

ZK-502T 50Wx2 TPA3116D2 BT audio amplifier module

Treble - Bass are regulated independently
BT +AUX audio input | 2.0 channel stereo output



50W+50W

BT Audio Amplifier Module

Catalogue

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1. Product parameters

Product Parameters

Product Name : 50W*2 BT audio amplifier module with Tone

Product Model : ZK-502T

BT Version : 5.0 (no shielding, 10 meters)

SNR : >90 dB

Audio Input : AUX + BT

Channel : 2.0 (stereo)

Chip Solution : TPA3116D2 (with AM interference suppression)

Power Range : DC9~24V / 2A above (high power recommended high voltage)

Adapter Speaker : 15W~100W, 4~8Ω

Output Power : 15W*2 @12V,8Ω 30W*2 @12V,4Ω

20W*2 @19V,8Ω 40W*2 @19V,4Ω

30W*2 @24V,8Ω 50W*2 @24V,4Ω

Protection Mechanism : overvoltage, undervoltage, overheating, DC detection, short circuit protection

Product Dimensions : Upgrade APP version: 110mm*70mm*21mm

Potentiometer lead out type: 90*70*15mm

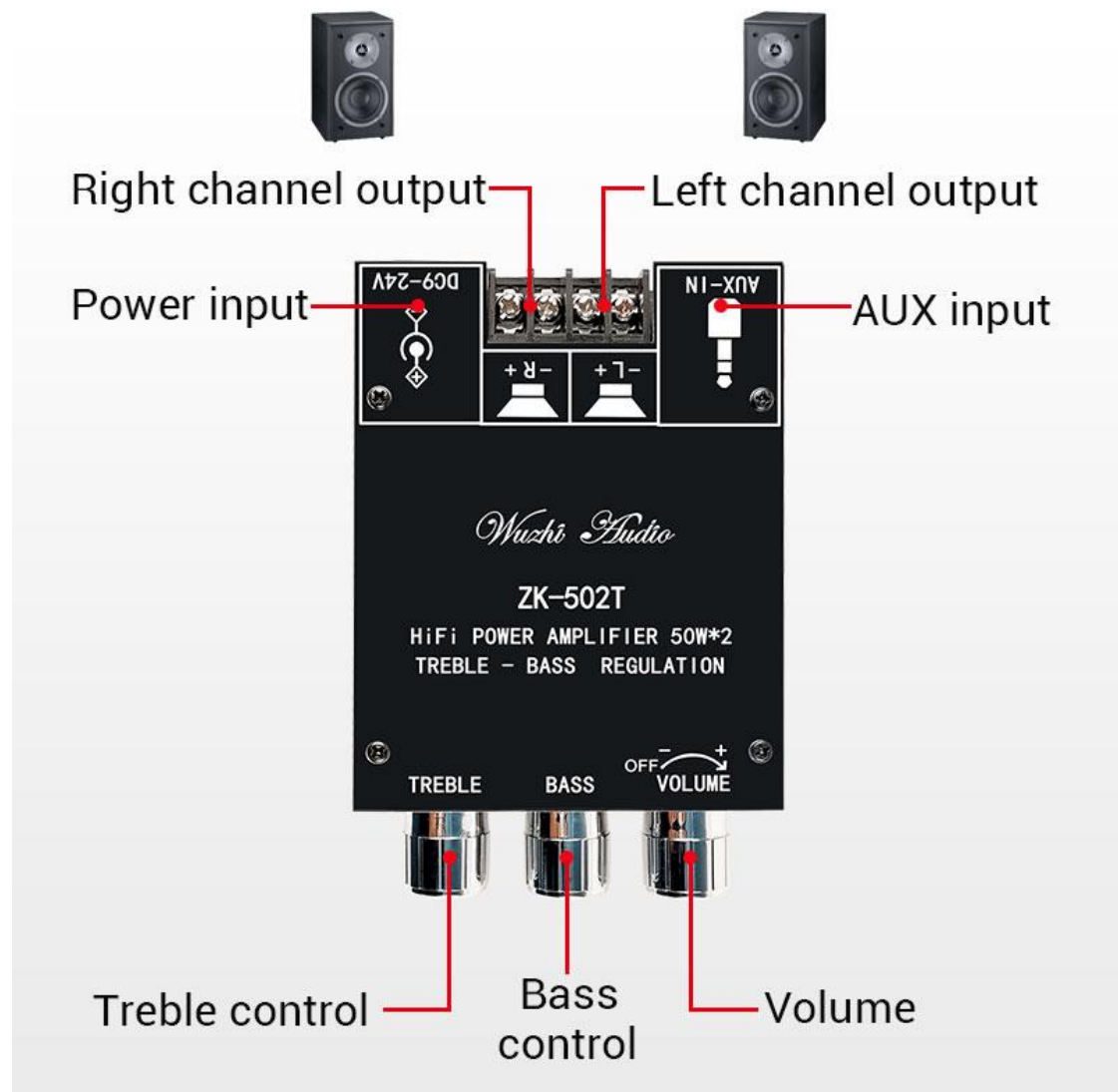
Package Weight :

