



Mini MP3 Player Sound Box with Random Play Feature

User's Manual

Model No.: FN-RND-4T

Version: V1.0





1. Features

- ✧ Equipped with a high quality audio decoder module with great sound quality.
- ✧ Supports MP3 and WAV formats of audio files.
- ✧ Built-in a 8MB flash memory by default, which is able to store total of 8 minutes long MP3 files of 128Kbps.
- ✧ Equipped with a micro SD card holder on the module and supports max. 32GB micro SD card.
- ✧ Update MP3/WAV files to the flash memory easily through the micro USB port on PC.
- ✧ Play audio files by negative triggering or inputting low level signal.
- ✧ 4 trigger inputs available and each trigger input/button associates with a folder from folder number 01 to folder number 04.
- ✧ Multiple sound files can be put in each folder. Quantity of files in each folder is not limited.
- ✧ When a button is pressed, it plays a sound file in random from the associated folder.
- ✧ Supports 4 different trigger modes, and each trigger mode can be set in a configuration file.
- ✧ Can be activated with buttons, switches, relays or motion sensors.
- ✧ Built-in a class D 3Watts amplifier for a great sound output.
- ✧ Adjustable sound volume through the blue potentiometer on the inside module.
- ✧ Strong anti-jamming capability and stable performance.
- ✧ With 20cm long 6 wires(red, black, white, yellow, blue and green) attached to the player.
- ✧ Diameter: 58mm Height: 31mm

2. Electrical Parameters

- ✧ Working voltage: 3.7-5V DC
- ✧ Working current: ≤200mA
- ✧ Power Consumption: ≤3W
- ✧ Flash memory size: 8MB
- ✧ Audio format: MP3/WAV

3. Operation Guide

3.1. Set Trigger Mode and Volume

There are 4 trigger modes available for users to set in a configuration file according to the actual needs.

Trigger Modes

Each of the parameters from “0” to “3” represents a corresponding trigger mode. See the details below.

Parameter	Corresponding Trigger Mode
0	Pulse interruptible
1	Level hold loop playback
2	Pulse non-interruptible
3	Standard MP3 key mode

- Pulse interruptible: In this mode, a single negative pulse will start playback. It is possible to interrupt the playback by pressing the same button or any of the other 3 buttons used to activate. Once playback is interrupted, it will automatically start another audio file immediately in random from the associated folder.

- Level hold loop playback: In this mode, the negative pulse must be held/maintained to the sound module trigger for audio file to complete. The audio file will only playback while button, or negative pulse, is held/maintained during playback. Once the button being held, or negative pulse, is removed, the playback will be stopped/canceled. Once the button is kept holding, when the playback of the audio file is finished, it will start to play another one in random from the associated folder.
- Pulse non-interruptible: In this mode, a single negative pulse will start playback. It's not possible to interrupt the playback by pressing the same button or the other buttons. Once an audio file is triggered, the audio file will not be able to be interrupted/canceled during playback. The playback will only end when the audio file has played its entirety.
- Standard MP3 key mode: In this mode, the buttons between K1 and K4 will be functioned as Next, Previous, Play/pause, and Stop respectively. All of audio files need to be put in the folder 01 in this mode.

For example, if the trigger mode of “pulse non-interruptible” is needed, firstly build a new text file on the computer, and simply enter the digit “2” as below, and save the file.

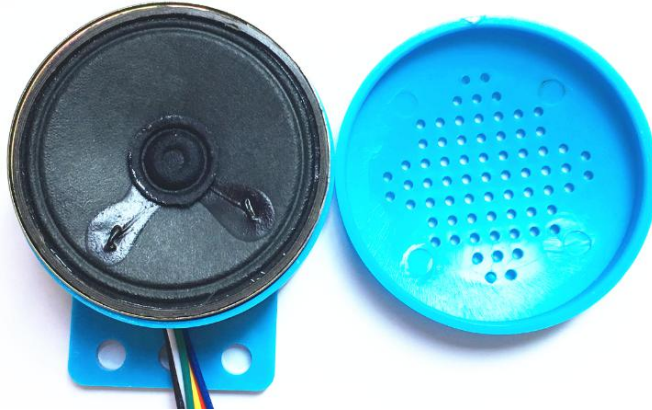


And change the file name “xxx.txt” to “read.cfg” as below, then the configuration file with the trigger mode of “pulse non-interruptible” is made successfully. Please be noted the extension name “.txt” of the text file must be changed to “.cfg”, otherwise the configuration will not work.



