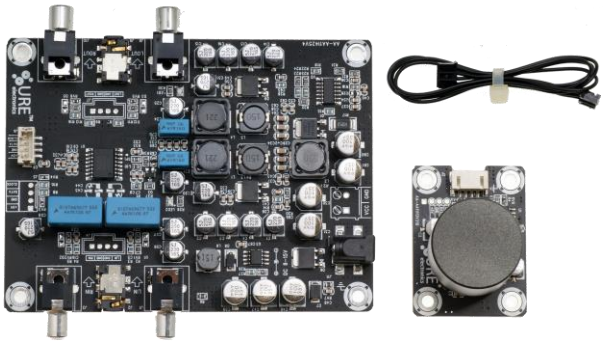
Audio Receiver Series

Digitally Controlled Stereo Electronic Audio Volume Control Board VC05- PGA2311 (AA-AB41148)



Key Features:

- **Size:**

Volume Control Board: 4.8 x 3.6 inches
Decode Board: 2 x 1.5 x 1.7 inches

- **Wide Control Range: -95.5dB to 10dB**
- **Accuracy: 1.5dB/step(could be set as 0.5dB/step)**
- **Output Noise Voltage: 8.8μV**

THD+N: 0.0006% SNR: 108dB

- **Single Ended Audio Signal Input and Output**
- **LED Indicator**

Distributors:

PARTS EXPRESS YOUR ELECTRONICS CONNECTION

MCM

XIOMEDIA

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™ WONDOM Audio Technology

Electrical Specifications

Specifications typical @ +25℃, powered by 12V DC, unless otherwise noted. Specifications subject to change without notice.

Parameter	Conditions	Min.	Typ.	Max.	Units
Power Supply	-	8	12	15	VDC
Quiescent Current	-	-	20	-	mA
Maximum Current	-	-	0.8	-	A
Operating Temperature	-		20	50	℃
Storage Temperature	-	-20	20	105	℃
Thermal Temperature	-	-	150	-	℃

Model Selection Guide

SKU	Control Range	Accuracy	Output Noise	THD	SNR	PCB Size*4
AA-AA11117	-89dB - -1dB	1dB/step	3μV	0.005%	114dB	27.9 x 22.9#1
AA-AB41134	-83dB - 0dB	1dB/step	9.6μV	0.028%	93.2dB	76.2 x 50.8 #2
AA-AB41116	-79dB - 0dB	1dB/step	10μV	0.02%	100dB	76.2 x 50.8
AA-AB41147	-107.5dB - 10dB*1	1dB/step	15.89μV	0.0327%	92.2dB	91.4 x 68.6 #3
AA-AB41148	-95.5dB to 10dB*2	1.5dB/step*3	8.8μV	0.0006%	108dB	121.9 x 91.4#4

Notes:

*1 The maximum gain of AA-AB41147 is limited to 10dB by software. The maximum gain could be 20dB. For OEM customers who need more gain in their project, please send an e-mail to store@sure-electronics.com. Not available for retail customers.

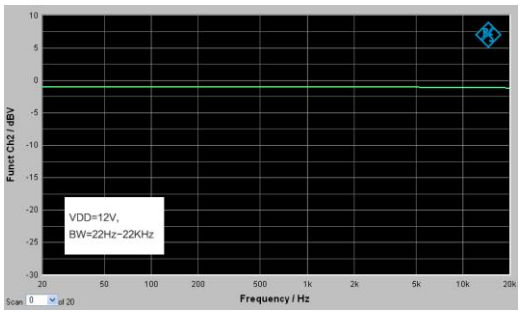
*2 The maximum gain of AA-AB41148 is limited to 10dB by software. The maximum gain could be 31.5dB. For OEM customers who need more gain in their project, please send an e-mail to support@sure-electronics.com. Not available for retail customers.

*3 The accuracy of AA-AB41148 can be set as 0.5dB/step. Please send an email to store@sure-electronics.com if you have requirements. Not available for retail customers

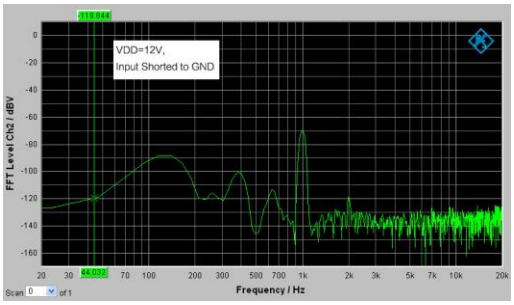
*4 PCB size of the Decode Board is 2.00 x 1.50 x 1.70 inches.

Typical Performance Graphs

Frequency Response

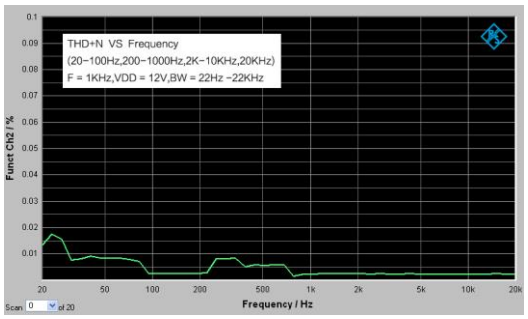


Noise Floor

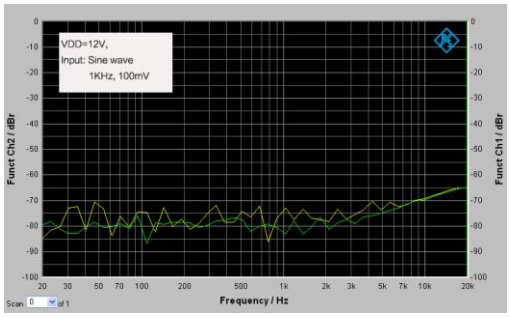


All parameters were tested with Rohde & Schwarz UPV audio analyzer (AES17 filter enabled) and Audio Precision AUX0025 filter. For authorized distributors and OEM customers who need more detailed performance graphs and parameter settings, please send an inquiry e-mail to us. (Not available for retail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

