

BeHear® ACCESS

Technical Specifications



Sound Enhancement by Alango Technologies, Ltd.

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Wear & Hear is the brand name for a line of concept, future-looking wearable audio devices that are being developed by Alango Technologies, a leading supplier of voice and audio enhancement technologies for the communication and entertainment markets.

BeHear is a registered trademark of Alango Technologies, Ltd.

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1. Features

BeHear ACCESS is a Personal Hearing Device (PHD) that combines the functionality of a:

- **Bluetooth stereo headset** for wireless mobile phone calls and media playback
- **Assistive listening device** enhancing all-around hearing and speech intelligibility
- **Digital hearing aid** for personalized sound amplification for varying frequencies

BeHear ACCESS utilizes voice processing technologies developed by Alango Technologies, Ltd., such as:

- **ListenThrough™** passes through important ambient sounds during music playback
- **EasyListen™** slows down speech rate during phone conversations
- **Personal Sound Amplifier** provides dynamic, compressed amplification of ambient sounds
- **Hearing enhancement functions** include noise reduction, echo cancellation and more

2. Bluetooth®

- Bluetooth compliance
 - **BeHear ACCESS Model I:** Bluetooth v.4.2 + EDR + Low Energy
 - **BeHear ACCESS Model II:** Bluetooth v.5.0 + EDR + Low Energy
- Supported Bluetooth profiles HFP v1.6, HSP v1.2, A2DP v1.2
- Bluetooth transmission power Class II, +4dBm
- Supported audio CODEC's SBC, APTX, APTX-LL
- Operating range 10m
- Paired devices connected to 2 at the same time (multi point)

3. Audio

3.1 Speakers

- Type 13.6mm electrodynamic receiver
- Frequency range 20Hz – 20kHz
- Sensitivity 102dB ± 3dB @ 1mW

3.2 Microphones

- Type dual 6mm omnidirectional EMC
dual omnidirectional digital
- Frequency range 100Hz – 10kHz

3.3 T-coil Receiver

- Type dual coil
- Frequency range 200Hz – 8kHz

4. Acoustic

Measured according to ANSI S3.22-2009

4.1 2cc Coupler Output OSPL90

- 1000Hz 116.7 dB SPL
- 1600Hz 117.8 dB SPL
- 2500Hz 113.9 dB SPL
- HFA 116.3 dB SPL

4.2 2cc Coupler Full-On Gain (factory default)

- 1000Hz 44.2 dB

- 1600Hz 42.8 dB
- 2500Hz 38.8 dB
- HFA 42.2 dB

4.3 2cc Frequency Range (factory default)

- <100Hz – 7500Hz

4.4 2cc Coupler Equivalent Noise Level

- 24 dB SPL

4.5 2cc Coupler THD

- 500Hz 0.5%
- 800Hz 0.7%
- 1600Hz 0.2%

5. Battery

- Battery capacity 250mAh
- Operation Time
 - Hearing mode 13 hours
 - Talk 10 hours
 - Media Play 8 hours
 - Standby 400 hours
- Charging time 2 hours
- Charging interface micro-USB

6. Mechanical

- Wearing style behind a neck
- Weight 47g (1.66oz)

7. Operating Conditions

- Temperature -10°C...+50°C (14°F...122°F)
- Humidity <95%
- Atmospheric pressure 70...106KPa

