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> MiOYOOW XY-T50L Bluetooth 2.0 Amplifier Module User Manual

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Model: XY-T50L

1. INTRODUCTION

The MiOYOOW XY-T50L is a high-power 2.0 channel stereo Bluetooth amplifier module designed for various audio applications. It features adjustable treble and bass, multiple audio input options including Bluetooth 5.0, AUX, and U-disk/USB, and can be controlled via a dedicated mobile application. This manual provides essential information for the proper setup, operation, and maintenance of your amplifier module.



Figure 1.1: MiOYOOW XY-T50L Bluetooth 2.0 Amplifier Module. This image displays the compact amplifier module with its three control knobs for volume, treble, and bass, and various input/output ports.

2. PRODUCT FEATURES

- High-power 2.0 channel stereo output (50W x 2).
- Adjustable treble and bass controls.
- Multiple audio input options: Bluetooth 5.0, AUX, U-disk/USB.
- Supports Sinilink APP control for enhanced functionality.
- Integrated amplifier module for direct speaker connection.
- Built-in protection features: Overheat, Short Circuit, Overcurrent.

XY-T50L 50W*2 Bluetooth 2.0 Amplifier Module

Bluetooth/AUX/U-disk/USB Audio Input

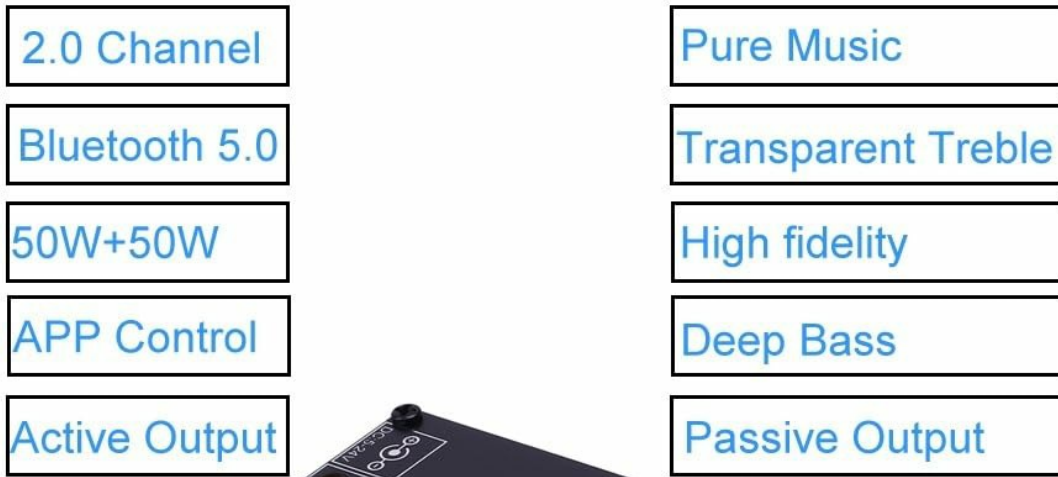


Figure 2.1: Overview of MiOYOOW XY-T50L key features. This graphic highlights the module's capabilities including 2.0 channel output, Bluetooth 5.0, 50W+50W power, APP control, pure music, transparent treble, high fidelity, and deep bass.

3. PACKAGE CONTENTS

Please verify that all items listed below are included in your package:

- 1x XY-T50L 50W*2 HIFI 2.0 Bluetooth Amplifier Module
- 1x Aluminum heatsink
- 1x Thermal conductive silicone paste
- 3x 6mm Knob caps
- 2x Aluminum alloy shells
- 4x M2*18mm Copper columns
- 4x M2*4+3mm Copper columns
- 8x M2*3mm Screws
- 1x DC converter

