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> AIYIMA A07 MAX Amplifier User Manual

AIYIMA A07MAX

AIYIMA A07 MAX Amplifier User Manual

Model: A07MAX | Brand: AIYIMA

INTRODUCTION

The AIYIMA A07 MAX is a versatile 2-channel stereo amplifier designed for home audio systems. It features a Class D power amplifier with a TPA3255 chip, capable of delivering up to 300W per channel in stereo mode or 600W in bridgeable mono mode. Its compact design makes it suitable for various applications, easily setting up your bookshelf/desktop/home theater. The AIYIMA A07 Max is engineered to provide clear and spacious sound quality for passive speakers.

KEY FEATURES

- **Dual-Mode Operation:** Switchable between 300W+300W stereo amplifier mode and 600W bridgeable mono amplifier mode.
- **High Power Output:** Delivers up to 600 Watts (300W x 2 at 4 ohm) in stereo, or 600W in mono mode, suitable for 2-8Ω speakers.
- **Enhanced Heat Dissipation:** Features a solid design with side and bottom vents to maximize heat dissipation and extend device lifespan.
- **Premium Audio Components:** Utilizes TI TPA3255 Class D amplifier chip, NE5532 Op-amp chip, Japanese, ELNA, and German WIMA capacitors, and an IT Power management chip for high-fidelity sound.
- **Exceptional Performance:** Achieves a Signal-to-Noise Ratio (SNR) of up to 110dB, ensuring clarity and low distortion.
- **3.5mm Line Output:** Allows connection to another A07 MAX unit or active device for building a high-power dual-channel system.
- **Included Power Adapter:** Comes with a DC36V 6A power adapter for immediate use.

PACKAGE CONTENTS

Upon opening the package, verify that all items are present and in good condition:

- AIYIMA A07 MAX Amplifier Unit
- DC36V 6A Power Adapter

PRODUCT OVERVIEW



Figure 1: Front view of the AIYIMA A07 MAX amplifier, showing the volume knob and mode indicators.

