

Technical specifications:

Measurement techniques
TEOAE
Evaluation method: Noise-weighted averaging, counting of significant signal peaks
Stimulus: Non-linear click sequence
Stimulus level: 70-84 dB SPL (45-60 dB HL), self calibration depending on ear canal volume
Click rate: Approx. 60 Hz
Frequency range: 1.5 to 4.5 kHz
Display: Statistical waveform, measurement progress, TEOAE detection level, noise level
DPOAE
Evaluation method: Noise-weighted phase statistics
Stimulus: Primary tone pair, f2/f1 = 1.24
Available test frequencies: Configurable, f2 range 1 to 6 kHz
Default test frequencies: f2 = 2, 3, 4 and 5 kHz (PASS at 3 out of 4)
Test level: I1/I2 = 59/50 dB SPL
Display: DPOAE level, test progress, noise level, DP-Gram
Result display: Overall PASS/REFER, DP-Gram with DPOAE and noise level
ABR
Evaluation method: Noise-weighted averaging and template matching
Stimulus: 35, 40 or 45 dB nHL click
Click rate: Approx. 80 Hz
Impedance sense signal: 1 kHz square wave
Impedance test range: 1 to 99 kΩ
Impedance accepted for test: < 12 kΩ
Impedance control:
Before test, periodically during test, stimulus continues during impedance control
Display: Statistical graph, test progress, EEG-level, ABR detection probability
Electrodes: Disposable hydrogel electrodes
Dimensions
Approx. 202 x 73 x 30 mm (8 x 2.8 x 1.2 inches)
Weight
Approx. 240 g (8.5 oz) excluding battery
280 g (9.9 oz) including battery
Display
Type: Color, TFT, touch screen with adjustable LED backlight
Dimensions: 89.4 mm (3.5 inches)
Resolution: 240 x 320 pixels
Keystroke durability: min. 1 million repetitive strokes per screen point
Keypad
Resistive Touch Screen (can be used with gloves)
Memory
Patient memory capacity: Max. 250 patients / Min. 500 tests
Connectors
OAE probe connector: 14 pin ODU Medisnap - For OAE Probe or ABR ear coupler cable
ABR (ABR version only): 4 pin ODU Medisnap - For ABR electrode cable
Real time clock
Integrated real-time clock for time-stamping of measurements.
The clock is automatically synchronized with PC clock when docked.
Backup: Min. 5 days, when battery is removed from unit
Data interfaces
PC: IR data transmission to Docking Station - USB interface from Docking Station to PC
Transport and storage environment
Temperature range: -20 - +60°C (-4 - 140 °F)
Humidity range: 20-80 % rel., non-condensing
Air pressure 500 hPa to 1060 hPa
Operating environment
Temperature range: 10 - 40°C (50 - 104°F)
Humidity range: 30-80 % rel., non-condensing
Air pressure 600 hPa to 1060 hPa

