

# Low Power Stereo Series

## 2 x 25 Watt 6 Ohm

## Class D

## Audio Amplifier Board - TDA7492 (AA-AB32165)



### Key Features:

- Output Power  
25W@6Ohm 16V DC THD+N 10%  
20W@6Ohm 16V DC THD+N 1%
- Adjustable Gain
- Output Connection
- Block Terminal and Banana(optional)
- Mute and Standby Control
- Full Protection
- Optimized Heatsink Design
- 4-screw Easy Installation
- Weight:104g/0.23 lbs
- Size:4.8inchX3.6inchX0.85inch

### Electrical Specifications

Specifications typical @ +25°C, Powered by 16V DC, unless otherwise noted. Specifications subject to change without notice.

Parameter	Conditions	Min.	Typ.	Max.	Units
Power Supply	-	14	16	19	VDC
Idle Power	STBY Floating	-	0.56	0.61	W
Standby Power	STBY Connected to GND	-	0.096	0.1	W
Efficiency	2 X 25W @6Ω, powered by 16V DC	87	90	93	%
Minimum Load Impedance	-	-	4	-	Ω
Switching Frequency	No Load	300	350	400	KHz

### Audio Performance

Specifications typical @ +25°C, Powered by 16V DC, unless otherwise noted. Specifications subject to change without notice.

Parameter	Conditions	Min.	Typ.	Max.	Units
Gain	SW1 ON, SW2 ON	20.6	21.6	22.6	dB
	SW1 ON, SW2 OFF	26.6	27.6	28.6	dB
	SW1 OFF, SW2 ON	30.1	31.1	32.1	dB
	SW1 OFF, SW2 OFF	32.6	33.6	34.6	dB
Input Sensitivity	Gain 21.6dB	1.38	1.48	1.58	V
	Gain 27.6dB	0.66	0.73	0.80	V
	Gain 31.1dB	0.45	0.49	0.53	V
	Gain 33.6dB	0.32	0.37	0.42	V
Input Impedance	-	48	60	-	KΩ
Output Power	@6Ω THD+N 1%	-	20	-	W
	@6Ω THD+N 10%	-	25	-	W
Bandwidth @ -3dB	@6Ω, Gain 21.6dB	20	-	20K	Hz
THD	@6Ω, 1W, 1KHz, Gain 21.6dB	-	0.05	-	%
Output Noise Level	A-weighting, Gain 21.6dB	170	180	190	uV
SNR	20W @6Ω, THD+N 1%, Gain 21.6dB	-	91	-	dB

### Environmental Conditions:

- Humidity: 5-85% RH Non-condensing
- Operating Temperature Ambient: 0°C to +55°C
- Storage Temperature: -40°C to 85°C

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.

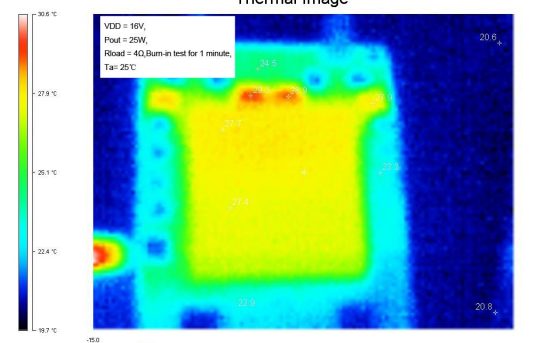
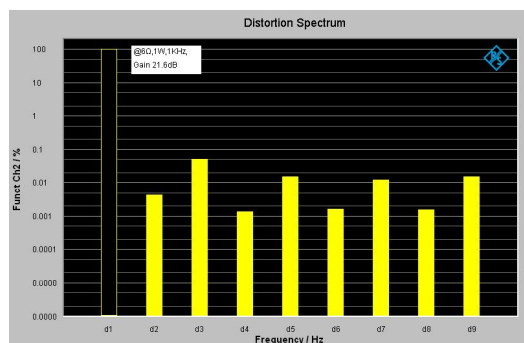
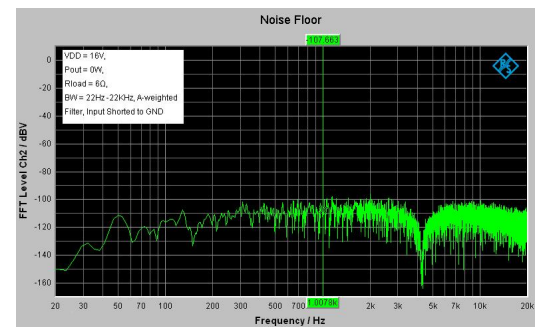
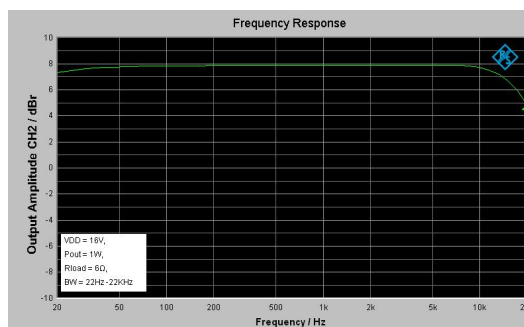
Ready for:



RoHS



### Typical Performance Graphs

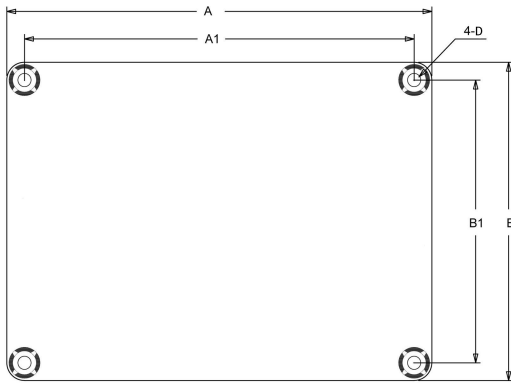


All parameters were tested with Rohde & Schwarz UPV audio analyzer (AES17 filter enabled) and AP AUX0025 filter. For authorized distributors and OEM customers who need more detailed performance graphs and parameter settings, please send an inquiry e-mail to us. (Not available for retail customers)

## Model Selection Guide

Model Number	Output Power	Power Supply Range	Typical Load	Amplifier IC	Dimension
AA-AB32131	2 X 2Watt	DC6-12V	4Ω	PAM8803	3"X2", #1
AA-AB32232	2 X 10Watt	DC7-15V	8Ω	PAM8610	3"X2"
AA-AB32999	2 X 15Watt	DC10-26V	4Ω	PAM8615	3"X2"
AA-AB32231	2 X 8Watt	DC8-19V	8Ω	TPA3110	3"X2"
AA-AB32233	2 X 10Watt	DC7-18V	4Ω	SSM3302	3.6"X2.7", #2
AA-AB32992	2 x 15Watt	DC8-28V	4Ω	MAX9736A	3.6"X2.7"
AA-AB32993	2 X 15Watt	DC10-28V	4Ω	MP7740	3.6"X2.7"
AA-AB32996	2 X 15Watt	DC8-26V	8Ω	TPA3110	3.6"X2.7"
AA-AB32155	2 X 15Watt	DC9-14V	4Ω	TA2024	3.6"X2.7"
AA-AB32254	2 X 20Watt	DC8-28V	8Ω	MAX98400A	3.6"X2.7"
AA-AB32166	2 X 25Watt	DC8-26V	6Ω	TDA7492P	3.6"X2.7"
AA-AB32165	2 X 25Watt	DC14-19V	6Ω	TDA7492	4.8"X3.6", #3
AA-AB32174	2 X 50Watt	DC8-26V	6Ω	TDA7492	4.8"X3.6"
AA-AB32179	2 X 50Watt	DC8-26V	6Ω	TDA7492	3.6"X2.7"
AA-AB32167	2 X 25Watt	DC10-27V	4Ω	TPA3123	3.6"X2.7"
AA-AB32472	2 X 30Watt	DC8-26V	8Ω	TPA3118	3.6"X2.7"
AA-AB32178	2 X 50Watt	DC8-26V	4Ω	TPA3116	3.6"X2.7"

