Android Audio Connect App User Guide

V2.4
2023/10/10

Realtek Semiconductor Corp.
No.2, Innovation Road II, Hsinchu Science Park, Hsinchu 300, Taiwan
Tel.: +886-3-578-0211. Fax: +886-3-577-6047
www.realtek.com

COPYRIGHT

©2023 Realtek Semiconductor Corp. All rights reserved. No part of this document may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form or by any means without the written permission of Realtek Semiconductor Corp.

DISCLAIMER

Realtek provides this document 'as is', without warranty of any kind. Realtek may make improvements and/or changes in this document or in the product described in this document at any time. This document could include technical inaccuracies or typographical errors.

TRADEMARKS

Realtek is a trademark of Realtek Semiconductor Corporation. Other names mentioned in this document are trademarks/registered trademarks of their respective owners.

USING THIS DOCUMENT

This document is intended for the software engineer's reference and provides detailed programming information. Though every effort has been made to ensure that this document is current and accurate, more information may have become available subsequent to the production of this guide.

ELECTROSTATIC DISCHARGE (ESD) WARNING

This product can be damaged by Electrostatic Discharge (ESD). When handling, care must be taken. Damage due to inappropriate handling is not covered by warranty.

Do not open the protective conductive packaging until you have read the following, and are at an approved anti-static workstation.

- Use an approved anti-static mat to cover your work surface
- Use a conductive wrist strap attached to a good earth ground
- Always discharge yourself by touching a grounded bare metal surface or approved anti-static mat before picking up an ESD-sensitive electronic component
- If working on a prototyping board, use a soldering iron or station that is marked as ESD-safe
- Always disconnect the microcontroller from the prototyping board when it is being worked on

Revision History

Date	Version	Comments	Author	Reviewer
2017/10/30	V 1.0.9	Initial	Jennifer	Jason
2017/11/01	V 1.0.10	Update	Jennifer	Jason
2018/05/14	V1.0.37	Reconstruction	Nat	Jason
2018/11/20	V1.1.3	Add OTA Over SPP	Nat	Jason
2019/12/11	V1.1.11	Add APT/KeyMap/LockButton function Optimize Sync mechanism Update OTA SDK.	Nat	Annie
2020/07/06	V1.1.16	Add ANC Function Add Gaming Mode	Nat	Annie
2022/03/30	V2.0.0	Add Real Hearing Enhancement Add APT Add ANC Add Equalizer	Alina	Nat
2022/03/31	V2.0.1	Add Gaming Mode Add VP/Ringtone Add Key Remap Add Clean Data Add Help Add About Update Establish Connection Update Settings Update Home	Alina	Nat
2022/12/08	V2.1	Add APT Type	Nat	Annie
2023/08/14	V2.2	Add Disclairm	Alina	Nat
2023/10/07	V2.3	Update UI for latest version Add SPP Data Capture Add Burn/Apply ANC_APT Param Add Voice EQ	Alina	Nat
2023/10/10	V2.4	Update Real Hearing Enhancement Add Real Hearing Assessment Add Real Hearing Compensation Add EQ Hearing Compensation Adjust Equalizer	Alina	Nat

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

Contents

1 Introduction 1
2 Establish Connection 2
2.1 Scan 2
2.2 Connect 2
3 Home 4
4 Settings 5
5 Change Name 6
6 Change Language 7
7 Channel 8
8 OTA 9
8.1 Select File 9
8.2 Update 11
8.3 Update success 12
9 Real Hearing Enhancement 13
9.1 Listening Mode Cycle 13
9.2 Listening Mode 13
10 APT 15
10.1 APT EQ 15
10.2 APT Volume 15
10.2.1 Level 16
10.2.2 Step 16
10.2.3 Synchronized adjustment 17
10.3 LLAPT Multi-Set Switch 17
10.4 Hearing Aid 17
10.4.1 Real Hearing Enhancement 18
10.4.2 Real Hearing Assessment 20
10.4.3 Real Hearing Compensation 22
10.5 APT Type 23
11 ANC 25

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

11.1 ANC EQ 25
11.2 ANC Multi-Set Switch 25
11.2.1 Toggle scenario 26
11.2.2 Scenario Group 26
12 Gaming Mode 27
12.1 Toggle Gaming Mode 27
12.2 Set Latency Level 27
13 VP/Ringtone 28
14 Equalizer 30
14.1 Speaker Audio EQ 31
14.1.1 Normal Mode EQ 31
14.1.2 Gaming Mode EQ 32
14.1.3 ANC Mode EQ 32
14.2 Voice EQ 33
14.3 EQ Hearing Compensation 34
15 SPP Data Capture 36
15.1 Capture Configuration 36
15.1.1 Probe Config 37
15.1.2 SBC Config 37
15.2 Capture Data 38
15.2.1 Enter Test Mode 38
15.2.2 Start Capture 38
15.2.3 Stop Capture 39
15.2.4 Exit Test Mode 39
16 Burn/Apply ANC_APT Param 41
16.1 Init Burn/Apply Config Entrance 41
16.2 Init Burn/Apply Config 41
17 Key Remap 43
17.1 Call State 43
17.2 Key Remap 44
18 TTS 45

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

18.1 Connection 45
18.2 Permissions 45
18.2.1 Contact sharing 45
18.2.2 Audio 46
18.3 Calling 46
19 Clean Data 47
20 Help 48
21 About 49
22 FAQ 50

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

Figure List

Figure 1-1 Welcome Page 1
Figure 2-1 Scan Device 2
Figure 2-2 Connect 3
Figure 3-1 Home Page 4
Figure 4-1 Settings 5
Figure 5-1 Change Name 6
Figure 6-1 Change Language 7
Figure 7-1 Channel 8
Figure 8-1 Ota Page 9
Figure 8-2 Select File 9
Figure 8-3 Select A Firmware File 10
Figure 8-4 Choose Upgrade Way 10
Figure 8-5 Firmware Information 11
Figure 8-6 Firmware Is Upgrading 11
Figure 8-7 Firmware Upgrading Finished 12
Figure 8-8 Update Success 12
Figure 9-1 Listening Mode Cycle 13
Figure 9-2 Listening Mode 14
Figure 10-1 APT EQ 15
Figure 10-2 Level 16
Figure 10-3 Step 16
Figure 10-4 Hearing Aid 17
Figure 10-5 Hearing Enhancement 18
Figure 10-6 Custom Scenario Name 20
Figure 10-7 Check Noise 20
Figure 10-8 Locate To Specified Location 21
Figure 10-9 Hearing Test 21
Figure 10-10 Input Audiogram 22
Figure 10-11 Input Confirm 23
Figure 10-12 APT Type 24
Figure 11-1 ANC Multi Set Switch 25
Figure 11-2 Toggle Scenario 26
Figure 11-3 Scenario Group 26
Figure 12-1 Toggle Gaming Mode 27

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

Figure 12-2 Set Latency Level 27
Figure 13-1 Sync Switch 28
Figure 13-2 Single Earphone 28
Figure 13-3 Non RWS Headsets 29
Figure 14-1 Template 30
Figure 14-2 Save EQ Data 31
Figure 14-3 Music Is Not Playing Prompt 31
Figure 14-4 Normal Mode EQ 32
Figure 14-5 Gaming Mode EQ 32
Figure 14-6 ANC Mode EQ 33
Figure 14-7 Telephony Call Prompt 33
Figure 14-8 Voice EQ 34
Figure 14-9 Apply Hearing Compensation 34
Figure 15-1 SPP Data Capture Page 36
Figure 15-2 Capture Configuration 36
Figure 15-3 Probe Configuration 37
Figure 15-4 SBC Configuration 37
Figure 15-5 Enter Test Mode Is Not Allowed 38
Figure 15-6 Start Test Prompt 39
Figure 15-7 Exit Test Prompt 39
Figure 15-8 Exit Test Mode 40
Figure 16-1 Init Burn/Apply Config Entrance 41
Figure 16-2 Current Filter Type 42
Figure 16-3 Apply Or Burn Param 42
Figure 17-1 Key Remap 43
Figure 17-2 Call State 43
Figure 17-3 Key Remap 44
Figure 18-1 Connect With Device 45
Figure 18-2 Get Access To Contacts 46
Figure 18-3 Check “Phone audio” And “Media audio” 46
Figure 19-1 Clean Data 47
Figure 20-1 Help 48
Figure 21-1 About 49

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

Glossary

Terms	Definitions
OTA	Over The Air
SPP	Serial Port Profile
TTS	Text To Speech
BBPRO	Bumble Bee Pro(RTL87XX SOC)
BLE	Bluetooth Low Energy

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

1 Introduction

Audio Connect APP is designed to provide features for Realtek RTL87XX SOC Production.

It can support TTS, OTA, Equalizer function, OTA function, and make some configuration (Change device name…), after connecting with a RTL87XX product.

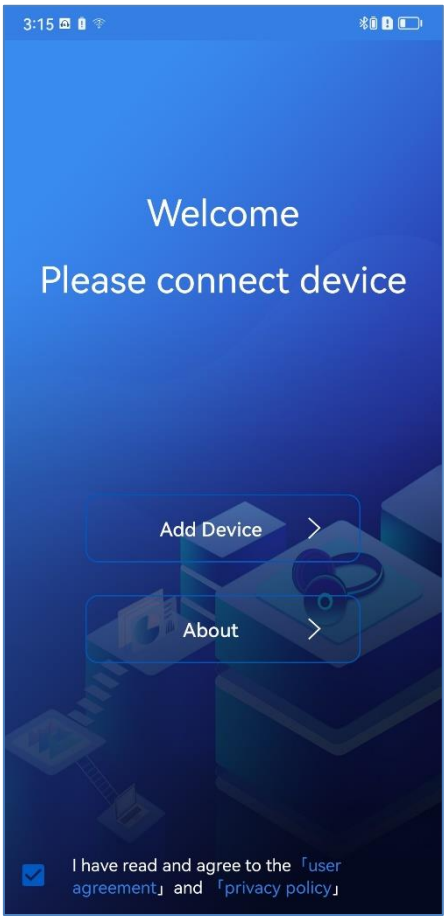

Figure 1-1 Welcome Page

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

2 Establish Connection

If you start the Audio Connect App for the first time, you will first request user permissions, and then enter the device connection interface; if you do not start the Audio Connect App for the first time, you will directly enter the device connection interface, as shown in the following figure.

2.1 Scan

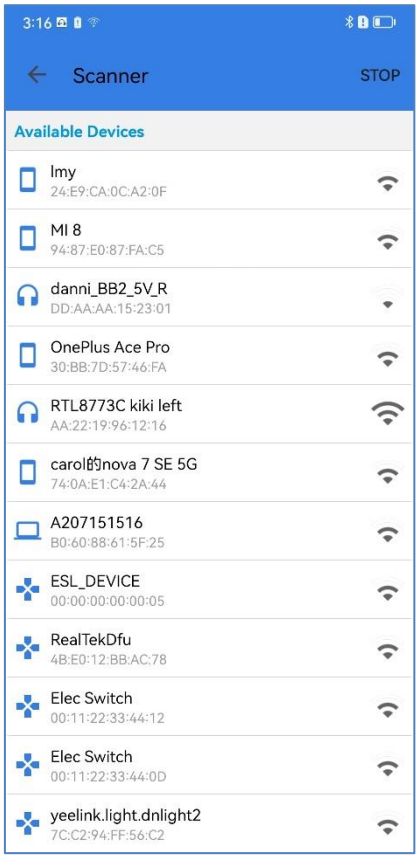

Figure 2-1 Scan Device

2.2 Connect

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

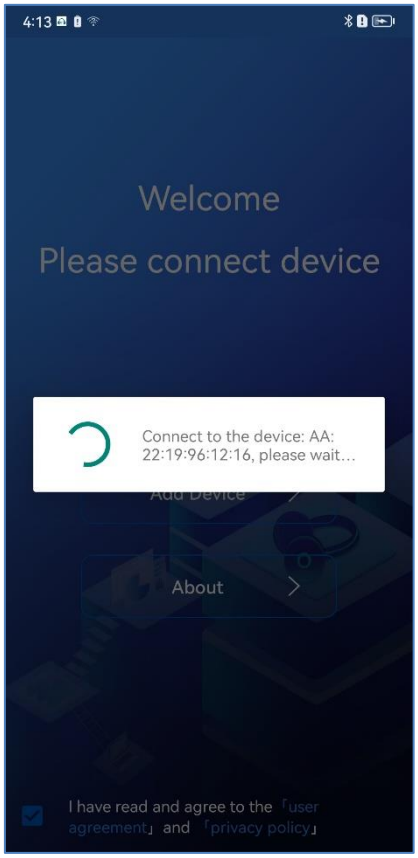

Figure 2-2 Connect

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

3 Home

After the device is successfully connected, it will jump to the device information page, as shown in the figure below, displaying the device name and battery level information.