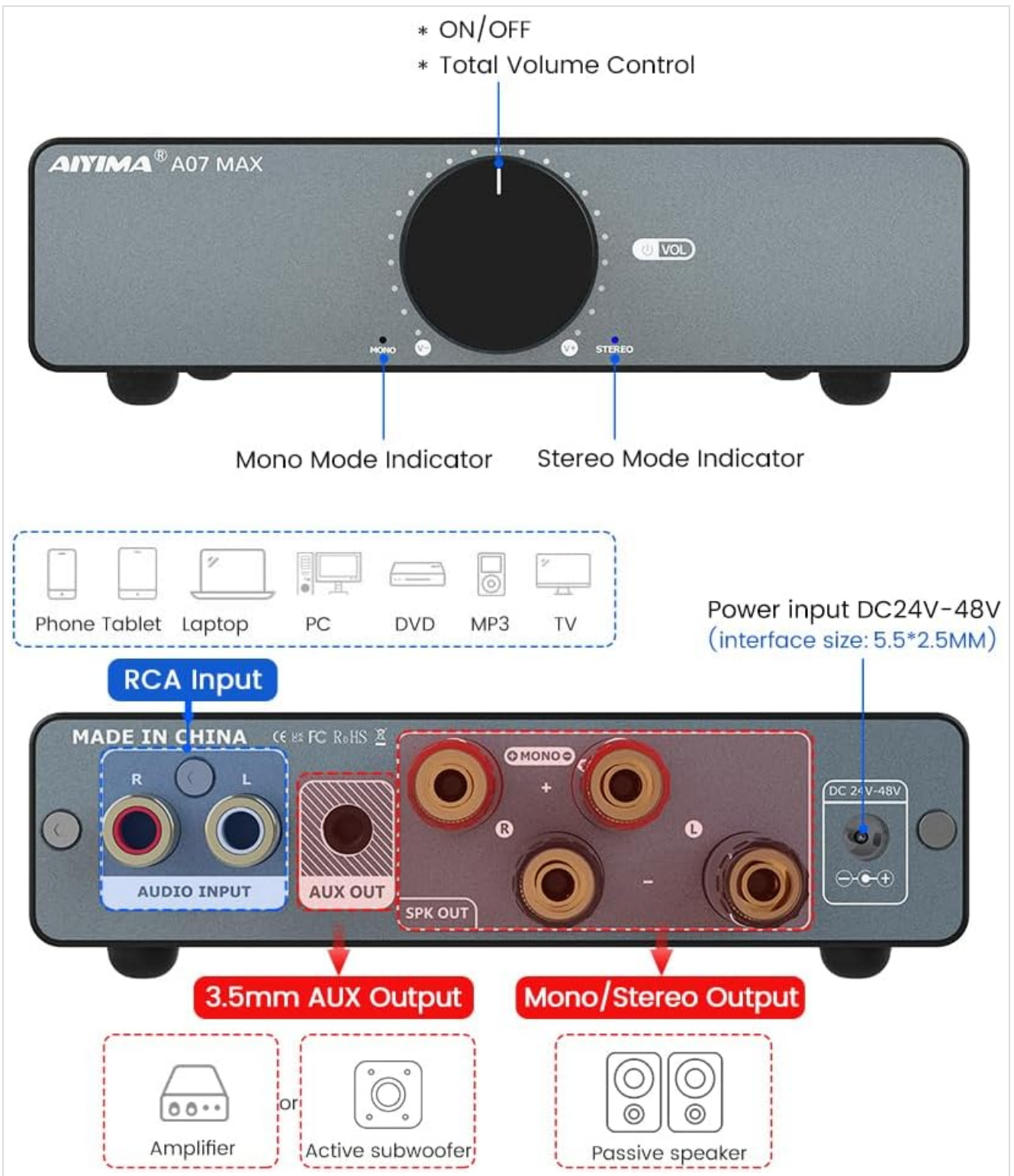


Figure 2: Overview of the amplifier's front panel with volume control and indicators, and the rear panel with input/output connections.

Shell Heat Dissipation Design

The bottom and side heat dissipation holes are designed to increase the heat dissipation area and quickly dissipate heat



Figure 3: Illustration of the amplifier's shell heat dissipation design, highlighting the side and bottom vents.

Mono/Stereo Adjust Switch

Switching between single and dual channel modes for wider usage scenarios;
Select Mono mode, select Mono interface output for wiring

