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› DAJUNGUO /

› DAJUNGUO S350HS TPA3251 Bluetooth Power Amplifier Board User Manual

## DAJUNGUO S350HS

# DAJUNGUO S350HS TPA3251 Bluetooth Power Amplifier Board User Manual

Model: S350HS

## INTRODUCTION

The DAJUNGUO S350HS is a 2.1 channel Bluetooth power amplifier board featuring the TPA3251 high-fidelity chip. It is designed to provide stereo audio output for left and right channels, along with a dedicated subwoofer output. This module supports multiple input methods including Bluetooth, AUX, and USB drive, and offers comprehensive treble and bass control for a customized audio experience. It incorporates various protection mechanisms to ensure safe and reliable operation.



The DAJUNGUO S350HS TPA3251 Bluetooth Power Amplifier Board.

## SETUP INSTRUCTIONS

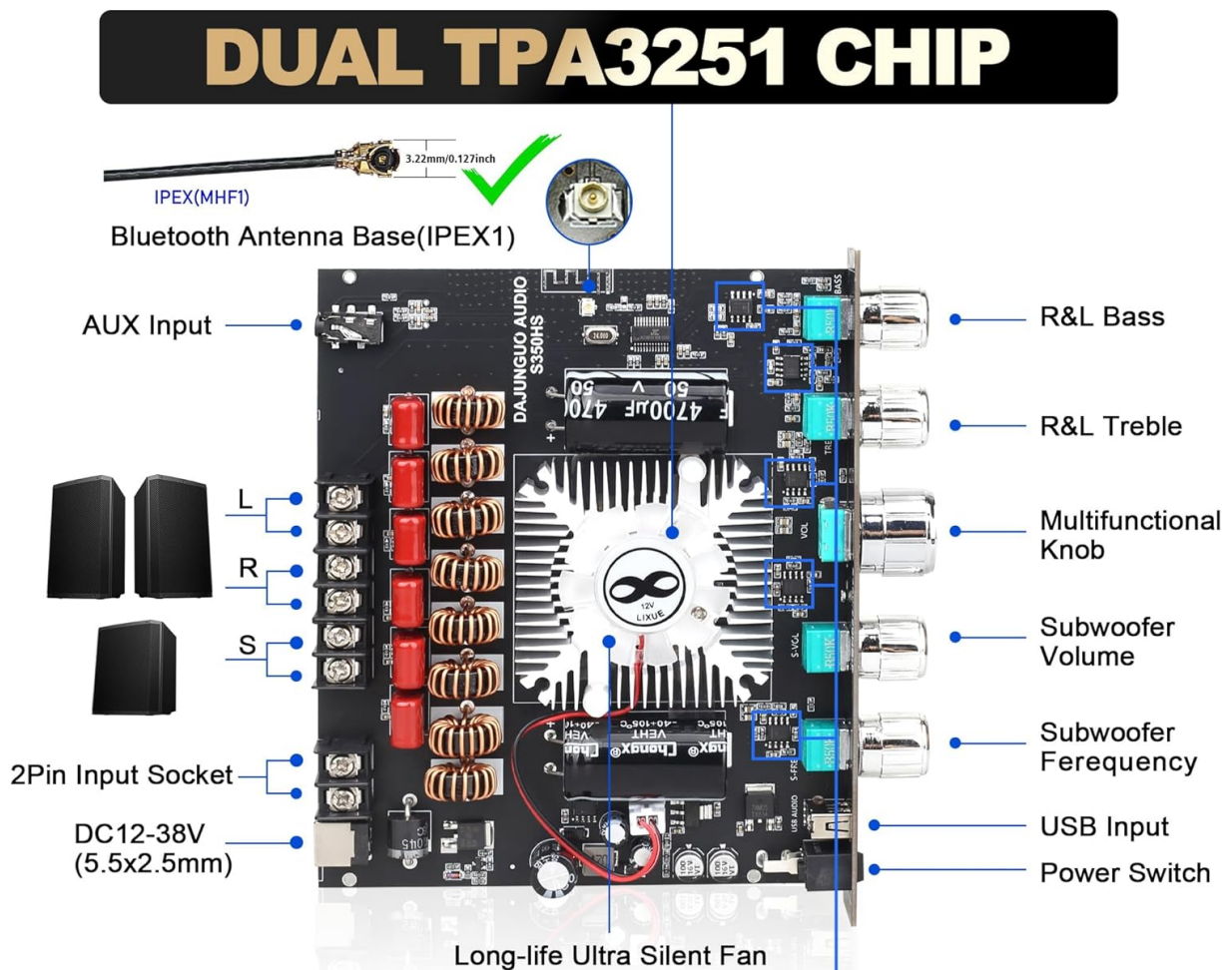
### Package Contents

- S350HS Amplifier Board
- Screwdriver (for assembly)

### Assembly

The S350HS amplifier board is provided as an unassembled kit. Carefully mount the top and bottom panels onto the amplifier card using the provided stand-offs and screws. Ensure all components are securely fastened.

### Component Overview



### FIVE LOW NOISE PRESTAGE OP AMP 5532

One more level of amplification ensure sufficient output power  
Improve sound quality and volume, large gain, gain parameter is 30dB

Detailed view of the S350HS amplifier board with labeled components, including AUX Input, R&L Bass/Treble controls, Multifunctional Knob, Subwoofer Volume/Frequency, USB Input, Power Switch, and 2PIN Input Socket for DC power.

### Power Supply Connection

Connect a DC power supply within the range of 12V to 38V to the 2PIN Input Socket (DC 12-38V, 5.5x2.5mm). Ensure the power supply provides above 10A for optimal performance. The gold-plated high current shielded DC socket is designed to prevent sparks during connection.

# GOLD-PLATED HIGH CURRENT SHIELDED DC SOCKET

There will be no sparks generated when connecting to the power supply, making it safer and more reliable