Note: When the earphones are in and out of the box, the battery value will be refreshed dynamically.

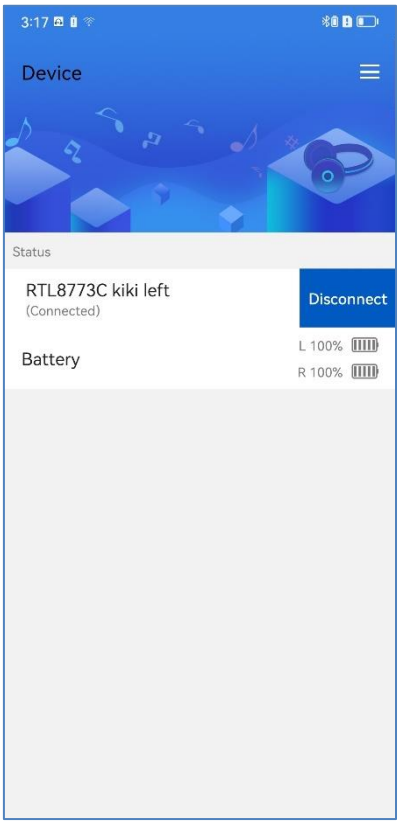

Figure 3-1 Home Page

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

4 Settings

Click the [Settings] button in the upper right corner of the [Home] to enter the settings page. The settings page mainly includes: firmware upgrade, change name, change language, channel, key remap, VP/Ringtone settings, RHE settings, gaming mode settings, EQ, etc.

Note: When connecting different models of devices, the displayed setting menu may be different. The App will dynamically adjust the display content of the menu according to the current device function support.

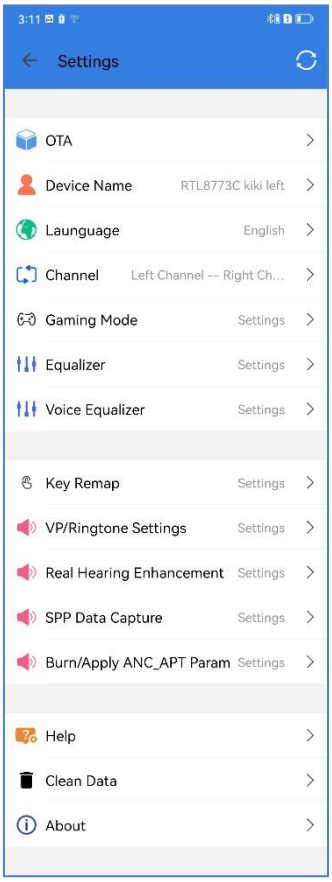

Figure 4-1 Settings

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

5 Change Name

This module is designed to modify RTL87XX device's name.

1. Similarly, confirm you have connected to a RTL87XX device. Connection process is the same as TTS.
2. Check a box, BR/EDR or BLE.

Support to modify the BR/EDR and BLE names, As shown below, input the new name and click [OK] to save.

Note: After changing the name, it will take effect only after the device factory reset.

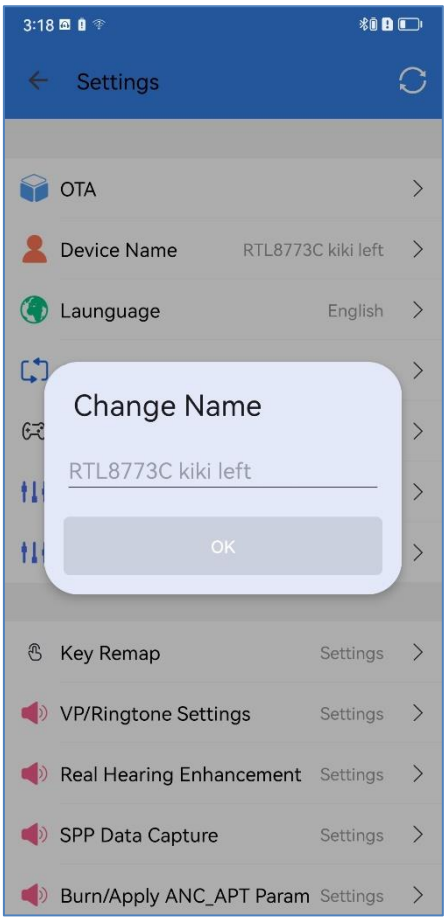

Figure 5-1 Change Name

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

6 Change Language

Modify the voice broadcast language.

Note: TTS currently only supports Chinese and English.

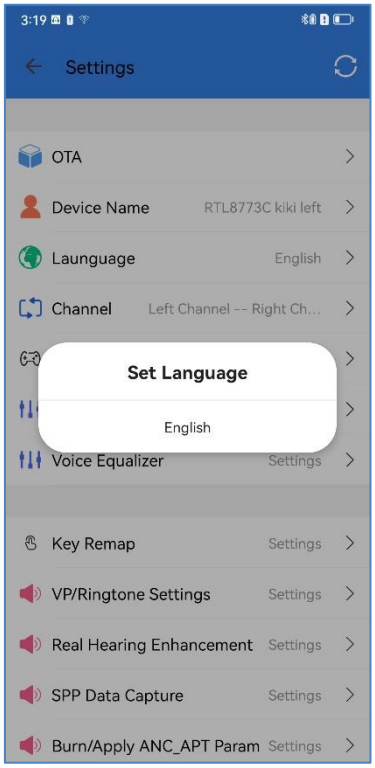

Figure 6-1 Change Language

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

7 Channel

There are three modes: left channel - right channel; right channel - left channel; left and right mix - left and right mix. Clicking [Switch] will cycle through these three modes.

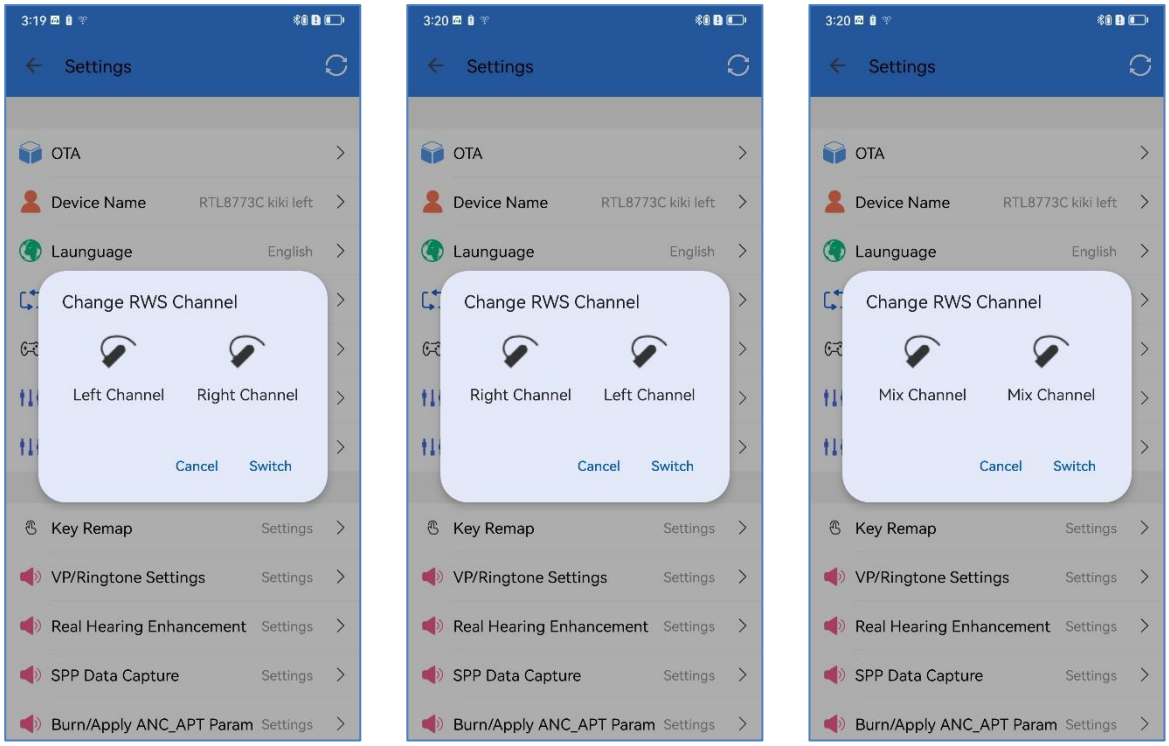

Figure 7-1 Channel

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

8 OTA

OTA module is designed to upgrade RTL87XX device's firmware.

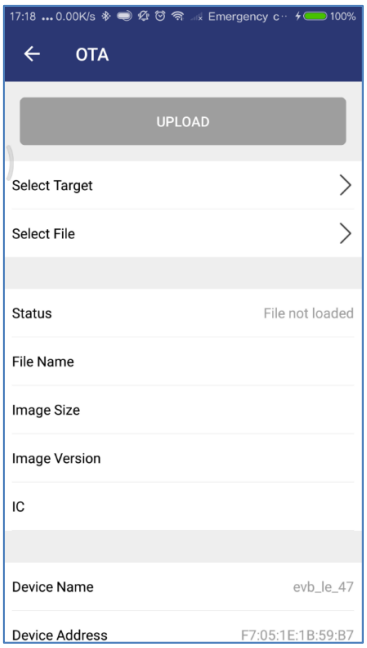

Figure 8-1 Ota Page

8.1 Select File

When the OTA Device Connected, then you may see the Target information as below, then you may select the related OTA Update File.

1. Click “SELECT FILE” button (Make sure your phone has a file browser installed. Recommend ES File Browser).

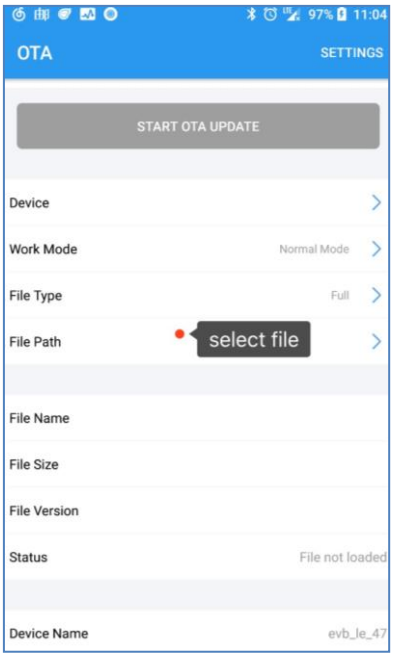

Figure 8-2 Select File

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

2. Click “SELECT FILE” button (Make sure your phone has a file browser installed. We recommend ES File Browser). Select a firmware file.

