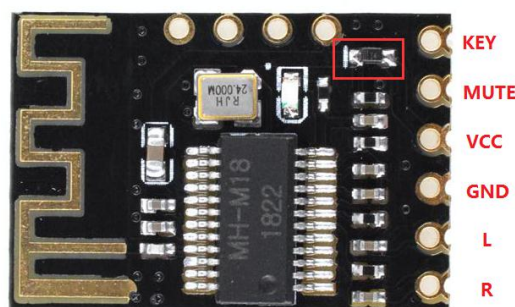


After receiving the goods, please power the module first to see if the indicator light flashes normally. After connecting the equipment with the equipment, please carefully check whether the wiring is correct and then supply power to prevent the wiring from damaging the module.

Since this product is a bare board with components exposed on the board, be careful not to touch the components on the board during use. Especially when the weather is dry, touching the components by hand is easy to cause static electricity to damage the chip.

Common problem

1. This product outputs audio signals through Bluetooth. It must be connected to the power amplifier board to use it. It cannot directly drive the headphones.
2. The left and right channel audio signals are respectively connected to the left and right channels of the power amplifier board, and the ground signal of the audio is connected to the GND on the board. You can't connect the left and right channels together. If you only need mono, just connect the left channel or the right channel.
3. Noise or current sound occurs during playback. The power supply part is added to the LC filter circuit, or both ends of the power supply are connected with a large capacitor (at least 10 uf, the bigger the better). It is recommended that the Bluetooth and the power amplifier board be powered separately to isolate the Bluetooth ground and the amplifier ground.
4. After the module is powered on, it cannot connect to Bluetooth. Please check if the power supply voltage is within the normal range or whether the power supply is stable. If the power supply is normal, the phone deletes the Bluetooth name and then searches again. Note that you can search for Bluetooth if the indicator light flashes quickly.
- 5, the module can not search for Bluetooth, or there is a stuck in the Bluetooth playback process. Please check if there are any wireless transmitting devices around you that are disturbed and away from these devices.
6. After the mobile phone is connected to the Bluetooth, there is no sound, or the speaker of the mobile phone makes a sound. Please re-power, and re-connect Bluetooth. Check if the media playback in the Bluetooth settings of the mobile phone is turned on.



Pin	Function	Description
1	KEY	Button control terminal (4 button functions, additional

		resistors such as wiring diagram)
2	MUTE	Mute control terminal (output high level 3.3V when muting, output low level during playback)
3	VCC	Positive power supply 5V (lithium battery 3.7V power supply requires short circuit diode)
4	GND	Power negative / audio signal ground
5	L	Left channel output
6	R	Right channel output

1. Bluetooth V4.2 version, support Bluetooth automatic connection technology, support WAV/WMA/FLAC/APE/MP3 lossless decoding, stereo dual channel output.

2. After the module is powered on, the mobile phone searches for the Bluetooth name MH-M18, and can play music after connecting Bluetooth.

3, module blue indicator light:

When the Bluetooth is not connected, the indicator light flashes quickly;

When the Bluetooth connection is on, the indicator light is always on;

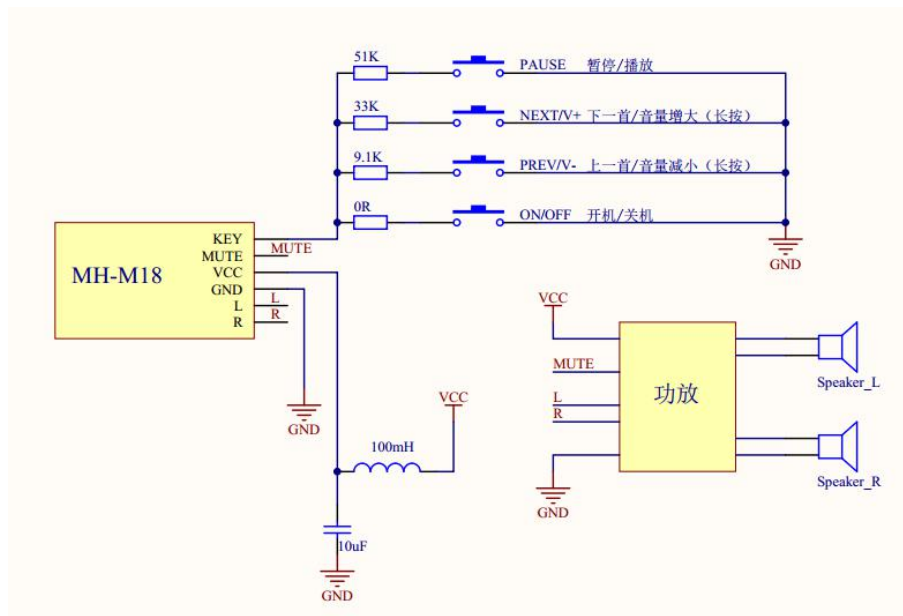
When the Bluetooth is playing, the indicator light flashes slowly.