## Mechanical Dimensions



Dimension	A (inch/mm)	A1 (inch/mm)	B (inch/mm)	B1 (inch/mm)	R (inch/mm)
#1	3.00/76.2	2.70/68.6	2.00/50.8	1.70/43.2	0.14/3.6
#2	3.95/100.3	3.30/83.8	2.70/68.6	2.40/61.0	0.14/3.6
#3	5.15/130.8	4.40/111.8	3.60/91.4	3.20/81.3	0.15/3.8

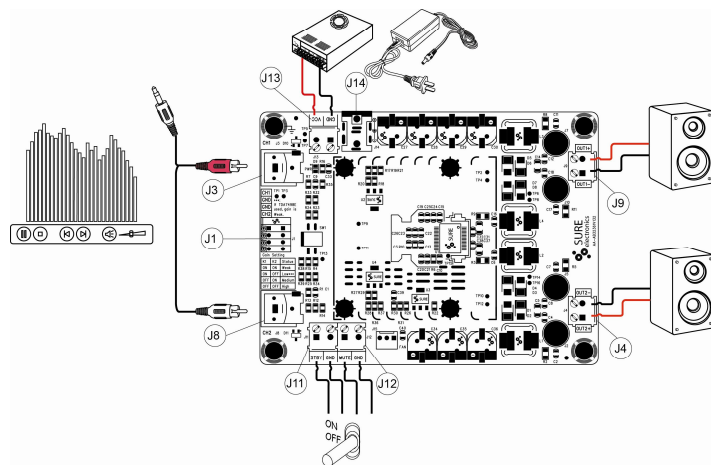
### Notes:

- All dimensions are typical in inches (mm)
- Tolerance x.xx = ±0.02 (±0.50)

### Height:

- 1) AA-AB32178, AA-AB32179: 0.87inch/22.1mm
- 2) AA-AB32165: 0.85inch/21.6mm,  
AA-AB32174: 1.38inch/35.0mm,  
Other models 0.60inch/15.2mm

## Connections



### Power Supply Connector:

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

Pin	Function
1	GND
2	VCC

### Mute and Standby Control Connector:

- J11, J12 Terminal Block RJ128 (optional)

J11 Pin	Function
1	Standby
2	GND

J12 Pin	Function
1	Mute
2	GND

### Audio Input Connector:

- J3, J8 RCA Jack (CH1, CH2)
- J1 Terminal Block RJ141V (optional)

Pin	Function
1,2	CH1
3,4,5,6	GND
7,8	CH2

### Speaker Output Connector:

- J4, J9 Terminal Block RJ128

J4 Pin	Function
1	OUT1-
2	OUT1+

J9 Pin	Function
1	OUT2+
2	OUT2-

### Notes:

1. The output power is rated at the condition THD+N 10%, 1KHz sine wave.
2. All amplifier board employs reverse polarity protection excluding AA-AB32165, AA-AB32174. Stresses beyond the power supply range maximum ratings may cause permanent damage.
3. Not typical load may cause rating power reduction.
4. Dimension means length and width of PCB only, excluding excessive part out of the PCB outline.
5. We also provide the power supply adaptors.  
Mean Well RS-50-15 AC/DC Single Output Switching Power Supply 15V 3.4A 50W (PS-SP11537)
6. All parameters were tested with Rohde & Schwarz UPV audio analyzer and AP AUX0025 filter with AES17 filter enabled. Linear Power Supply units were used for testing.
7. If you'll buy the same model of amplifier board for the second time at the MOQ 100, please inform us the version and time of last purchase in order to avoid application incompatibility brought by version update.
8. Sure Electronics promise all standard products life cycle more than 5 years. Sure Electronics reserve 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.