8. Certifications

- FCC
- CE RED, RoHS, WEEE
- TELEC

9. Figures

Figure 1 - Speaker Sensitivity Chart

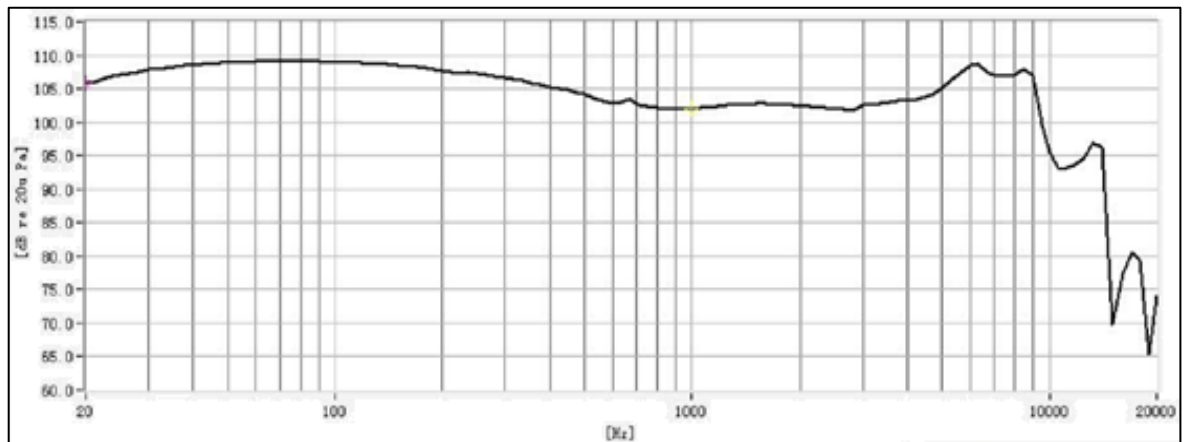


Figure 2 - Earcup Microphone Frequency Response Chart

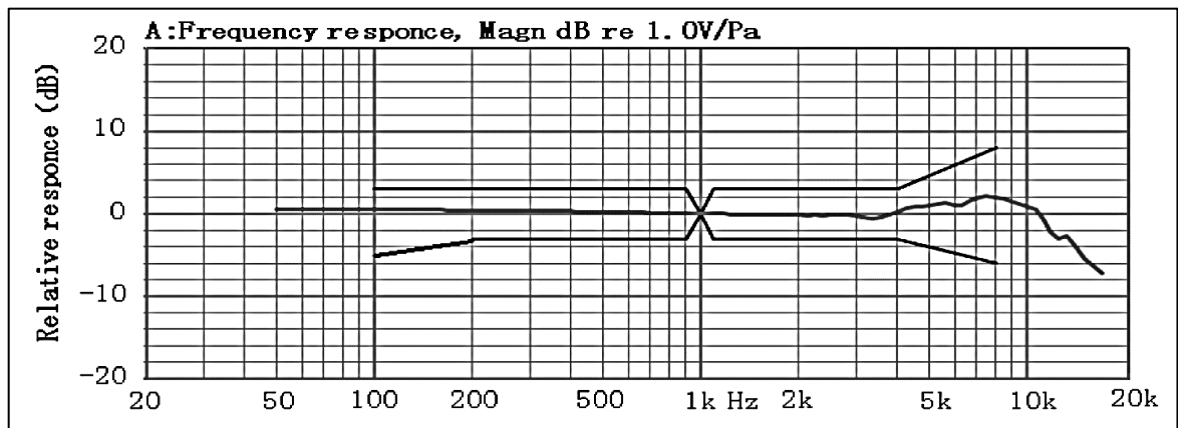


Figure 3 - Control Box Microphone Frequency Response Chart

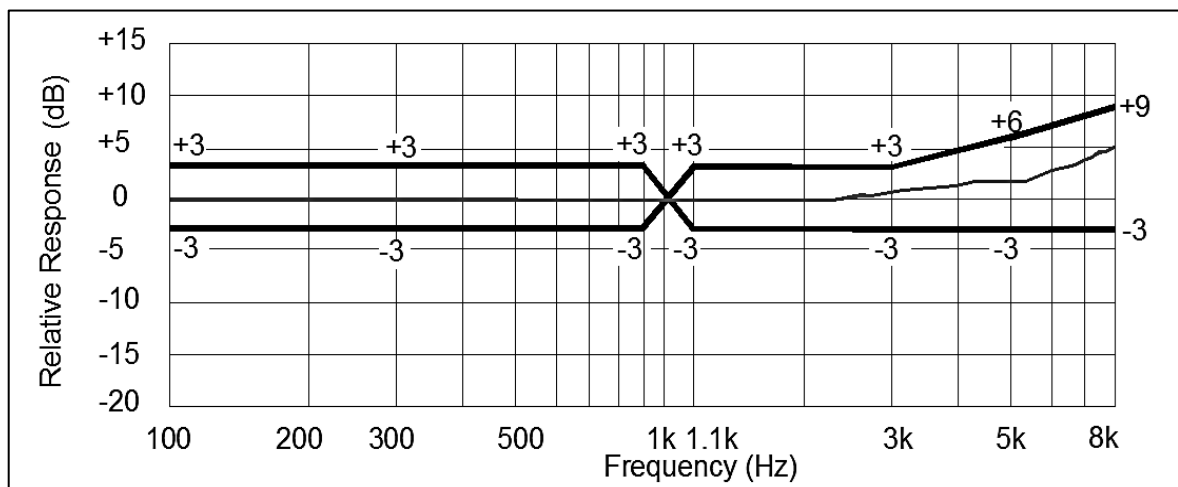
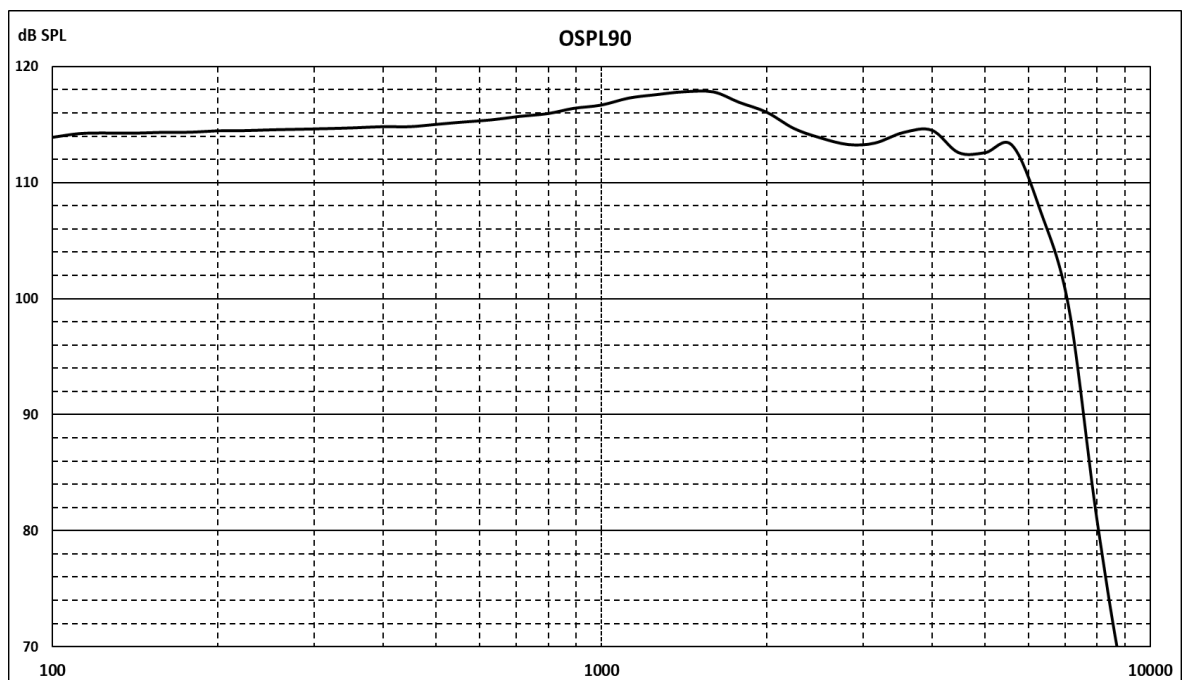
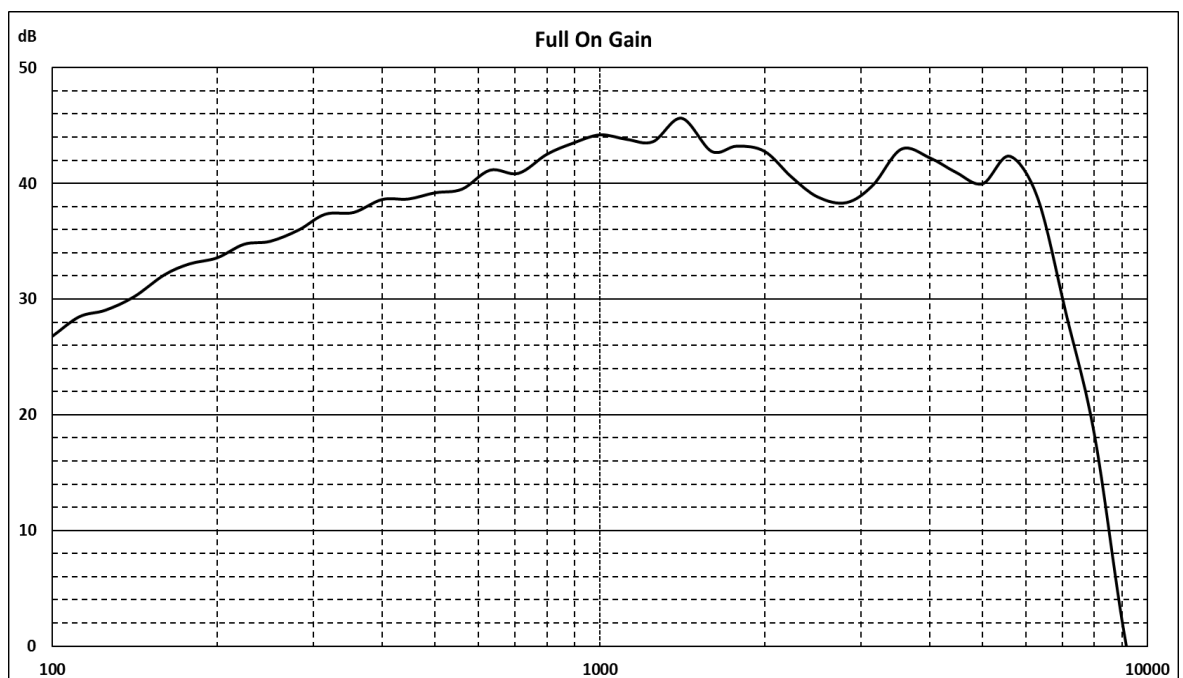
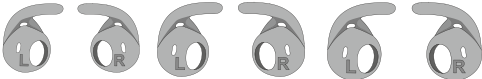
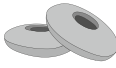


Figure 4 – OSPL90 Frequency Response Chart*Figure 5 – Full-on Gain Frequency Response Chart*

10. Package Contents

Part	Image	Quantity
BeHear Headset		1
Charging Cradle		1
Charging Cable		1
Silicone Ear Hook, small/medium/large, left & right pair		3
Silicone Earbuds, mushroom, open ear, extra-small/small/medium/large		8
Silicone Earbuds, conical, small/medium/large		6
Silicone Earbuds, open-fit		2
Silicone Earbuds, open-ear		3
Wind Protection Covers		4
Travel Case		1
Quick Start Guide		1