



## Sure Electronics AA-AB35281 Class D Amplifier Board Owner's Manual

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## Key Features

- Output Power  
100W@6 Ohm 36V DC THD+N 10% 70W@6 Ohm 36V DC THD+N 1%
- Active Indicator
- Overcurrent Protection
- Overtemperature Protection
- Optimized Heatsink Design
- Low Noise Cooling Fan
- 4-screw Easy Installation
- **Weight:** 580g/1.28 lbs ( $\pm 10\%$ )
- **Size:** 6.00 x 4.50 x 1.30 inches

## Distributors



HOBBYHIFILaden



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.

## Electrical Specifications

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

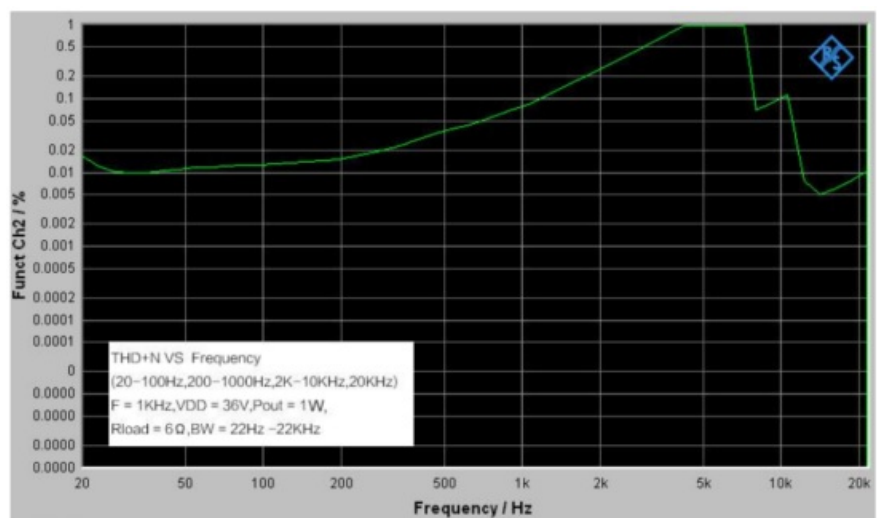
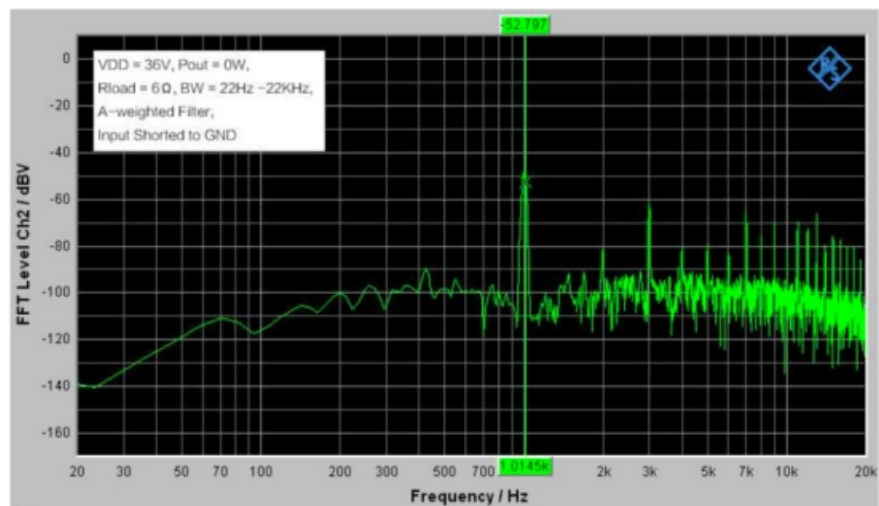
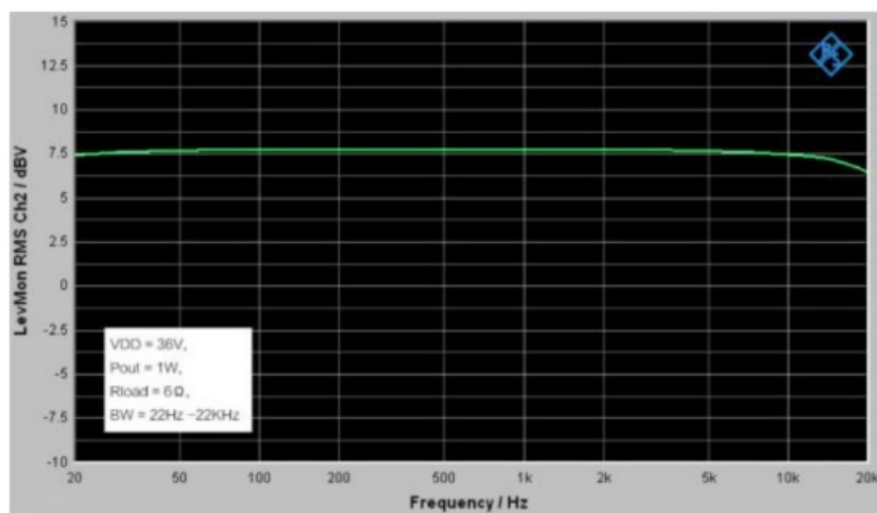
Parameter	Conditions	Min.	Typ.	Max.	Units
Power Supply	–	14	36	–	VDC
Idle Power	SD Floating, FAN ON	–	7.9	12	W
	SD Floating, FAN OFF	–	5.4	8	W
Standby Power	SD Connected to GND, FAN OFF	–	2.2	5	W
Maximum Current	400W @ 6 Ohm	–	12.3	–	A
Efficiency	100W @ 6 Ohm	87	–	92	%
Minimum Load Impedance	–	–	6	–	Ω
Switching Frequency	SD Floating	–	360	–	KHz

