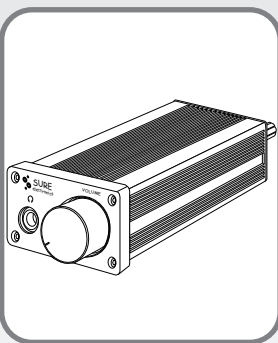
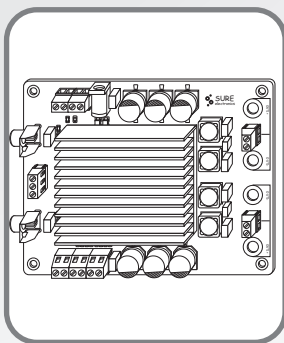


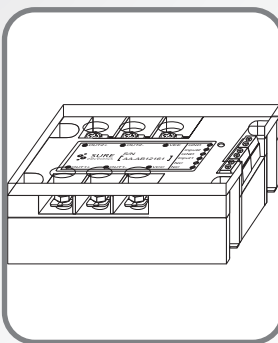
# Audio Amplifiers



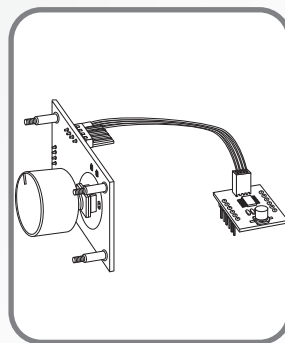
Power amplifier



Amplifier board



Amplifier module



Amplifier accessories

Power amplifier, Amplifier board, Amplifier module, Amplifier accessories

# Amplifier Product Line of Sure Electronics in Yr2010

Product Family	D class Board	D class Module	D class Amplifier	Chipset
Combo15W	-	-	•	TA2024*1
2*2W	•	-	-	PAM8803
2*8W	•	-	-	TPA3123
2*15W	•	-	•	TA2024
2*25W	•	-	-	TPA3123
2*50W	•	-	-	TK2050
2*100W	•	•	•	TK2050
4*100W	•	-	-	TK2050
2*200W	•	-	•	TAS5615
1*100W	-	•	-	TK2050

Product Family	AB class Board	AB class Module	AB class Amplifier	Chipset
2*20W	-	•	•	LM1875
2*50W	-	•	-	LM3875
2*60W	-	-	•	LM4870

Product Family	Volume control daughter board	Volume control hi-end version	Note
D class 2*100W	•	-	(1) • : Available

\*1: Combo 15watts is a combo of earphone amplifier and 2 channel x15watts Class D audio amplifier. Default main chip for the power amplifier is TA2024 and all retail products will use this chip during whole 2010. Retailer could request TPA3123 or 2xTPA3112 to replace the TA2024 chip.



## D Class Board

2*2W	1
2*8W	2
2*15W	3
2*25W	4
2*50W	5
2*100W	6
4*100W	7
2*200W	8

## D Class Module

1*100W	9
2*100W	10

## D Class Amplifier

2*15W	11
2*100W	12
2*200W	13

## AB Class Module

2*20W	14
2*50W	15

## AB Class Amplifier

2*20W	16
2*60W	17

## Combo 15W

Combo 15W Amplifier	18
---------------------	----

## Amplifier Accessories

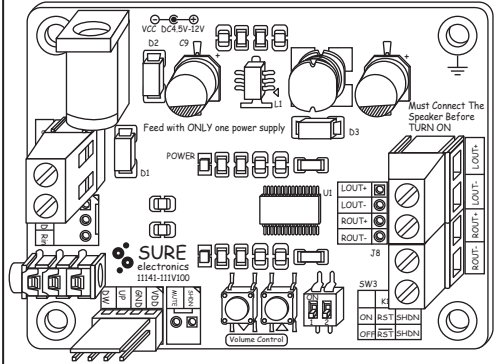
Volume Control Daughter Board	19
Volume Control Hi-end Version	19

# 2\*2W @4Ω PAM8803 Class-D Audio Amplifier Full-Featured Board

AA-AB32131.....\$6.99

## Brief Introduction:

This is a high-quality dual-channel class-D audio amplifier board capable of delivering 2W per channel of output power into a 4Ω load. It employs TI's PAM8803 IC which offers 64-step digital volume control and low THD+N, allowing it to produce high-quality sound reproduction. It's especially suitable for small speakers. This amplifier board can also be used to drive passive 4Ω or 8Ω speakers.



## Features:

- Size: 74.40 (L) × 54.80 (W) × 18.00 (H) ±0.2mm.
- A perfect "Class D" architecture.
- Miniature and high quality.
- Full-bridged stereo output.
- 64-step gain adjustment.
- Frequency response: 20Hz to 20KHz(±3dB).
- Signal/Noise Ratio: 85dB (f=22 to 22KHz, THD=1%).
- High Output Power:  
1.5W @ 8Ω, < 10.0% THD+N; 2.6W @ 4Ω, < 10.0% THD+N.
- High Efficiency:  
85% @ 1.5W 8Ω; 88% @ 2.6W 4Ω.
- Audiophile Quality Sound:  
0.19% THD+N @ 0.5W 8Ω; 0.17% THD+N @ 1.0W 4Ω.
- Mounting holes facilitate installation and fixing.
- Several wiring methods facilitate connection.
- Excellent heat dissipation eliminates the requirement of an extra heat sink.
- Over/under voltage turn off.
- Over current protection.
- Over temperature protection.

