

# Axiom Specifications

Specifications subject to change without notice

## Storage & Transportation

Temperature.....	-20°C to +60°C
Relative humidity (non-condensing).....	5% to 95%
Atmospheric pressure.....	500-1060 hPa

## General

Overall dimensions.....	12.5" x 12.25" x 4.25" (31.75cm x 31.12cm x 10.8cm)
Weight.....	7.6 lbs (3.45kg)
Power source.....	100-240V, 47-63Hz, 1.35A
Display type.....	User supplied
Resolution.....	800x600 (SVGA)
Printer type.....	User supplied
Power amplifiers.....	1
Stimulus channels.....	1
Measurement channels.....	1
Connectors.....	4-USB
	1 - Ethernet (RJ45)
	2 - HDMI
	1 - RECD transducer(3.5mm st)
	1 - test chamber ref. mic.(3.5mm st)
	1 - coupler microphone(3.5mm st)
	1 - External speaker(RCA)
	2 - real-ear mic.(3.5mm st)

## Test Box

Working Space.....	.60 in <sup>2</sup>
Test Box Isolation @ 1kHz: .....	>25 dB
Speaker.....	1 - 30.5mm Round
Frequency Range.....	200 - 8000 Hz
Coupler microphone noise floor .....	(200 - 8000 Hz): <40 dB SPL
Test Stimuli.....	tone, tone burst, pink noise, calibrated or live speech
Test stimulus levels.....	40 to 90 dB SPL in 5 dB steps
Test stimulus distortion .....	<2% at 90dB SPL
	<0.5% at 70 dB SPL
Test stimulus accuracy at reference mic. for tones (200-2000 Hz).....	+/- 1.5 dB SPL
Test stimulus accuracy at reference mic. for tones (2000-8000 Hz).....	+/- 2.5 dB SPL
Equalization method.....	pressure method
Analysis frequencies per octave.....	12
Analysis filter bandwidth.....	1/12 octave
Measurement accuracy at 1 kHz.....	+/- 1db
	+/- 1 dB (200-5000 Hz)
	+/- 2.5 dB (5000-8000 Hz)
Measurement range.....	30 - 140 dB SPL
Harmonic distortion measurement.....	2nd and 3rd or 2nd plus 3rd
Harmonic distortion range.....	200 to 4000 Hz
Harmonic distortion accuracy.....	+/- 1%

## ANSI S3.22 - 1996 and 2003 tests available

OSPL90.....	Full-on Gain.....	Reference Test Gain.....	Frequency Response.....	Frequency Range.....	Maximum OSPL90.....	Harmonic Distortion.....	Attack & Release time.....	Equivalent Input Noise.....	Input/Output Curves.....	Coupler SPL
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## Other tests Available:

Speechmap® real-speech audibility measures.....Manual measurement of output, gain, and distortion

## On-Ear

Speakers.....	1 - 5.25" x 3.75" x 3.75"
Frequency Range.....	70Hz - 21kHz
Probe microphone tube.....	Silicone 1.0 mm diameter x 75 mm
Probe microphone noise floor.....	(200 - 8000 Hz): <45 dB SPL
Frequency Range.....	200 to 8000 Hz
Test Stimuli.....	tone, tone burst, pink noise, calibrated or live speech
Freq. modulation.....	sawtooth +/- 3% over 128 ms
Test stimulus levels for tones.....	40 - 85 dB SPL in 5 dB steps
Test stimulus accuracy at reference mic. for tones (200 - 2000Hz).....	+/- 1.5 dB SPL
Test stimulus accuracy at reference mic. for tones (2000- 8000 Hz).....	+/- 2.5 dB SPL
Equalization Method.....	pressure method (stored for open fittings)
Frequencies per octave (swept tones).....	12
Frequencies per octave (tone burst).....	3
Analysis bandwidth (speech, noise).....	1/3 octave
Measurement accuracy at 1 kHz.....	+/- 1 dB
Measurement accuracy re 1 kHz .....	+/- 1 dB (200-5000 Hz)
	+/- 2.5 dB (5000-8000Hz)
Measurement Range .....	20-135 dB SPL (200-2500 Hz)
	30-140 dB SPL (2500-8000Hz)

## ANSI S3.46 - 1997 tests available

Real-Ear Unaided Response.....	Real-Ear Aided Response.....	Real-Ear Occluded Response.....	Real-Ear Insertion Gain
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## Other tests available

Speechmap® real-speech audibility measures.....On-ear harmonic distortion.....On-ear spectral analysis.....Manual measurement of output, gain, and distortion

## Fitting methods available

Speechmap® with DSL 5.0a, NAL-NL1, CAMFIT  
Insertion gain with NAL-RP, NAL-NL1, Fig6, Pogoll, Berger, Libby

## Sensory Loss Simulator

Simulation types.....	Linear conductive
	Non-linear outer hair cell cochlear loss
Simulation bands.....	.65

Specifications



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