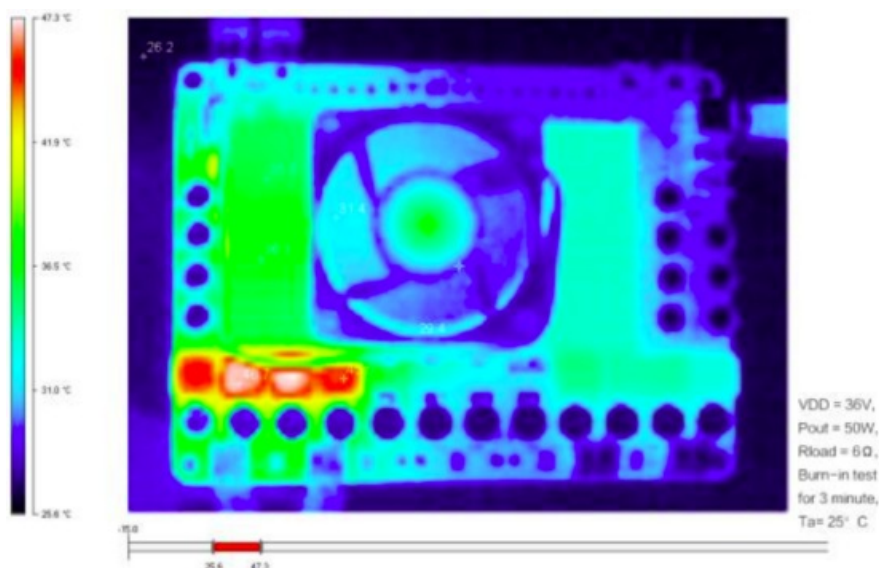
## Audio Performance

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

Parameter	Conditions	Min.	Typ.	Max.	Units
Gain(Adjusted by SW1 & SW3)	K1 ON, K2 ON	–	25.6	–	dB
	K1 OFF, K2 ON	–	31.6	–	dB
	K1 ON, K2 OFF	–	35.6	–	dB
	K1 OFF, K2 OFF	–	37.6	–	dB
Input Sensitivity(RMS)	@ 6 Ohm, 100W, 1Khz	–	1.352	–	V
Input Impedance	–	–	33	–	KΩ
Output Power	@ 6 Ohm, THD+N 1%	–	70	–	W
	@ 6 Ohm, THD+N 10%	–	100	–	W
Bandwidth @ ±3dB	@ 6 Ohm	20	–	20K	Hz
THD	@ 6 Ohm, 1W, 1Khz	–	0.0409	–	%
	@ 6 Ohm, 10W, 1Khz	–	0.07	–	%
Output Noise Level	A-weighting, Input Connected to GND	–	266.31	–	μV
SNR	70W @ 6 Ohm, THD+N 1%	–	95.38	–	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

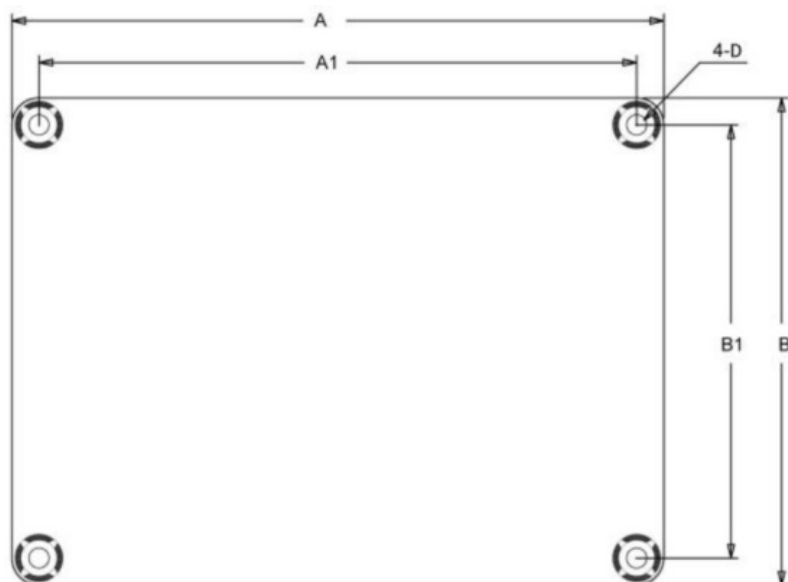
Model Number	Output Power	Power Supply Range	Typical Load	Amplifier IC	Dimensions
AA-AB35281	3 X 200Watt	DC 24-36V	3Ω	T-AMP	6"X4.5"
AA-AB33184	4 X 100Watt	DC 14V-36V	6Ω	TDA7498	6"X4.5"
AA-AB33182	4 X 100Watt	DC 15-27V	4Ω	T-AMP	6"X4.5"
AA-AB34181	6 X 100Watt	DC 14V-36V	6Ω	TDA7498	6"X4.5"

### 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. 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.
6. 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.
7. **Suggested power supply solution:**  
Mean Well MW 36V 12.5A 450W AC/DC Switching Power Supply SE-450-36 (PS-SP11186)

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)
	6.00/152.40	5.60/142.24	4.50/114.3	4.10/104.14	0.15/3.8

#### Notes:

- All dimensions are typical in inches/mm
- Tolerance x.xx =  $\pm 0.02$  ( $\pm 0.50$ )

