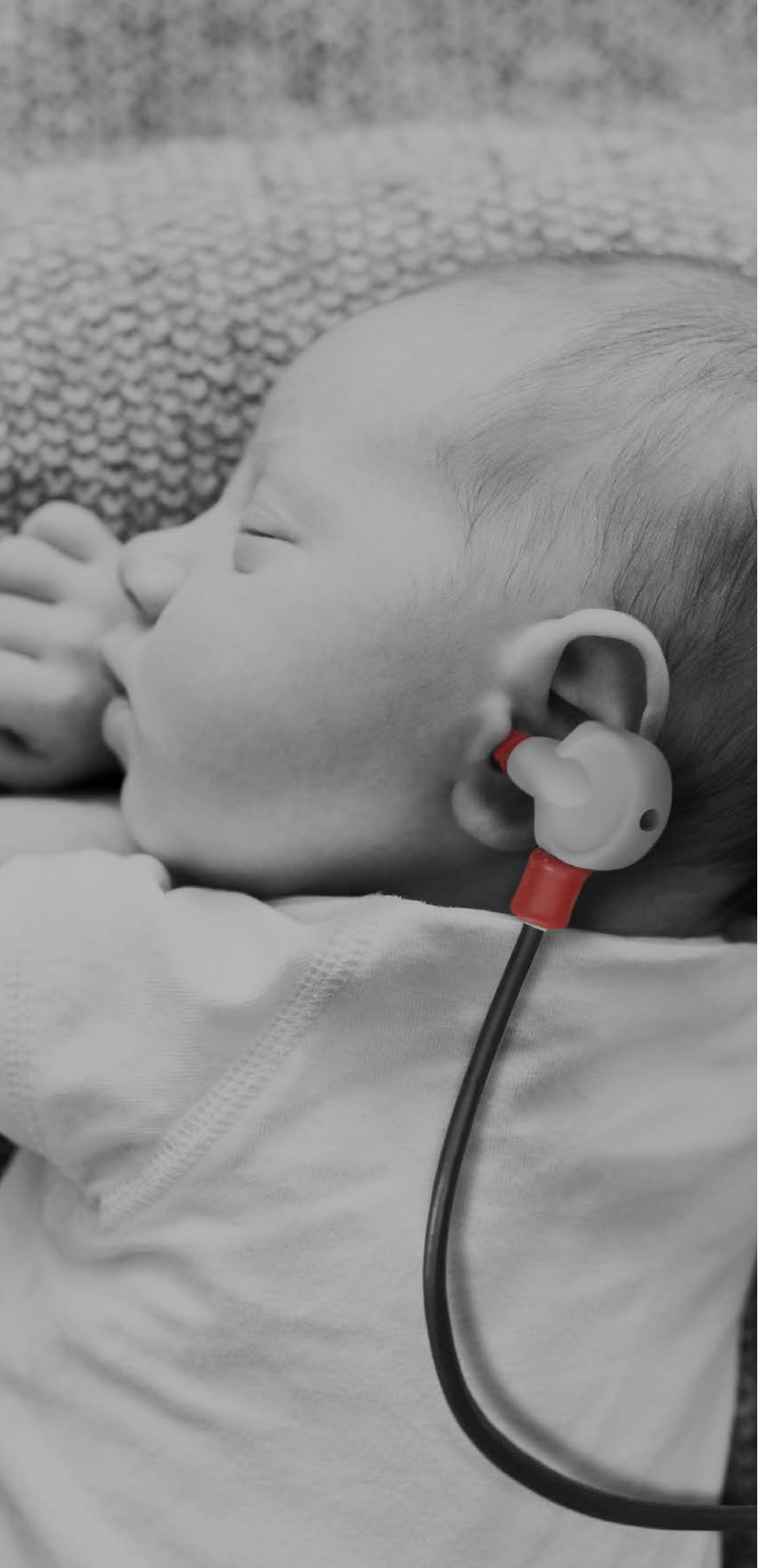


eOAE

Otoacoustic Emissions

(TEOAE + DPOAE)

BioMed

TEOAE / DPOAE examinations on newborns

eOAE

Otoacoustic Emissions

When an acoustic signal hits the auditory system, a very quiet sound is sent back from the inner ear, called the otoacoustic emissions. A distinction is made between transitory otoacoustic emissions (TEOAE) and distorsively produced otoacoustic emissions (DPOAE).