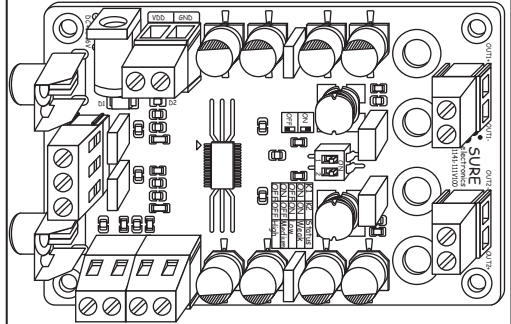
Disclaimer: The owner/developer reserves absolute right to withdraw, change, omit, delete, add, revise any items, conditions, price and images used in this brochure at anytime without giving any notice.  
Please visit <http://www.sure-electronics.com> to get accurate and update information.

# 2\*8W @4Ω TPA3123 Class-D Audio Amplifier Board

AA-AB32141.....\$9.99

## Brief Introduction:

As a new member of class-D amplifier series, like 2\*25W amplifier, this 2\*8W also employs TPA3123D2 chip from TI. The efficiency of the TPA3123D2 eliminates the need for an external heat sink when playing music. It supports dual channel amplification and each such channel is rated at 8W which helps producing state-of-the-art sound quality. Integrating high-quality SMD and MKP plug-in capacitors ensures Hi-Fi amplification output.



## Features:

- Size: 96.48 (L) × 59.20 (W) × 16.10 (H) ±0.2mm.
- A perfect "Class-D"architecture.
- Miniature and high-quality.
- Fully-bridged stereo output.
- Wide power supply range: +10V~16V.
- Mounting holes facilitate installation and fixing.
- Several wiring methods facilitate connection.
- Two kinds of input: line level input and analog audio input.
- Power the board via the socket (J11)or the wiring terminal (J10).
- Excellent design of the power ports which allows users to cascade multiple amplifier boards (max 4 recommended).
- Excellent heat dissipation eliminates the requirement of an extra heat sink.
- Frequency response: 20Hz-20KHz(±3dB).
- Signal/Noise ratio: 100dB(A Weighted).
- High Output Power : 5W @ 8Ω, < 10.0% THD+N/8W @ 4Ω, < 10.0% THD+N.
- High Efficiency: 92% @ 4W 8Ω/85% @ 6W 4Ω.
- Audiophile Quality Sound : 0.1% THD+N @ 3W 8Ω/0.1% THD+N @ 6W 4Ω.
- Sensitivity and gain adjustable.
- Over/under voltage turn off.
- Over current protection.
- Over temperature protection.

Disclaimer:The owner/developer reserves absolute right to withdraw, change, omit, delete, add, revise any items, conditions, price and images used in this brochure at anytime without giving any notice.

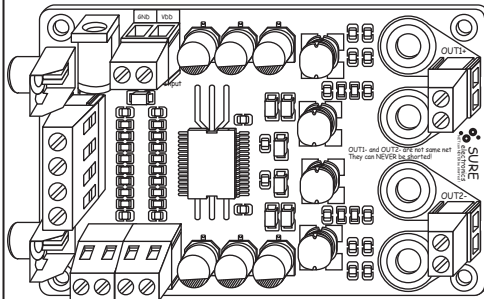
Please visit <http://www.sure-electronics.com> to get accurate and update information.

# 2\*15 watt @ 4ohm, TA2024 D-class Audio Amplifier Board

AA-AB012.....\$17.99

## Brief Introduction:

As the first self-made amplifier board, the 2\*15W amplifier board brings studio-quality audio to music lovers and home theater enthusiasts. With total peak power of 15 watts but dimensions of only 96 x 60 mm, AA-AB012 is compact but mighty with Over/under-voltage shut down, Over-current protection and Over temperature protection. Built to pro-fessional standards, this item is the best choice for you.



## Features:

- Class-T architecture.
- Proprietary Digital Power Processing Technology.
- Requires single +12V power source.
- Size: 96 x 60 mm.
- Net Weight: 100g / 3.6oz.
- Output Power (per channel @ VS = 12V):  
15W per channel (4Ω, 10% THD+N).  
10W per channel (4Ω 0.1%, THD+N).
- Easy engineering evaluation platform for Tripath Technology's TA2024C product.
- "Audiophile performance" typically:  
0.04% THD+N (9Wrms, 4Ω).  
0.18% IHF-IM (1Wrms, 4Ω).
- Efficiency>88% @ full power (RL = 8Ω).
- No heat sink required up to 15W per channel.
- MUTE and SLEEP inputs.
- Turn-on & turn-off pop suppression.
- Intelligent short-circuit protection.
- Intelligent over-temperature protection.
- Connects to any passive 4/8Ω speakers.
- Takes standard audio line output from any sound system.
- Cost-effective 2-layer PCB design.
- 36-pin Power SOP package.

Disclaimer: The owner/developer reserves absolute right to withdraw, change, omit, delete, add, revise any items, conditions, price and images used in this brochure at anytime without giving any notice.

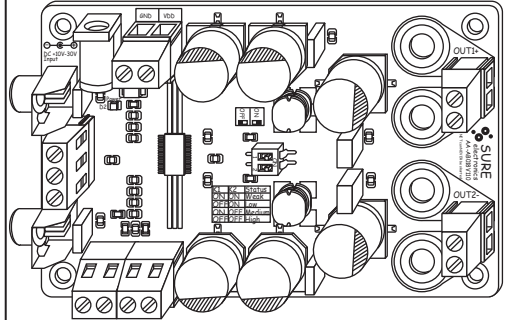
Please visit <http://www.sure-electronics.com> to get accurate and update information.

