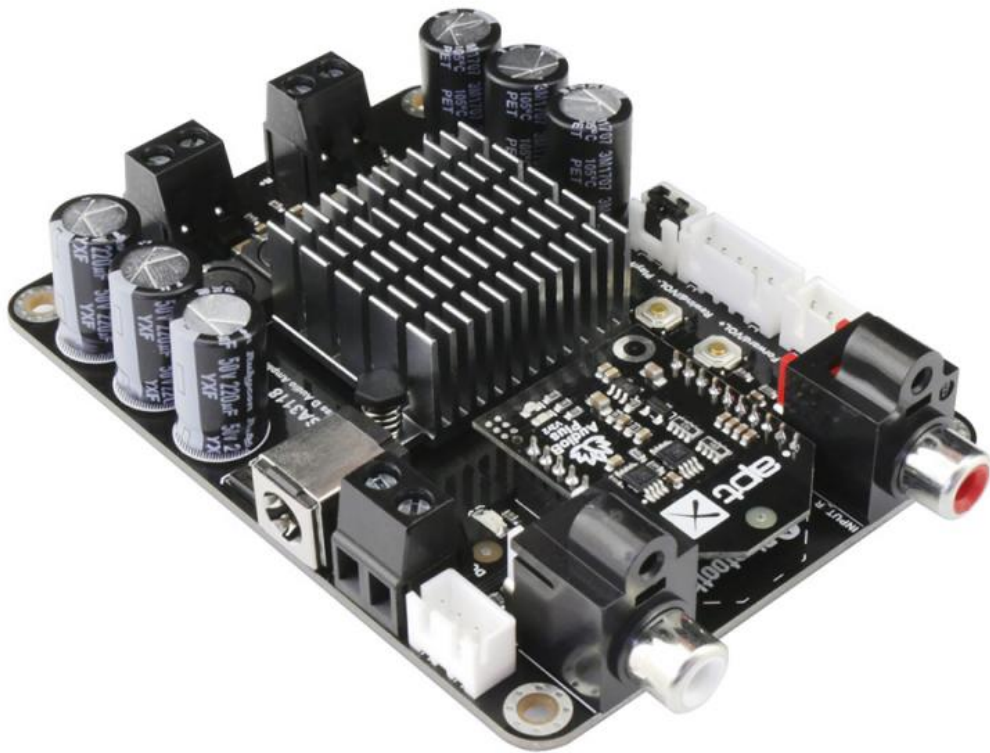




TSA3118B Audio Amplifier

User Guide



Tinysine Electronics @ 2017
Version 1.0

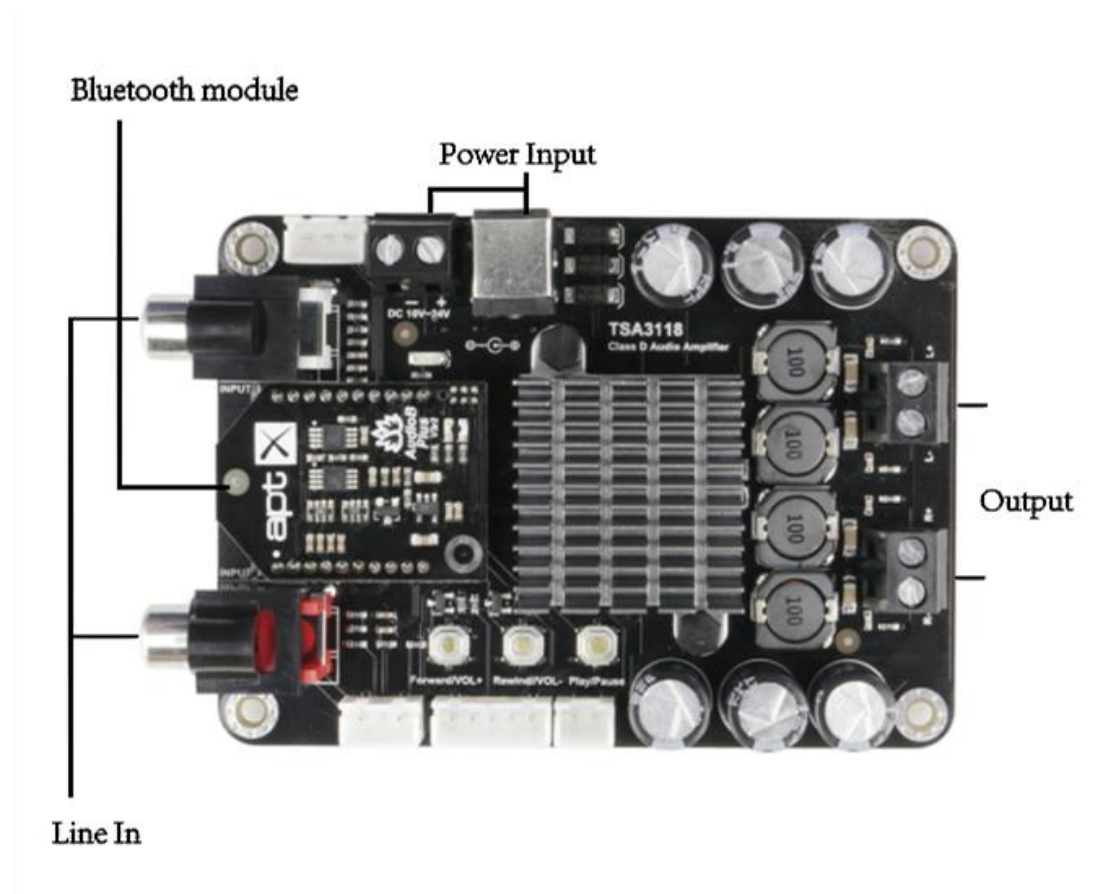
INTRODUCTION

TSA3118B is a 2x50W audio amplifier board with a new Audio plus Bluetooth module that supports Apt-X. It has perfect class-D architecture(Based