**PRODUCT SPECIFICATIONS**

### GENERAL SPECIFICATIONS

**DIMENSIONS AND WEIGHT**
- L x W x H: 180 x 135 x 41 mm
- Net weight: 450 g.
- Body material: self-extinguishing ABS

**TEST TYPES**
- Pure Tone test, Speech Test (performed with on-board recorded speech material), Autothreshold, Resonance Play Audiometry (optional)

**DISPLAY**
- 7” TFT Resistive touch screen display
  - 800 by 480 resolution at 133 pixels per inch (ppi)
  - 262K colors

**USER INTERFACE**
- Intuitive icon system

**REPORTS**
- Data transfer to PC with Resonance Management Data Suite installed

**DATA TRANSFER TO PC**
- Bluetooth 2.1
  - Nr.1 USB host type A (pen drive connection for software upgrade)
  - Nr.1 mini USB slave (for patient response connection)

**WINDOWS® COMPATIBLE SOFTWARE**
- Resonance MDS Management Data Suite

**MAIN SYSTEM COMPONENTS**
- Operative system: Microsoft® Windows® Embedded Compact
- CPU: TEGRA® 2 dual core @ 1Ghz

**POWER**
- Built-in 3.6 V/3.1 Ah rechargeable lithium-ion battery
- External Medical power supply/charger:
  - Input 100 - 240 Vac / 0.3 A - 50/60 Hz
  - Output +5 Vdc / 2 A

**CONSUMPTION (WITH RECHARGEABLE BATTERY)**
- Up to 3 hours of testing working on speech test modality.
- Charge time with external medical power supply: up to 80% in 2 hours

### SCREENING PORTABLE TOUCH SCREEN AUDIOMETER

**HDA 280**

### PRODUCT SPECIFICATIONS

#### GENERAL SPECIFICATIONS

**POWER**
- Built-in 3.6 V/3.1 Ah rechargeable lithium-ion battery
- External Medical power supply/charger:
  - Input 100 - 240 Vac / 0.3 A - 50/60 Hz
  - Output +5 Vdc / 2 A

**CONSUMPTION (WITH RECHARGEABLE BATTERY)**
- Up to 3 hours of testing working on speech test modality.
- Charge time with external medical power supply: up to 80% in 2 hours

### AUDIOMETRY OPERATING SPECIFICATIONS

#### RANGE
- **Frequency range (AC):**
  - 125 - 12500 Hz
- **Frequency range (BC):**
  - 250 - 6000 Hz
- **Range stimuli level:**
  - -10 up to 110 dB HL
  - -10 up to 70 dB HL

#### ACCURACY
- **Frequency:** < 0.5%
- **Distortion:** < 1%
- **Crosstalk:** >70dB
- **Attenuator linearity:** 1 dB per 5 dB step, max 3 dB whole range

#### TYPE OF SIGNALS
- **Pure tone:** sine wave from 125 to 12.5 KHz
- **Warble:** +/- 5% frequency sine wave modulated, modulation: sine wave 5 Hz
- **Narrow band noise:** 24 dB/oct filtered noise
- **Speech noise:** 1 kHz 12 dB/oct filtered noise
- **White noise**
- **Speech material recorded on internal SD-card**
- **On/Off rise – fall time:** 40msec

#### OUTPUT TRANSDUCERS
- ACR, ACL: HDA280 headphones. IP30 (optional)
- BC: B71W

#### STIMULUS PRESENTATION MODALITY
- **Presentation:** Normal
- **Modality:** Steady, Pulsed (rate 2 Hz)
- **dB step variation:** 1 dB, 2 dB, 5 dB.

### ENVIRONMENTAL

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

### QUALITY SYSTEM

Manufactured, designed, developed and marketed under an ISO 13485, ISO 9001 certified quality system. Medical CE marks and FDA approval.

### COMPLIANCE/REGULATORY STANDARDS

Designed, tested and manufactured to meet the European and International Standards:
- MDD 93/42/EEC and its revised versions: Class IIa (as referred to in Annex IX, rule 10 of said MDD 93/42 EEC )
- Safety: IEC 60601-1, 3rd edition, Class II Type BF
- EMC: IEC 60601-1-2
- Audiometer:
  - IEC 60645-1 and ANSI S3.6: Type 3
  - IEC 60645-2 (only for the functions regarding the speech test; the device is not an A or B model)
- RoHS II compliant

### STANDARD ACCESSORIES

- HDA280 headphones
- B71W bone conductor
- Built in talk over microphone for patient communication
- Patient response push button
- Multilingual Quick user’s handbook
- Medical Power supply (100 Vac – 240 Vac)
- Carrying bag
- Charging Cradle
- Pen Drive (with Multilingual Quick user’s handbook)
- Touch screen pen

### OPTIONALS

- External USB Keyboard
- IP30 Insert headphones
- Pediatric Headset (AC or BC)
- Resonance Play Audiometry for children
- VTMR Audiometry test for adults
- Wi-Fi thermal printer

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The information, pictures and specifications found in this datasheet are intended as a general guideline for customers seeking information about supplies for Resonance equipment. Resonance makes no warranty, nor assumes any legal liability or responsibility for the accuracy, typing errors or mistakes, correctness or completeness of any information in this datasheet. The information in this datasheet was correct to the best of our knowledge at the time of printing.