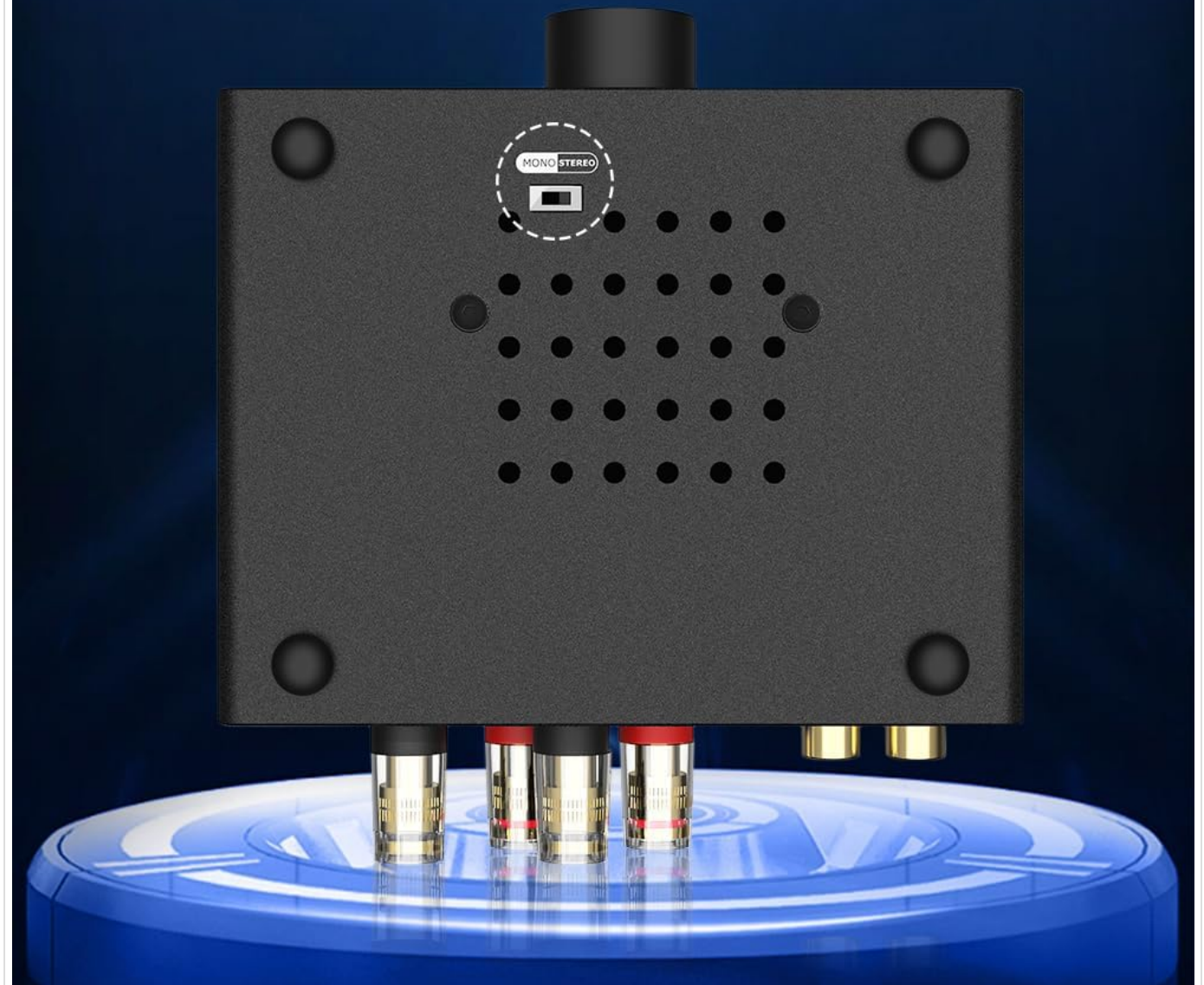


Figure 4: View of the bottom of the amplifier, showing the recessed Mono/Stereo mode switch.

High Quality Internal Components

Excellent component construction with unique A07 MAX perfect sound quality

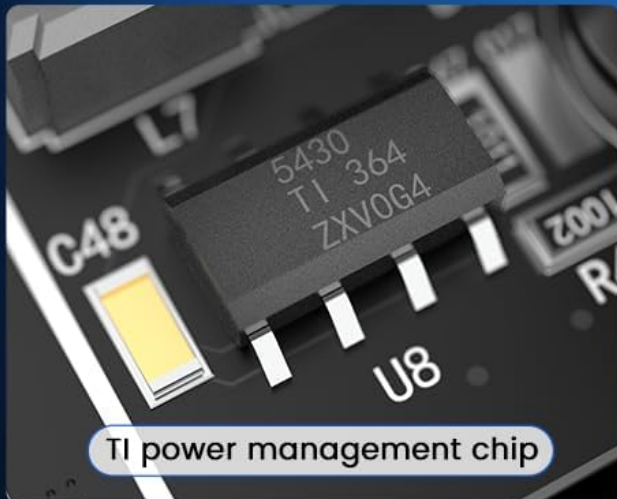


Figure 5: Close-up of the amplifier's internal components, including WIMA capacitors, Rubycon capacitors, TI power management chip, and phase mode inductance.



Figure 6: Detail showing the replaceable Op-Amp on the amplifier's circuit board, indicating compatibility with various DIP8 dual op-amps.

SETUP

1. Connecting Speakers

The A07 MAX supports passive bookshelf speakers with an impedance of 2-8Ω. Use high-quality speaker cables for optimal performance.