on TPA3116D2) and each channel has 50W power output. Both of channels are capable of outputting nominal power simultaneously and continuously. This board can be powered by any DC10V-24V power supply. It can be used to drive any 4Ω or 8Ω passive speakers.

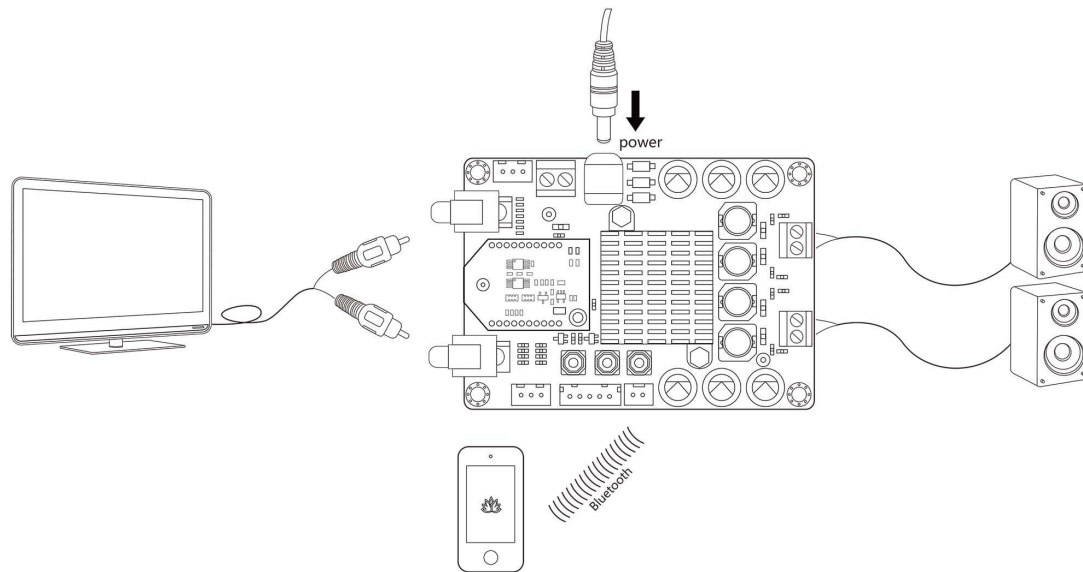
Features:

- Dimensions: 6.9cm x 10.3cm x 2.5cm
- Bluetooth 4.2
- aptX, aptX Low Latency, SBC and AAC
- Aux in/Line in auto detect
- Working voltage: DC10V-24V
- Over/under voltage protection
- Over current protection
- Over temperature protection

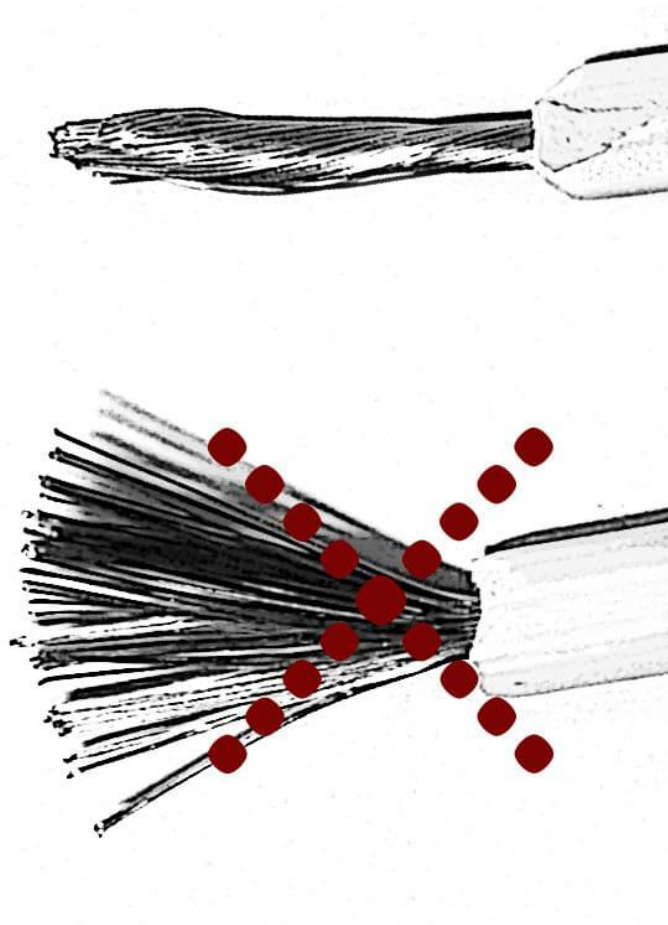
OVERVIEW



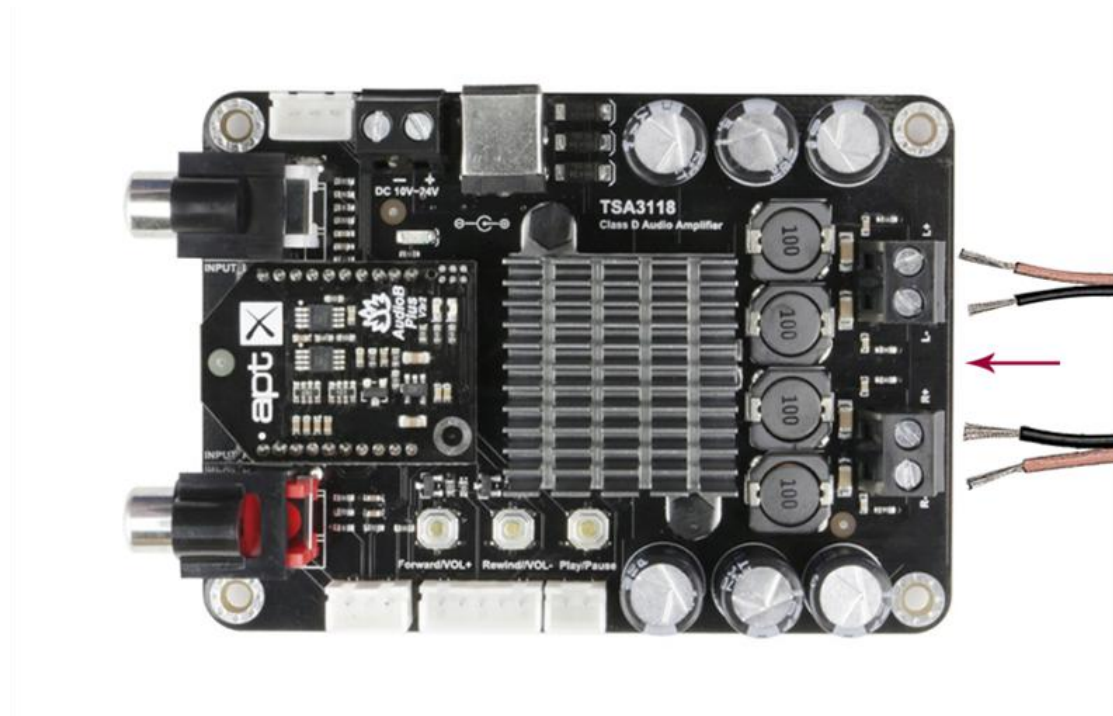
Step by step



1. Your speaker cables should be equipped with bare copper wires, and be sure to gather the threads, as you can see in the picture below:

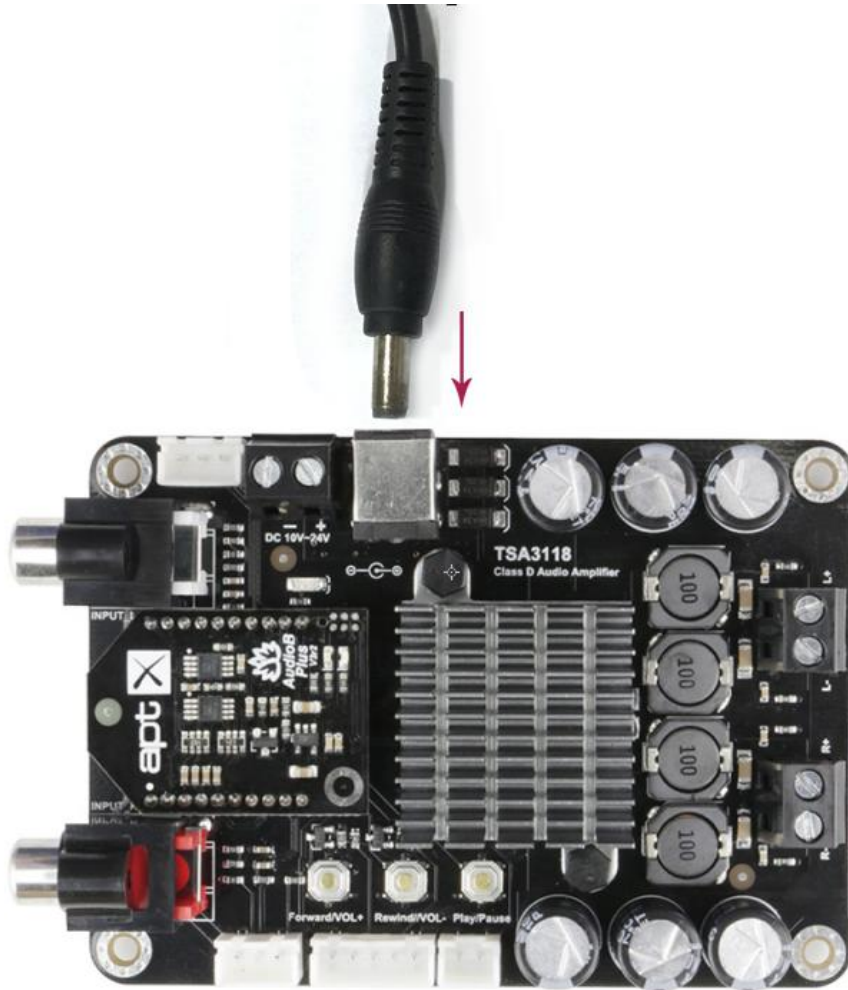


2. Open the 2 screw terminals on the amplifier's output. After place the total copper wires into the screw terminals. Be aware that connecting the + and - with the corresponding screw terminals. Then close the screw terminals by turning in the opposite direction.



3. If you want to use line-in audio source, you can connect it to TSA3118B's line in. If not, just ship this step.

4. Power the amplifier with your DC power supply, you will hear the amplifier teeth immediately.



5. Turn on Bluetooth on the device you want to connect to the amplifier. Find TSA3118B on your Bluetooth list and connect to it. The amplifier comes with a distinct beep sound when a connection is established. Now you can play your music.