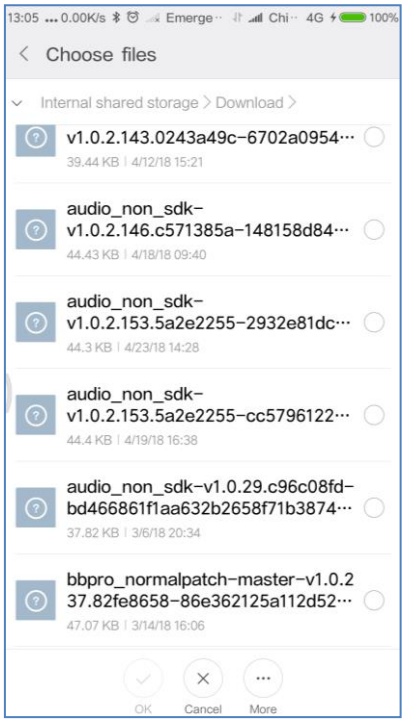

Figure 8-3 Select A Firmware File

3. Choose a way for upgrade. We recommend the “File Way”.

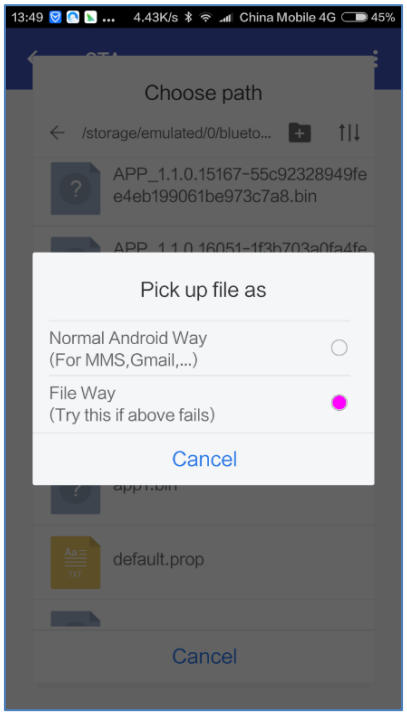

Figure 8-4 Choose Upgrade Way

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

8.2 Update

You can see firmware information, and click “UPLOAD” button to start the upgrade.

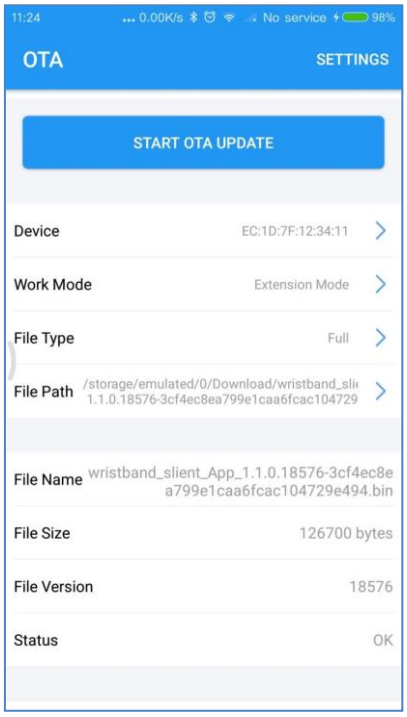

Figure 8-5 Firmware Information

Firmware is upgrading…

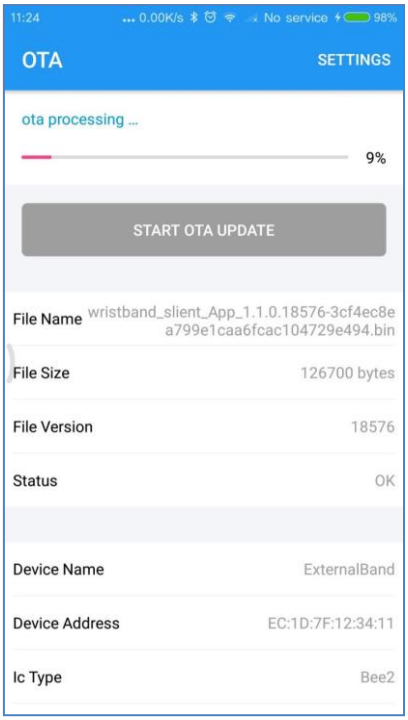

Figure 8-6 Firmware Is Upgrading

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

When upgrade finished, you will see the cost time and upgrade rate. And if you want to see the firmware version information again, click “SELECT TARGET” button to reconnect the device.

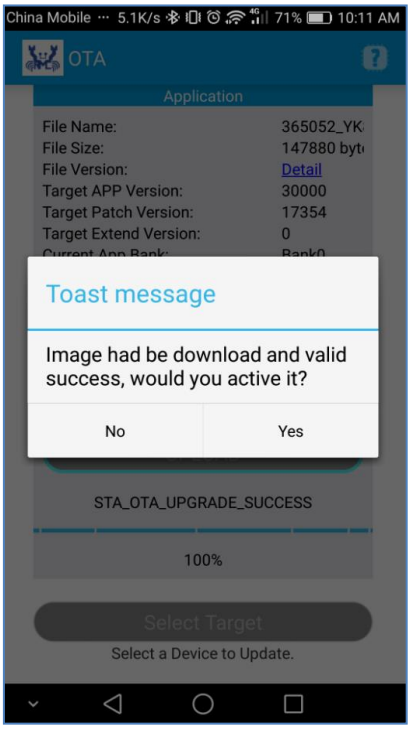

Figure 8-7 Firmware Upgrading Finished

8.3 Update success

When upgrade finished, you will see the cost time and upgrade rate. And if you want to see the firmware version information again, click “SELECT TARGET” button to reconnect the device.

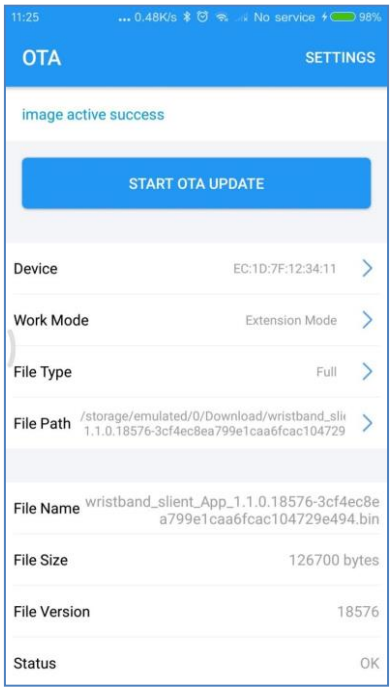

Figure 8-8 Update Success

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

9 Real Hearing Enhancement

9.1 Listening Mode Cycle

Set the cycle mode of the key switch Listening Mode, there are four options.

- ALL_OFF -> ANC_ON -> APT_ON
- ALL_OFF -> APT_ON -> ANC_ON
- APT_ON <--> ANC_ON
- ALL_OFF <--> ANC_ON

As shown below.

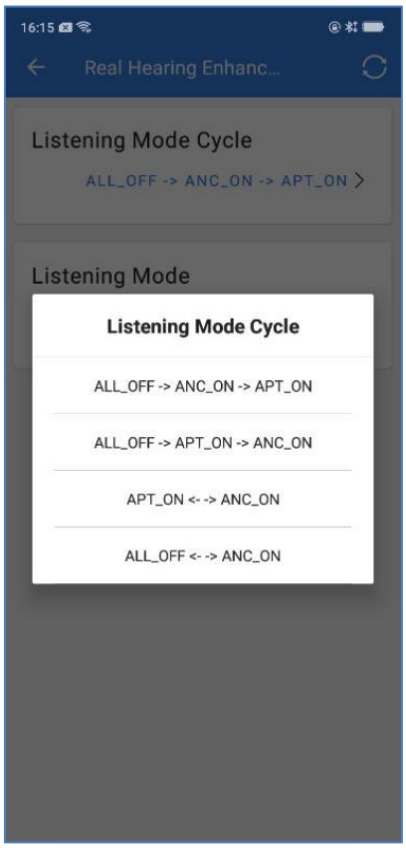

Figure 9-1 Listening Mode Cycle

9.2 Listening Mode

Switch the Listening Mode through the App, ANC - OFF - APT. After switching, the content of the page will be dynamically displayed following the status of the Listening Mode.

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

There are at most 4 mode for App.

- OFF
- APT
- ANC
- ANC+APT

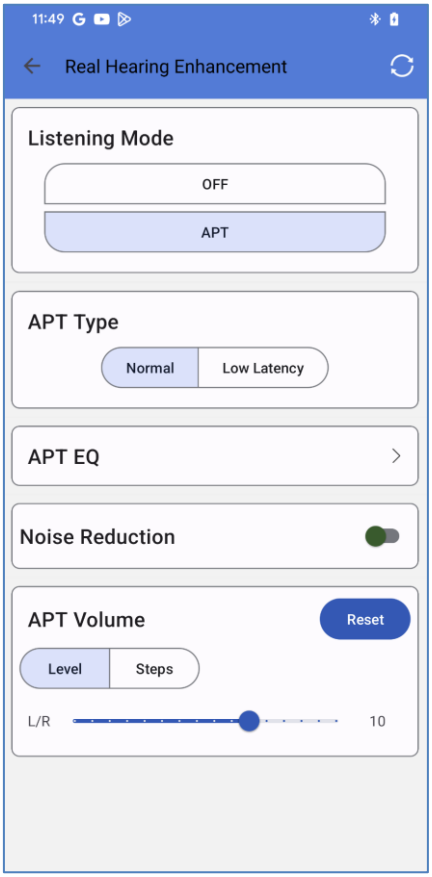

Figure 9-2 Listening Mode

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

10 APT

10.1 APT EQ

When APT is turned on, you can switch APT EQ or modify parameters through the App. Support separate adjustment for left and right ears.

As shown below:

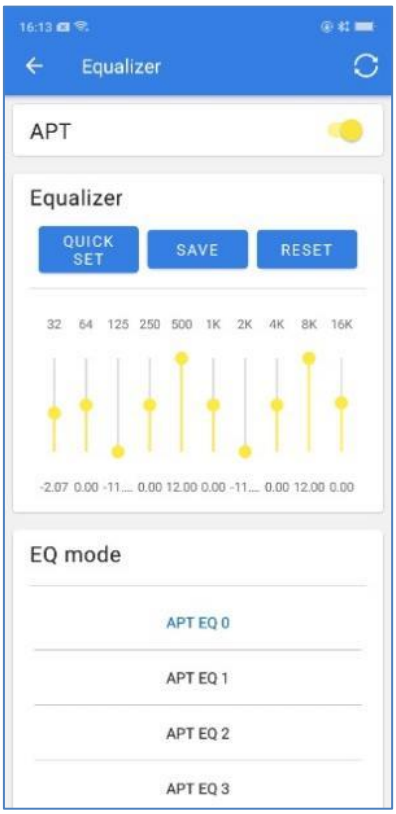

Figure 10-1 APT EQ

[Quick Set]: If the currently selected EQ has 10 stages, you can quickly set the sound effect parameters preset by the App to the headphones by clicking [Quick Set].

10.2 APT Volume

Two types of volumes are supported, one is adjusted by level and the other is adjusted by step.

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

10.2.1 Level

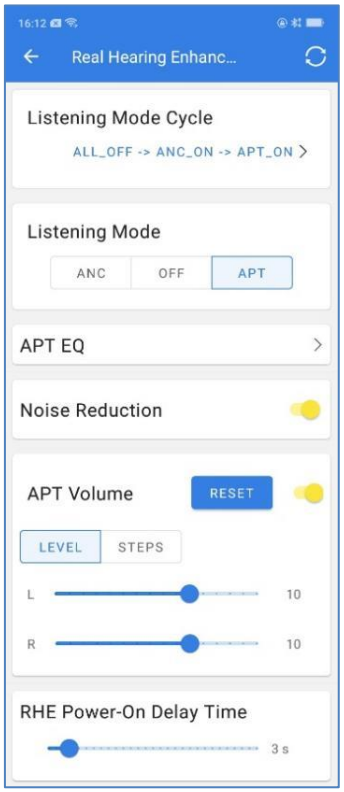

Figure 10-2 Level

10.2.2 Step

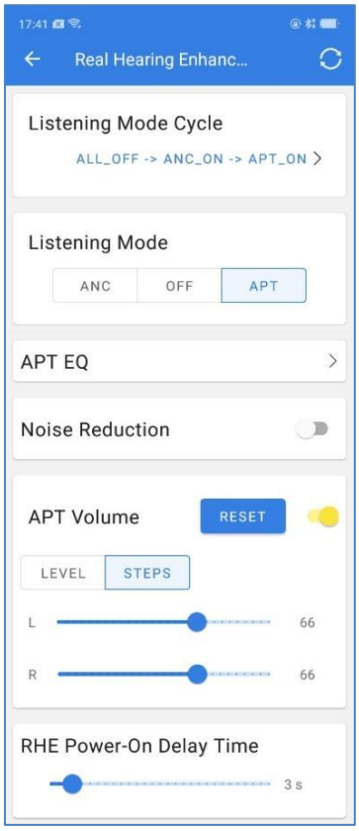

Figure 10-3 Step

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

10.2.3 Synchronized adjustment

After the sync switch is turned on, both ears will be synchronized to the same volume.