# 2\*25 watt @4Ω TPA3123 Class-D Audio Amplifier Board

AA-AB018.....\$19.99

## Brief Introduction:

As a new member of class-D amplifier series, this 2\*25W amplifier board employs TPA3123D2 chip from TI. It supports dual channel amplification and each such channel is rated at 25W which helps producing state-of-the-art sound quality. The efficiency of the TPA3123D2 eliminates the need for an external heat sink when playing music. Besides, integrating high-quality SMD and MKP plug-in capacitors ensures Hi-Fi amplification output.



## Features:

- Perfect "Class D" architecture based on authentic TPA3123D2 chip from Tripath.
- Fully-bridged stereo output.
- Wide power supply range: +10V~30V.
- Size: 110.02 (L) X 68.60 (W) X 16.00 (H) ±0.2mm.
- Net Weight: 500g /17.6oz.
- Mounting holes facilitate installation and fixing.
- Several wiring methods facilitate connection.
- Two kinds of input: line level input and analog audio input.
- Power the board via socketJ11 or the wiring terminal (J10).
- Excellent design of the power ports which allows you to cascade multiple amplifier boards (max 4 recommended).
- Excellent heat dissipation eliminates the requirement of an extra heat sink.
- Frequency response: 20Hz~20KHz(±3dB).
- Signal/Noise Ratio: 100dB(A Weighted).
- High Output Power: 10W @ 8Ω, < 10.0% THD+N \ 25W @ 4Ω, < 10.0% THD+N.
- High Efficiency: 92% @ 8W 8Ω \ 85% @ 16W 4Ω.
- Audiophile Quality Sound: 0.08% THD+N @ 5W 8Ω \ 0.08% THD+N @ 10W 4Ω.
- Sensitivity and gain adjustable.
- Over/under voltage turn off.
- Over current protection.
- Over temperature protection.

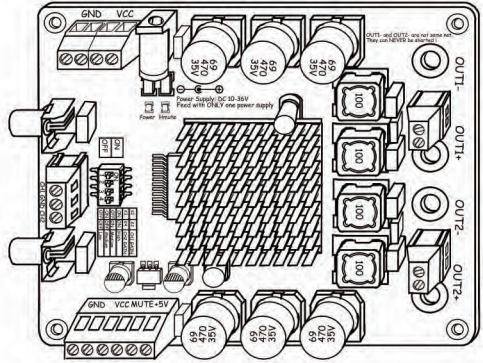
Disclaimer: The owner/developer reserves absolute right to withdraw, change, omit, delete, add, revise any items, conditions, price and images used in this brochure at anytime without giving any notice.  
Please visit <http://www.sure-electronics.com> to get accurate and update information.

# 2\*50 watt @ 4ohm TK2050 Class-D Audio Amplifier Board

AA-AB014.....\$34.99

## Brief Introduction:

This self-made 2\*50W audio amplifier board is a perfect D-class architecture integrated with Tripath TC2000 and TP2050. It supports dual channel amplification and can readily be powered by any DC power supply ranging from +10 to 36V. You can use it to drive any 4Ω or 8Ω passive speakers.



## Features:

- D-class architecture.
  - Fully take advantage of the proprietary Digital Power Processing Technology by Tripath.
  - Audiophile Quality Sound (0.007% THD+N @30w 8Ω with TP 2050).
  - High Efficiency (92% @ 60W 8Ω with TP 2050).
  - Dynamic Range >100dB.
  - Fully bridged stereo output, doesn't support BTL (Bridge-Tied Load).
  - Line level analogue audio input.
  - Maximum voltage of power supply: 36V.
  - Can be controlled by MCU.
  - Sensitivity and gain are adjustable by on-board DIP switch.
  - Over/Undervoltage turn off.
  - Over-current protection.
  - Over temperature protection.
  - Mounting holes are available for easy installation and fix.
  - Several wiring methods facilitate connection.
  - New design in power supply supports connection with more amplifier boards of the same type.
  - Excellent heat sink on TP2050 eliminate your worry on heat dissipation.
  - The screw terminals on board are made by famous CIXI RI JING ELECTRON CO LTD-a.
- ISO-9001:2000, UL, CE, VDE and RoHS compliant enterprise(Visit <http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm> for certification of CIXI RI JING ELECTRON CO LTD, certification number: E258730).

Disclaimer: The owner/developer reserves absolute right to withdraw, change, omit, delete, add, revise any items, conditions, price and images used in this brochure at anytime without giving any notice.

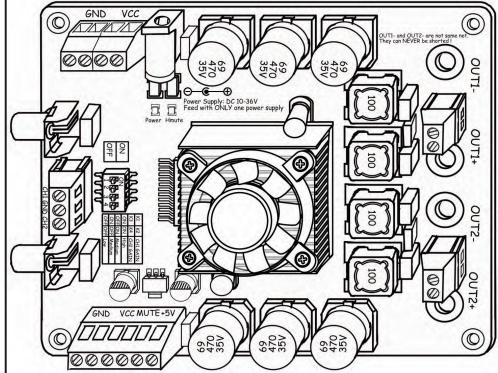
Please visit <http://www.sure-electronics.com> to get accurate and update information.

# 2\*100 watt @ 4ohm, TK2050 D-class Audio Amplifier Board

AA-AB013.....\$44.99

## Brief Introduction:

This self-made 2x100W audio amplifier board is a perfect class-D architecture integrated with Tripath TC2000 and TP2050. This amplifiers blend eye-catching aesthetics, power and sonic integrity in a way that has been capturing the imagination of music lovers and home theater enthusiasts for decades. Whether your desires run towards solid state or tubes, in stereo, monoblock or multi-channel configurations, Sure Electronics has your amplifier solution.