1. Connect the positive (+) terminal of your speaker to the positive (+) speaker output terminal on the A07 MAX.
2. Connect the negative (-) terminal of your speaker to the negative (-) speaker output terminal on the A07 MAX.
3. Ensure all connections are secure to prevent short circuits.

2. Audio Input Connection

Connect your audio source (e.g., phone, tablet, laptop, PC, DVD, MP3 player, TV) to the RCA input jacks on the rear of the A07 MAX using an RCA cable.

3. Power Connection

Connect the provided DC36V 6A power adapter to the DC input port (interface size: 5.5*2.5MM) on the rear of the amplifier, then plug the adapter into a wall outlet.

4. Stereo/Mono Mode Selection

The A07 MAX features a switch on the bottom of the unit to select between Stereo (BTL) and Mono (PBTl) modes. This allows for flexible usage scenarios, including bridging two A07 MAX units for a powerful mono setup.

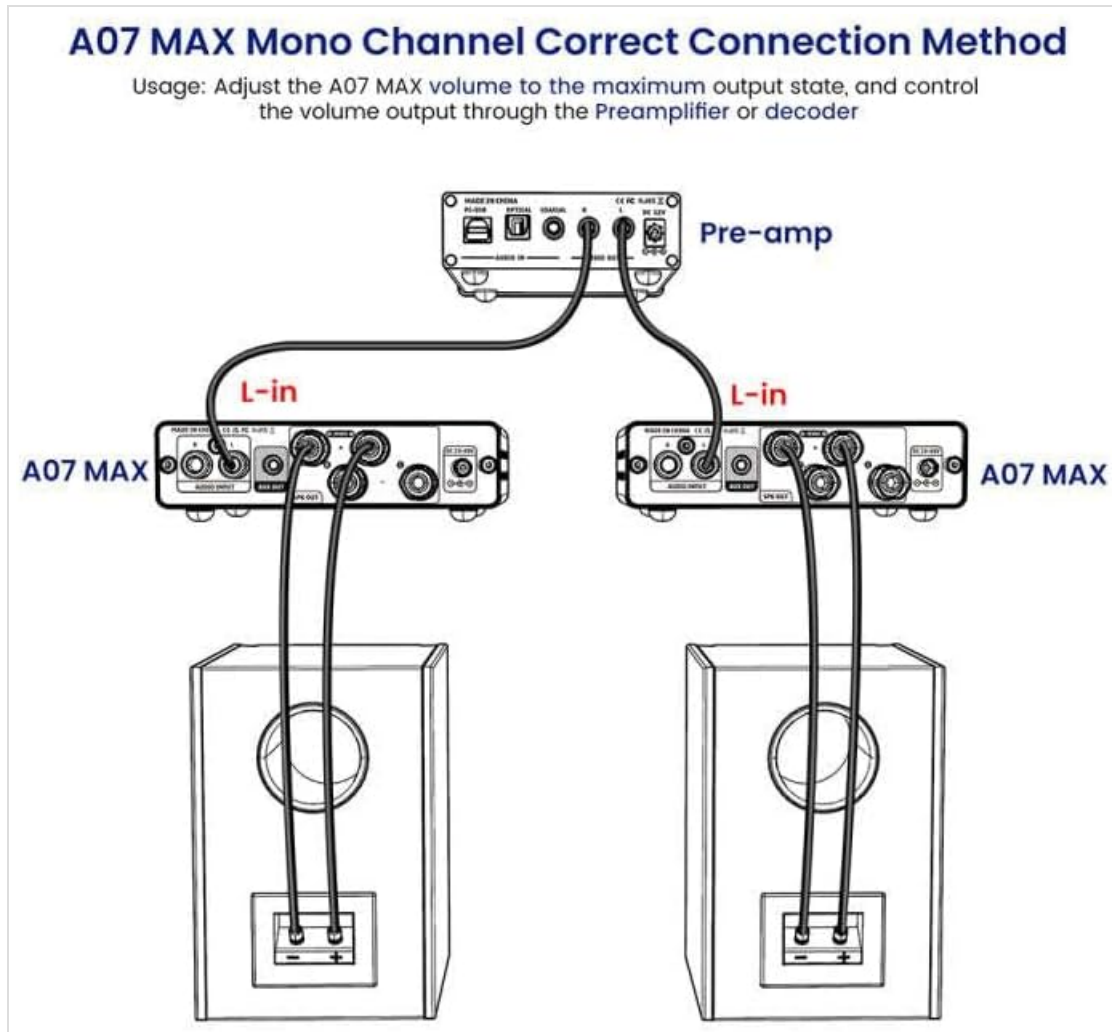


Figure 7: Diagram illustrating the correct connection method for two A07 MAX units in mono mode, connected to a pre-amplifier/DAC.

For mono mode, connect the speaker to the binding posts labeled "+ Mono Mode -" and use the "L" (left) RCA input for the audio signal. If using two A07 MAX units for a stereo mono-block setup, connect the left channel output from your pre-amp to the "L" input of one A07 MAX (set to mono) and the right channel output to the "L" input of the second A07 MAX (also set to mono).

Setup Demonstration Videos

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Video 1: AIYIMA A07 MAX Connecting Scenes Video. This video demonstrates various connection scenarios for the amplifier.

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Video 2: AIYIMA A07 MAX Bridge mono Amp Upgraded Video. This video provides a detailed guide on setting up the amplifier in bridge mono mode.

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Video 3: AIYIMA T9 DAC Amp Use for A07 MAX Bridge Mono/Stereo Amp. This video shows how to integrate the A07 MAX with an