3.2. Audio Files Loading

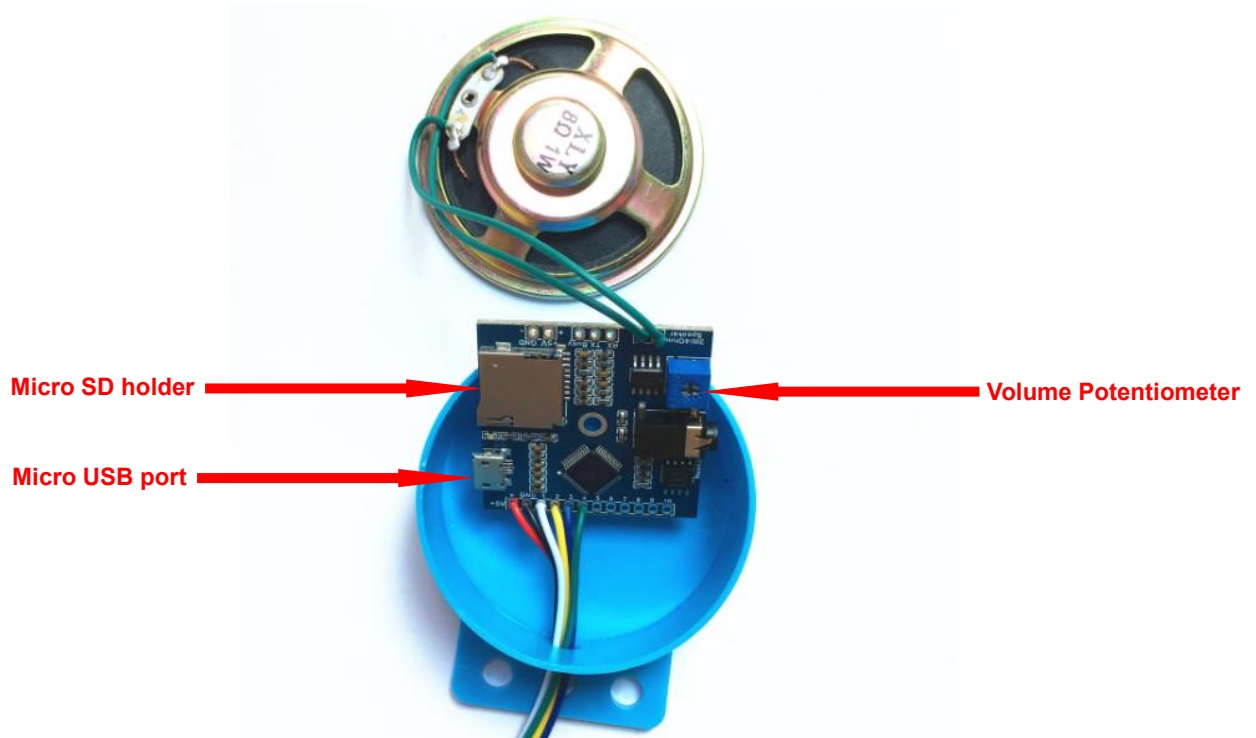
1. Take off the top cover of the box, and you will see the speaker. Refer to the image below.