Upgrade APP version: Net weight 113g, With packaging 154g

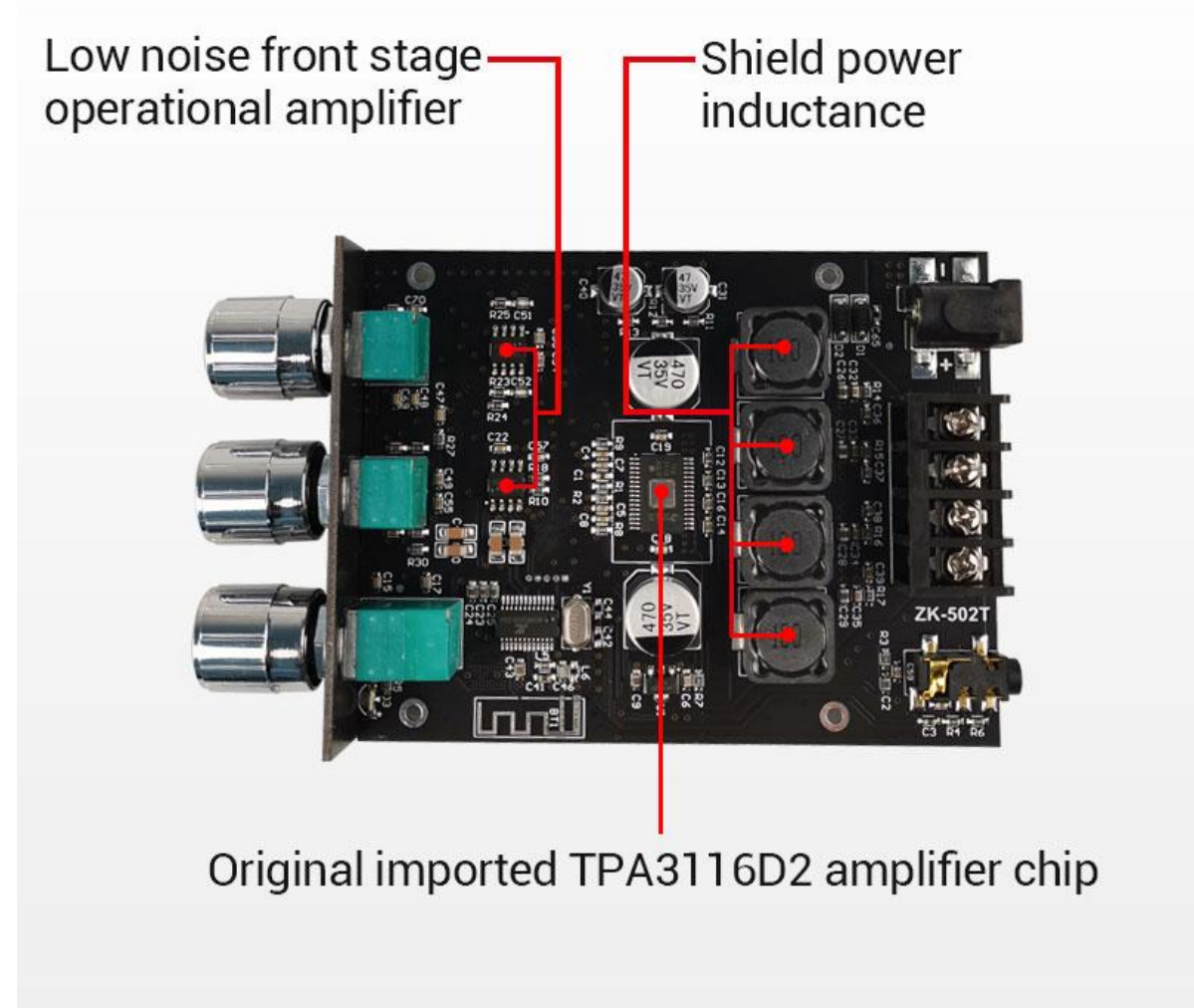
Potentiometer lead out type: Net weight 110g, With packaging 144g

PS: In the audio input is enough, the supply voltage/current is enough, there will be enough output power! The higher the supply voltage, the greater the output power. The smaller the impedance of the speaker, the greater the output power! Please ensure that the power of the adaptor is greater than the actual working power of the amplifier!