Both TEOAE and DPOAE can be measured with the **eOAE** device. A special screening mode is implemented for performing screening examinations on newborns.

TEOAE

- Custom stopping critieria
- 4 configurable profiles for different requirements
- Display as time graph or frequency diagram
- All parameters at a glance

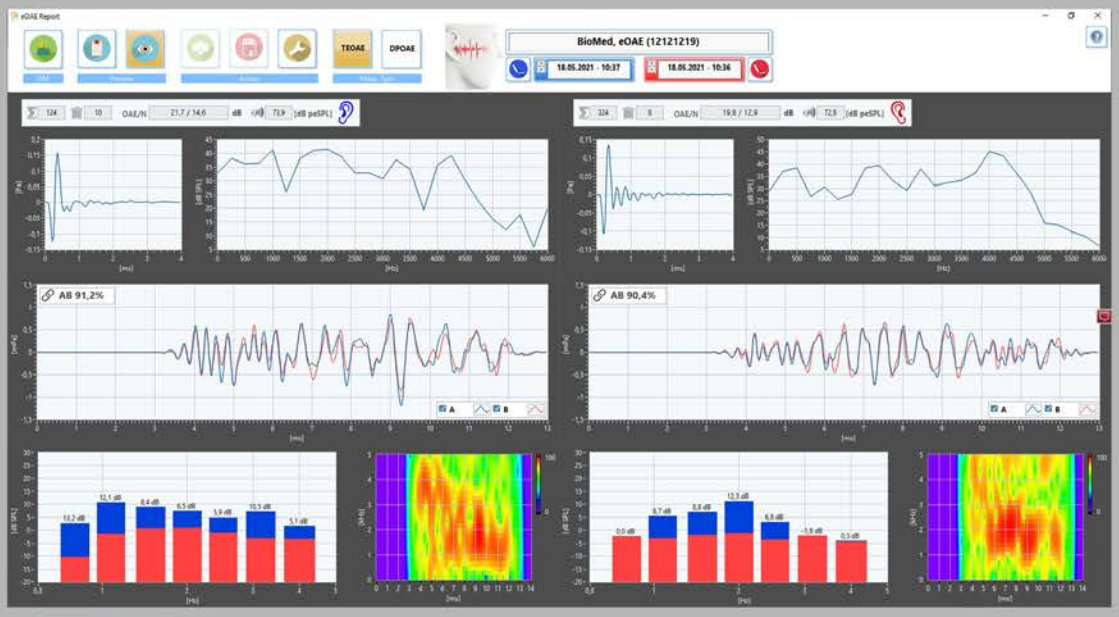
DPOAE

- 4 configurable profiles for different requirements
- Illustrate as DP gram and chart