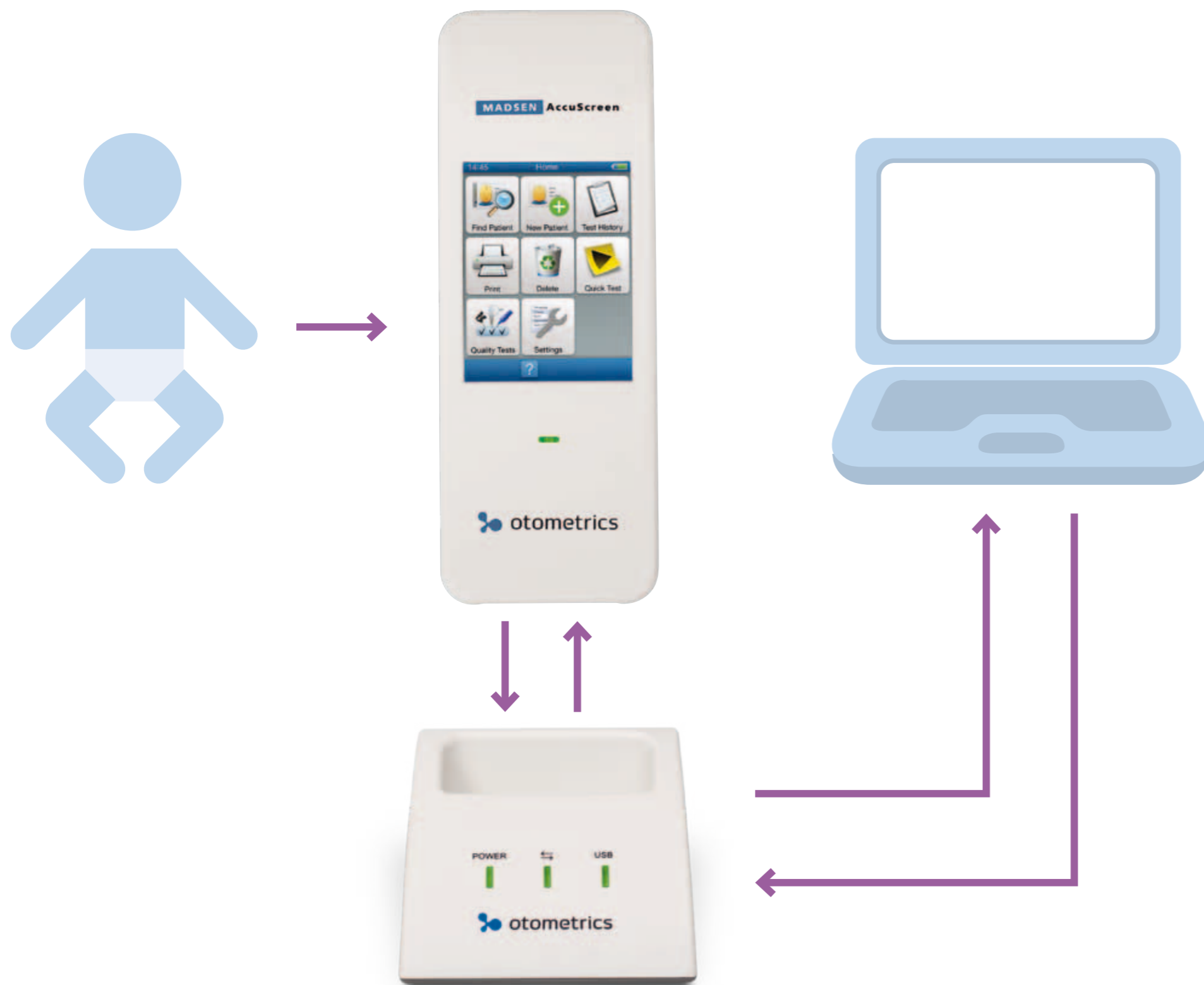
Standards
Otoacoustic emissions: EN 60645-6, Type 2
Auditory evoked potentials: EN 60645-7, Type 2
Patient Safety:
• EN 60601-1, Internally Powered, Type BF, IPXO
• U2601-1; CAN/CSA-C22.2 NO 601.1-90,
• IEC 60601-2-26
• IEC 60601-2-40
EMC: EN 60601-1-2
Power supply and battery
Battery type: Rechargeable Li-ion 3.7 V/1800 mAh (6.7 Wh), fully charged
Estimated battery life: 8 hours of continuous use (based on a typical use scenario.
Actual use can influence the battery life time)
Battery level indicator: 5-step battery level indicator
Charge time in AccuScreen docking station: 80% charged 4½ hours. Fully charged 6 hours
PC interface
Interface type: USB 2.0, Full-speed
USB Power: Uses <100 mA of current from the USB interface
Printer interface
Interface type: RS232
Connector type: 6-pol Mini Din
DC power input
Input voltage: 5 V DC ±5%
Max. power consumption when AccuScreen is docked: 5VA (5V, 1.0 A)
Max. power consumption when AccuScreen is not docked: 0.25 VA (5V, 50 mA)
Power adapter
Input voltage/range: 100-240 V AC, 50-60 Hz
Output voltage: 5.0 V DC/min. 1.0A
Mains plug types: US, UK, Europe and Australia
Probe
Flexible, shielded cable, approx. length: 120 cm (approx. 55 inches)
Dimensions
Probe body: 20 mm Ø x 23 x 11 mm (0.8" Ø x 0.9" x 0.43")
Probe tip: 3.3 mm Ø x 10 mm (0.13" Ø x 0.4")
Weight
Probe incl. probe tip: Approx. 4.5 grams
Eartips
Standard (cylindric): 4 sizes (3.7 - 5 mm)
Tree tip: 1 size (4 - 7 mm)
Foam tip: 1 size (13 mm)
ABR electrode cable
Flexible, shielded cable, approx. length: 140 cm (approx. 55 inches)
ABR ear coupler cable (optional)
Flexible, shielded cable, approx. length: 145 cm (approx. 57 inches)
Device class
Ila (according to Council Directive 93/42/EEC Appendix IX)
Standard accessories
The MADSEN AccuScreen comes with customized Carrying case, Docking station including Power Adaptor and USB Cable, Starter kit, OAE probe (DPOAE/TEOAE or TEOAE only), Battery, ABR electrode cable (ABR version only), ABR Tester (ABR version only), Cleaning cloth and User Manual
Optional accessories
Label Printer with printer cable, ABR ear coupler cable and External battery charger.
Standard accessories and optional accessories may vary from country to country - please consult your local distributor.



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Newborn Hearing
Screening gets a "touch"
more intuitive

Your workflow has never been so simple



MADSEN AccuScreen®

The new MADSEN AccuScreen

- + Developed by the same people who developed the first MADSEN AccuScreen
- + Combined OAE/ABR device enabling two-step screening
- + Quality tests
- + Small and lightweight
- + Angled probe for better fit
- + Probe and ear couplers for ABR
- + Dual-density earcoupler design for more reliable results
- + User login option for data security
- + Low maintenance costs

Breakthrough touch screen display

- + Easy and intuitive data entry
- + Easy and intuitive navigation
- + Detailed test and result screens
- + On-screen help menu

AccuLink software

- + Patient management
- + User management
- + Device management
- + Test management
- + Comprehensive settings menu

MADSEN AccuScreen docking station

- + Upload patient lists to the instrument
- + Download patient data including test results, comments and risk factors, to the AccuLink software
- + Transfer instrument settings defined in the AccuLink PC software
- + Transfer firmware updates
- + Charge battery
- + Connect label printer
- + Store instrument

More than
36,000,000
newborns tested with AccuScreen