Note: TSA3118B can auto detect the Aux in/Line in Audio input. Bluetooth Audio source has higher priority. When Bluetooth audio is paused or bluetooth is disconnected. The amplifier will output the TV audio.

Applications:

- Personal computer
- Background music system
- Musical instrument amplifiers
- Home DIY
- Car audio

Documents:

- [How to change the BT name](#)
- [How to pair and set TWS mode](#)
- [How to set amplifier to mono output](#)
- [TSA3118B Bluetooth module PSR file](#)
- [How to restore bluetooth settings](#)
- [Giga Control APP\(Android\)](#)

FCC

Federal Communication Commission Interference Statement

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 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.

FCC Caution:

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

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.

Important Note:

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed portable and mobile exposure host.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Important Note:

In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID cannot be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

Any company of the host device which install this modular with limit modular approval should perform the test of radiated emission and spurious emission according to FCC part 15C:15.247 and 15.209

requirement, only if the test result comply with FCC part 15.247 and 15.209 requirement, then the host can be sold legally.

End Product Labeling

This transmitter module is authorized for use portable and mobile exposure. The final end product must be labeled in a visible area with the following: Contains FCC ID: 2ARMD-TSA3118B.

Manual Information to the End User

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module.

The end user manual shall include all required regulatory information/warning as show in this manual.

Industry Canada

Industry Canada Statement

This device complies with Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions:

- This device may not cause interference; and
- This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- l'appareil ne doit pas produire de brouillage;
- l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Radiation Exposure Statement

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed portable and mobile exposure host.

Déclaration d'exposition aux radiations

Cet équipement est conforme Canada limites d'exposition aux radiations dans un environnement non contrôlé.

ce matériel devrait être installée l'exposition portatifs et mobiles.

This device is intended only for OEM integrators under the following condition:

- The transmitter module may not be co-located with any other transmitter or antenna.

Cet appareil est conçu uniquement pour les intégrateurs OEM dans les conditions suivantes:

- Le module émetteur peut ne pas être coïmplanté avec un autre émetteur ou antenne.

Important Note:

In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the Canada authorization is no longer considered valid and the IC ID cannot be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate Canada authorization.

Any company of the host device which install this modular with limit modular approval should perform the test of radiated emission and spurious emission according to RSS-247 and RSS-Gen requirement, only if the test result comply with RSS-247 and RSS-Gen requirement, then the host can be sold legally.

Note Importante:

Dans le cas où ces conditions ne peuvent être satisfaites (par exemple pour certaines configurations d'ordinateur portable ou de certaines co-localisation avec un autre émetteur), l'autorisation du Canada n'est plus considéré comme valide et l'ID IC ne peut pas être utilisé sur le produit final. Dans ces circonstances, l'intégrateur OEM sera chargé de réévaluer le produit final (y compris l'émetteur) et l'obtention d'une autorisation distincte au Canada.

toute entreprise de l'hôte qui installent ce dispositif modulaire avec limite approbation devrait effectuer l'essai des modules et des rayonnements non essentiels des émissions rayonnées selon rss-247 et le cnr - gen, seulement si le résultat d'essai conforme rss-247 et le cnr - gen, puis l'hôte peut être vendu légalement.

End Product Labeling

The final end product must be labeled in a visible area with the following: Contains IC: 24520-TSA3118B.

Plaque signalétique du produit final

Le produit final doit être étiqueté dans un endroit visible avec l'inscription suivante: Contient des IC: 24520-TSA3118B.

Manual Information to the End User

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module.

The end user manual shall include all required regulatory information/warning as show in this manual.

Manuel d'information à l'utilisateur final

L'intégrateur OEM doit être conscient de ne pas fournir des informations à l'utilisateur final quant à la façon d'installer ou de supprimer ce module RF dans le manuel de l'utilisateur du produit final qui intègre ce module.

Le manuel de l'utilisateur final doit inclure toutes les informations réglementaires requises et avertissements comme indiqué dans ce manuel.