

# Mid-Power Mono Series

## 1 X 200 Watt 3 Ohm Class D Audio Amplifier Board - T-AMP (AA-AB31282)



### Key Features:

- Output Power  
200W@30ohm 34V DC THD+N 10%  
150W@30ohm 34V DC THD+N 1%
- Power and Clip Indicator
- Support Volume Control Board (VC01)
- BTL Topology
- Temperature Control Fan (Optional)
- Overcurrent Protection
- Overtemperature Protection
- Optimized Heatsink Design
- Weight: 398g/0.88 lbs (±10%)
- Size: 4.80 x 3.60 x 1.12 inches

### Electrical Specifications

Specifications typical @ +25°C, powered by 34V DC, unless otherwise noted. Specifications subject to change without notice.

Parameter	Conditions	Min.	Typ.	Max.	Units
Power Supply	-	15	34	36	VDC
Idle Power	SD Floating	-	3.9	7	W
Standby Power	SD Connected to GND	-	0.7	2	W
Maximum Current	200W @ 30ohm	-	6.5	-	A
Efficiency	200W @ 30ohm	85	-	93	%
Minimum Load Impedance	-	-	2	-	Ω
Switching Frequency	SD Floating	-	660	-	KHz

### Audio Performance

Specifications typical @ +25°C, powered by 34V DC, unless otherwise noted. Specifications subject to change without notice.

Parameter	Conditions	Min.	Typ.	Max.	Units
Gain	-	-	26	-	dB
Input Sensitivity(RMS)	-	-	1.3	1.8	V
Input Impedance	-	-	10	11	KΩ
Output Power	@3Ω THD+N 1%	-	150	-	W
	@3Ω THD+N 10%	-	200	-	W
Bandwidth @ ±3dB	@3Ω	20	-	20K	Hz
THD	@3Ω, 1W, 1KHz	-	0.0051	0.01	%
	@3Ω, 100W, 1KHz	-	0.069	0.1	%
Output Noise Level	A-weighting, Input Connected to GND	-	129	300	μV
SNR	150W @3Ω THD+N 1%	-	96	101	dB

### Distributors:



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

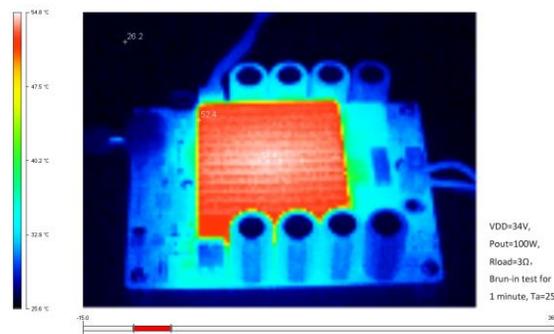
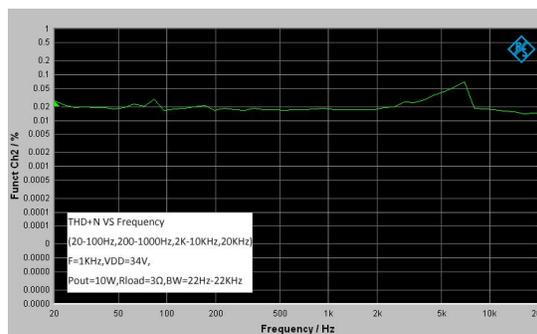
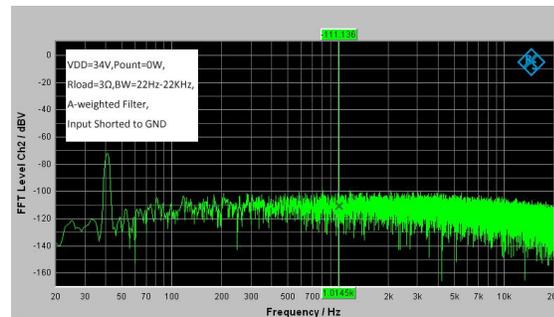
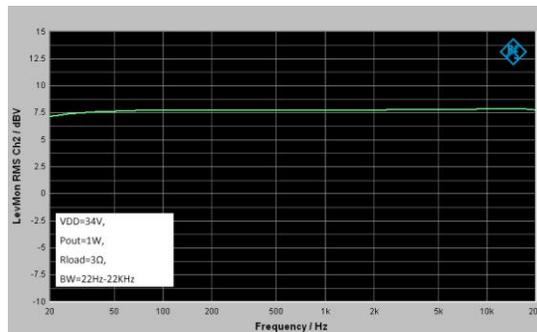
Ready for:



### Contact info

• Email:  
info@sure-electronics.com

### 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-AB31471	1 X 30Watt	DC10-19V	4Ω	TPA3110	3"X2" #1
AA-AB31521	1 X 40Watt	DC10-24V	4Ω	TPA3110	3.6"X2.7" #2
AA-AB31211	1 X 60Watt	DC10-26V	4Ω	TPA3118	3.6"X2.7"
AA-AB31184	1 X 100Watt	DC 10-24V	2Ω	TPA3116	3.6"X2.7"
AA-AB31282	1 X 200Watt	DC 15-36V	3Ω	T-AMP	4.8"X3.6" #3

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:

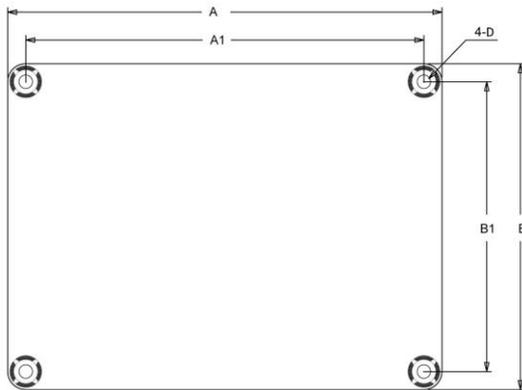
Mean Well SE-200-36 AC/DC Single Output Switching Power Supply 36V 5.9A 200W (PS-SP11519)

If you have other power supply requirements, please feel free to contact us.

### Notes:

- The output power is rated at the condition THD+N 10%, 1kHz sine wave.
- All amplifier boards don't employ power supply reverse polarity protection. Stresses beyond the power supply range maximum ratings may cause permanent damage.
- None typical load may cause rating power reduction.
- Dimensions mean length and width of PCB only, excluding excessive part out of the PCB outline.
- 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.
- 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.

## Mechanical Dimensions

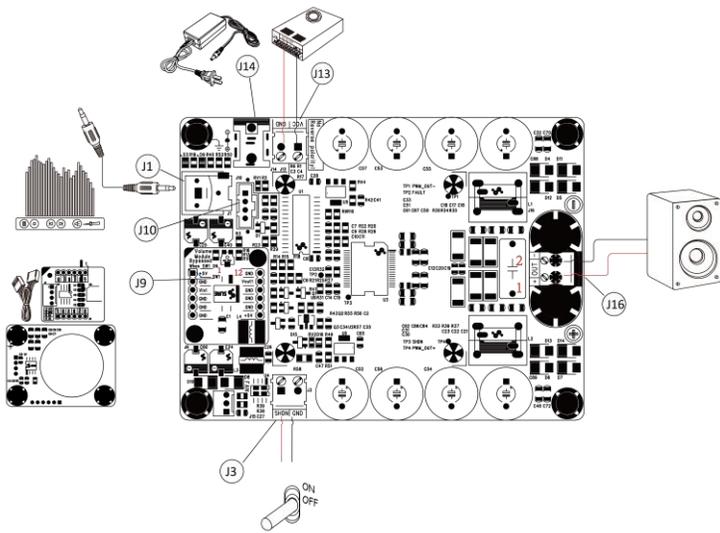


Dimensions	A (inch/mm)	A1 (inch/mm)	B (inch/mm)	B1 (inch/mm)	D (inch/mm)
#1	3.0/76.2	2.7/68.58	2.0/50.8	1.7/43.18	0.12/3.1
#2	3.6/91.44	3.3/83.82	2.7/68.58	2.4/60.96	0.14/3.6
#3	4.80/121.92	4.40/111.76	3.60/91.44	3.20/81.28	0.15/3.8

### Notes:

- All dimensions are typical in inches/mm
- Tolerance x.xx = ±0.02(±0.50)
- Height:  
AA-AB31184: 0.93inch/23.6mm  
AA-AB31282: 1.12inch/28.45mm  
Others: 0.65inch/16.51mm

## Connections



### Power Supply Connector:

- J14 DC Jack 5.5mm/2.5mm
- J13 Terminal Block RJ128 (optional)

Pin	Function
■	VCC
●	GND

### Shutdown Control Connector:

- J3 Terminal Block RJ128

Pin	Function
■	SHDN
●	GND

### Volume Control Board Socket

(SW1 OFF when module available)

- J9 (Pin5, 9, 10, 12 not defined, connected to GND)

Pin	Function	Pin	Function
1, 7	+5V	3	Audio In
2, 4, 6, 8	GND	11	Audio Out

### Audio Input Connector:

- J1 RCA Jack
- J10 Fastfit JR Header (optional)

Pin	Function
■	Audio Input
●	GND
●	NC
●	NC

### Speaker Output Connector:

- J16 Terminal Block RJ128

Pin	Function
1	OUT+
2	OUT-



# Sure Electronics

**Make Your Audio Application Simple!**

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