OPERATING INSTRUCTIONS

1. Power On/Off and Volume Control

The large knob on the front panel serves as both the power switch and the volume control. Rotate clockwise to turn on the unit and increase volume. Rotate counter-clockwise to decrease volume and turn off the unit.

2. Mode Indicators

Two blue LEDs on the front panel indicate the current operating mode:

- **Stereo Mode Indicator:** Illuminates when the amplifier is set to stereo mode.
- **Mono Mode Indicator:** Illuminates when the amplifier is set to mono mode.

3. Using the 3.5mm AUX Line Output

The 3.5mm AUX line output on the rear panel provides a pass-through from the RCA inputs. This output is not controlled by the A07 MAX's volume knob and can be used to connect to another active device, such as a powered subwoofer or another amplifier for a multi-amplifier setup.

4. Op-Amp Replacement (Advanced Users)

The A07 MAX allows for the replacement of its Op-Amps (Operational Amplifiers) for users who wish to customize the sound signature. The unit is compatible with DIP8 dual op-amps such as OPA2604AP, OPA2134, MUSE01/02/03, LME49720NA, LM4562, AD827AQ, etc. Refer to Figure 6 for the location of the replaceable Op-Amp.

Caution: Op-Amp replacement should only be performed by users familiar with electronic components and proper handling procedures. Incorrect installation can damage the unit and void the warranty.

MAINTENANCE

1. Cleaning

To maintain the appearance and functionality of your amplifier, regularly wipe the exterior with a soft, dry cloth. Avoid using harsh chemicals or abrasive cleaners, as these can damage the finish.

2. Heat Dissipation

The A07 MAX is designed with efficient heat dissipation through its side and bottom vents. Ensure that these vents are not obstructed when placing the amplifier. Adequate airflow is crucial for optimal performance and longevity of the device.

