

Mid-Power Stereo Series

2 x 125Watt 8 Ohm

Class D

Audio Amplifier Board - IRS2092

(AA-AB32321)



Key Features:

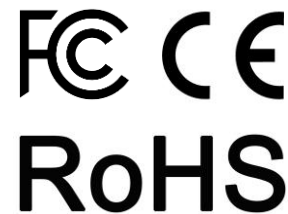
- Output Power
125W@8Ohm±50 DC THD+N 10%
87W@8Ohm±50 DC THD+N 1%
- Active Indicator
- Overcurrent Protection
- Overtemperature Protection
- Optimized Heatsink Design
- 4-screw Easy Installation
- Weight: 579g/ 1.28 lbs (±10%)
- Size: 5.70 x 4.00 x 2.50 inches

Distributors:



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:



Contact info

• Email:
info@sure-electronics.com



Electrical Specifications

Specifications typical @ +25°C, Powered by ±50V DC, unless otherwise noted. Specifications subject to change without notice.

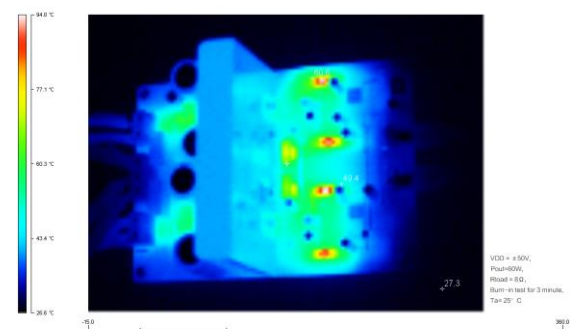
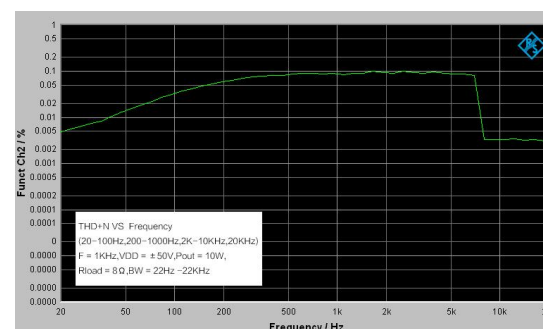
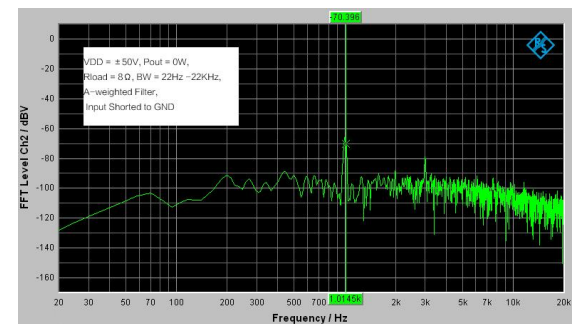
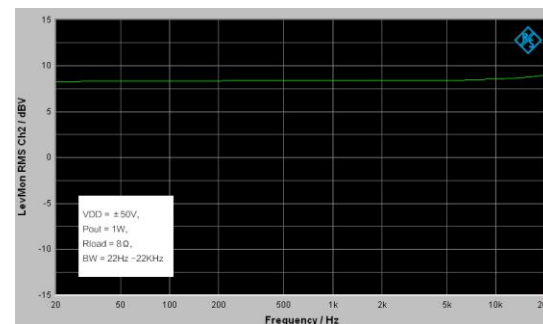
Parameter	Conditions	Min.	Typ.	Max.	Units
Power Supply	-	±45	±50	±60	VDC
Idle Power	SD Floating	-	6	12	W
Maximum Current	250W @8Ohm	-	5.9	-	A
Efficiency	125W @8Ohm	85	-	90	%
Minimum Load Impedance	-	-	8	-	Ω
Switching Frequency	SD Floating	-	232/285	-	KHz
Under Voltage Protection	-	-	39	-	V
Over Voltage Protection	-	-	68	-	V
Over Temperature Protection	-	-	100	-	°C

Audio Performance

Specifications typical @ +25°C, Powered by ±50V DC, unless otherwise noted. Specifications subject to change without notice.

Parameter	Conditions	Min.	Typ.	Max.	Units
Gain	-	29	31	33	dB
Input Sensitivity(RMS)	@8Ω, 125W, 1KHz	-	839	-	mV
Input Impedance	-	-	100	-	KΩ
Output Power	@8Ω THD+N 1%	-	87	-	W
	@8Ω THD+N 10%	-	125	-	W
Bandwidth @ ±3dB	@8Ω	20	-	20K	Hz
THD	@8Ω, 1W, 1KHz	-	0.023	-	%
	@8Ω, 10W, 1KHz	-	0.054	-	%
Output Noise Level	A-weighting, Input Connected to GND	-	244	-	μV
SNR	87W @8Ω THD+N 1%	-	96	-	dB

Typical Performance Graphs

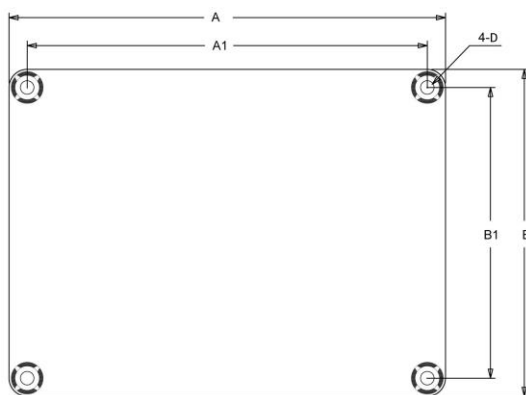


All parameters were tested with Rohde & Schwarz UPV audio analyzer (AES17 filter enabled) and Audio Precision AUX0025 filter. For authorized distributors and OEM customers who need more detailed performance graphs and parameter settings, please send an inquiry e-mail to us. (Not available for retail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

