Portable Pure-Tone Audiometer

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Solution

Complete Feature Set
- Air and Bone Conduction Audiometry
- Fully Automated Test Procedure
- Masking Support
- Touchscreen Interface

Portable
- Noise Cancelling
- Battery Powered
- Small Form Factor
- Lightweight

Inexpensive
- Typical audiometer start up cost: $51,000
- Target cost of our product: $1,000
- No need for sound-proof room.
- No need for large/expensive equipment

Finding the Hearing Threshold

The algorithm that was implemented to determine the patient's hearing threshold at a particular frequency is known as the "ascending method." It mimics the standard method used with manual audiometers.

Does it Work?

The following graphs show the frequency content of the the sounds a patient would hear in a typical testing environment with the device generating a 500Hz tone via air conduction and bone conduction.