## Features:

- A perfect class-D architecture integrated with Tripath TC2000 and TP2050, fully take advantage of the proprietary Digital Power Processing Technology by Tripath with the same power up to 100W each channel.
- Operating voltage range: 10V~30V, the maximum voltage of power supply is 32V.
- Size: 121.92(mm) X 101.6(mm) X 16(mm).
- Net Weight: 334g /11.8oz.
- Audiophile Quality Sound (0.007% THD+N @30w 8Ω with TP 2050).
- High Efficiency (92% @ 60W 8Ω with TP 2050).
- Dynamic Range >100dB.
- Fully bridged stereo output, doesn't support BTL (Bridge-Tied Load).
- Line level analogue audio input.
- Can be controlled by MCU.
- Sensitivity and gain are adjustable by on-board DIP switch.
- Over/Under voltage turn off.
- Over-current protection.
- Over temperature protection.
- Mounting holes are available for easy installation and fix.
- Several wiring methods facilitate connection.
- New design in power supply supports connection with more amplifier boards of the same type.
- Excellent heat sink and powerful cooling fan on TP2050 eliminate your worry on heat dissipation.

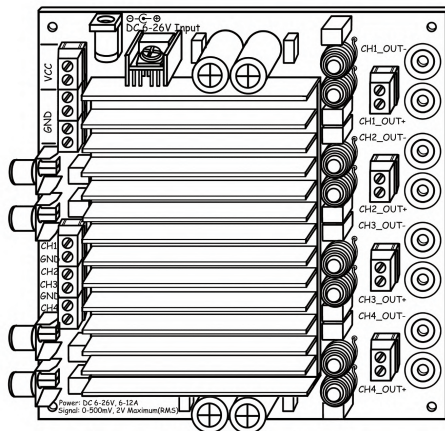
Disclaimer: The owner/developer reserves absolute right to withdraw, change, omit, delete, add, revise any items, conditions, price and images used in this brochure at anytime without giving any notice.  
Please visit <http://www.sure-electronics.com> to get accurate and update information.

# 4\*100 watt @ 4ohm, TK2050 D-class Audio Amplifier Board

AA-AB009.....\$50

## Brief Introduction:

This is an exceptionally well designed amplifier, with a lot of power reserve, high fidelity, low distortion, good S/N ratio, high sensitivity, low consumption and full protection. Having all these almost ideal characteristics this amplifier is likely to become the basic building block of your future high fidelity system, or it can also become the element that will upgrade your existing system.



## Features:

- A perfect class-D architecture Based on two TC2000 and four TP2050 chips from Tripath. four channels with the same power up to 100W each.
- Operating voltage range: 10V~30V, the maximum voltage of power supply is 32V.
- Size: 144.8(mm) X 134.6(mm) X 31(H) ±0.2mm.
- Net Weight: 700g /25oz.
- Several wiring methods facilitate connection.
- Mounting holes are available for easy installation and fix.
- Excellent heat sink eliminates your worry over heat dissipation.
- "Audiophile quality" sound.
- Frequency response: 20Hz~20KHz(±3dB).
- Signal/Noise Ratio: 100dB.
- High Output Power and High Efficiency.
- 30W @ 6Ω , <1% THD+N • 40W @ 8Ω, <3% THD+N • 100W @ 4Ω, <10.0% THD+N.
- 86% @ 60W 8Ω • 82% @ 46W 6Ω • 90% @ 100W 4Ω.
- 0.007% THD+N @ 30W 8Ω.
- 0.005% THD+N @ 70W 4Ω.
- Line level analogue audio input.
- Over/under voltage turn off.
- Over current protection.
- Over temperature protection.

Disclaimer: The owner/developer reserves absolute right to withdraw, change, omit, delete, add, revise any items, conditions, price and images used in this brochure at anytime without giving any notice.

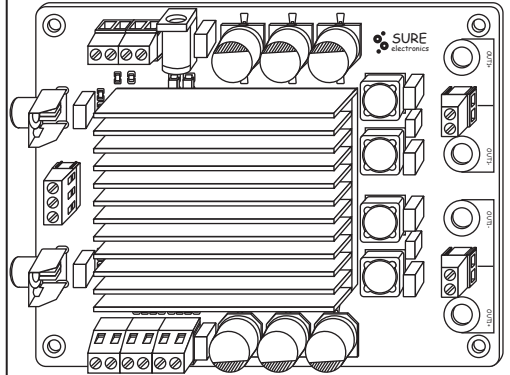
Please visit <http://www.sure-electronics.com> to get accurate and update information.

# 2\*200W @4Ω TAS5615 Class-D Audio Amplifier Board

AA-AB32191.....\$79.99

## Brief Introduction:

As a new member of class-D amplifier series, this 2\*200W amplifier board employs TAS5615 chip, which accepts analog input. It has integrated closed loop feedback technology (known as PurePath HD). It has the ability to drive up to 160 W(1) Stereo into 8 speakers from a single 50V supply.



## Features:

- Class-D Audio Amplifier Board with TAS5615.
- Operating voltage range: 20V~50V.
- Frequency response: 20Hz~20KHz( $\pm 1$ dB).
- Signal/Noise Ratio: 100dB.
- Dynamic range >100dB.
- Channel separation: >89dB@1KHz.
- Output stage efficiency : >90%.
- High Output Power:
  - 140W @ 8Ω, THD+N < 1%,BTL,@50V.
  - 170W @ 8Ω, THD+N < 10%,BTL,@50V.
  - 270W @ 4Ω, THD+N < 1%,PBTL,@50V.
  - 330W @ 4Ω, THD+N < 10%,PBTL,@50V.
- Audiophile Quality Sound:
  - 0.03% THD+N @ 100W 8Ω BTL.
  - 0.10% THD+N @ 100W 4Ω PBTL.
- Line level analogue audio input.
- Over/under voltage turn off.
- Over/Short current protection.
- Over temperature protection.