If it is opened in the app, the volume will be synchronized to an intermediate value (for example, the range is 0~15, after synchronization is turned on, the binaural volume will become 7)

It will keep the last volume when it is turned on.

10.3 LLAPT Multi-Set Switch

10.4 Hearing Aid

When the APT mode is turned on, the Hearing Aid function will be turned on at the same time (if the device supports it). The Hearing Aid function can be further adjusted.

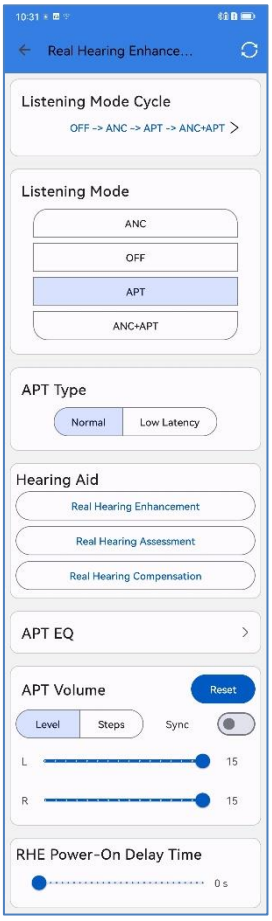

Figure 10-4 Hearing Aid

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

10.4.1 Real Hearing Enhancement

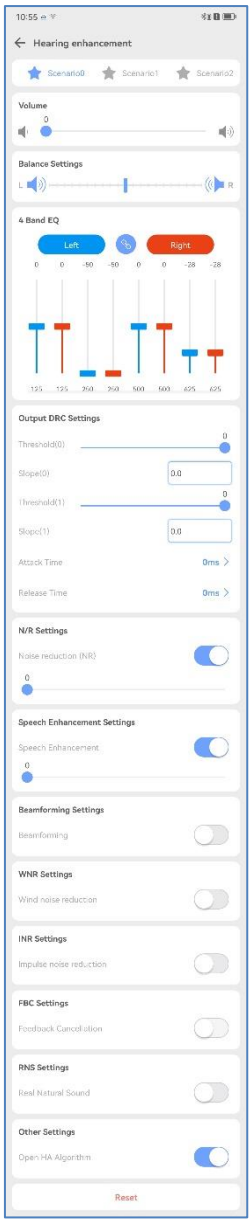

Figure 10-5 Hearing Enhancement

10.4.1.1 Scenario function settings

Currently supports the configuration of one or more sets of scene parameters, and multiple scene parameters can be switched and worked independently. When entering the hearing enhancement page, will automatically display the number of scenes supported by the current device. You can configure multiple sets of personalized scene parameters as needed.

The configurable parameters for each scenario are as follows:

- **Environment Volume**

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

The environment volume can be adjusted by dragging the sliders, and the adjustment range is 0~100.

- **Balance Settings**

Dragging the slider to adjust the volume balance of the left and right ears, and the center of the slider is the initial balance position.

- **Graphic EQ**

Currently supports 4 bands of graphical EQ adjustment. You can adjust the Graphic EQ parameters of the left ear and right ear respectively according to the situation. When you click the "Link" button in the middle, the left and right ears will be adjusted at the same time. The adjustment range of each Band is -50~50. Up is equivalent to zooming in on Gain, and down is equivalent to reducing Gain.

- **Output DRC Settings**
- **Noise Reduction Settings**
- **Speech Enhancement Settings**
- **Beamforming Settings**
- **WNR Settings**
- **INR Settings**
- **FBC Settings**
- **RNS Settings**
- **Other Settings**
- **Reset**

Click the Reset button below to restore the current scene parameters to the initial state.

10.4.1.2 Switch Scenario

The scenario switching can be completed by clicking the icon above the scene bar.

10.4.1.3 Custom Scenario Name

The initial scene name will be displayed as P1, P2, and P3…, you can customize the scene name according to your needs. Long press the icon of the scene name and a modified dialog box will pop up, and you can enter a new scene name in the dialog box.

Note: Due to device storage limitations, when you enter a long scene name, it may not be saved.

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

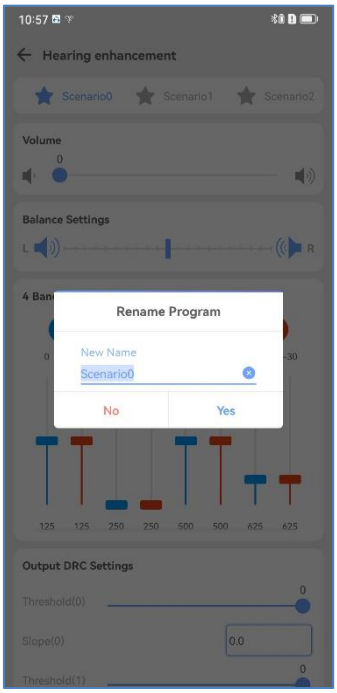

Figure 10-6 Custom Scenario Name

10.4.2 Real Hearing Assessment

10.4.2.1 Check Noise

Please find a quiet place before start.

Figure 10-7 Check Noise

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

10.4.2.2 Locate To Specified Location

Click **[Locate to the specified location]** button, and please do not change the system volume.

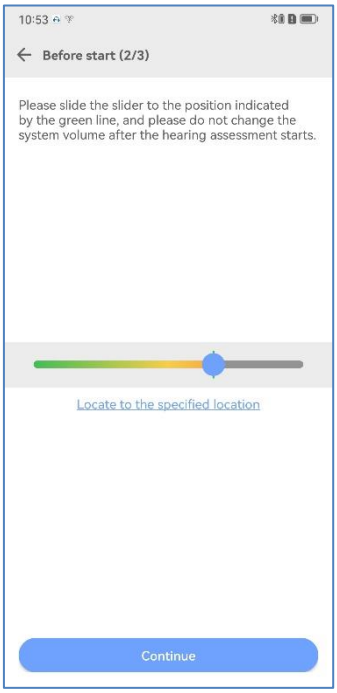

Figure 10-8 Locate To Specified Location

10.4.2.3 Hearing Test

Click **[Continue]** or **[Test 'Left Ear' only]**, **[Test 'Right Ear' only]** button to start hearing test.

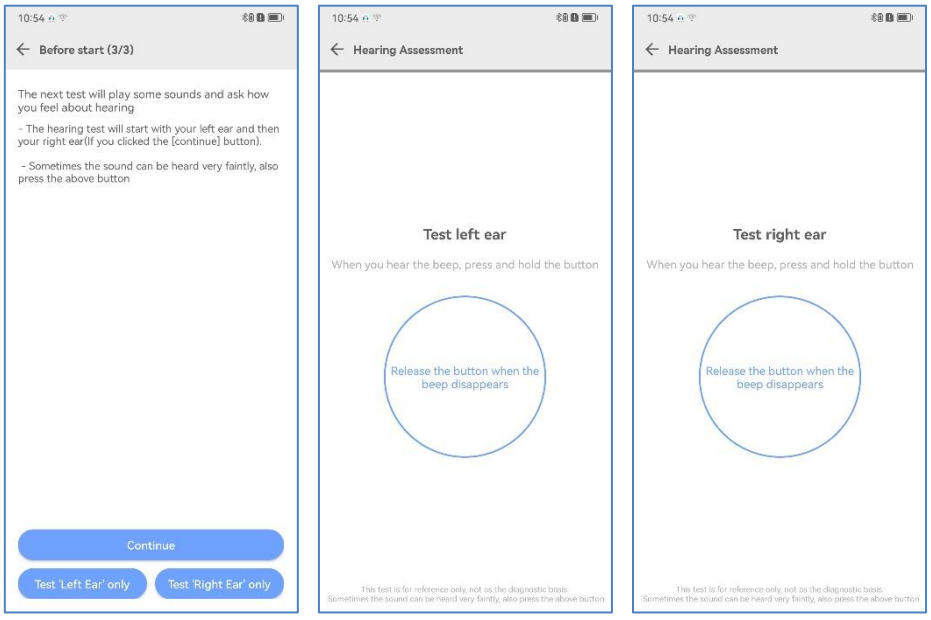

Figure 10-9 Hearing Test

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

10.4.3 Real Hearing Compensation

10.4.3.1 Input Audiogram

Please input the frequency of the left and right ears and the measured hearing threshold respectively below.

You can add threshold or remove threshold.

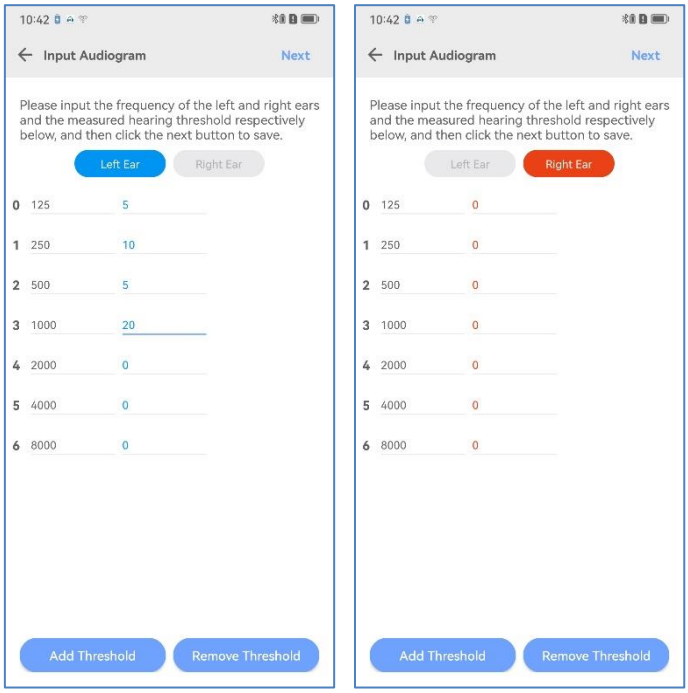

Figure 10-10 Input Audiogram

10.4.3.2 Input Confirm

Here is the audiogram you put.

Click **[Save Hearing Compensation Data]** button to save complete. For EQ that support SPK EQ Compensation capability, the hearing compensation data can be used to adjust the gain of the EQ. Refer to EQ Hearing Compensation

Click **[Apply to hearing buds]** button to apply to earphones.

Click **[Remove from hearing buds]** button to remove from earphones.

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

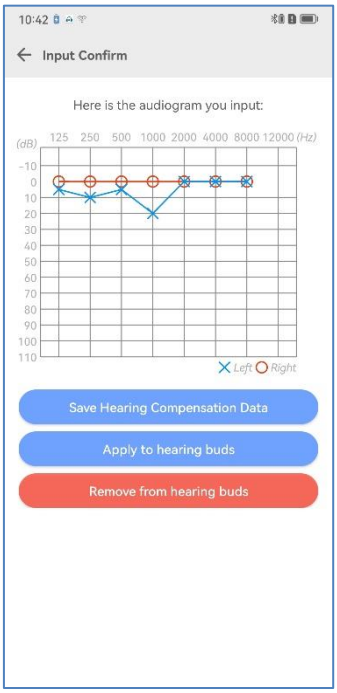

Figure 10-11 Input Confirm

10.5 APT Type

Users can change the APT type between Normal and Low Latency when listening mode switch to APT.

