

Channels	
2 separate and identical channels	
Pure tone frequencies	
AC and SF:	12 standard 125 - 8000 and 12500 Hz
BC:	250 - 8000 Hz standard frequencies
Insert phones	125 - 6000 Hz standard frequencies
Accuracy:	Better than 1 %.
Modulation	
FM (Warble):	1 - 20 Hz in 1 Hz steps. Mod. width 1% - 25% in 1% steps
AM for SISI:	5, 4, 3, 1, 0.75, 0.50, 0.25 dB HL steps
Wave form:	Triangular
Attenuator	
1 dB HL / 2.5 dB HL / 5 dB HL step resolution over the entire range	
Attenuator accuracy	
In whole range:	better than 3 dB HL
Between two consecutive attenuator positions:	
5 dB HL step:	better than 1 dB HL
2.5 dB HL step:	better than 0.75 dB HL
1 dB HL step:	better than 0.3 dB HL
HL Range	
Maximum output will be limited by the transducer.	
AC:	-10 to 120 dB HL at mid-frequencies
BC:	-10 to 70 dB HL at mid-frequencies
HIS function	
Low pass frequencies:	250 Hz, 500 Hz, 1 kHz or 2 kHz
High pass frequencies:	1 kHz, 2 kHz, 3 kHz or 4 kHz
Amplification options:	0, 5, 10, 15, 20, 25 dB SPL
Max. output:	130 dB SPL (for TDH39)
Max. gain:	50 dB SPL
Masking	
Narrow band noise, Speech noise and White noise (Wide band noise)	
Narrowband noise	
Bandwidth:	Approximately 0.44 octaves (verified to be within 1/3 and 1/2 octaves, as required by audiometer standards).
Calibration:	Effective masking according to IEC and ANSI standards.
Speech noise:	Fulfills IEC and ANSI requirements to speech noise.
White noise:	<b>Bandwidth</b> Electrical bandwidth: 100-20000 Hz. Acoustic bandwidth is transducer dependent.
	<b>Spectrum</b> Measured in third-octave bands, the spectrum level increases by 3 dB/octave.
	<b>Calibration</b> Calibrated in dB SPL, according to IEC and ANSI audiometer standards. Alternatively, calibration according to local standards may be ordered from the manufacturer.
Total harmonic distortion	
Air < 2.5 %	
Bone < 5 %	
Selectable transducers	
AC:	TDH39, ME-70, and Otometrics insert phones
BC:	BC-1, B-71 (Mastoid / Forehead)
SF:	TDH39, ME-70, Otometrics insert phones, Free-Field amplifier/loudspeaker
Transducer options depend on how MADSEN Itera II is calibrated.	
Outputs	
AC:	2 x mono jack, 1/4 "
BC:	1 x mono jack, 1/4 "
SF:	2 x mono jack, 1/4 "
External inputs	
CD/Tape:	0.2 to 2.0 Vrms, 10 k 2 x RCA phone
Microphone:	0.002 to 0.02 Vrms, 2 x 8-pole DIN
Talk Back:	0.002 to 0.02 Vrms, 5-pole DIN for all microphones
DC bias for electric Mic.	
Optional input resistance between: 10 k and 600Ω.	
Operator output	
Two stereo monitor sockets (8-pole DIN horseshoe) for headphones. One socket is fitted with a Talk Over Mic. Input option. The monitor signal follows the test signal, although the volume can be adjusted individually for each channel. The Talk Back signal from patient to operator is mixed with the monitor signal.	
RS232 interface	
Format:	8 data bit, 1 stop bit
Parity:	Equal
Baud rate:	9600, 19200, 38400, 57600 Baud
Protocol:	XON/XOFF
Disposal	
MADSEN Itera II can be disposed of as normal electronic waste, according to WEEE and local regulations.	
Dimensions	
Approx. 450 x 290 x 85 mm, 17.7 x 11.4 x 3.3 inches	

**Weight**

Approx. 4.5 kg, 9.9 lb.

**Power supply**

Internal, 100 - 120 V AC, 200 - 240 V AC, 50/60 Hz

**Power consumption**

< 60 VA

**Standards**

Audiometer:	EN60645-1, EN60645-2, EN60645-4, and ANSI S3.6
Patient Safety:	Complies with IEC 60601-1 3.1 edition:2012, Class I, Type B; IEC 60601-1-6:2010; IEC 62366:2007; CAN/CSA-C22.2 NO 60601-1:2014; ANSI/AAMI ES60601-1 (2005) + AMD 1 (2012)
EMC:	IEC 60601-1-2:2007

**Accessories**

Standard accessories and optional accessories may vary from country to country - please consult your local distributor.

TDH 39 headphones (Headband: HB-7, HB-8), ME-70 headphones, Otometrics insert phones, Bone oscillators: BC-1, B-71, Sound field loudspeakers, Monitor headphones with boom microphone, Gooseneck talk-over microphones (one right and one left microphone) for speech audiometry and Hearing Instrument Simulation, Talkback microphone, Patient Responder(s), Mains cable, Power supply cable from MADSEN Itera II to CD player, PA 210 power amplifier for free-field testing, Wall mount kit for amplifier, Connection cables, Audiogram pad, MADSEN Itera II Reference Manual, MADSEN Itera II User Guide

**System requirements**

For system requirements, please refer to the OTOsuite data sheet.

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