

ZK-502L MINI 5.0 Bluetooth Amplifier Board

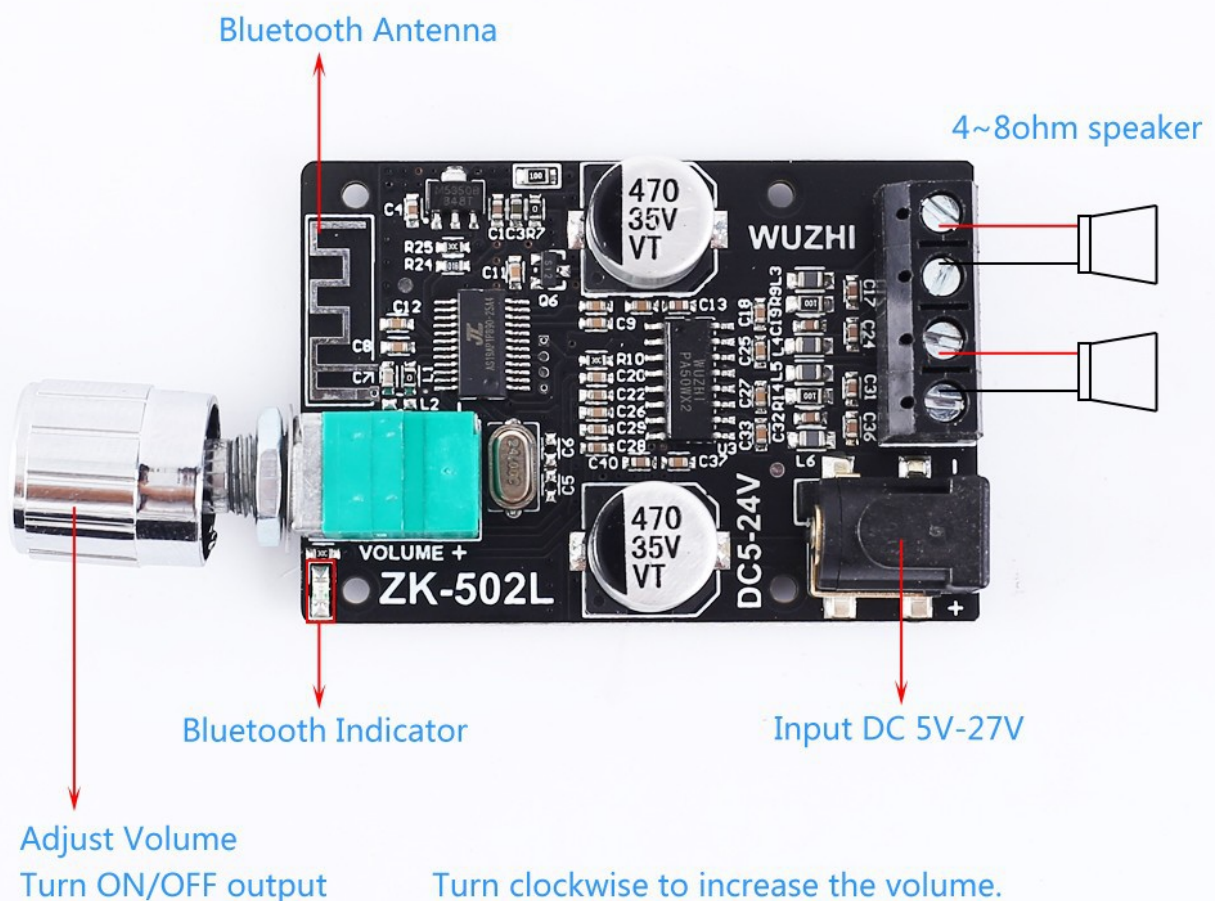
Wireless Audio Digital Power 2 x 50W Dual Channel Stereo

1.Description:

ZK-502L is a high-power stereo Bluetooth audio module. Dual channels audio signal output. Built-in amplifier module therefore it can connect to loudspeaker directly.