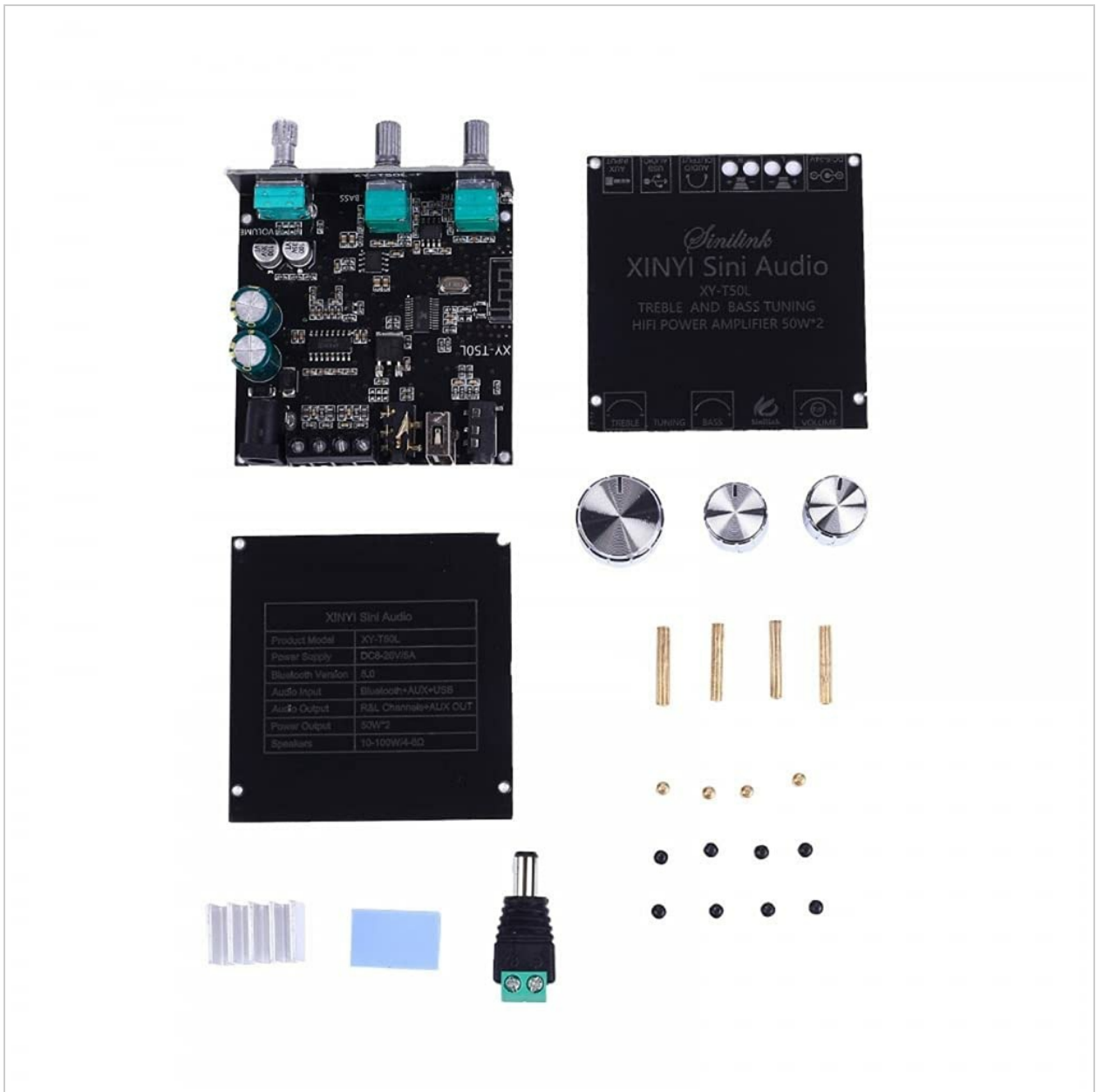


Figure 3.1: Exploded view of the MiOYOOOW XY-T50L amplifier module and its components. This image shows all parts included in the package, such as the main board, aluminum shells, knobs, heatsink, and various screws and standoffs for assembly.

4. SETUP INSTRUCTIONS

Follow these steps to properly assemble and connect your XY-T50L amplifier module:

1. **Assembly:** Attach the aluminum alloy shells to the main circuit board using the provided M2*18mm and M2*4+3mm copper columns and M2*3mm screws. Apply the thermal conductive silicone paste to the amplifier chip before attaching the aluminum heatsink for optimal heat dissipation. Finally, place the 6mm knob caps onto the control shafts.
2. **Power Connection:** Connect a DC power supply (5V-26V, >5A recommended) to the DC-005 socket or the screw terminal block. Ensure correct polarity.
3. **Speaker Connection:** Connect your passive speakers (10W-200W, 4ohm-8ohm) to the left and right speaker output terminals.
4. **Audio Input:** Choose your desired audio input method:
 - **Bluetooth:** Power on the module. The Bluetooth indicator will flash, indicating it's ready for pairing.