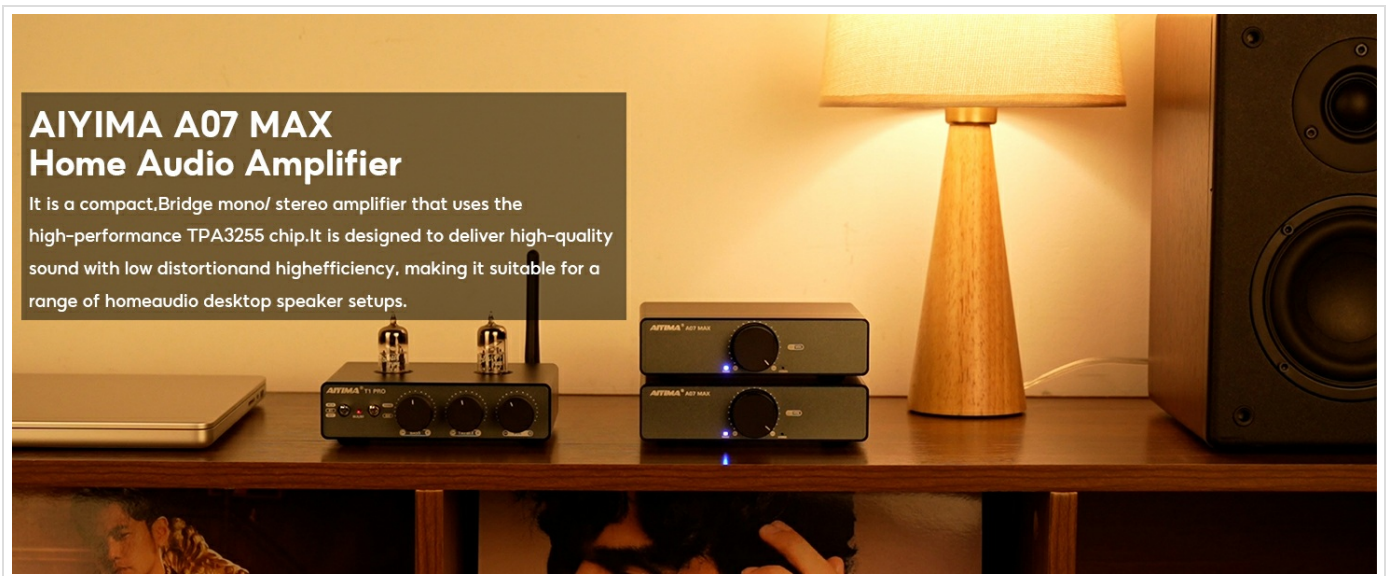
TROUBLESHOOTING

Problem	Possible Cause	Solution
No audio output	Power not connected or unit off. Incorrect input selection or cable connection. Speakers not connected properly. Unit in mono mode, but connected to 'R' RCA input.	Ensure power adapter is securely connected and unit is turned on. Verify audio source is playing and RCA cables are connected to the 'AUDIO INPUT' on the amplifier. Check speaker wire connections to ensure they are secure and correctly polarized (+ to +, - to -). If in mono mode, ensure the RCA cable is connected to the 'L' (left) input.

Problem	Possible Cause	Solution
Distorted sound	Volume too high. Speaker impedance mismatch. Poor quality audio source or cable.	Reduce the volume on the amplifier and/or audio source. Ensure speakers are within the 2-8Ω impedance range. Try a different audio source or cable to rule out external issues.
Unit feels hot	Insufficient ventilation. Prolonged high-volume operation.	Ensure the amplifier's vents are not blocked and there is adequate airflow around the unit. Reduce volume or allow the unit to cool down.