- When APT Type is Normal APT

  App does not support LL_APT Listening Mode.

- When the APT Type is LL APT

  The App does not support the two Listening Modes of Normal APT and ANC+Normal APT.

  Cycle mode if there is ANC + Normal APT, it will be automatically skipped when switching.

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

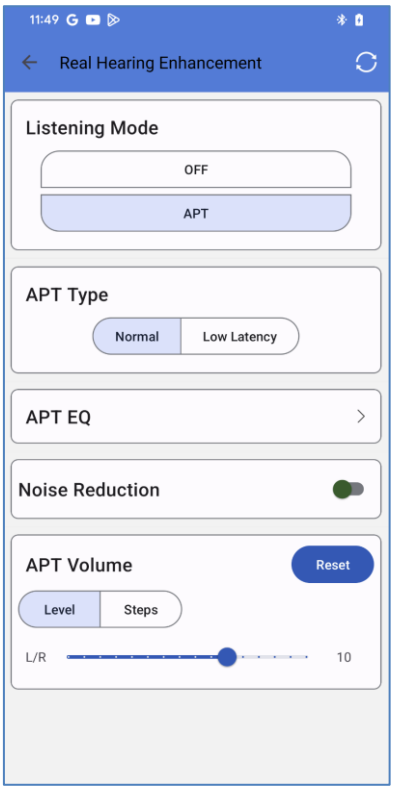

Figure 10-12 APT Type

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

11 ANC

11.1 ANC EQ

Please refer to ANC Mode EQ

11.2 ANC Multi-Set Switch

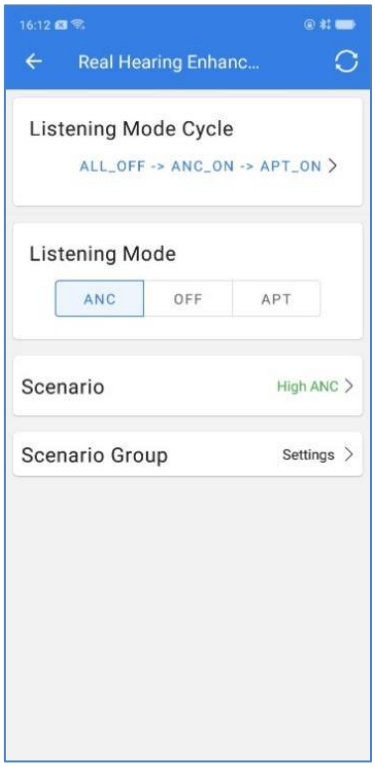

Figure 11-1 ANC Multi Set Switch

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

11.2.1 Toggle scenario

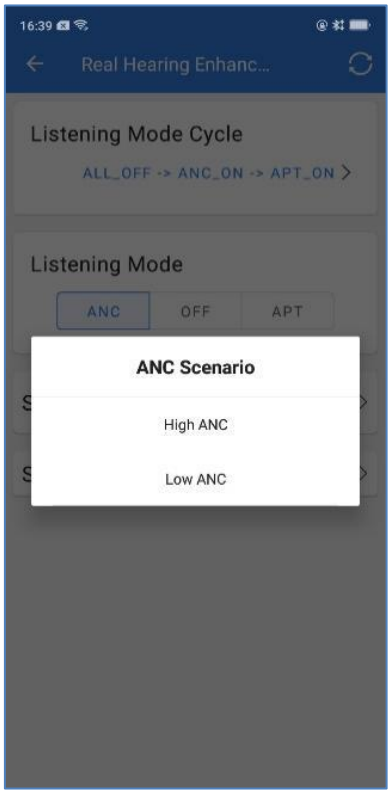

Figure 11-2 Toggle Scenario

11.2.2 Scenario Group

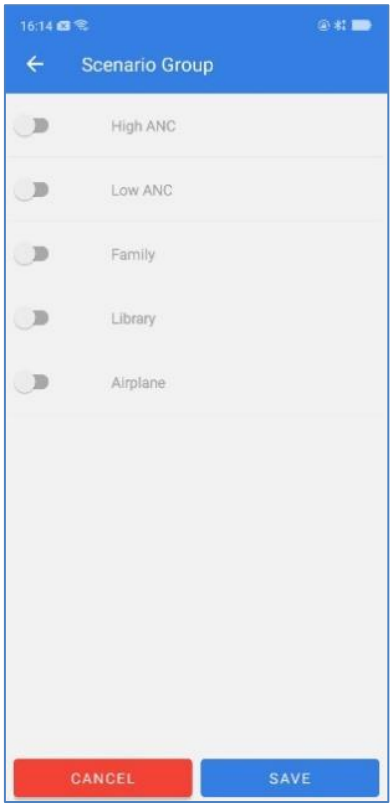

Figure 11-3 Scenario Group

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

12 Gaming Mode

When the gaming mode is turned on, the latency level can be adjusted, and each level corresponds to a different latency value.

When the game mode is turned off, the latency level cannot be adjusted. No matter what the current latency level is, the corresponding latency value is the default value of 280.

12.1 Toggle Gaming Mode

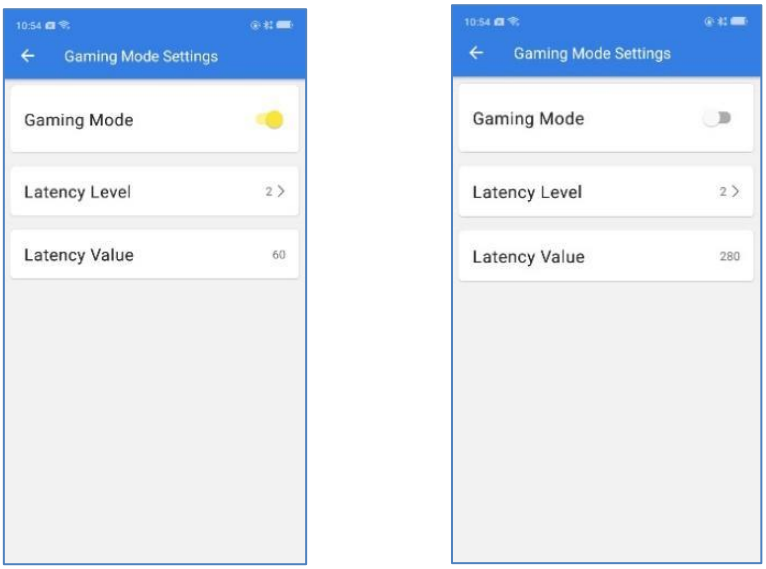

Figure 12-1 Toggle Gaming Mode

12.2 Set Latency Level

Supports 5 different level settings.

Figure 12-2 Set Latency Level

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

13 VP/Ringtone

Set the volume level of VP/Ringtone. When the sync switch is turned on, the volume of the left and right ears remains the same. When the sync switch is turned off, the left and right ears can be adjusted separately.

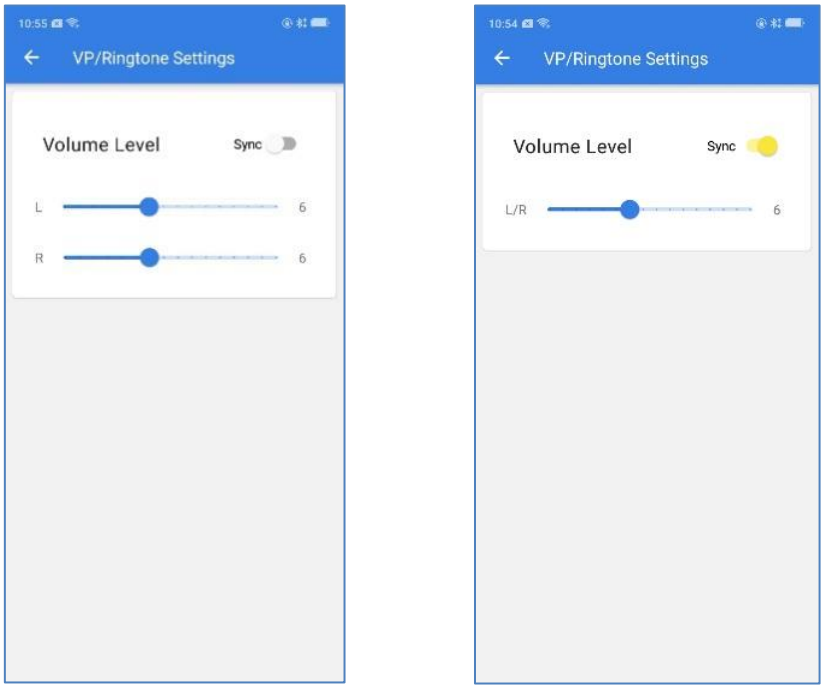

Figure 13-1 Sync Switch

After the earphones are in the box, hide the slider bar and volume.

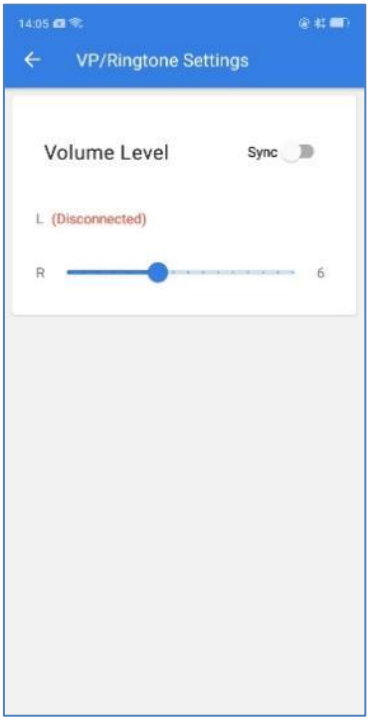

Figure 13-2 Single Earphone

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

Non-RWS headsets will display as follows.

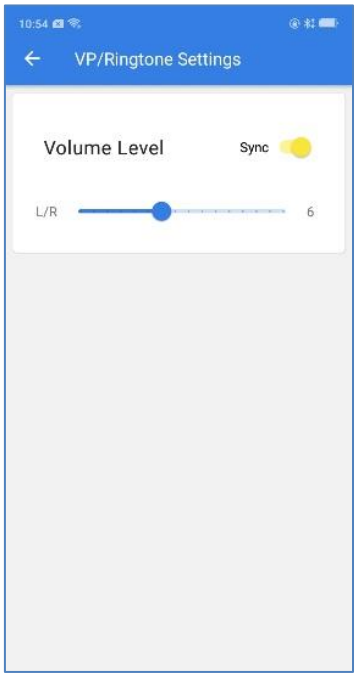

Figure 13-3 Non RWS Headsets

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

14 Equalizer

This chapter introduces two types of EQ, Speaker Audio EQ, and Voice EQ.

Each mode of EQ can do quick setting, save, reset and change EQ index.

Only use the template quick set when stage number is 10.

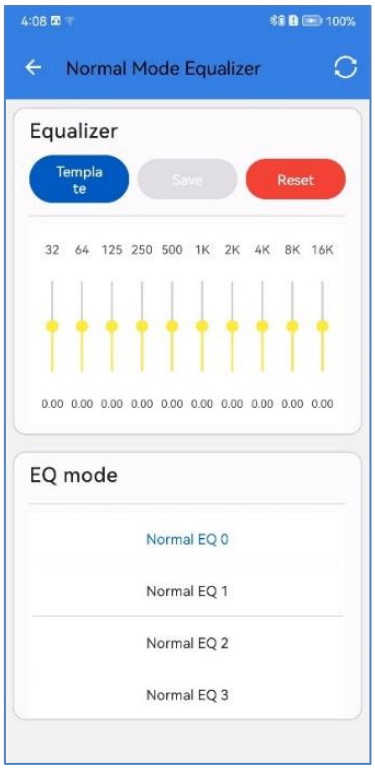

Figure 14-1 Template

Among them, the save button is inoperable by default. Only when the current UI parameters change, the button becomes operable. You can click to realize the save function. After the save is completed, the button becomes the default state (inoperable).

