

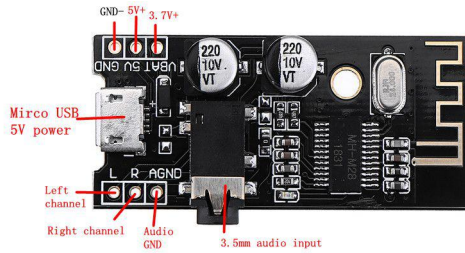
M28

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.

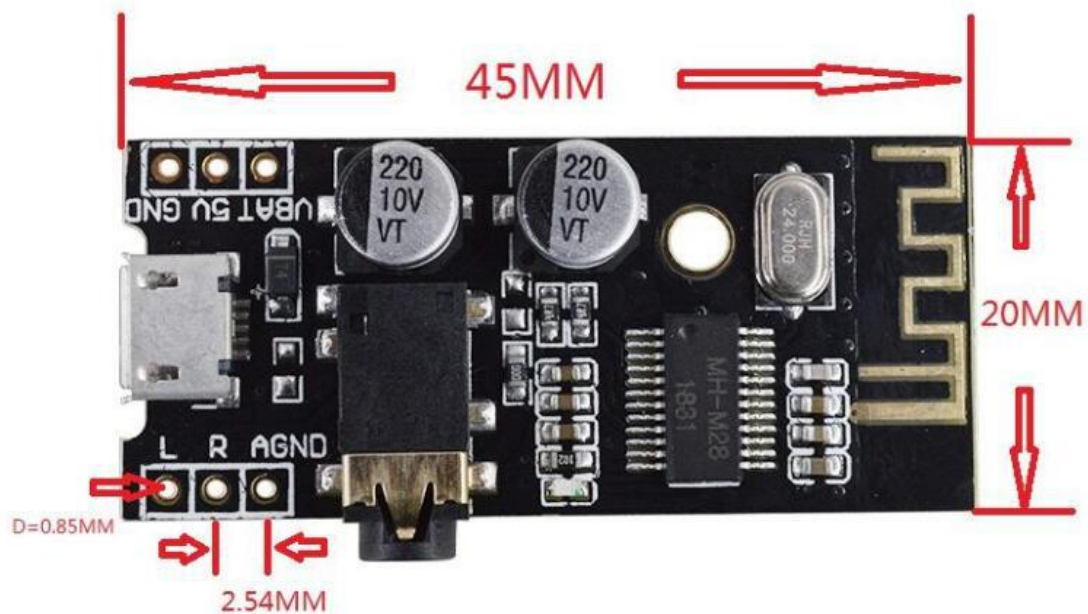
Common problem

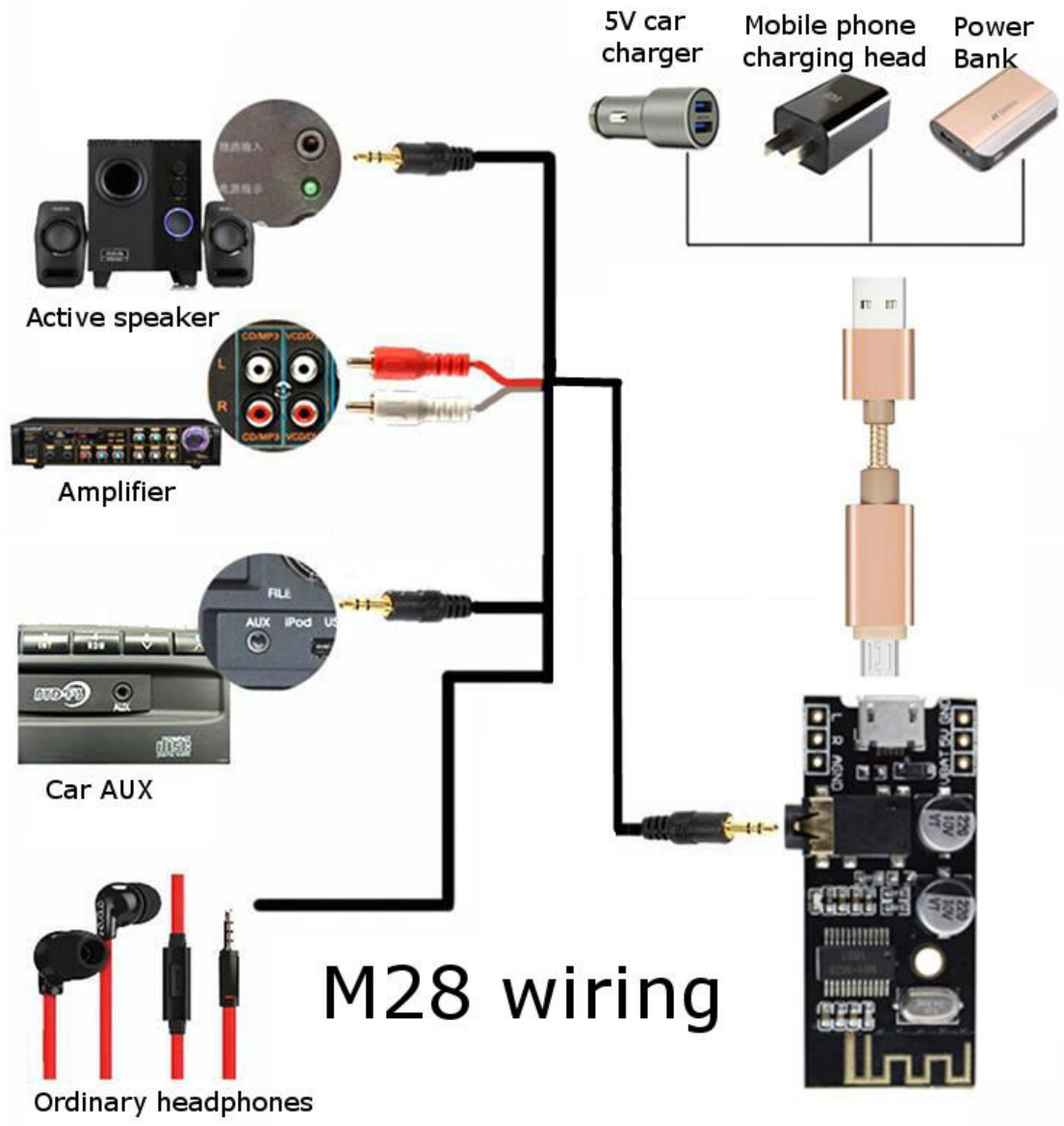
1. This product can directly drive the headphones, or it can be connected to the power amplifier board.
2. Note that in the case of a lithium battery, this product cannot be charged directly by the usb lithium battery. There is no lithium battery protection circuit, which is easy to burn the battery.
3. You can't connect the left and right channels together. If you only need mono, just connect the left channel or the right channel.
4. If the power amplifier board is connected, noise or current sounds 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.
5. After the module is powered on, it cannot be connected 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.
6. The module does not search for Bluetooth, or there is a stuck in Bluetooth playback. Please check if there are any wireless transmitting devices around you that are disturbed and away from these devices.
7. 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.
8. After plugging in the earphones, I found that there is only a mono sound. Please check if the headphones are plugged in, and if there is any solder joint on the pins of the earphones.



1. Bluetooth V4.2 version, supports Bluetooth automatic connection technology, supports WAV/WMA/FLAC/APE/MP3 lossless decoding, stereo dual channel output.
2. Power supply: It can be directly powered by the MICRO USB Android cable 5V, or it can be connected to a 5V power supply or a 3.7V lithium battery (as shown in the figure above). Note that the 5V and 3.7V power supply interfaces are different. 5V is connected to 5V and GND, and the 3.7V lithium battery is connected to VBAT and GND.
3. After the module is powered on, the mobile phone searches for the Bluetooth name MH-M28, and when it is connected to Bluetooth, it can play music.
4. 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.
5. Audio output: The earphone can be directly connected to the 3.5mm audio interface, or it can be wired for the audio input of the power amplifier board (the interface L/R/AGND can be directly wired as shown).