SPECIFICATIONS

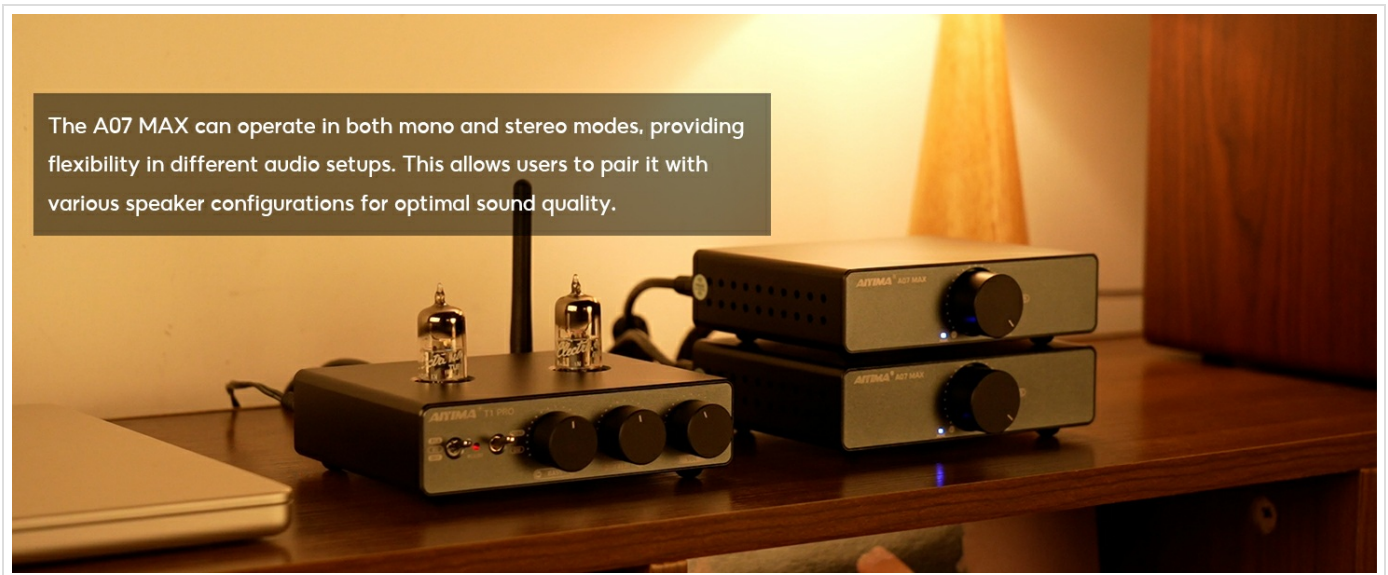
Feature	Detail
Brand	AIYIMA
Model Number	A07MAX
Number of Channels	2
Output Power (Stereo)	300W*2 (at 4 ohm)
Output Power (Mono)	600W (bridgeable)
Voltage	48 Volts (DC) - <i>Note: Comes with 36V 6A adapter. Max 48V supported.</i>
Specification Met	Tpa3255
Item Dimensions (L x W x H)	6.02 x 3.94 x 1.57 inches
Item Weight	2.2 pounds
Material	Plastic (<i>Chassis is typically metal, but specification lists plastic</i>)
Manufacturer	YIMA TECH
Mounting Type	Passive Speaker
Date First Available	September 16, 2023



AIYIMA A07 MAX Home Audio Amplifier

It is a compact, Bridge mono/ stereo amplifier that uses the high-performance TPA3255 chip. It is designed to deliver high-quality sound with low distortion and high efficiency, making it suitable for a range of home audio desktop speaker setups.

Figure 8: Detailed power output specifications for the A07 MAX under various supply power and speaker impedance conditions in both BTL Stereo and PBTL Mono modes.



The A07 MAX can operate in both mono and stereo modes, providing flexibility in different audio setups. This allows users to pair it with various speaker configurations for optimal sound quality.

Figure 9: Frequency response graph of the AIYIMA A07 MAX amplifier, indicating its audio performance across different frequencies.



Compact and Durable, the A07 MAX is built with high-quality materials, ensuring durability and reliability. Its small footprint makes it easy to integrate into any audio setup without taking up much space.

Figure 10: Signal-to-Noise Ratio (SNR) graph of the AIYIMA A07 MAX amplifier, demonstrating its low noise performance.

AIYIMA products, including the A07 MAX amplifier, typically come with a **2-year warranty**. For warranty claims, technical support, or any inquiries regarding your product, please contact AIYIMA customer service through their official channels or the seller "Yima Top" on Amazon.

For more information about AIYIMA Audio Company, you can watch the following video:

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Video 4: About AIYIMA Audio Company. This video provides an overview of the AIYIMA brand and its commitment to audio products.

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This manual is for informational purposes only. Specifications are subject to change without notice.