Disclaimer: The owner/developer reserves absolute right to withdraw, change, omit, delete, add, revise any items, conditions, price and images used in this brochure at anytime without giving any notice.  
Please visit <http://www.sure-electronics.com> to get accurate and update information.

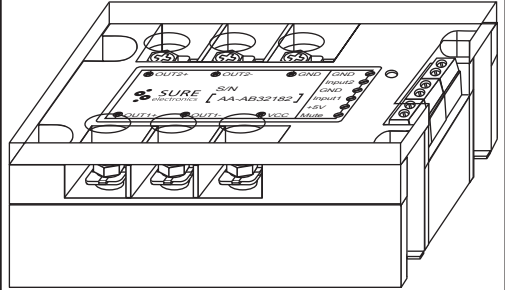


# 2\*100 watt @ 4ohm TK2050 Class-D Audio Amplifier Module

AA-AB32182.....\$44.99

## Brief Introduction:

This self-made 2\*100W audio amplifier module is a perfect D-class architecture integrated with Tripath TC2000 and TP2050. It supports dual channel amplification and can readily be powered by any DC power supply ranging from +10 to 36V. You can use it to drive any 4Ω or 8Ω passive speakers.



## Features:

- D-class architecture.
- Fully take advantage of the proprietary Digital Power Processing Technology by Tripath.
- Audiophile Quality Sound (0.007% THD+N @30w 8Ω with TP 2050).
- High Efficiency (92% @ 60W 8Ω with TP 2050).
- Dynamic Range >100dB.
- Fully bridged stereo output, doesn't support BTL (Bridge-Tied Load).
- Line level analogue audio input.
- Maximum voltage of power supply: 36V.
- Can be controlled by MCU.
- Sensitivity and gain are adjustable by on-board DIP switch.
- Over/Undervoltage turn off.
- Over-current protection.
- Over temperature protection.
- Mounting holes are available for easy installation and fix.
- Several wiring methods facilitate connection.
- New design in power supply supports connection with more amplifier boards of the same type.
- Excellent heat sink and powerful cooling fan on TP2050 eliminate your worry on heat dissipation.
- The screw terminals on board are made by famous CIXI RI JING ELECTRON CO LTD-a ISO-9001:2000, UL, CE, VDE and RoHS compliant enterprise(Visit <http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm> for certification of CIXI RI JING ELECTRON CO LTD, certification number: E258730).

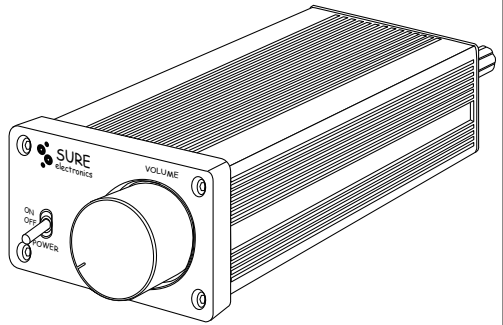
Disclaimer: The owner/developer reserves absolute right to withdraw, change, omit, delete, add, revise any items, conditions, price and images used in this brochure at anytime without giving any notice.  
Please visit <http://www.sure-electronics.com> to get accurate and update information.

# 2\*15W @4Ω TA2024C Class-D Audio Amplifier

AA-AB340.....\$39.99

## Brief Introduction:

As the first self-made amplifier with aluminium alloy case, AA-AB340 interprets the definition of "Elegance" of amplifiers to the whole world. Streamlined frame design and beautifully-shaped silver color knob make everyone starts to fall in love with it from the first sight. Brief and compact front panel design make this amplifier suitable to be placed anywhere. The corrugated alloy housing won't make you feel slippery even you hold it in your hands for long time. The soft yet gentle orange twinkling backlight of the volume control knob can help you find it even in night time as long as the amplifier is powered.



## Features:

- Class-D audio amplifier based on authentic TA2024C from Tripath.
- Streamlined aluminium alloy housing helps remove heat and makes it more durable.
- Wide power supply range: 9~14V.
- Can be used to drive any 4Ω or 8Ω passive speakers.
- Excellent volume control knob (or potentiometer) ensures long time use.
- 0.1% THD+N @ 9W, 4Ω.
- 0.1% THD+N @ 6W, 8Ω.
- 15W @ 4Ω, 10% THD+N.
- 10W @ 8Ω, 10% THD+N.
- 84% @ 15W, 4Ω.
- 90% @ 10W, 8Ω.
- MCU-based backlight of volume control knob-"LED ring", which is illuminated when you turn the power on.
- Over/under-voltage shut down.
- Over-current protection.
- Over temperature protection.
- Size: 120 (L) X 74.6 (W) X 49 (H)±0.2mm.

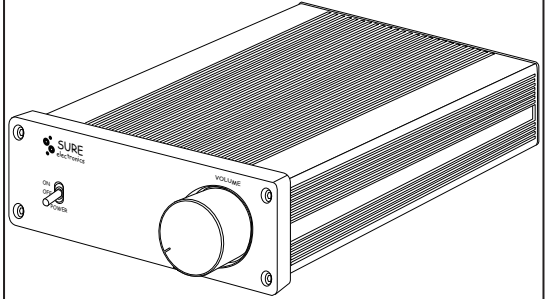
Disclaimer: The owner/developer reserves absolute right to withdraw, change, omit, delete, add, revise any items, conditions, price and images used in this brochure at anytime without giving any notice.  
Please visit <http://www.sure-electronics.com> to get accurate and update information.