MH-M28:



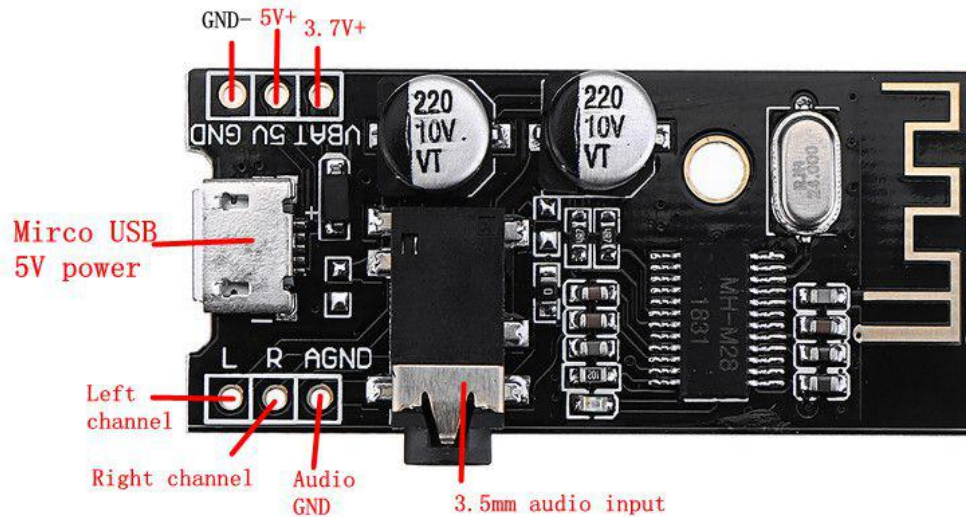


M28 wiring

Pin number	Pin header	Description
1	5V	Power positive 5V
2	GND	Negative power supply
3	VBAT	Lithium battery positive 3.7-4.2V
4	L	Left channel output
5	R	Right channel output
6	AGND	Audio ground

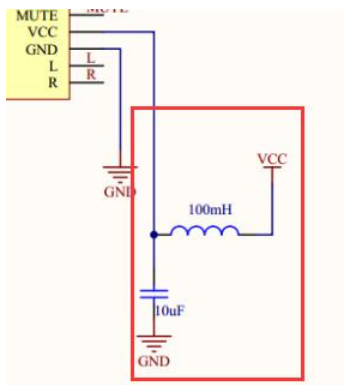
1. Power supply: You can directly use the MICRO USB Android cable 5V for direct power supply, or you can also connect 5V power supply or 3.7V lithium battery (as shown below). Note that the 5V and 3.7V power supply interfaces are different. The 5V voltage is connected to 5V and GND, and the 3.7V lithium battery is connected to VBAT and GND.

2. Audio output: The earphone can be directly connected to the 3.5mm audio interface, or it can be wired for the audio input of the power amplifier board (the interface L/R/AGND can be directly wired as shown).



Note:

1. If noise occurs 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. Signal interference: The Bluetooth antenna is extremely vulnerable to high frequency or strong electromagnetic signals, and should be placed away from the place where the wireless device is sent. And the board can't be close to metal objects, keeping a certain distance.

3. If there is current sound in the power amplifier board, the cause is ground wire interference. It is recommended that the output of the Bluetooth module should not be plugged in. It is necessary to solder the wire, especially the ground wire, and the wire should not be too long, the shorter the better. , try to be 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.

4. Since this product is a bare board design, try not to touch the components on the board with your hands. It is easy to cause the static electricity to kill the chip and cause it to burn.

Warning: The charging interface of this product is in current-limiting charging mode, without charging management! For the safety of your life and property, please be sure to use the lithium battery with protective plate produced by the regular manufacturer. If the loss is caused by improper use, the company will not bear any responsibility!