## NOTE

The specification of this DC socket is 5.5 \* 2.5mm, and a 5.5 \* 2.5mm male plug is required to connect

If you do not have a 5.5 \* 2.5mm plug, you can also use a DC terminal



Close-up of the DC power socket, highlighting its specifications and connection type.

## Speaker Connections

Connect your left (L) and right (R) channel speakers, and your subwoofer (S) to the corresponding output terminals on the amplifier board. Ensure correct polarity for all speaker connections.

## Bluetooth Antenna Connection

Attach a compatible Bluetooth antenna to the IPEX(MHF1) Bluetooth Antenna Base. An antenna with a 3.22mm/0.127inch connector is required. MHF4 connectors (2.23mm/0.088inch) are not compatible.

# Available antenna specifications (need to be purchased separately)



IPEX(MHF1)



MHF4 for M.2/NGFF Interface

Illustration of compatible (IPEX MHF1) and incompatible (MHF4) Bluetooth antenna connectors.

## OPERATING INSTRUCTIONS

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### Power On/Off

Use the power switch located on the front panel to turn the amplifier on or off.

### Input Selection

The S350HS supports Bluetooth, AUX, and USB drive inputs. The input mode can be switched using the multifunctional knob.

# MULTIPLE INPUT MODE

## Bluetooth 5.1

You can change the Bluetooth name and password through the App

## 3.5mm Aux Input

Can be connected to computer, laptops, TV, MP3, etc.

## USB Mode

If you use a USB flash drive, the capacity of the USB flash drive is less than or equal to 32GB, and the format of the USB flash memory disk is FAT32.

The amplifier supports Bluetooth 5.1, 3.5mm AUX input for computers, laptops, TVs, and MP3 players, and USB mode for flash drives (up to 32GB, FAT32 format).

## Bluetooth Pairing

1. Ensure the amplifier is powered on and in Bluetooth mode.
2. On your device (e.g., mobile phone, laptop), search for available Bluetooth devices.
3. Select the S350HS from the list to pair.
4. The Bluetooth name and password can be customized via a dedicated application.



The S350HS allows for custom Bluetooth name and password settings.