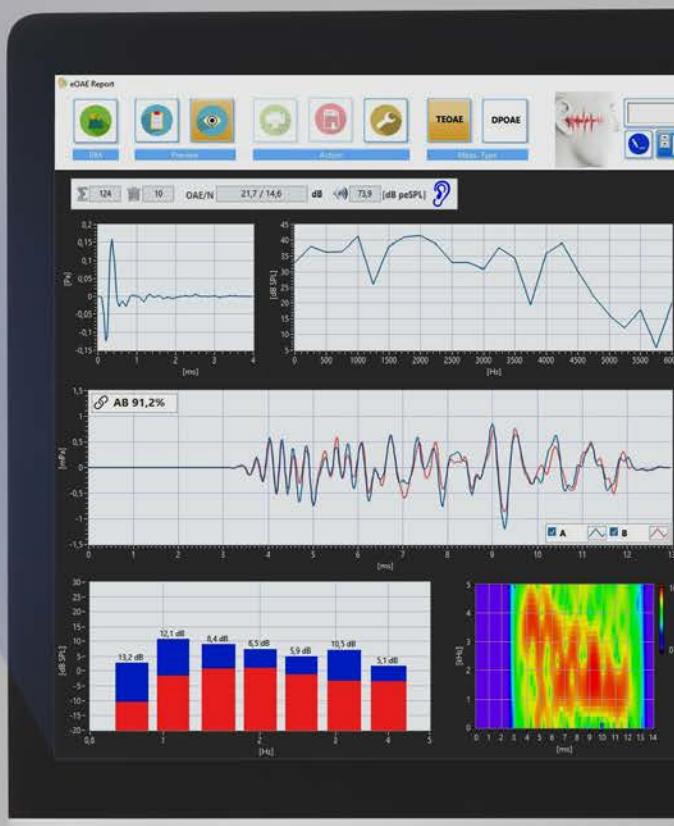
Screening

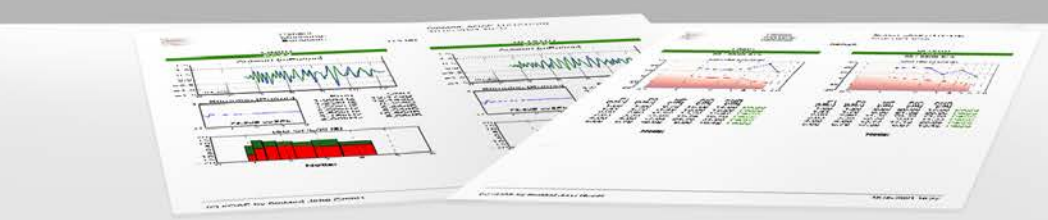
- Method TEOAE
- Clear chart illustration

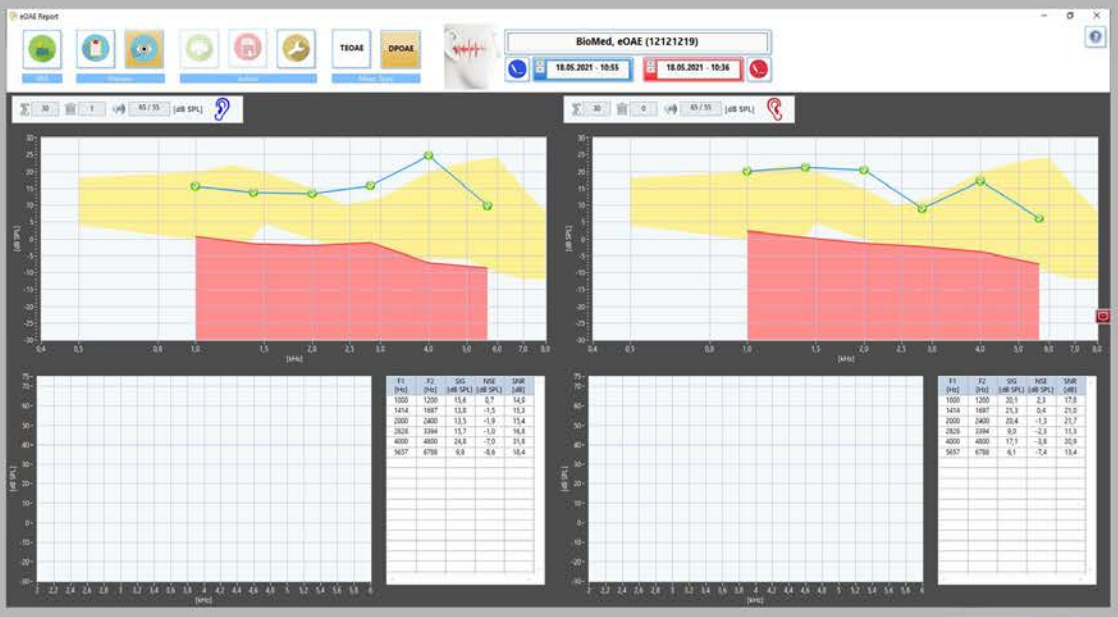
- **Easy charging via Docking station**
- **Easy cleaning of the Probe parts**
- **Good sanitizability due to touchscreen**
- **Optional printer available**
- **Clear measurement data management also on the device**
- **Qwerty keyboard for convenient typing on the device**
- **Full integration within the eDM Diagnostic Manager**
- **GDT interface**
- **Masking headphones IP30 or DD45 (optional)**



