## Bluetooth audio module documentation (5V)



Port Description:

1. +5V power supply: Connect the positive pole of the power supply, the voltage range is 4.2V~5V, please ensure that the power supply is within this range. Exceeding this range may damage the module or cause the work to be abnormal.

2. Ground: GDN is connected to the negative pole of the power supply;

3. Left channel: Connect the left channel input of the power amplifier board, or the left channel of the earphone. It is recommended to connect a capacitor to the output port (depending on the input matched by the power amplifier);

4. Right channel: Connect the right channel input of the power amplifier board, or the right channel of the earphone. It is recommended to connect a capacitor to the output port (depending on the matching input of the power amplifier);

5. Mute output port: The port is preset to a high level, and the port outputs a low level when muted;

6. Status indicator: When the Bluetooth is not connected, the light flashes quickly, and once the Bluetooth connection is successful, it will flash slowly;

7. Reserved port: The port has been pulled up to 5V. When the port is triggered by a low level, it will be turned off. When the port is turned back to the low level again.

Typical wiring diagram of the system:



## Note: From the Bluetooth audio module to the power supply or to the audio interface, please use the soldering method, do not use the way of plugging, the contact resistance will introduce noise.

Precautions for use:

1. Power supply: The Bluetooth audio module is a circuit sensitive to high-frequency interference. It is recommended to use a linear regulated power supply. If DC-DC power supply is used, please add LC filter to reduce the harmonic interference of the power supply, especially the switch such as mobile phone charger. Power supply, power supply ripple may cause Bluetooth to not connect properly, and this type of 5V output is often between 5.1V~5.4V, exceeding the working voltage of the Bluetooth audio module;

2. Grounding: Because the audio signal is sensitive to the interference caused by the grounding point, when the module is connected to the power amplifier power supply, try to solder it on the circuit board, do not use the lead wire connection (susceptible to interference), and the grounding point is the grounding point of the input signal (recommended) Single point grounding);

3. Antenna interference: The Bluetooth antenna is extremely susceptible to high frequency, or strong electromagnetic signal interference, relatively far away from the strong signal of the power amplifier board, and the antenna can not be close to the metal object, maintaining a certain distance;

4. Shielding of the casing: Since the casing of the metal casing has a shielding effect on the Bluetooth signal, it may attenuate the Bluetooth signal and cause poor reception. Please keep it in the corresponding opening or exposed.



When using a switching power supply such as a mobile phone adapter, please add this power supply circuit, the inductance can not be added.

## Supplement:

1, status indicator wiring diagram

Due to the weak driving capability of the module, it is recommended that the LED light be a red LED light or an external triode to drive the LED light;

LED
100R
LED
<b>∀</b>

2, mute port, the output level is about 3V, if the rear stage power amplifier board is low level mute, then directly access, if it is high level mute, please add a level of triode as the inversion;



3, there are two kinds of noise, the bottom noise of a Bluetooth processing standby search signal, this is inherent, but the sound will not be very large, only a little bit, may be processed by mute (MUTE). Another type of noise floor is caused by interference or wiring, and the modified line can be solved by improving the grounding point. It can be handled in accordance with the method described above.