2. Put the speaker aside, you will see the internal audio module. Refer to the image below.

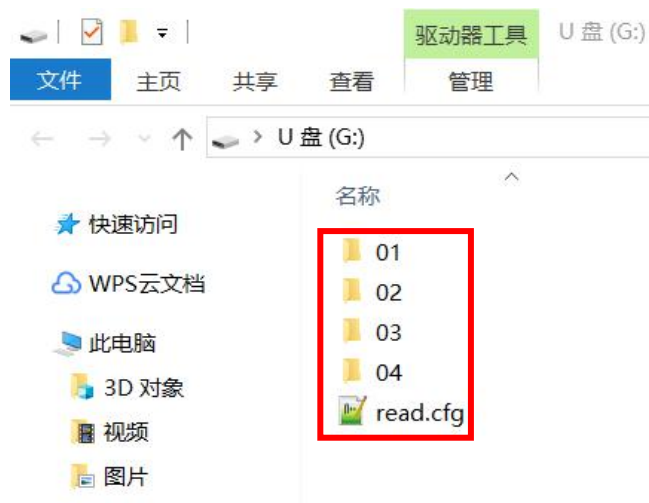


3. Take out the module gently from the bottom of the box. Use an Android phone purposed USB data cable with micro USB type plug to connect the module to computer. Refer to the image below.



Please refer to the following steps on how to load/update audio files.

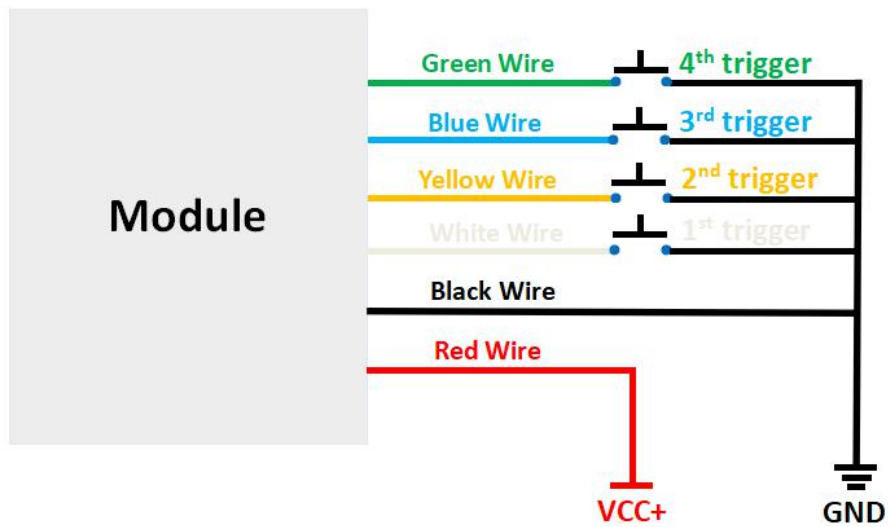
- 1). Firstly, connect the module to computer and you will see a removable disk or USB flash drive, and double click to open it.
- 2). Build 4 folders, and rename them 01, 02, 03, 04 respectively. The folder 01 will be associated with K1, the folder 02 will be associated with K2, and so on.
- 3). Copy one or multiple audio files from computer drive to each of the 4 folders. It's okay you don't rename the files.
- 4). Put the prepared configuration file in the root directory together with the 4 folders. Please refer to the image below.



- 5). Safely disconnect the module from computer.
- 6). Put back the module, speaker and the top cover.
- 7). Apply power to the module and press any of 4 buttons to play back a sound.

Notes: If the trigger mode of pulse interruptible needed, it's also workable if you don't put the configuration file. The player takes this trigger mode and the max volume as the default if without a configuration file.

3.3. Example of Wiring Connection



4. Relation table between flash capacity and time duration supported based on different bit rates of MP3 files

Time unit: second

Capacity	8Mbytes
	Bit rate
16Kbps	4045
24Kbps	2618
32Kbps	1812
64Kbps	955
96Kbps	651
128Kbps	493
160Kbps	389
192Kbps	323
256Kbps	241
320Kbps	191