It is ideal for DIY wireless Bluetooth speakers and transponders.

Bluetooth Digital Amplifier Module



2.Features:

- 1>.Width work voltage range
- 2>.Applicable multiple type speakers
- 3>.Knob adjustment
- 4>.Support short circuit protection
- 5>.Support over temperature protection
- 6>.Dual stereo output
- 7>.Built-in filter capacitor
- 8>.Potentiometer support switch function

3.Parameters:

- 1>.Product name:ZK-502L Stereo Bluetooth Power Amplifier Module
- 2>.Model:ZK-502L
- 3>.Work Voltage:DC 5V-24V
- 4>.Communication distance:15meter(Max)
- 5>.Channel:Dual channel stereo output
- 6>.Output impedance:4ohm~8ohm
- 7>.Match speaker:30W~200W
- 8>.Bluetooth:BLE 5.0
- 9>.Output Power:
 - 9.1>.Output power 12W*2 at 12V 8ohm
 - 9.2>.Output power 20W*2 at 12V 4ohm
 - 9.3>.Output power 18W*2 at 15V 8ohm
 - 9.4>.Output power 30W*2 at 15V 4ohm
 - 9.5>.Output power 32W*2 at 19V 8ohm
 - 9.6>.Output power 45W*2 at 19V 4ohm
 - 9.7>.Output power 38W*2 at 24V 8ohm
 - 9.8>.Output power 50W*2 at 24V 4ohm
- 10>.Work Temperature:-40°C~85°C
- 11>.Work Humidity:0%~95%RH
- 12>.Module Size:75*38*17mm

4.Use steps:

- 1>.Choose the right speaker and connect as shown in wiring diagram.
- 2>.Connect to right power supply from input terminal.LED indicator will flashing and it means that module enters pairing mode.And then speak prompt voice and it means that module is waiting for pairing.
- 3>.Turn ON Bluetooth in phone.
- 4>.Select Bluetooth device 'BT-WUZHI' in your Bluetooth device listing.
- 5>.LED indicator will keep ON and it means that module is successfully connected and is waiting for playing.
- 6>.Module will playing music after select music in phone.LED indicator will keep slowly blinking.
- 7>.Increase volume by turn right potentiometer.
- 8>.Decrease volume by turn left potentiometer.
- 9>.Press potentiometer to play or pause music.
- 10>.Module will speak prompt voice if disconnected.

5.Application:

- 1>.Modified speaker
- 2>.Amplifier equipment
- 3>.Car Bluetooth device

6.Note:

- 1>.The power amplifier board should be as far away as possible from the WIFI signal (router) avoid signal interference.
- 2>.Recommended power supply voltage DC 5~24V.Module will be damaged if input voltage is more than 24V.
- 3>.Please don't use too long wires to avoid signal interference.
- 4>.Please read use manual and description before use.

7.Frequently Asked Questions:

1>.How to choose a power supply adapter?

Q: The power supply of the module is very critical. The user must pay enough attention to the power supply. Otherwise it may not work properly.

The higher the voltage and the higher the current then the better the output power. It is better to connect 3~4in speaker if user only have 12V 1A power adapter. It is no problem to connect 8~10in speaker if user have a power adapter which more than 19V 5A.

If the voltage is too low, the sound will be distorted after the sound is amplified.

If the current is too small, the speaker cannot be driven to work, and the speaker will pull the voltage low, resulting in abnormal operation or poor sound quality.

It is recommended to use 18V/19V/24V power supply with current above 3A.

Putting the volume to the maximum may be distorted, affecting the sound quality if input low power adapter such as 9V/12V 1A/2A adapter.

2>.How to choose a speaker?

Q: Commonly used speakers are generally 4ohm~8ohm.The speaker no need distinguish between positive and negative polarity.