4, MUTE mute control terminal: used to control the power amplifier board, MUTE output high level 3.3V when muting, output low level during playback.

5, KEY button control: This function needs to be connected to the resistor and button to achieve. (corresponding to the resistance as shown in the wiring diagram)

6, the volume power off function: the default output 100% volume. Press the button to control the volume increase and decrease. If the control volume is less than 15%, the volume output will be 15% after re-powering; if the control volume is greater than 15%, the original volume will remain unchanged after power-on.

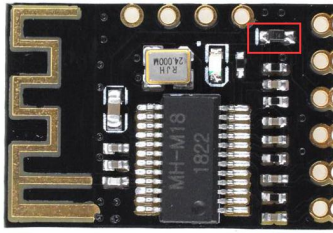
Wiring



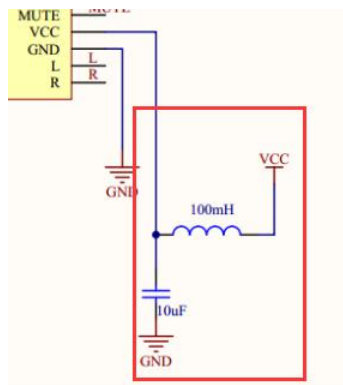
Note

1. Power supply: The default is 5V. If you need to use a 3.7V lithium battery, you need to replace the diode (as shown) with a 0-ohm resistor of 0603, or directly short the two ends of the pad. If you use battery power, please pay attention to the battery to add a protective plate, there is low voltage protection to disconnect, otherwise it

will easily lead to battery discharge excessively burned the battery.



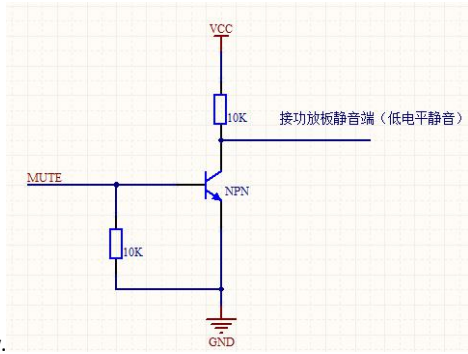
When there is noise during playback, the Bluetooth audio module has a very high power requirement, which will affect the quality of the audio. It is recommended to use a linear regulated power supply. If you are using a DC-DC switching power supply (such as a mobile phone charger), it is recommended to add an LC filter circuit (as shown below) to reduce power supply harmonic interference.



2. Current sound: Caused by grounding interference, it is recommended that the output of the Bluetooth module should not be plugged in. It is necessary to weld the wire, especially the ground wire, and the wire should not be too long. The shorter the better, the thicker. The problem of audio grounding at the grounding point of the power amplifier board must be connected to the ground of the audio input of the power amplifier. This grounding point can be tried to solder at different positions to achieve the lowest current sound. It is recommended that the Bluetooth and the power amplifier board be powered separately to isolate the Bluetooth ground and the amplifier ground.

3. Signal interference: Bluetooth antennas are extremely susceptible to high frequency or strong electromagnetic signals, and should be placed away from places where wireless devices are sent. And the board can't be close to metal objects, keeping a certain distance.

4. MUTE mute port: When the module is muted, the port outputs a high level of 3.3V and outputs a low level of 0V during playback. If the power amplifier board mute high level is valid, it can be directly connected. If the power amplifier board mute is low level control, you need to add the reverse circuit, as shown



below.

5. Since this product is designed for bare board, try not to touch the components on the board with your hands. It is easy to cause static electricity to kill the chip and cause burning.