# 2\*100 watt @ 4ohm TK2050 Class-D Audio Amplifier

AA-AB32183.....\$89.99

## Brief Introduction:

This self-made 2\*100W audio amplifier with aluminium alloy case is a perfect D-class architecture integrated with Tripath TC2000 and TP2050. It supports dual channel amplification . You can use it to drive any 4Ω or 8Ω passive speakers.



## Features:

- CLASS-D Audio Amplifier Combo with TK2050.
- Operating voltage range: 24V.
- Frequency response: 20Hz~20KHz(±3dB).
- Signal/Noise Ratio: 100dB.
- High Output Power:  
30W @ 6Ω, < 1% THD+N \ 40W @ 8Ω, < 3% THD+N \ 100W @ 4Ω, < 10.0% THD+N.
- High Efficiency:  
86% @ 60W 8Ω \ 82% @ 46W 6Ω \ 90% @ 100W 4Ω.
- Audiophile Quality Sound:  
0.007% THD+N @ 30W 8Ω \ 0.005% THD+N @ 70W 4Ω.
- RCA analogue audio input.
- Over/under voltage turn off.
- Over current protection.
- Over temperature protection.

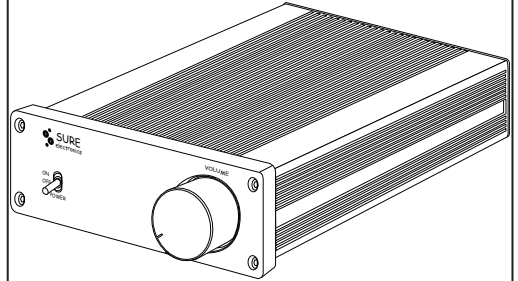
Disclaimer: The owner/developer reserves absolute right to withdraw, change, omit, delete, add, revise any items, conditions, price and images used in this brochure at anytime without giving any notice.  
Please visit <http://www.sure-electronics.com> to get accurate and update information.

# 2\*200W @4Ω TAS5615 Class-D Audio Amplifier

AA-AB32192.....\$140.99

## Brief Introduction:

As a new member of class-D amplifier with aluminium alloy case series, this 2\*200W amplifier board employs TAS5615 chip, which accepts analog input. It has integrated closed loop feedback technology (known as PurePath HD). It has the ability to drive up to 160 W(1) Stereo into 8 speakers from a single 50V supply.



## Features:

- Class-D Audio Amplifier Combo with TAS5615.
- Operating voltage range: AC 250V/50Hz.
- Frequency response: 20Hz~20KHz(±1dB).
- Signal/Noise Ratio: 100dB.
- Dynamic range >100dB.
- Channel separation: >89dB@1KHz.
- Output stage efficiency : >90%.
- High Output Power:  
140W @ 8Ω, THD+N < 1%,BTL,@50V \ 170W @ 8Ω, THD+N < 10%,BTL,@50V ;  
270W @ 4Ω, THD+N < 1%,PBTL,@50V \ 330W @ 4Ω, THD+N < 10%,PBTL,@50V .
- Audiophile Quality Sound:  
0.03% THD+N @ 100W 8Ω BTL \ 0.10% THD+N @ 100W 4Ω PBTL.
- Line level analogue audio input.
- Over/under voltage turn off.
- Over/Short current protection.
- Over temperature protection.

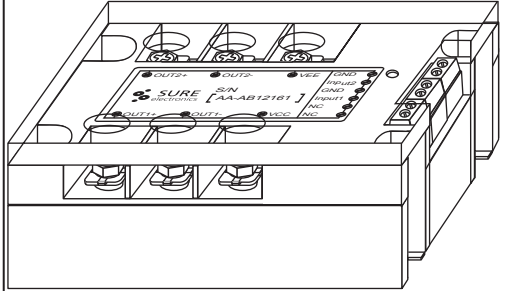
Disclaimer: The owner/developer reserves absolute right to withdraw, change, omit, delete, add, revise any items, conditions, price and images used in this brochure at anytime without giving any notice.  
Please visit <http://www.sure-electronics.com> to get accurate and update information.

# 2\*20W @4Ω LM1875 Class-AB Audio Amplifier Module

AA-AB12161.....\$24.99

## Brief Introduction:

This self-made 2\*20W audio amplifier module is a perfect AB-class architecture integrated with LM1875 chip which is a monolithic power amplifier offering very low distortion and high quality performance for consumer audio applications. It delivers 20 watts into a 4Ω or 8Ω load on ±25V supplies. Using an 8Ω load and ±30V supplies, over 30 watts of power may be delivered. The amplifier is designed to operate with a minimum of external components. Device overload protection consists of both internal current limit and thermal shutdown.



## Features:

- Up to 30 watts output power.
- AVO typically 90 dB.
- Low distortion: 0.015%, 1KHz, 20 W.
- Wide power bandwidth: 70KHz.
- Protection for AC and DC short circuits to ground.
- Thermal protection with parole circuit.
- High current capability: 4A.
- Wide supply range 16V~60V.
- Internal output protection diodes.
- 94 dB ripple rejection.
- Plastic power package TO-220.

Disclaimer: The owner/developer reserves absolute right to withdraw, change, omit, delete, add, revise any items, conditions, price and images used in this brochure at anytime without giving any notice.

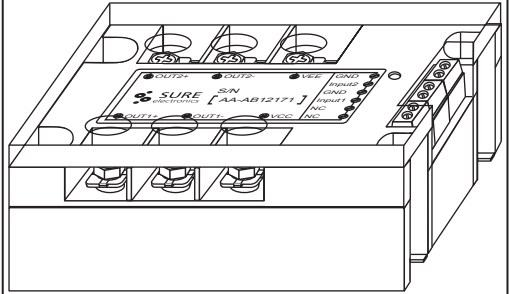
Please visit <http://www.sure-electronics.com> to get accurate and update information.