The **eOAE** PC software convinces with its clearly structured user interface, automatic report generation and full integration into the **eDM** Diagnostic Manager. The measurement evaluations can be automatically stored as PDF files and further processed by the IT system in the doctor's office. The GDT interface is of course integrated.







Data is synchronized by simply plugging the device into the docking station provided. Patients can be registered easily and conveniently both on the PC and on the device itself.


11:43 15.02.2021
Running
Time 4s
Frequency 5657Hz
Artifacts 0
dB ratio 65 / 55
SIG/NSE
Volume diff.
F1
F2
Cancel
SNR (dB SPL/kHz)
TEOAE: Standard
1/5
CHECKFIT OK
Doe, John
LEFT
[Pa/ms]
73.3 dB peSPL NSE: 27 dB SPL
[dB SPL/kHz]
A 0.5k 1k 2k 3k 4k
New 69.0 71.4 71.9 86.2 94.5
Old 69.1 71.6 72.0 85.1 94.6
B 0.5k 1k 2k 3k 4k
New 69.5 71.3 68.9 83.9 93.7
Old 69.7 71.7 71.0 85.9 94.5
[mPa/ms]
13
09:28 29.1.2020
USB
Doe, John
TEOAE
Screen
DPOAE
Patients
Settings
Main menu

Technical data

DEVICE SPECIFICATIONS

Battery	Replaceable Li-Ion battery, 3.8V, 3880mAh
External dimensions	141 x 97 x 27 mm (LxWxH)
Weight	320g
User interface	5" TFT with capacitive touch
Protection class	(EN60601-1) II
Degree of protection	BF
Protection type	IPX0
Standards:	DIN EN 60645-6:2010

POWER SUPPLY SPECIFICATIONS

Model	ACM18US05
Input	90-264 VAC, 47-63 Hz
Power consumption	max. 48W
Output	5 VDC, max. 2.5A

PROBE SPECIFICATIONS

Measurement type	TEOAE & DPOAE
Stimulus type	TEOAE nonlinear clicks (100µs width, 20µs rise and fall time) DPOAE primary sinusoidal tones (phase-aligned), ratio f1:f2 = 1:1.2
Frequency range	TEOAE 1kHz - 4kHz DPOAE 0.5kHz - 8kHz
Level	TEOAE 40 - 90 dB peSPL DPOAE 40 - 70 dB SPL
Cable length	1.5m

eOAE PC SOFTWARE

Operating system	Windows 10
Processor	i3, 2 GHz
RAM	4 GB
Monitor (resolution):	1920x1080

OPTIONAL PRINTER

Printer type	thermal printer
Speed	50-80 mm/s
Paper	thermal paper, 57.5mm, max. 39mm roll diameter
Resolution	8 p/mm, 384 p/line
Communication	Connection to docking station

PORTS

Port for power supply

USB type C

Port for Probe

Spring contacts for docking station

Port for printer

ENVIROMENTAL CONDITIONS

Transport	-10..50°C; 5%..90%. Humidity without condensation at 700..1060 hPa air pressure
Operation	+10..40°C; 5%..80 % Humidity without condensation at 700..1060 hPa air pressure
Periodic STC	The safety checks are to be carried out according to chapter 10.1. (in user manual)
Classification IIa	according to MDD
CE label	CE 0124

MADE IN GERMANY

BioMed Jena GmbH
Am Egelsee 1
D-07743 Jena
Germany
Phone: +49-3641 - 35690 -0
Fax: +49-3641 - 35690 -9
email: info@biomed-jena.de
Internet: www.biomed-jena.de