If the current interface parameters have changed, and you have not clicked the save button, if you directly return, a dialog will pop up asking you whether to save the current sound effects.

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

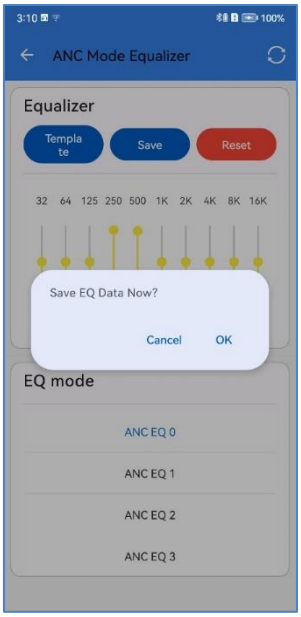

Figure 14-2 Save EQ Data

14.1 Speaker Audio EQ

There are three modes of Speaker Audio EQ. Only one EQ Mode can be used at the same time. The priority is Gaming Mode EQ, ANC Mode EQ, and Normal Mode EQ from high to low.

For Speaker Audio EQ, Music is not playing, EQ is not recommended.

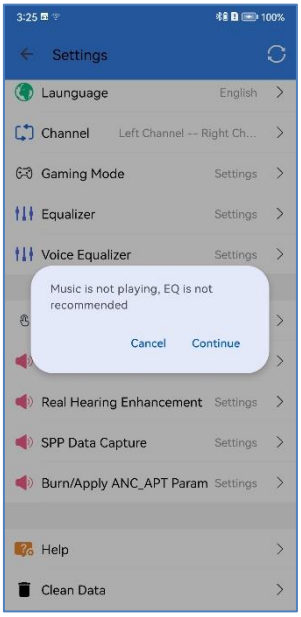

Figure 14-3 Music Is Not Playing Prompt

14.1.1 Normal Mode EQ

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

Switch to Normal Mode EQ when Gaming Mode is closed and listening mode is set to off.

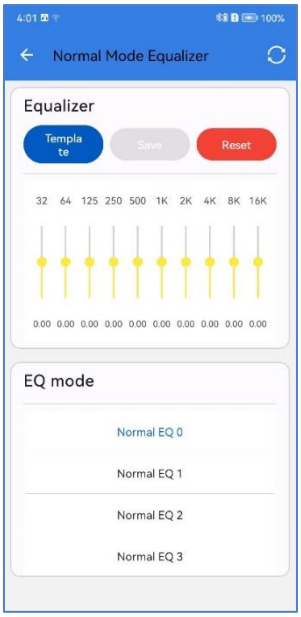

Figure 14-4 Normal Mode EQ

14.1.2 Gaming Mode EQ

Switch to Gaming Mode EQ when Gaming Mode is turned on.

Figure 14-5 Gaming Mode EQ

14.1.3 ANC Mode EQ

Switch to ANC Mode EQ when Gaming Mode is closed and listening mode is set to ANC.

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

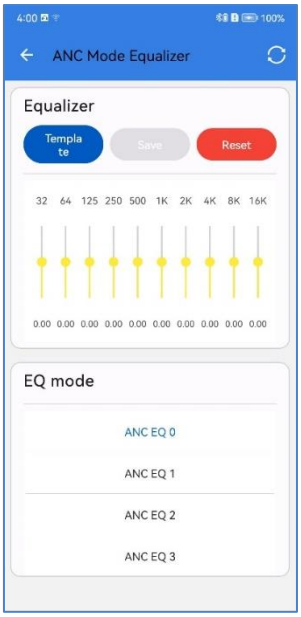

Figure 14-6 ANC Mode EQ

14.2 Voice EQ

For Voice EQ, Voice EQ is not recommended when telephony call is not established

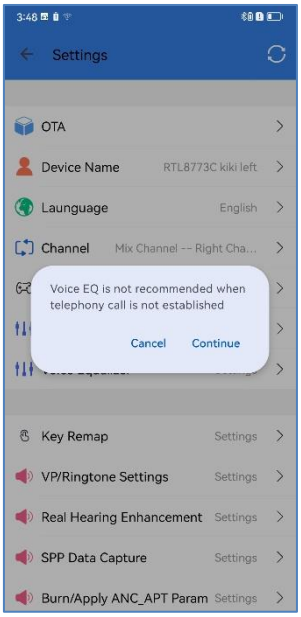

Figure 14-7 Telephony Call Prompt

When Voice EQ is supported, the settings will display.

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

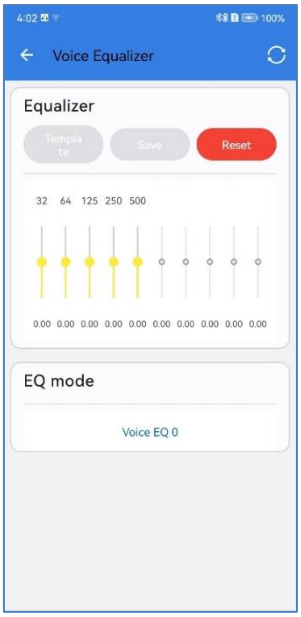

Figure 14-8 Voice EQ

14.3 EQ Hearing Compensation

For EQ that support SPK EQ Compensation capability, **[Hearing Compensation]** will show in the current UI Page. And the hearing compensation data can be used to adjust the gain of the EQ. So you need to calculate the hearing compensation in the HA page first. Refer to Real Hearing Compensation .

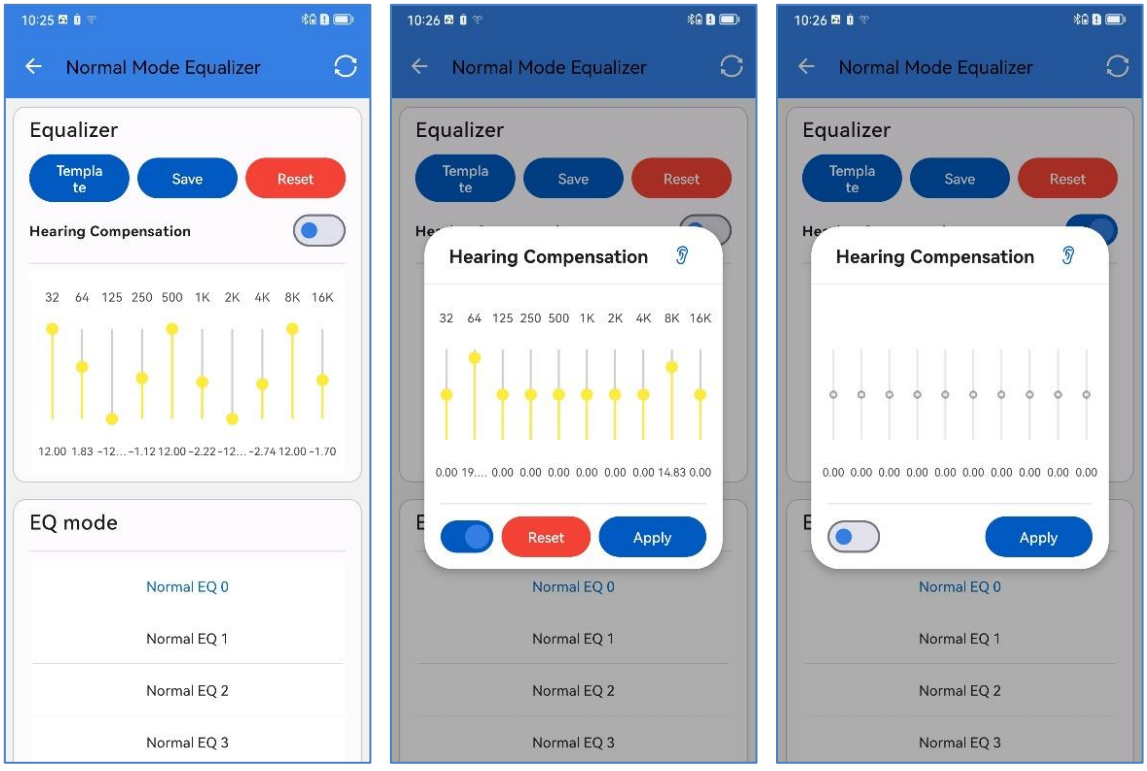

Figure 14-9 Apply Hearing Compensation

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

- Click **[Hearing Compensation switch]** button to bring up the Hearing Compensation Parameters window. The last saved hearing compensation gain value is displayed by default.
- Click on the little ear icon will update the slider on the UI below based on the hearing compensation calculated on the HA page.
- Slide to adjust the new hearing compensation gain value.
- Click **[Reset]** button to restore the gain value on the UI to the last gain value saved by the App.
- Toggle the state of the hearing compensation switch. When the switch is on, it shows the default parameters; when the switch is off, it hides the default parameters and **[Reset]** button.
- Click **[Apply]** button to save the hearing compensation gain value and the state of the hearing compensation switch on the UI.

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

15 SPP Data Capture

When SPP Data Capture is supported, the settings will display.

The SPP Data Capture page is as follows.

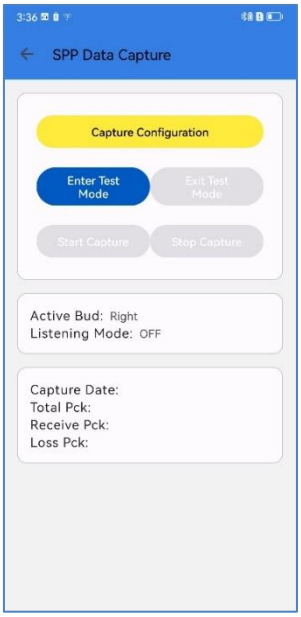

Figure 15-1 SPP Data Capture Page

15.1 Capture Configuration

Click on Capture Configuration to enter the configuration page

Figure 15-2 Capture Configuration

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

15.1.1 Probe Config

Probe Source only supports single-selection.

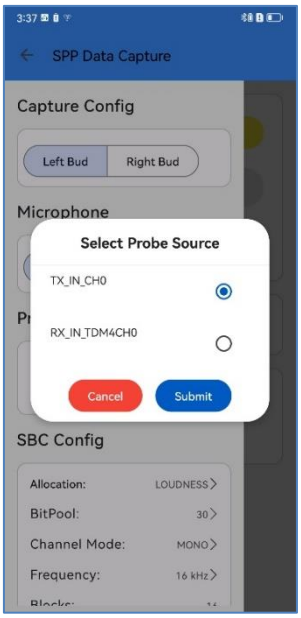

Figure 15-3 Probe Configuration

15.1.2 SBC Config

The SBC supports the configuration of the following parameters, including Allocation, BitPool, Channel Mode, Frequency.