# 2\*50W @4Ω LM3875 Class-AB Audio Amplifier Module

AA-AB12171.....\$44.99

## Brief Introduction:

This self-made 2\*50W audio amplifier module is a perfect AB-class architecture integrated with LM3875 chip which is a high-performance audio power amplifier capable of delivering 56W of continuous average power to an 8Ω load with 0.1% THD+N from 20Hz to 20kHz. It maintains an excellent signal-to-noise ratio of greater than 95dB (min) with a typical low noise floor of 2.0μV. It exhibits extremely low THD+N values of 0.06% at the rated output into the rated load over the audio spectrum, and provides excellent linearity with an IMD (SMPTE) typical rating of 0.004%.



## Features:

- 56W continuous average output power into 8Ω.
- 100W instantaneous peak output power capability.
- Signal-to-Noise Ratio >95dB (min).
- Output protection from a short to ground or to the supplies via internal current limiting circuitry.
- Output over-voltage protection against transients from inductive loads.
- Supply under-voltage protection, not allowing internal biasing to occur when  $|V+| + |V-| \leq 12V$ , thus eliminating turn-on and turn-off transients.
- 11 lead TO-220 package.
- Wide supply voltage range:  $|V+| + |V-| = 20V$  to 84V.

Disclaimer: The owner/developer reserves absolute right to withdraw, change, omit, delete, add, revise any items, conditions, price and images used in this brochure at anytime without giving any notice.

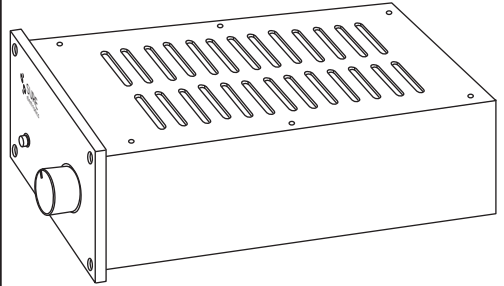
Please visit <http://www.sure-electronics.com> to get accurate and update information.

## 2\*20W @4Ω LM1875 Class-AB Audio Amplifier

AA-AB12162.....\$59.99

### Brief Introduction:

This self-made 2\*20W audio amplifier is a perfect AB-class architecture integrated with LM1875 chip which is a monolithic power amplifier offering very low distortion and high quality performance for consumer audio applications. It delivers 20 watts into a 4Ω or 8Ω load on ±25V supplies. Using an 8Ω load and ±30V supplies, over 30 watts of power may be delivered. The amplifier is designed to operate with a minimum of external components. Device overload protection consists of both internal current limit and thermal shutdown.



### Features:

- Up to 30 watts output power.
- AVO typically 90 dB.
- Low distortion: 0.015%, 1KHz, 20 W.
- Wide power bandwidth: 70KHz.
- Protection for AC and DC short circuits to ground.
- Thermal protection with parole circuit.
- High current capability: 4A.
- Wide supply range 16V~60V.
- Internal output protection diodes.
- 94 dB ripple rejection.
- Plastic power package TO-220.

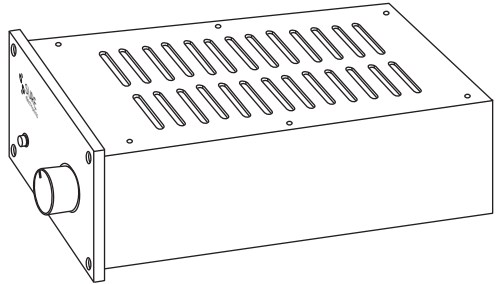
Disclaimer: The owner/developer reserves absolute right to withdraw, change, omit, delete, add, revise any items, conditions, price and images used in this brochure at anytime without giving any notice.  
Please visit <http://www.sure-electronics.com> to get accurate and update information.

# 2\*60W @4Ω LM4780 Class-AB Audio Amplifier

AA-AB12211.....\$99.99

## Brief Introduction:

The LM4780 is a stereo audio amplifier capable of delivering typically 60w per channel of continuous average output power into an 8Ω load with less than 0.5% THD+N from 20Hz~20kHz; it has an independent smooth transition fade-in/out mute that minimizes output pops.



## Features:

- SPiKe Protection.
- Low external component count.
- Quiet fade-in/out mute mode.
- Wide supply range:20V~84V.
- Signal-to-Noise Ratio>=97dB(ref. to Po=1w).
- Slew Rate.
- PSRR.
- Mute Attenuation.
- THD+N at 2x 30w into 8Ω (20Hz~20kHz) 0.03%(typ).
- THD+N at 2x 30w into 6Ω (20Hz~20kHz) 0.05%(typ).
- THD+N at 2x 30w into 4Ω (20Hz~20kHz) 0.07%(typ).

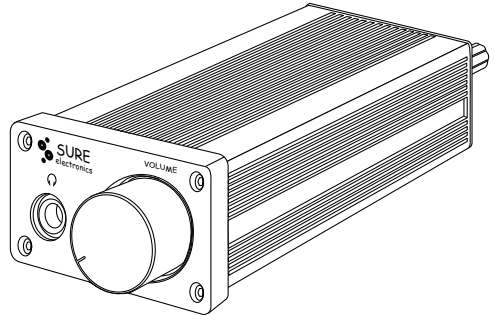
Disclaimer: The owner/developer reserves absolute right to withdraw, change, omit, delete, add, revise any items, conditions, price and images used in this brochure at anytime without giving any notice.  
Please visit <http://www.sure-electronics.com> to get accurate and update information

# 2\*15W Audio Amplifier and Headphone Amplifier

AA-AB32151.....\$64.99

## Brief Introduction:

As the first self-made Audio and Headphone amplifier with aluminium alloy case, AA-AB32151 interprets the definition of "Elegance" of amplifiers to the whole world. Streamlined frame design and beautifully-shaped silver color knob make everyone starts to fall in love with it from the first sight. Brief and compact front panel design make this amplifier suitable to be placed anywhere. The corrugated alloy housing won't make you feel slippery even you hold it in your hands for long time. The soft yet gentle orange twinkling backlight of the volume control knob can help you find it even in night time as long as the amplifier is powered.



