Mid-Power Stereo Series

2 x 150Watt 4 Ohm Class D Audio Amplifier Board - TAS5613

(AA-AB32221)



Key Features:

- **Output Power**

150W@4Ohm 36V DC THD+N 10%
144W@4Ohm 36V DC THD+N 1%

- **Power Indicator**
- **Temperature Control Fan**
- **Overcurrent Protection**
- **Overtemperature Protection**
- **Optimized Heatsink Design**
- **4-screw Easy Installation**
- **Weight: 636g/ 1.40 lbs (±10%)**
- **Size: 6.00 x 4.50 x 1.53 inches**

Distributors:

PARTS EXPRESS YOUR ELECTRONICS CONNECTION · MCM · AXIOMEDIA · HOBBYHIFILADEN · AUDIOPHONICS · Yokohama Bayside Net

All these boards are per-tested with our power supply solution to comply with FCC and CE. For all customers who need those information, please contact our distributor or Sure Electronics. RoHS compliant will need an MOQ of 1000pcs per order.

Ready for:

FC CE RoHS

Contact info

- **Email:**
info@sure-electronics.com

WONDOM™

Electrical Specifications

Specifications typical @ +25℃, powered by 36V DC, unless otherwise noted. Specifications subject to change without notice.

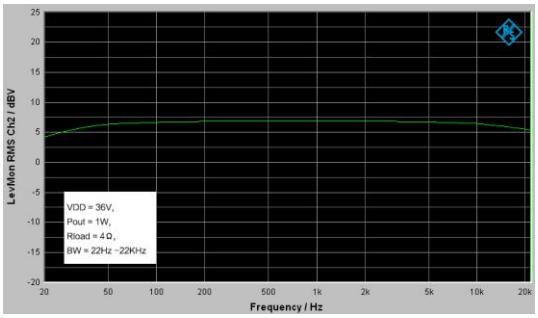
Parameter	Conditions	Min.	Typ.	Max.	Units
Power Supply	-	25	36	-	VDC
Idle Power	SD Floating, FAN ON	-	6.1	10	W
	SD Floating, FAN OFF	-	3.2	5	W
Standby Power	SD Connected to GND,FAN OFF	-	1.1	2	W
Maximum Current	300W @4Ohm	-	9.0	-	A
Efficiency	150W @4Ohm	91	-	96	%
Minimum Load Impedance	-	-	3	-	Ω
Switching Frequency	SD Floating	-	394	-	KHz
Fan Active @ Temperature	-	-	50	-	℃

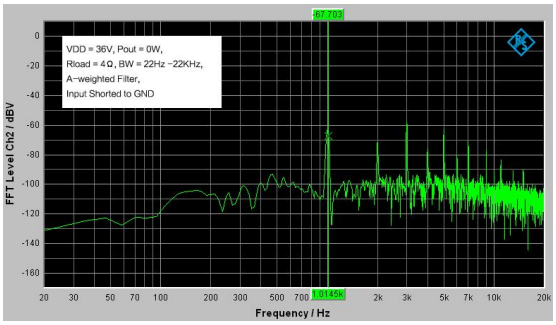
Audio Performance

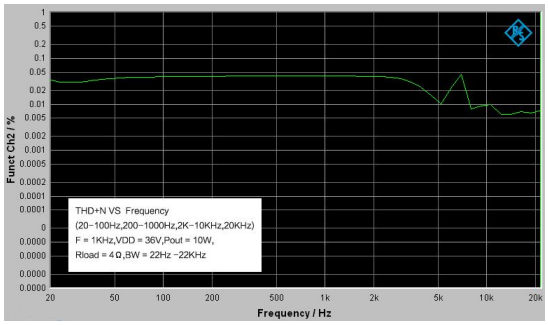
Specifications typical @ +25℃, powered by 36V DC, unless otherwise noted. Specifications subject to change without notice.

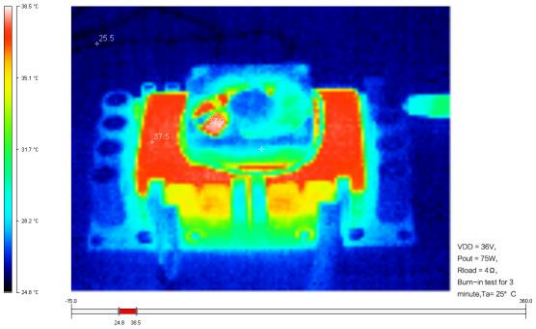
Parameter	Conditions	Min.	Typ.	Max.	Units
Gain (Adjusted by SW1, 2, 3, 4, which must be configured the same.)	K1 ON, K2 ON	-	23	-	dB
	K1 OFF, K2 ON	-	29	-	dB
	K1 ON, K2 OFF	-	33	-	dB
	K1 OFF, K2 OFF	-	36	-	dB
Input Sensitivity(RMS)	@4Ω, 150W,1KHz	-	2.4	-	V
Input Impedance	-	-	10	-	KΩ
Output Power	@4Ω THD+N 1%	-	144	-	W
	@4Ω THD+N 10%	-	150	-	W
Bandwidth @ ±3dB	@4Ω	20	-	20K	Hz
THD	@4Ω, 1W, 1KHz	-	0.019	-	%
	@4Ω, 10W, 1KHz	-	0.039	-	%
Output Noise Level	A-weighting, Input Connected to GND	-	206	-	μV
SNR	144W @4Ω THD+N 1%	-	94	-	dB

Typical Performance Graphs









All parameters were tested with Rohde & Schwarz UPV audio analyzer (AES17 filter enabled) and Audio Precision AUX0025 filter. For authorized distributors and OEM customers who need more detailed performance graphs and parameter settings, please send an inquiry e-mail to us. (Not available for retail customers)

