resonance ®

r27a

2 CHANNEL TONE AND SPEECH TESTING DIAGNOSTIC AUDIOMETER

PRODUCT SPECIFICATIONS

RoHS 2 COMPLIANT

Please contact Resonance should you have any questions:
support@resonance-audiology.com

GENERAL SPECIFICATIONS

DIMENSIONS AND WEIGHT
• L x W x H: 370 x290 x180 mm
• Net weight: 3.5 kg

TEST TYPES
Pure Tone test, Autothreshold, ABLB, Speech Test, Stenger, GAP, DLF (Difference Limen for Frequency), SISI (available on requet)

DISPLAY
• 7" TFT Color display

USER INTERFACE
• Multilingual

PRINTER
• Built-in fast thermal printer with paper width: 112 mm supplied as standard part

REPORTS
• Printed on thermal printer
• .pdf report created directly from the device and stored on USB Pen drive with possibility to add patient data and tests comments via the USB Keyboard (optional)
• Data transfer to PC using Resonance Management Data Suite

DATA TRANSFER TO PC
• Via cable through USB port

COMMUNICATION PORT
• Nr.1 USB host type A
• Nr.1 USB slave type B

WINDOWS® COMPATIBLE SOFTWARE
• Resonance MDS Management Data Suite

POWER

POWER SUPPLY
• 110 -240 V AC 50/60 Hz   40 VA
• Fuses: 2 x T 1 A L 250 V

CONSUMPTION
• Max current: 0.15 A
• Power consumption: 40 VA

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

AUDIOMETRY OPERATING SPECIFICATIONS

RANGE
• Frequency range:
   125 - 8000 Hz (with DD45)
   125 - 12500 Hz (with HDA280)
   250 - 8000 Hz (with B71W)
• Range stimuli level -10 up to 120 dB HL

ACCURACY
• Frequency < 0.5%
• Distortion < 1%
• Attenuator linearity 1 dB per 5 dB step, max 3 dB whole range

TYPE OF SIGNALS
• Pure tone: sine wave 125 to 8KHz signal (to 12.5 KHz for HDA280 phones)
• 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
• External signal
• External mike
• Speech material recorded on SD card
• On/Off rise – fall time: 40msec

OUTPUT TRANSDUCERS
• ACR, ACL: 10 ohm DD45 matched pair earphone, alternatively HDA280 Sennheiser.
   IP30 Insert earphones (optional)
• BC: B71W Radioear; B81 (optional)
• INSERT: Insert transducer (optional)
• Free field output: 600 ohm impedance

STIMULUS PRESENTATION MODALITY
• Presentation: Normal, Reverse, Extended (present tone for 1 second from 20 dB below the maximum level)
• Modality: Continuous, Pulsed (rate 0.5, 1 and 2 Hz) Alternated (ABLB 0.5, 1 and 2 Hz)

QUALITY SYSTEM

Manufactured, designed, developed and marketed under an ISO 13485, ISO 9001 certified quality system. Medical CE mark 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 1 Type B
• EMC: IEC 60601-1-2
• Audiometer: to IEC 60645-1; IEC 60645-2 and ANSI S3.6, Type 2A

STANDARD ACCESSORIES

• DD45, ADC or HDA280 headset for audiometry testing
• B71W bone conductor
• Patient microphone (talk back)
• Internal speaker as monitor use
• Built-in talk forward microphone
• Patient response pushbutton
• Built-in fast thermal printer
• 1 roll of thermal paper
• Power supply cable (110 – 220 V)
• Device dust cover
• Multilingual Quick User's Handbook
• Pen-drive
• SD-card with Multilanguage speech material
• Resonance® MDS software with NoAH® module included (demo version)
• Spare fuse

OPTIONALS

• USB external keyboard
• Goose-neck microphone
• Insert-Transducer (for masking)
• TDH39 headset
• Pediatric Headset (AC or BC)
• ADC Audiocups Noise reducing headset enclosures
• IP30 insert earphones
• B81 High Output Bone Conductor
• Carrying bag
• MDS software license
• Quick-SIN test license
• Silent cabin cables
• Free field loudspeaker
• Operator headset with microphone and speaker (talk over and monitor)
• Additional patient response pushbutton