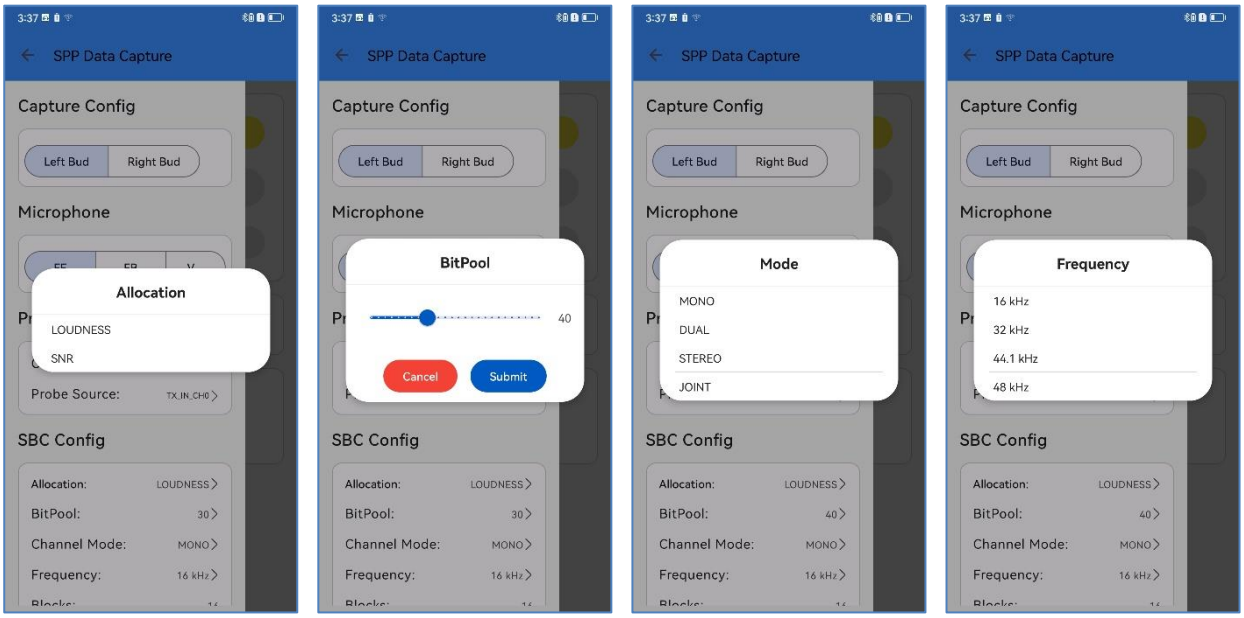

Figure 15-4 SBC Configuration

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

15.2 Capture Data

After the configuration is complete, you can start capturing data.

The process is: Enter Test Mode->Start Capture->Stop Capture->Start Capture->…->Exit Test Mode.

15.2.1 Enter Test Mode

Enter Test Mode is not allowed for Music/Telephone Call/DSP APT ON.

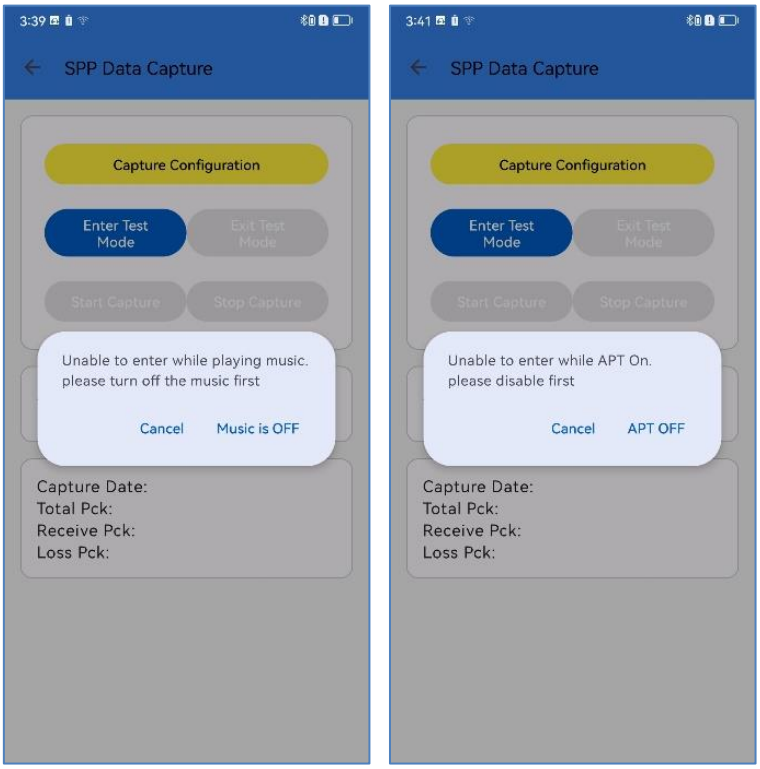

Figure 15-5 Enter Test Mode Is Not Allowed

15.2.2 Start Capture

If TX_IN_CH0 is selected in the Probe Config, music must be already playing to start capture.

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

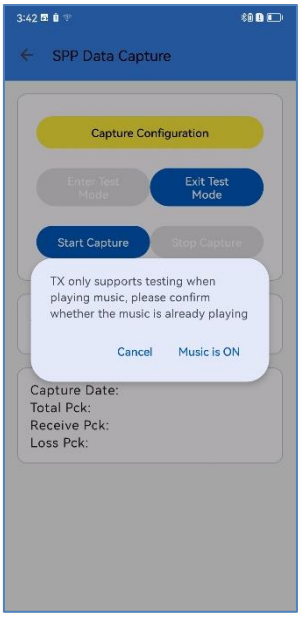

Figure 15-6 Start Test Prompt

15.2.3 Stop Capture

15.2.4 Exit Test Mode

Cannot exit test mode while playing music.

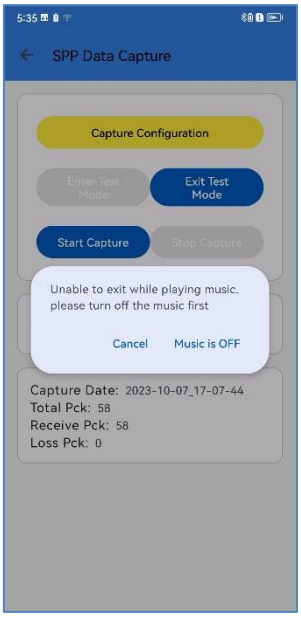

Figure 15-7 Exit Test Prompt

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

Exit test mode before you can exit the current page.

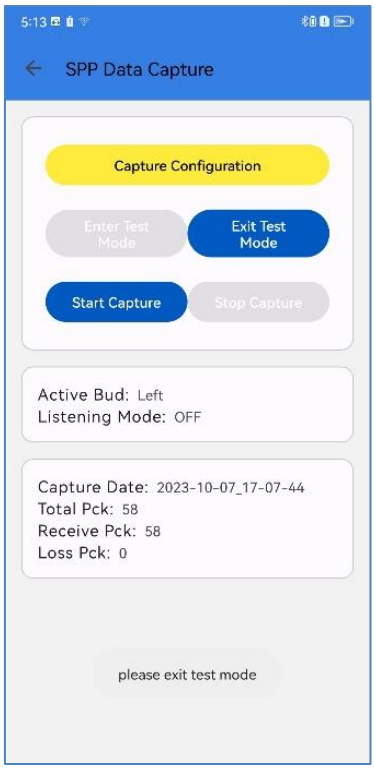

Figure 15-8 Exit Test Mode

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

16 Burn/Apply ANC_APT Param

This function allows to write ANC or LL-APT circuit parameters (APT or SZFilter) to the 8773CO series IC via phone App, so that you can perform personalized gain and compensation operations for a certain ANC or LL-APT scene.

The writing here supports the following two modes:

Staging mode:

Apply mode, the parameter will take effect directly, but not stored in the flash, and will disappear after power down or reset;

Permanent mode:

Burn mode, the parameter is updated in the flash, and it will take effect directly. The parameters are updated in flash and take effect directly, and can be saved even after power down.

16.1 Init Burn/Apply Config Entrance

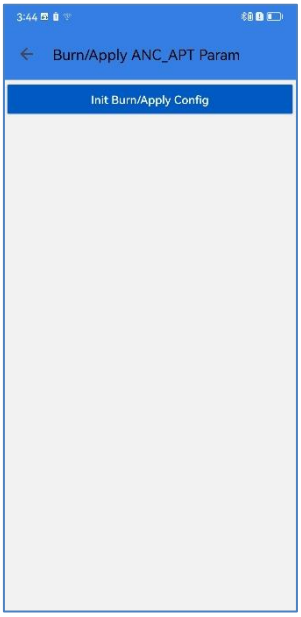

Figure 16-1 Init Burn/Apply Config Entrance

16.2 Init Burn/Apply Config

In the following, will introduce the operation of Apply and Burn in the ANC scenario.

The LLAPT scenario operates in a similar process to the ANC scenario

All active scenarios supported by the current ANC will be displayed.

Current Filter type: FF/FB/SZ

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

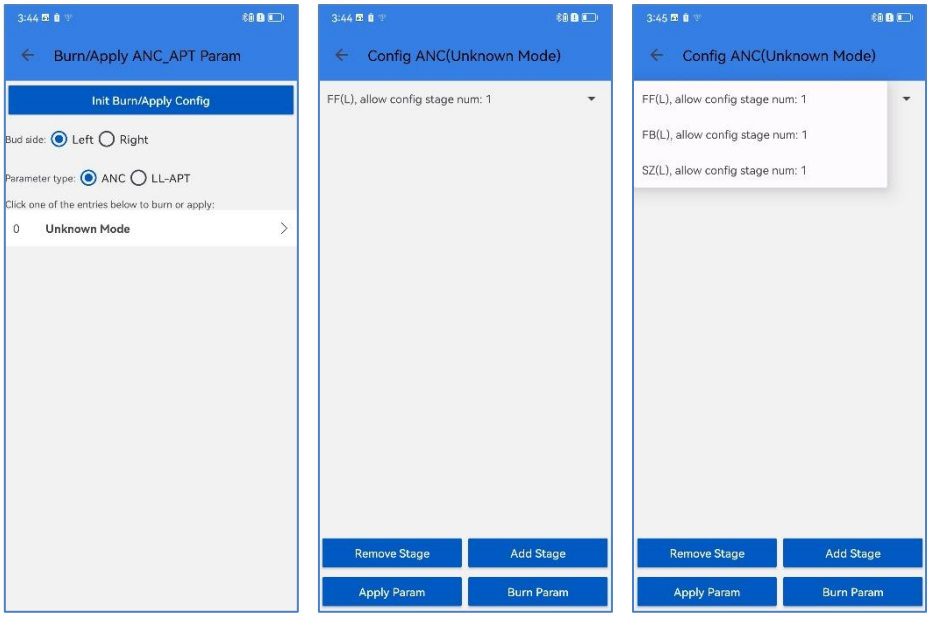

Figure 16-2 Current Filter Type

Apply or Burn Param.

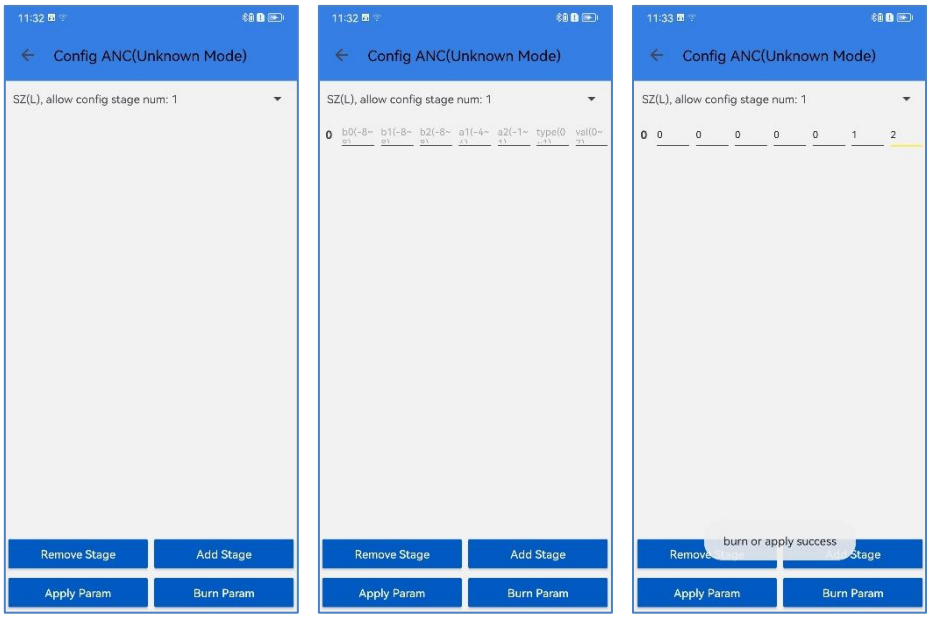

Figure 16-3 Apply Or Burn Param

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

17 Key Remap

Set the button behaviors of the left ear and right ear in different states through the App: single, double-click, triple-click, and long-press.