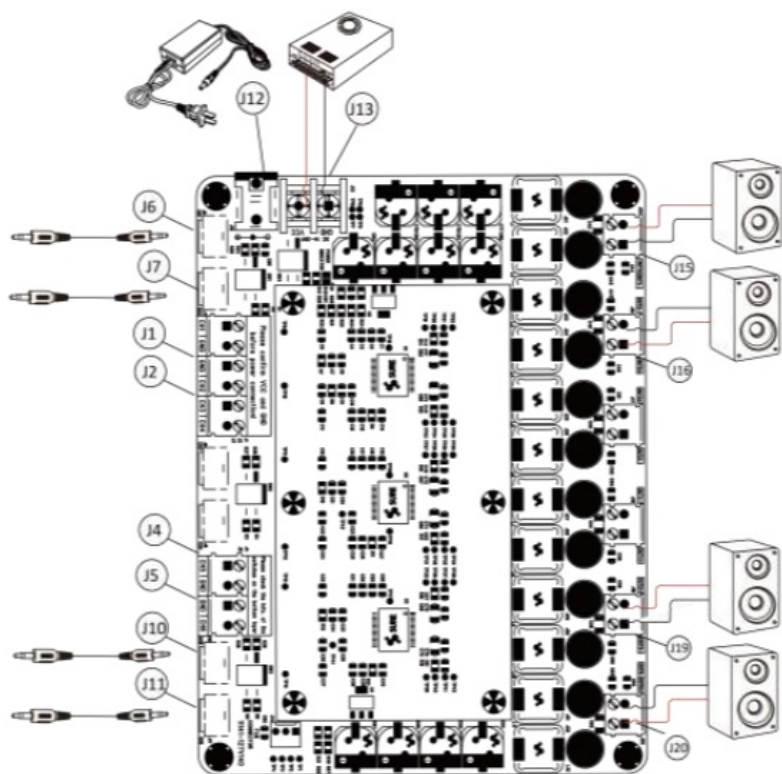
#### Height:

**AA-AB33184, AA-AB33182:** 1.30inch/33.02mm

**AA-AB35281:** 1.48inch/37.60mm

**AA-AB34181:** 1.53inch/38.90mm

#### Connections



**Power Supply Connector:**

- J12 DC Jack 5.5mm/2.5mm
- J13 Terminal Block RJ128 (optional)

Pin	Function
■	GND
●	VCC

**Speaker Output Connector:**

- J15, J16, J19, J20 Terminal Block RJ128

	Pin	Function
J15	■	OUT1-
	●	OUT1+
J16	■	OUT2+
	●	OUT2-

	Pin	Function
J19	■	OUT3-
	●	OUT3+
J20	■	OUT4+
	●	OUT4-

#### Audio Input Connector:

- J6, J7, J10, J11 RCA Jack
- J1, J2, J3, J4, J5 Terminal Block RJ128 (optional)

	Pin	Function
J1	■	CH1
	●	GND
J2	■	GND
	●	CH2
J5	■	GND
	●	CH6
J3	■	CH3
	●	CH4
J4	■	CH5
	●	GND

Ready for:



#### Contact info

- Email:  
[info@sure-electronics.com](mailto:info@sure-electronics.com)

[www.sure-electronics.com](http://www.sure-electronics.com)



[www.wondom.com](http://www.wondom.com)

Mail: [store@sure-electronics.com](mailto:store@sure-electronics.com)

Skype: sure webstore

## Documents / Resources



[Sure Electronics AA-AB35281 Class D Amplifier Board](#) [pdf] Owner's Manual

AA-AB35281, AA-AB33184, AA-AB33182, AA-AB34181, AA-AB35281 Class D Amplifier Board, AA-AB35281, Class D Amplifier Board, Amplifier Board, Board

## References

- [electronics.com](http://electronics.com)
- [W WONDOM OFFICIAL SHOP - ADAU1701 - Sure Electronics - 200 Watt Class D Amplifier Board - 18650 charger - Sigmastudio](#)
- [W WONDOM OFFICIAL SHOP - ADAU1701 - Sure Electronics - 200 Watt Class D Amplifier Board - 18650 charger - Sigmastudio](#)
- [W WONDOM OFFICIAL SHOP - ADAU1701 - Sure Electronics - 200 Watt Class D Amplifier Board - 18650 charger - Sigmastudio](#)
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