Model Selection Guide

Model Number	Output Power	Power Supply Range	Typical Load	Amplifier IC	Dimensions
AA-AB31512	1 X 500Watt	±55-±65V	4Ω	IRS2092	6"X4.5"#1
AA-AB31431	1 X 750Watt	±55-±75V	4Ω	IRS2092	6"X4.5"
AA-AB31391	1 X 1000Watt	±55-±65V	2Ω	IRS2092	6" X 4.5"
AA-AB31411	1 X 1500Watt	±55-±75V	2Ω	IRS2092	6" X 4.5"
AA-AB31381	1 X 2000Watt	±55-±85V	2Ω	IRS2092	6" X 4.5"
AA-AB31491	1 X 2500Watt	±55-±95V	2Ω	IRS2092	6" X 4.5"
AA-AB31341	1 X 3000Watt	±55-±85V	4Ω	IRS2092	9" X 6" #2
AA-AB32321	2 X 125Watt	±55-±75V	8Ω	IRS2092	5.7" x 4" #3
AA-AB32291	2 X 250Watt	±60-±80V	8Ω	IRS2092	5.7" x 4"
AA-AB32511	2 X 500Watt	±55-±65V	4Ω	IRS2092	6"X4.5"
AA-AB32431	2 X 750Watt	±55-±75V	4Ω	IRS2092	6"X4.5"
AA-AB32391	2 X 1000Watt	±55-±65V	2Ω	IRS2092	9"X6"
AA-AB32411	2 X 1500Watt	±55-±75V	2Ω	IRS2092	9"X6"
AA-AB32381	2 X 2000Watt	±55-±85V	2Ω	IRS2092	6"X9"
AA-AB32491 ²	2 X 2500Watt	±55-±95V	2Ω	IRS2092	6"X9"

Mechanical Dimensions



Dimensions	A (inch/mm)	A1 (inch/mm)	B (inch/mm)	B1 (inch/mm)	D (inch/mm)
#1	6.00/152.40	5.60/142.24	4.50/114.30	4.10/104.14	0.15/3.8
#2	9.00/228.6	8.60/218.44	6.00/152.40	5.60/142.24	0.15/3.8
#3	5.7/144.78	5.3/134.62	4/101.6	3.6/91.44	0.14/3.6

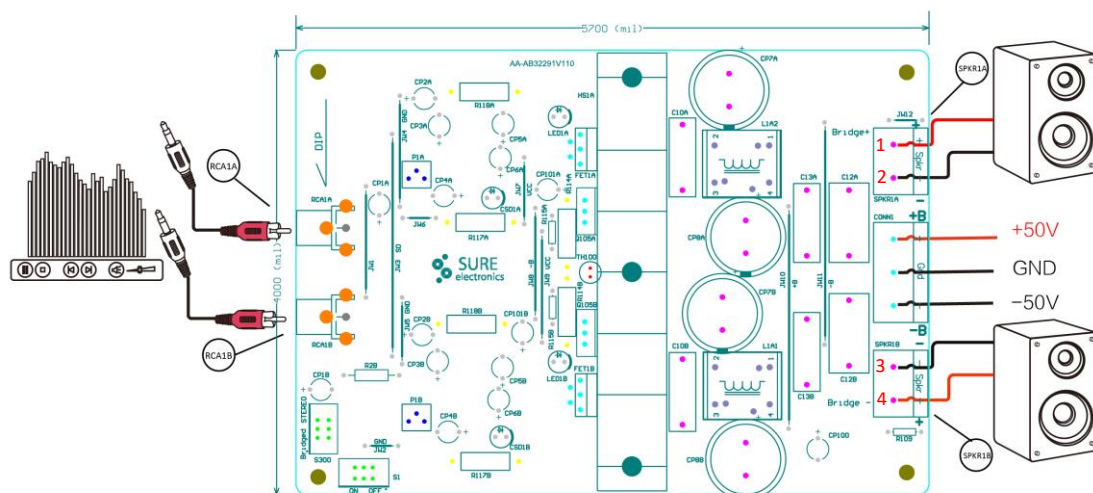
Notes:

- All dimensions are typical in inches/ mm
- Tolerance x.xx = ±0.02(±0.50)
- Height: 2.50inch/ 63.5mm

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..
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 RS-150-48 AC/DC Single Output Switching Power Supply 48V 3.3A 150W (PS-SP11553) X 2
Please kindly be noticed that the board needs dual power supplies. If you have other power supply requirements, please feel free to contact us.

Connections



Power Supply Connector:

- CONN1 Terminal Block

Pin	Function
1	+50V
2	GND
3	-50V

Audio Input Connector:

- RCA1A, RCA1B RCA Jack

Speaker Output Connector:

- SPKR1A, SPKR1B Terminal Block RJ128

Pin	Function
1	SPKR1A+
2	SPKR1A -
3	SPKR1B-
4	SPKR1B+

Sure Electronics

Make Your Audio Application Simple!

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