Key remap supports separate configuration for left and right ears. When a single ear is connected, only the currently connected ear can be operated.

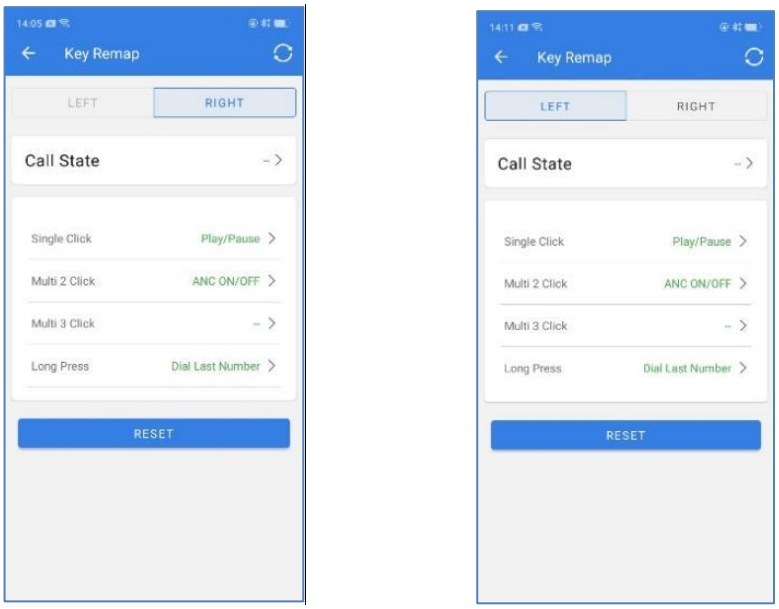

Figure 17-1 Key Remap

17.1 Call State

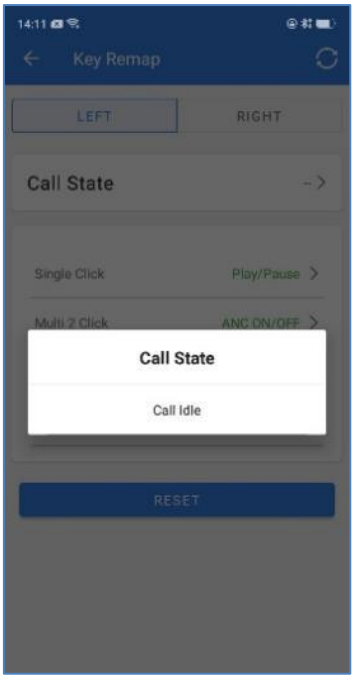

Figure 17-2 Call State

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

17.2 Key Remap

Support binaural use scene key remap.

If MCU support reset key map by bud, when reset key remap, you can choose to reset both ears or one ear.

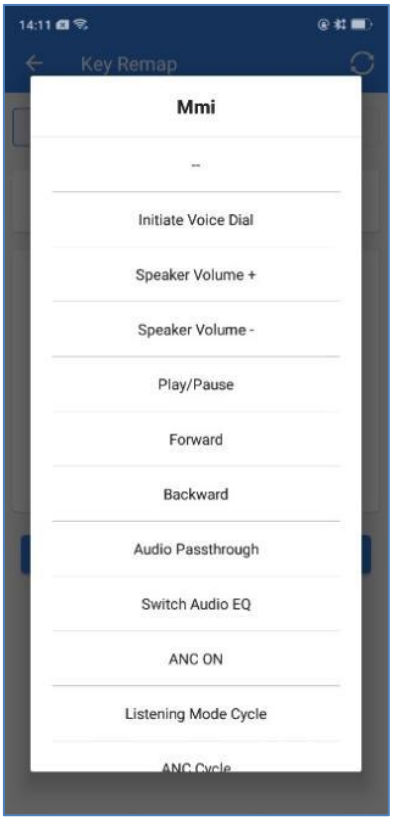

Figure 17-3 Key Remap

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

18 TTS

TTS module is designed to assist end user to get the caller's information before answer the phone. When the phone receives an incoming call, RTL87XX device will automatically report the caller's name or number.

18.1 Connection

Connect with the RTL87XX device at phone's **Setting--> Bluetooth**, just click the expected device.

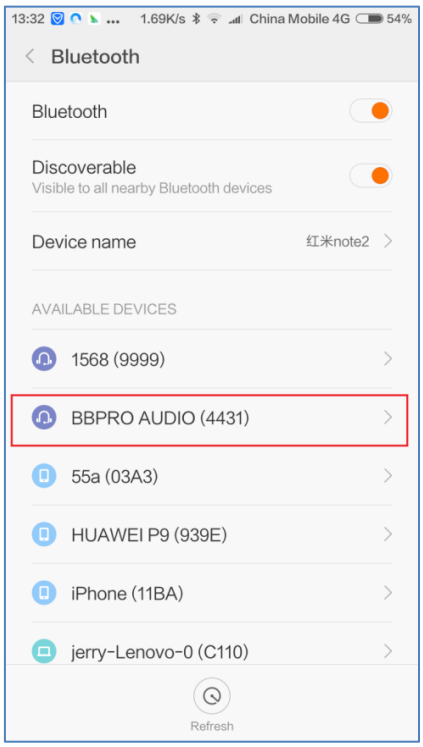

Figure 18-1 Connect With Device

18.2 Permissions

18.2.1 Contact sharing

If the "Phone book access request" prompt box pops up, please click "yes".

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

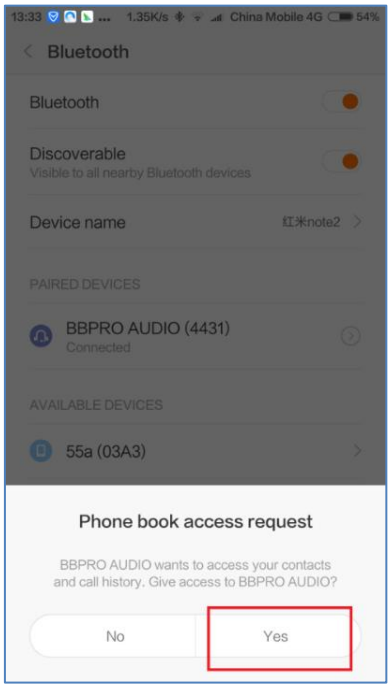

Figure 18-2 Get Access To Contacts

18.2.2 Audio

Please note to check in "Phone Audio" and "Media Audio".

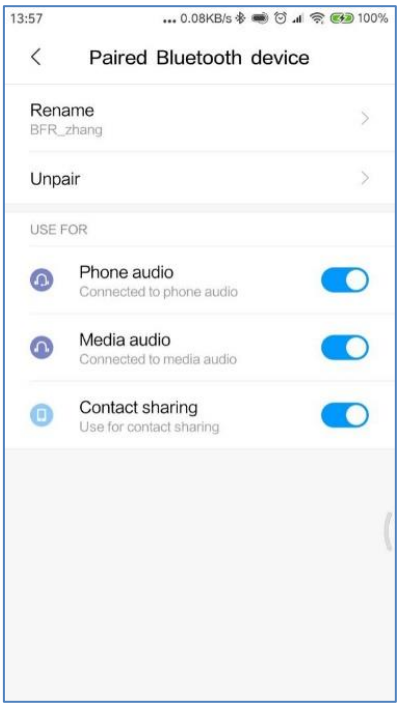

Figure 18-3 Check “Phone audio” And “Media audio”

18.3 Calling

After connection established, when the phone receives a call, the RTL87XX device will automatically report the caller's name or number. For example: “James is calling you”, “124839411 is calling you”.

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

19 Clean Data

Click [Settings] - [Clear Data], you can clear the EQ data, key remap,llapt,anc data saved in the App.

Note: After clearing the data, you need to resync in the app, otherwise it may affect the use of the function.

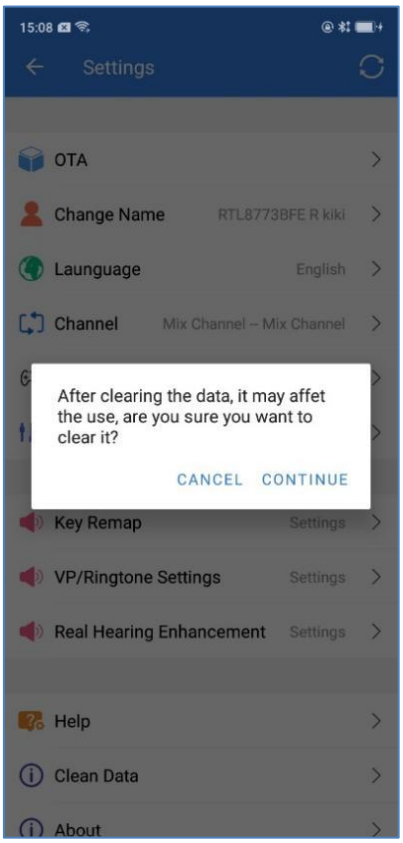

Figure 19-1 Clean Data

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

20 Help

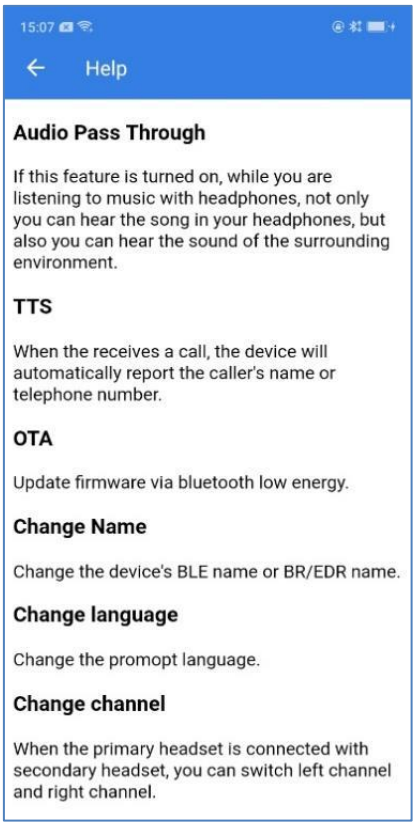

Figure 20-1 Help

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

21 About

Displays the application version number, privacy permissions, dependent libraries, etc.

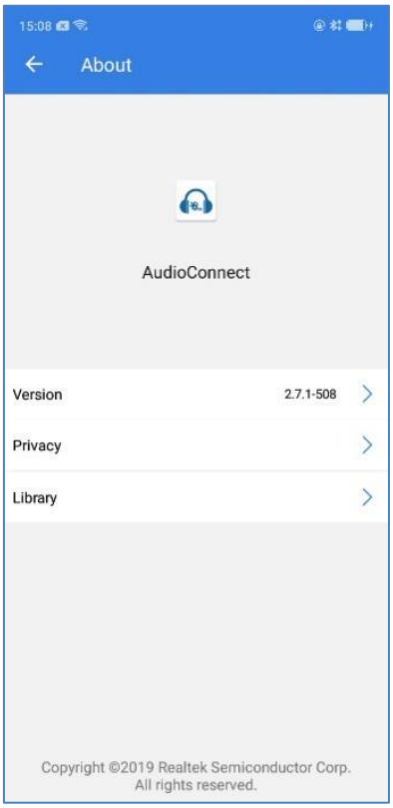

Figure 21-1 About

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.

22 FAQ

➢ Why update firmware(OTA) failed

1. Check whether the firmware file is legal.
2. Check whether RTL87XX device's encryption setting is off.
3. Check if the upgrade method is correct.

➢ Why device not report caller's name or number when receives a call

1. Check whether there is a SPP connection between App and Device.
2. App uses Baidu TTS engine (http://yuyin.baidu.com/tts), the engine must be registered to Baidu server. So this App must be installed when the phone network is good (WIFI/4G/3G).
3. Check if you check the contact sharing, refer to Contact sharing.

Copyright 2023 Realtek Semiconductor Corporation.
All Rights Reserved.