- **AUX:** Connect an audio source via a 3.5mm AUX cable to the AUX input jack.
- **U-disk/USB:** Insert a U-disk or connect a USB audio source to the USB port.



Figure 4.1: Detailed connection diagram for the MiOYOOW XY-T50L amplifier module. This diagram illustrates how to connect the DC power supply, passive speakers (left and right), AUX audio input, and USB audio input. It also labels the treble, bass, and master volume knobs, and the Bluetooth indicator.

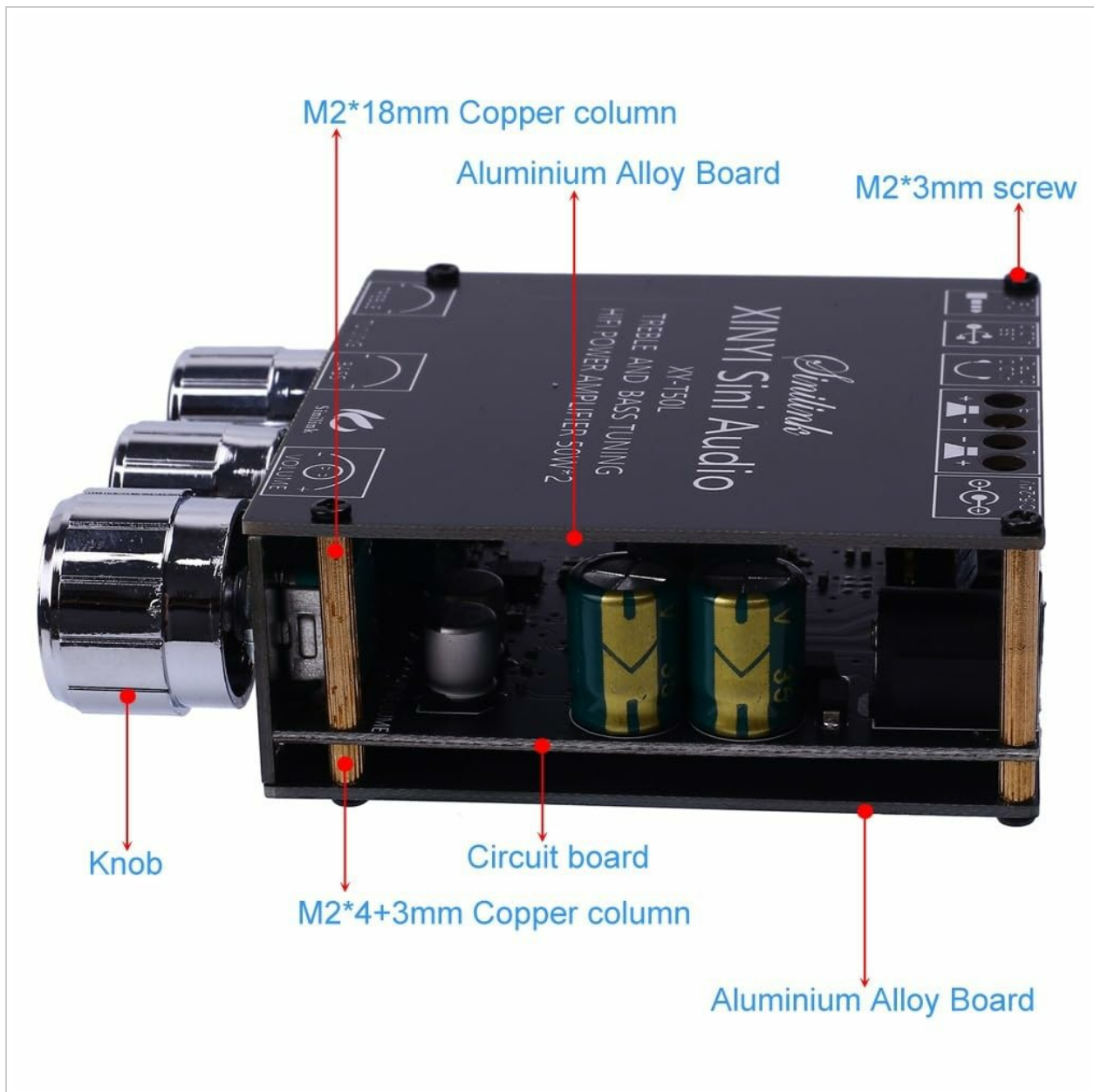


Figure 4.2: Labeled components of the MiOYOOW XY-T50L amplifier module. This image points out the knobs, circuit board, aluminum alloy boards, copper columns, and screws, providing a visual guide for assembly.