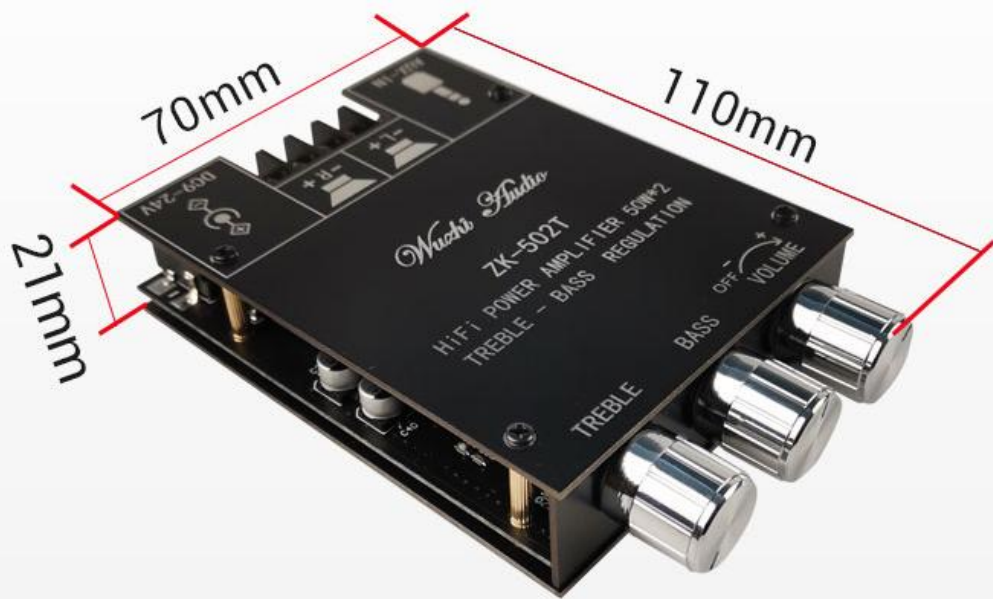
2. Product function



3. Product details



4. Product size



Net weight: 113g

Weight: 154g (packaging)

5. Question and answer

1. How to choose a power supply?

The power supply with the board is critical. The higher the voltage, the higher the current and the better the output power. If you only have 12V 1A, you can bring a 3-4 inch speaker. If you are 19V 5A or above, there is no problem with 8-10 inches, and the power supply must be highly valued. If the voltage is too low, the sound will be distorted after the sound is amplified. If the current is too small, the speaker will pull the voltage low, work abnormally or the sound quality will deteriorate.

It is recommended to use 18V19V24V power supply with current above 5A. If you only have 9V12V or 1A 2A power supply, it can also be used but the power is small. Please pay attention to the maximum volume when using it, which may affect the sound quality.

2. How to choose a speaker?

Commonly used speakers are generally 4 ohms or 8 ohms, can not distinguish between positive and negative, the effect is the same. If your speaker power is small, it may be used between 20W-50W. The power supply voltage is small to prevent the amplifier from burning out after burning. For example, select a power supply below 15V.

If you are a 100W-200w speaker, don't worry about the speaker burnout. You can choose 12-24V power supply. The higher the voltage you choose, the louder the output sound or power. The speaker power is not recommended to exceed 200W, otherwise the sound quality will be affected.

3. Introduction of audio input mode

This audio amplifier module has two audio input modes: one is BT input and the other is AUX input. BT mode is preferred. BT can be connected in either mode. As long as the BT connection is successful is BT mode, and BT mode support automatic connection. AUX insertion is AUX mode when BT is connectionless. It is important to make sure that the BT connection of this module has been disconnected when using AUX mode.

4. How to adjust the bass and high pitch?

The BASS potentiometer in the middle is to control the BASS, the right BASS is enhanced, the left BASS is attenuated. When the potentiometer is in the middle position, the bass is neither enhanced nor attenuated.

The TREBLE potentiometer on the left controls the TREBLE. the right TREBLE enhanced and the left TREBLE attenuated. When the potentiometer is in the middle position, it does not increase or decrease the treble.

Note when adjusting treble and bass: when the treble or bass right rotation is adjusted to the maximum, if the sound is distorted, it means that the treble or bass gain is too large. It is necessary to turn the treble or bass potentiometer to the left to reduce the gain or turn the VOLUME potentiometer to the left to reduce the total volume.

5. When the sound becomes louder, the phenomenon of turbid sound appears.

The sound is distorted. Please change the adapter power supply with a higher voltage rating.

6. After the sound becomes louder, the sound is stuck.

The input power is insufficient, and the power supply itself is intermittently powered off. Please replace the power supply with a larger power.

Or the output power is too large, the power amplifier board is seriously heated, and thermal protection occurs, reducing power usage or enhancing heat dissipation.

7. What are the factors related to the sound quality?

Sound quality is not only related to the amplifier module, but also to the sound source and the entire sound system. Basically every link of the sound system will affect the sound quality, among which the main link is the audio transmission line, audio power supply, tone circuit, amplifier circuit, speaker and the surrounding environment. Sound quality is best only when the sound source, amplifier module and speaker are matched.

FCC WARNING

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception,

which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum 20cm distance between the radiator and your body: Use only the supplied antenna.