Model Selection Guide

Model Number	Output Power	Power Supply Range	Typical Load	Amplifier IC	Dimensions
AA-AB32472	2 X 30Watt	DC10-26V	8Ω	TPA3118	3.6"X2.7"#1
AA-AB32178	2 X 50Watt	DC10-24V	4Ω	TPA3116	3.6"X2.7"
AA-AB32174	2 X 50Watt	DC10-27V	6Ω	TDA7492	4.8"X3.6"#2
AA-AB32179	2 X 50Watt	DC10-27V	6Ω	TDA7492	3.6"X2.7"
AA-AB32189	2 X 100Watt	DC 15-36V	6Ω	TDA7498	4.8"X3.6"
AA-AB32971	2 X 100Watt	DC 15-27V	4Ω	T-AMP	4.8"X3.6"
AA-AB32221	2 X 150Watt	DC 20-36V	4Ω	TAS5613	6"X4.5"#3
AA-AB32361	2 X 160Watt	DC 15-36V	4Ω	TDA7498E	4.8"X3.6"
AA-AB32281	2 X 200Watt	DC 15-36V	3Ω	T-AMP	4.8"X3.6"

Notes:

1. The output power is rated at the condition THD+N 10%,1kHz sine wave.

2. All amplifier boards don't employ power supply reverse polarity protection. Stresses beyond the power supply range maximum ratings may cause permanent damage.

3. None typical load may cause rating power reduction.

4. Dimensions mean length and width of PCB only, excluding excessive part out of the PCB outline.

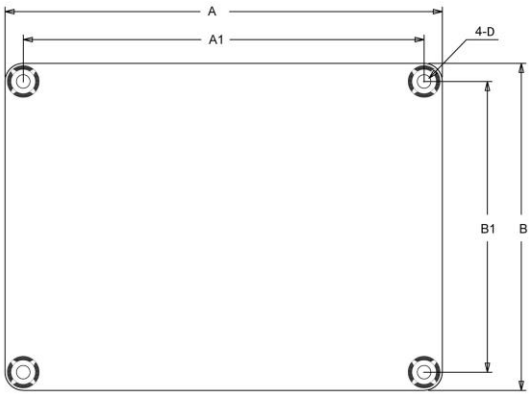
5. If any model within product series is out of stock, another model with compatible size and function, featuring more rating output power will be sent as the substitute without notice. For example,

6. All parameters were tested with Rohde & Schwarz UPV audio analyzer (AES17 filter enabled) and AP AUX0025 filter. Linear Power Supply units were used for testing.

7. Sure Electronics promises all standard products life cycle more than 5 years. Sure Electronics reserves the right to update the version without notice. All the products sent to retail customers are the latest version. We will provide back-to-order service (100 Pieces MOQ needed) for our distributors in 5 years.

8. Suggested power supply solution:
Mean Well MW 36V 9.7A 350W AC/DC Switching Power Supply NES-350-36 (PS-SP11156)
If you have other power supply requirements, please feel free to contact us.

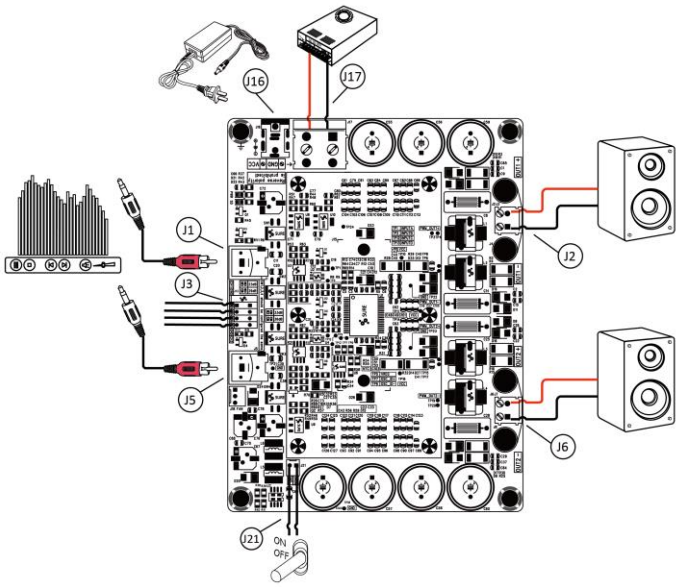
Mechanical Dimensions



Dimensions	A (inch/mm)	A1 (inch/mm)	B (inch/mm)	B1 (inch/mm)	D (inch/mm)
#1	3.6/91.44	3.3/83.82	2.7/68.58	2.4/60.96	0.14/3.6
#2	4.80/121.92	4.40/111.76	3.60/91.44	3.20/81.28	0.15/3.8
#3	6.00/152.40	5.60/142.24	4.50/114.30	4.10/104.14	0.15/3.8

Notes:
· All dimensions are typical in inches/ mm
· Tolerance x.xx = ±0.02(±0.50)
Height:
AA-AB32321, AA-AB32291, AA-AB32511, AA-AB32431: 2.5inch/ 61.3mm
Others: 1.53inch/ 37.5mm

Connections



Power Supply Connector:
- J16 DC Jack 5.5mm/2.5mm
- J17 Terminal Block RJ128 (optional)

Pin	Function
■	GND
●	VCC

Shutdown Control Connector:
- J21 2-Pin 2510 Socket

Pin	Function
■	SHDN
●	GND

Audio Input Connector:
- J1, J5 RCA Jack
- J3 Terminal Block RJ141V (optional)

Pin	Function
■	CH1
●	GND
●	GND
●	CH2

Speaker Output Connector:
- J2, J6 Terminal Block RJ128

	Pin	Function
J2	■	OUT1-
	●	OUT1+
J6	■	OUT2-
	●	OUT2+

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