5. OPERATING INSTRUCTIONS

Once the module is set up, follow these steps for operation:

1. **Power On/Off:** Press and hold the master volume knob (labeled 'VOLUME') to turn the module ON or OFF. A short press will play or pause audio.
2. **Volume Control:** Rotate the 'VOLUME' knob to adjust the overall audio output level.
3. **Tone Control:** Use the 'TREBLE' knob to adjust high frequencies and the 'BASS' knob to adjust low frequencies according to your preference.
4. **Bluetooth Pairing:** When the module is powered on, the Bluetooth indicator will flash. On your device (smartphone, tablet, etc.), search for Bluetooth devices and select "XY-T50L" to pair. Once paired, the indicator will remain solid.
5. **AUX Input:** If an AUX cable is connected and an audio source is playing, the module will automatically switch to AUX input.
6. **U-disk/USB Input:** Insert a U-disk with audio files or connect a USB audio source. The module will

automatically detect and play audio from the USB input.

7. **APP Control:** Download the Sinilink application on your smartphone. Connect to the XY-T50L module via Bluetooth within the app to access additional controls and settings.

6. SPECIFICATIONS

Parameter	Value
Product Model	XY-T50L
Working Voltage	DC 5V-26V
Working Current	> 5A
Unique Function	Sinilink APP control
Channel Output	2.0 channel stereo
Bluetooth Version	BLE 5.0
Audio Output Type	Left/Right/AUX
Volume Adjustment	Independent encoder adjustment
Frequency Range	20 Hz - 30 KHz
Signal-to-Noise Ratio (SNR)	92 dB
Output Power	50W * 2
Matching Speaker Impedance	10W-200W / 4ohm-8ohm
Communication Distance	15 meters (Max)
Protection Features	Overheat, Short Circuit, Overcurrent
Working Temperature	-40 °C ~ 85 °C
Working Humidity	0 % ~ 95 % RH
Module Size (installed)	85mm * 65mm * 25mm



Figure 6.1: Dimensions of the MiOYOOW XY-T50L amplifier module. This image provides a visual representation of the module's length, width, and height, indicating its compact size.

7. MAINTENANCE

To ensure the longevity and optimal performance of your amplifier module, consider the following maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to clean the module. Avoid using liquids or abrasive cleaners.
- **Environment:** Operate the module within the specified working temperature and humidity ranges. Avoid exposure to direct sunlight, excessive heat, moisture, or dust.
- **Power Supply:** Always use a stable DC power supply within the recommended voltage and current specifications.
- **Connections:** Periodically check all connections (power, speakers, audio inputs) to ensure they are secure and free from corrosion.
- **Heat Dissipation:** Ensure the heatsink is clean and free from obstructions to allow for proper heat dissipation.

8. TROUBLESHOOTING

If you encounter issues with your XY-T50L amplifier module, refer to the following troubleshooting tips:

- **No Power:**

- Check if the DC power supply is connected correctly and providing the specified voltage (5V-26V) and sufficient current (>5A).
- Ensure the master volume knob is pressed and held to turn the module ON.

- **No Sound:**

- Verify that speakers are correctly connected to the output terminals.
- Check the audio input source (Bluetooth, AUX, USB) and ensure it is playing audio.
- Adjust the master volume knob to an audible level.
- Ensure the audio source device's volume is not muted or too low.

- **Bluetooth Pairing Issues:**

- Ensure the module is powered on and the Bluetooth indicator is flashing.
- Turn off and on Bluetooth on your device.
- Move your device closer to the amplifier module (within 15 meters).
- Disconnect any other devices currently paired with the amplifier module.

- **Distorted Sound:**

- Reduce the volume from both the amplifier module and the audio source.
- Ensure the speakers match the recommended impedance (4ohm-8ohm) and power rating (10W-200W).
- Check for loose connections or damaged cables.

- **APP Control Not Working:**

- Ensure Bluetooth is enabled on your smartphone and the module is paired.
- Verify that you have the correct Sinilink application installed.
- Restart the app and try connecting again.

9. WARRANTY AND SUPPORT

For warranty information or technical support, please contact the manufacturer or your point of purchase. Keep your purchase receipt as proof of purchase. The manufacturer is committed to providing satisfactory solutions within 24 hours for any issues encountered with the product.