## Multifunctional Knob Operation

The central multifunctional knob controls various playback and mode settings:

- **1 Click:** Play / Pause
- **2 Clicks:** Next Song
- **3 Clicks:** Previous Song
- **4 Clicks:** Switch Mode
- **5 Clicks:** Factory Reset
- **Long press:** Power on / Standby



## Multifunctional Knob

- |                                |                                 |
|--------------------------------|---------------------------------|
| 1. Click: Play / Pause         | 4. Four Clicks: Switch Mode     |
| 2. Two Clicks: Next Song       | 5. Five Clicks: Factory Reset   |
| 3. Three Clicks: Previous Song | 6. Long press: Power on/Standby |

Diagram illustrating the functions of the multifunctional knob based on the number of clicks or long press.

### Volume, Treble, and Bass Control

Adjust the dedicated knobs for Master Volume, R&L Treble, R&L Bass, Subwoofer Volume, and Subwoofer Frequency to fine-tune your audio output.

### MAINTENANCE

To ensure the longevity and optimal performance of your S350HS amplifier board, follow these maintenance guidelines:

- Keep the device in a dry, well-ventilated area, away from direct sunlight and extreme temperatures.
- Avoid exposing the amplifier to moisture or liquids.
- Clean the exterior with a soft, dry cloth. Do not use harsh chemicals or abrasive cleaners.
- Ensure proper airflow around the heatsink and fan to prevent overheating.

### TROUBLESHOOTING

The S350HS Bluetooth power amplifier board includes multiple protection mechanisms. If an issue occurs, the device may enter a protected state. Common protection features include:

- Short-circuit protection
- Over-current protection

- Over-heat protection
- Anti-reverse protection (for power input)

If the amplifier stops functioning or exhibits unusual behavior, check the following:

- **No Power:** Verify the power supply connection and ensure the power switch is in the 'ON' position. Check if the power adapter is functioning correctly and provides the specified voltage (12-38V DC) and current (above 10A).
- **No Sound:** Confirm that the correct input mode is selected. Check all audio cable connections (AUX, USB, speaker wires). Ensure the volume levels are not set to minimum on both the amplifier and the source device.
- **Distorted Sound:** Reduce the volume to check if distortion is due to overdriving. Ensure speaker impedance matches the amplifier's capabilities. Check for loose speaker connections.
- **Bluetooth Connection Issues:** Ensure the amplifier is in Bluetooth mode and your device's Bluetooth is enabled. Try unpairing and re-pairing the device. Ensure the antenna is securely connected.
- **Overheating:** Ensure the amplifier has adequate ventilation and the fan is not obstructed. If the device feels excessively hot, disconnect power and allow it to cool before resuming use.

## SPECIFICATIONS

Parameter	Value
Model	S350HS
Audio Chip	TPA3251
Audio Channel	2.1 Channel
Power Supply	DC 12-38V (above 10A recommended)
Bluetooth Version	5.1
Audio Input	Bluetooth, AUX, USB Flash Drive
Frequency Range	20Hz - 20KHz
L&R Channel Max Output Power	220W @ 3Ω/36VDC; 160W @ 4Ω/36VDC; 80W @ 8Ω/36VDC
Subwoofer Max Output Power	350W @ 2Ω/36VDC; 160W @ 4Ω/36VDC; 80W @ 8Ω/36VDC
Protection Mechanisms	Overvoltage, Undervoltage, Clipping, Short Circuit, Overheating, Anti-reverse
Product Dimensions (L x W x H)	5.90in x 5.15in x 1.02in (150mm x 131mm x 26mm)
Item Weight	11.5 ounces
Material	Metal, Plastic

<b>R and L Channels</b>	30W+30W @8Ω/24V
	70W+70W @4Ω/24V
	80W+80W @8Ω/36V
	160W+160W @4Ω/36V
	220W+220W @3Ω/36V
	30W @8Ω/24V
<b>Subwoofer</b>	70W @4Ω/24V
	80W @8Ω/36V
	160W @4Ω/36V
	350W @2Ω/36V

Detailed power output specifications for R&L channels and subwoofer at various impedances and voltages.

## WARRANTY AND SUPPORT

DAJUNGUO is committed to customer satisfaction. If you encounter any questions about the product or experience quality issues, please contact our customer service. We offer 7x24 hours after-sales service to provide a satisfactory resolution.

For support, please refer to the contact information provided with your purchase or visit the official DAJUNGUO store on Amazon.