THD + N



Inter-Channel Separation



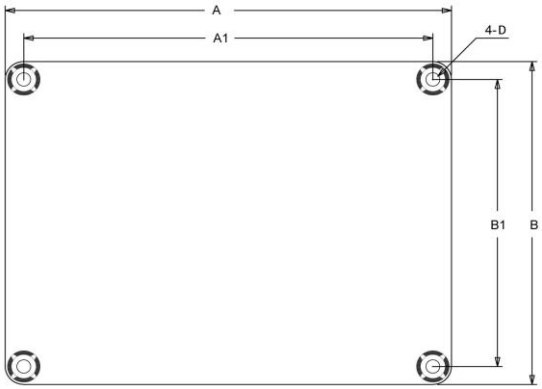
Notes:

1. All volume control boards except AA-AA11117 employ power supply reverse polarity protection. Stresses beyond the power supply range maximum ratings may cause permanent damage.

2. None typical load may cause rating power reduction.

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

Mechanical Dimensions



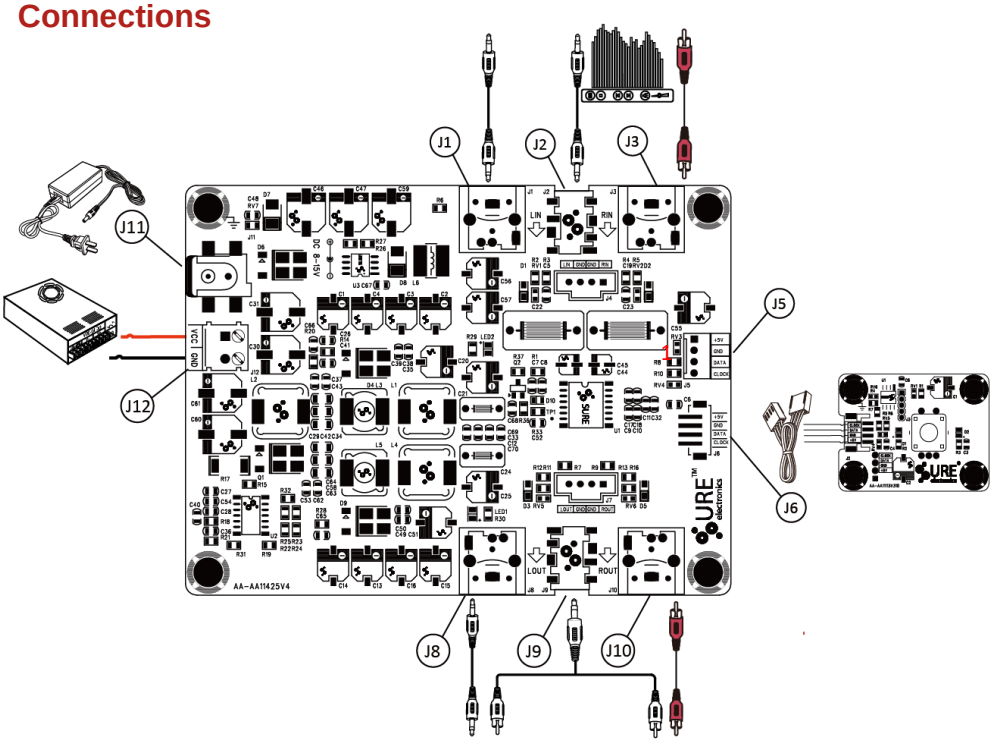
4. All parameters were tested with Rohde & Schwarz UPV audio analyzer. Linear Power Supply units were used for testing.

5. 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.

Dimension	A (inch/mm)	A1 (inch/mm)	B (inch/mm)	B1 (inch/mm)	D (inch/mm)
Decode Board	2.00/50.80	1.70/43.18	1.50/38.10	1.20/30.48	0.14/3.6
#1	1.10/27.94	-	0.90/22.86	-	-
#2	3.00/76.20	2.70/68.58	2.00/50.80	1.70/43.18	0.14/3.6
#3	3.60/91.44	3.30/83.82	2.70/68.58	2.40/60.96	0.14/3.6
#4	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 inch(mm)
- Tolerance x.xx=±0.02(±0.50)

Connections



Power Supply Connector:
- J11 DC Jack 5.5mm/2.1mm
- J12 Terminal Block RJ128 (optional)

Pin	Function
■	VCC
●	GND

Audio Input Connector:
- J1, J3 RCA Jack
  J1, LIN; J3, RIN
- J2 3.5mm AUX IN Jack

Audio Output Connector:
- J8, J10 RCA Jack
  J8, LOUT; J10, ROUT
- J9 3.5mm Headphone Output Jack

Rotary Encoder Connector
- J6 4Pin cable

Pin	Function
1	+5V
2	GND
3	DATA
4	CLOCK

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Make Your Audio Application Simple!

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