## Features:

### 2\*15W@4ohm, TA2024 Audio Amplifier

- Operating voltage range: 9V~14V.
- Input sensitivity: 250mV~290mV.
- Frequency Characteristics: 20Hz~20KHz(±3dB).
- Output power (VCC = 12V, RL = 4Ω).  
9W@4ohm , THD+N<0.1% \ 12w@4ohms, THD+N<1% \ 15W@4ohms, THD+N<10%.
- Output power (VCC = 12V, RL = 8Ω) : 10W @ 8 ohms, THD+N<10%.  
(THD+N):
- 0.03% THD+N @ 9W, 4Ω \ 0.10% IHF-IM @ 10W, 4Ω.  
0.1% THD+N @11W 4Ω \ 0.1% THD+N @6W 8Ω.
- Signal/Noise Ratio: 90dB.
- Damping coefficient: 27~32.

### Headphone

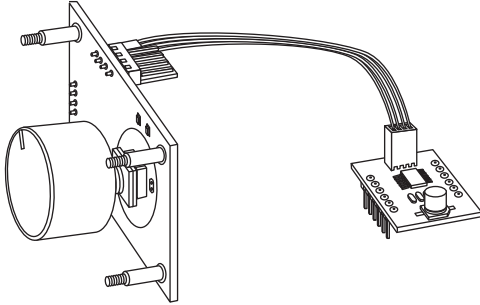
- Output power: 500mW/60ohm ; 150mW/300ohm.
- Frequency response:10Hz(-0.3dB)~35KHz(-1dB).
- Degree of channel separation:>70dB/10KHz .
- Output noise: >95dB.
- Distortion:  
<0.0001%(6mW/300ohm@1000Hz) \ <0.0001%(35mW/60ohm@1000Hz).
- Operating temperature: -10~55°C.

Disclaimer: The owner/developer reserves absolute right to withdraw, change, omit, delete, add, revise any items, conditions, price and images used in this brochure at anytime without giving any notice.  
Please visit <http://www.sure-electronics.com> to get accurate and update information.

# Amplifier Accessory

AA-AB11117

## Volume Control Daughter Board



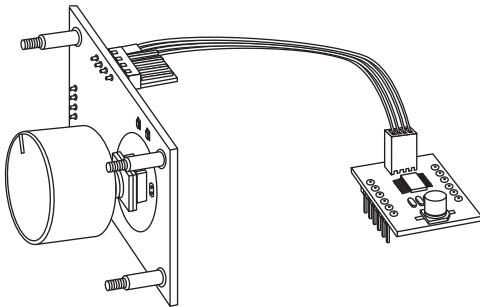
### Features:

#### Volume Control M62429

- Operating Voltage Range: 4.5V~5.5V, typical 5V.
  - Quiescent Current: 10mA~20mA.
  - SNR: 85Db.
  - Input Signal Range: 0V~1.5V,A=0dB.
  - Output Signal Range: 0V~1.3V,A=0dB.
  - THD: 0.05 %,  $V_{in}=0.5V$ ,  $F=1000Hz$  / 0.10 %,  $V_{in}=1.0V$ ,  $F=1000Hz$ .
  - Frequency Range: 20Hz~20KHz ( $\pm 3dB$ ).
  - Channel Interval: -80dB~70dB (gain=0db).
  - Power Gain: Adjustable Volume: -83dB~0dB;  
Accuracy: 1dB/step.
  - Operating Environment Temperature Range: -10 C~75 C.
  - Storage Environment Temperature Range: -20 C~125 C.
- #### Rotary Encoder
- Quiescent Current: 20mA~50mA.

AA-AB11119

## Volume Control Hi-end Version



### Features:

#### Volume Control PGA2311

- Operating Voltage Range:  $\pm 4.75V$ ~ $\pm 5.25V$ , typical  $\pm 5V$ .
  - Quiescent Current: 50mA.
  - SNR: 110Db.
  - Input Signal Range: 2.5Vrms.
  - Output Signal Range: -3.75V~3.75V.
  - Input resistance: 10K.
  - Input capacitor: 3pF.
  - THD: 0.0004~0.001%,  $V_{in}=2V_{rms}$ ,  $f=1000Hz$ .
  - Frequency Range: 10Hz~22KHz ( $\pm 0.1dB$ ).
  - Output Offset Voltage: 0.25V,  $V_{in}=GND$ , Gain=0.
  - Channel Interval: -130dB (gain=0db,  $f=1000Hz$ ).
  - Dynamic Range: 116dB~120dB.
  - Power Gain: Adjustable Volume: -95.5dB- 31.5dB;  
Accuracy: 0.5dB/step.
  - Operating Environment Temperature Range: -40 C~85 C.
  - Storage Environment Temperature Range: -65 C~150 C.
- #### Rotary Encoder
- Quiescent Current: 20mA~50mA.

Disclaimer: The owner/developer reserves absolute right to withdraw, change, omit, delete, add, revise any items, conditions, price and images used in this brochure at anytime without giving any notice.

Please visit <http://www.sure-electronics.com> to get accurate and update information.

