



Headphone Solution Setup



The configuration module is implemented within companion apps, with the processing module integrated into the audio stack of the headphone DSP, enabling real-time audio adaptation.

CONFIGURATION

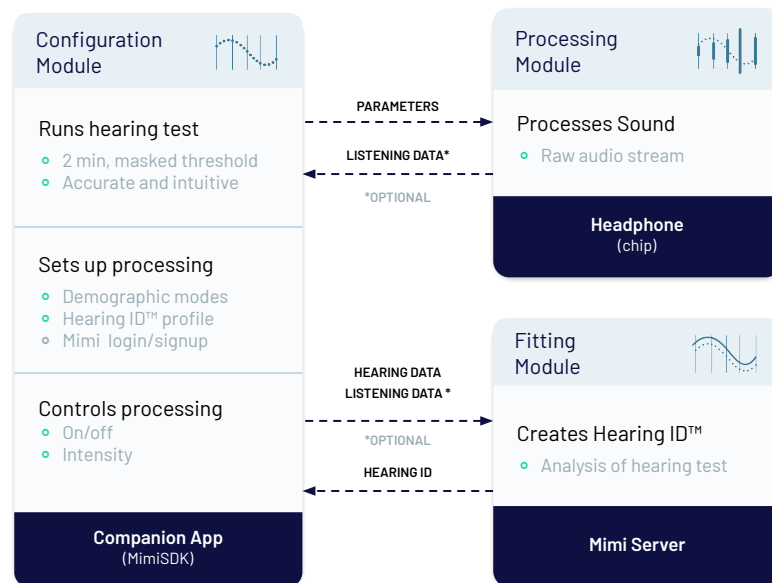
- **Hearing Test** measures the user's hearing ability through Mimi's intuitive and accurate hearing test
 - 2 min, masked threshold
 - Accurate and intuitive
- **Hearing ID** a listener's hearing profile that enables sound personalization in all Mimi enabled devices
- **Demographic modes** age-based estimation of users hearing

FITTING

- **Data Analysis** informed by over 1 million hearing profiles, our server processes raw hearing data to generate results & the user Hearing ID™

PROCESSING

- **Audio processing** adapts sound to the unique hearing of the listener, with a biologically-inspired algorithm
- **Processing controls** allow users to set intensity and toggle on & off







Headphone

Platform Specs



App Integration		Configuration module 
Operating system	iOS	Android
Integration language	Swift (4.2, 5.0)	Kotlin (1.3.21)
Supported OS	Min. iOS 10.x	Min. API 21 / 5.0 Lollipop
Supported architectures	arm64, armv7, armv7s;	armeabi-v7a, arm64-v8a, x86, x86_64
SDK size	~11.4 MB	~7.2 MB
MimiSDK version	v2.x (for Xcode 10.x)	v2.x (for Android Studio 3.5)

Headphone Integration		Processing module 
Integration options	DSP library	
Supported platforms	CSR867x, QCC51xx	
Algorithmic latency	4.4ms (@44.1kHz)	
Codecs	Independent of audio codecs	
Parameter handling	Partner side, e.g. custom BLE, SPP, MFi	
Configuration*	Via RAM or PSKeys	
Memory*	~7900 words (data) ~1100 words (program)	
MIPS / Current*	28 MIPS / 2.2mA (@44.1kHz stereo)	

*Reference figures from Mimi standard Kalimba integration on CSR867x.

This document provides detailed insights into Mimi's technical specifications regarding a bluetooth headphone integration.

The Mimi processing module can be ported to further platforms, with new solutions on the roadmap. Please contact sales@mimi.io for more details.