It can also work properly if the speaker has low power such as 10W~30W. But it needs connect to low power adapter such as less than 15V to prevent damage to the speaker.

User don't have to worry about the problem of the speaker burning out if connect to 50W~200W speaker.Module can connect 12V~24V.The higher the voltage selected, the greater the sound or power that can be output.

3>.Why is the volume working normally when volume small, and there is turbidity after increase volume?

Q: Sound distortion.Please change the adapter power supply with higher voltage level.

4>.Why is the volume working normally when volume small, and there is pause after increase volume?

Q: The input power is insufficient.Please change the adapter power supply with higher voltage level.

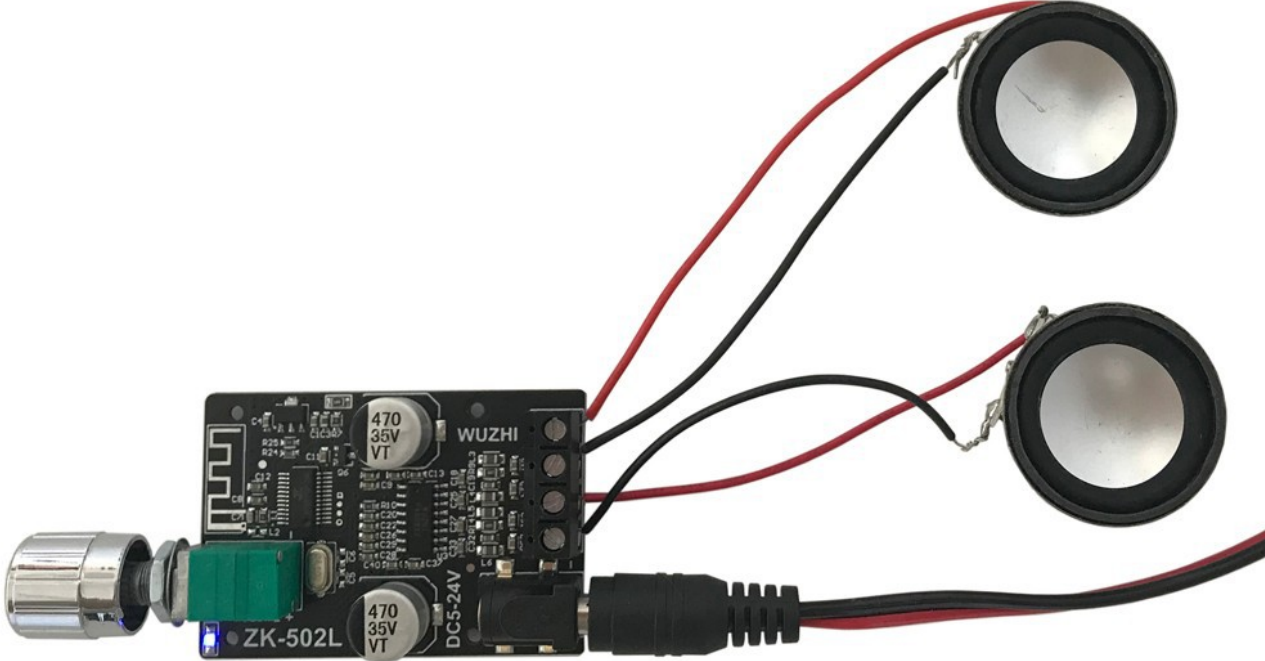
Power supply itself intermittent power-off protection.Please change a match power adapter.

The power of the power supply is too large so please reduce the power of the input power.

The power amplifier board is seriously heated resulting in trigger overheat protection.So please increase the radiator.

8.Package:

- 1>.1pcs ZK-502L HIFI Stereo Bluetooth Power Amplifier Module
- 2>.1pcs DC-005 20cm power cable
- 3>.1pcs 6mm knob cap
- 4>.1pcs M6 nut
- 5>.1pcs M6 screw mat





55mm

38mm

75mm

H:17mm