

PORTABLE OAE HEARING SCREENER



PRODUCT SPECIFICATIONS

GENERAL SPECIFICATIONS

DIMENSIONS AND WEIGHT

- L x W x H: 180 x 135 x 41 mm • Net weight: 450 g
- Case: ABS

DISPLAY

7" TFT resistive touch screen display
800 by 480 resolution at 133 pixels per inch (ppi) 262K colors

• Bluetooth 2.1

COMMUNICATION PORT

No. 1 USB slave
No. 1 USB Host (pen drive connection for software upgrading)

POWER

POWER SUPPLY

• Built-in 3.6 V/3.1 Ah rechargeable lithium-ion battery • External Medical power supply/charger: Input 100 - 240 V ac / 0.3 A - 50/60 Hz; Output +5 V dc / 2 A

BATTERY LIFE (RECHARGEABLE BATTERY)

Up to 3 hours of continuous testing
Charge time with external medical power supply: 80% in 2 hours. Charging cradle provided as a standard.

ENVIRONMENTAL CONDITIONS

OPERATING ENVIRONMENT

- Storage temperature: from -20 to +50°C
- Operating temperature: from +15 to +35℃
 Humidity: up to 90%, (non-condensing)
- Ambient pressure: from 700 hPa to 1060 hPa

Amblent pressure. Hom 700 m a to 1000 m a

COMPLIANCE/REGULATORY STANDARDS

Designed, tested and manufactured to meet the following European and International Standards: EN 60645-6

TEOAE

SAMPLE RATE • 24 bit 44,1ksps

STIMULUS LEVEL • 70 - 90 dB pe SPL

• 66 Hz

WINDOW OF ANALYSIS • 512 samples (3 - 15 ms)

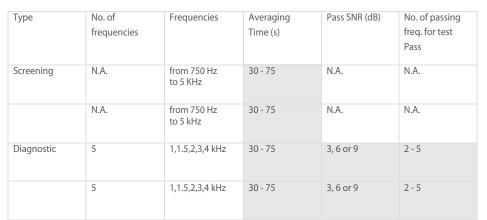
TEST TIME • 500 to 1250 stimuli (from 30 to 75 s)

STIMULATION PROTOCOL • non-linear click

ACQUISITION BANDWIDTH • from 750 Hz to 5 kHz

ARTEFACT LEVEL • from 20 to 60 dB SPL

TEOAE PROTOCOLS



3 configurable protocols Frequency bands: 0.7 to 5 kHz Stimulus intensity: 70 - 90 dB pe SPL Customizable fields are indicated in GREY: For any additional information please contact: support@resonance-audiology.com

TEOAE SCREENING

RESPONSE DETECTION • Statistical analysis of signal polarity

RoHS 🖊

TEOAE DIAGNOSTIC

RESPONSE DETECTION

• User defined stop criterion SNR 3, 6 or 9 dB, in minimum 2 and maximum 5 of the 5 available frequency bands

FREQUENCY BANDS • 1, 1.5, 2, 3, 4 kHz

PROTOCOLS

• 3 user definable

Average time (max test time): 30, 45, 60 or 75s Pass SNR: 3, 6 or 9 dB Passing frequencies for Test Pass: selectable from 2 to 5

Safety: EN 60601-1 EMC: EN 60601-1-2

DPOAE

FREQUENCY RATIO F2/F1 • 1,22

F2 FREQUENCIES • 1.5 - 12 kHz, user definable from 2 to 15

L2 STIMULUS LEVEL • 30 - 70 dB SPL

 User definable: automatic (L1=0,4*L2+39 dB), L1=L2. L1=L2+10 dB

• from 0 to 40 dB SPL

FREQUENCY RESPONSE DETECTION

• User defined stop criterion SNR 3, 6 or 9 dB for each frequency

RESPONSE DETECTION • From 2 to the number of enabled frequencies

FREQUENCY TEST TIME • Customizable by User from 2 to 16 s

PROTOCOLS

• 2 pre-set (70dB e 65-55dB), 3 user definable

MEASUREMENT TYPES

Screening and Diagnostic Testing

TEOAE

• 0.7 to 5 kHz, Stimulus 70-90 dB pe SPL

DPOAE

• 1.5 to 12 kHz, 30 to 70 dB SPL

PROBE

Connector: LEMO push-pull, circular

Description: - Integrated microphone and receivers in probe head

- Calibration data stored in the probe • Cable length: 130 cm

- Weight: 5 g
- Ear tips: Disposable multi-size Resonance ear tips

DPOAE PROTOCOLS

Туре	Available frequencies	F2 Frequencies (kHz)	L1/L2 (dB SPL)	Averaging Time (s)	Pass SNR (dB)	Passing frequencies for test Pass
Screening	5	2,3,4,5,6	65/75 70/70	2 - 16	3, 6 or 9	2 - 5
Diagnostic	Up to 15	1.5, 2, 2.5, 3, 3.3, 4, 4.5, 5, 5.6, 6 6.6, 7, 8, 10, 12 Selectable by the user	65/55	2 - 16	3, 6 or 9	2 - 15

3 configurable protocols Frequency bands : 1.5 - 12 kvHz Customizable fields are indicated in GREY: L1/L2: 30 to 70 dB SPL Average Time (per frequency): 2, 4, 8 or 16s Pass SNR: 3, 6 or 9 dB Passing Frequency for Test Pass: 2 to 15

CRADLE

For battery charging and desktop use

DATA

Over 1,000 tests in the unit

Internal database: Available and with possibility of reviewing test results Transfer to PC: via Bluetooth 2.1

STANDARD ACCESSORIES

- OAE Probe
- Medical Power supply
- MDS Software suite
- Disposable Ear Tips starter kit
- Calibration Cavity
- User's Manual
- Carrying bag
 Pen Drive
- Touch screen pen

OPTIONALS

• Wi-Fi printer

- External keyboard
- USB Video otoscope
- Wallmount kit

R140 CONFIGURATION OVERVIEW

The R14O is available in 4 different configurations. The available protocols for each configuration are summarized below:

	R14O Screener	R14O Screener	R14O Advanced Screener	R14O Advanced Screener
TEOAE SCREENING	٠		•	•
TEOAE DIAGNOSTIC			•	•
DPOAE DIAGNOSTIC		٠		٠