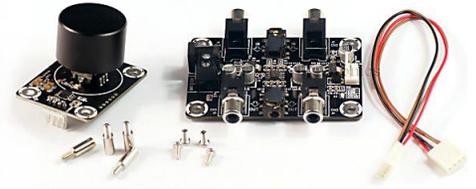


Audio Receiver Series

Digital Stereo Audio Volume Control Board Explorer (AA-AB41116)



Key Features:

- Single-end Audio Signal Output
- LED Status Indicator
- External Power and Signal Output Connector
- Anti-reverse Function
- Several wiring methods
- Excellent heat dissipation
- Size:3"X2"

Electrical Specifications

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

Parameter	Conditions	Min.	Typ.	Max.	Units
Power Supply	-	-	12	-	VDC
Number of Channels	-	-	2	-	-
Operating Voltage	-	8	12	15	A
Operating Current	VCC = 12V, Vi = 0V, LED Indicator of Volume Button is ON	-	9	-	mA
Load Impedance	1kHz	-	50	-	kOhm

Audio Performance

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

Parameter	Conditions	Min.	Typ.	Max.	Units
Volume Attenuation Range	-	-69	-	0	dB
Attenuation step	-	-	1	-	dB/step
Maximum Output Voltage	Vcc=12V, 1000Hz, Att=0dB, Rload=50Kohm, THD+N<1%	-	1.3	-	Vrms
SNR	Vin=1Vrms, Att=0dB, A-weighted	-	107	-	dB
THD	1000Hz, Att=0dB, A-weighted, Rload=50Kohm, Vout=200mV	-	0.02	-	%
Output Noise Voltage	Vin=GND, Mute=OFF, Volume Att=0dB, A-weighted	-	4	-	uV
Crosstalk Separation	Vin=2.5Vrms, 1000Hz, Volume Att=0dB	-	-90	-	dB
Mute	Vin=2.5Vrms, 1000Hz, Volume Att=0dB, A-weighted	-	-62	-	dB
Frequency Response	Vin=1Vrms, Volume Att=0dB (± 0.1dB)	20	-	20k	Hz

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.

Model Selection Guide

Model Number	Control Range	Accuracy	Output Noise Voltage	THD+N	SNR	PCB Size of Volume Control Board*4
AA-AA11117	-89dB - -1dB	1dB/step	3µV	0.005%	114dB	1.10" x 0.90" #1
AA-AB41134	-83dB - 0dB	1dB/step	9.6µV	0.028%	93.2dB	3.00" x 2.00" #2
AA-AB41116	-69dB - 0dB	1dB/step	4µV	0.02%	107dB	3.00" x 2.00"
AA-AB41147	-107.5dB - 10dB ⁻¹	1dB/step	15.89µV	0.0327%	92.2dB	3.60" x 2.70" #3
AA-AB41148	-95.5dB to 10dB ⁻²	1.5dB/step ⁻³	8.8µV	0.0006%	108dB	4.80" x 3.60" #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@surrelectronics.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@surrelectronics.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@surrelectronics.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.

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)

Ready for:



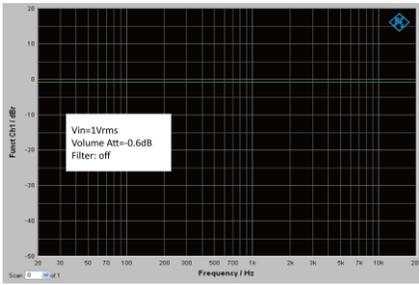
Contact info

- Email: info@surrelectronics.com

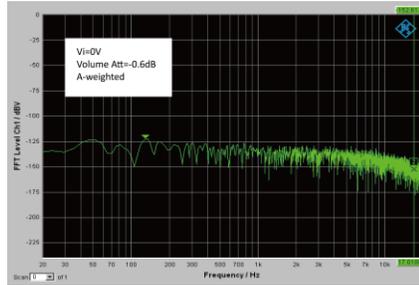


Typical Performance Graphs

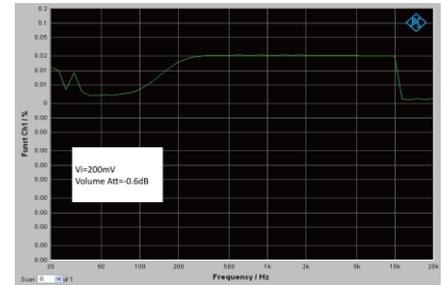
Frequency Response



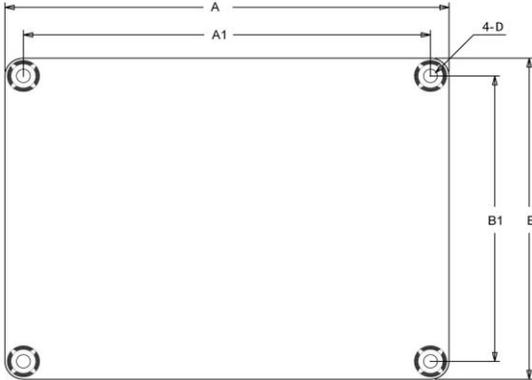
Noise Floor



THD + N

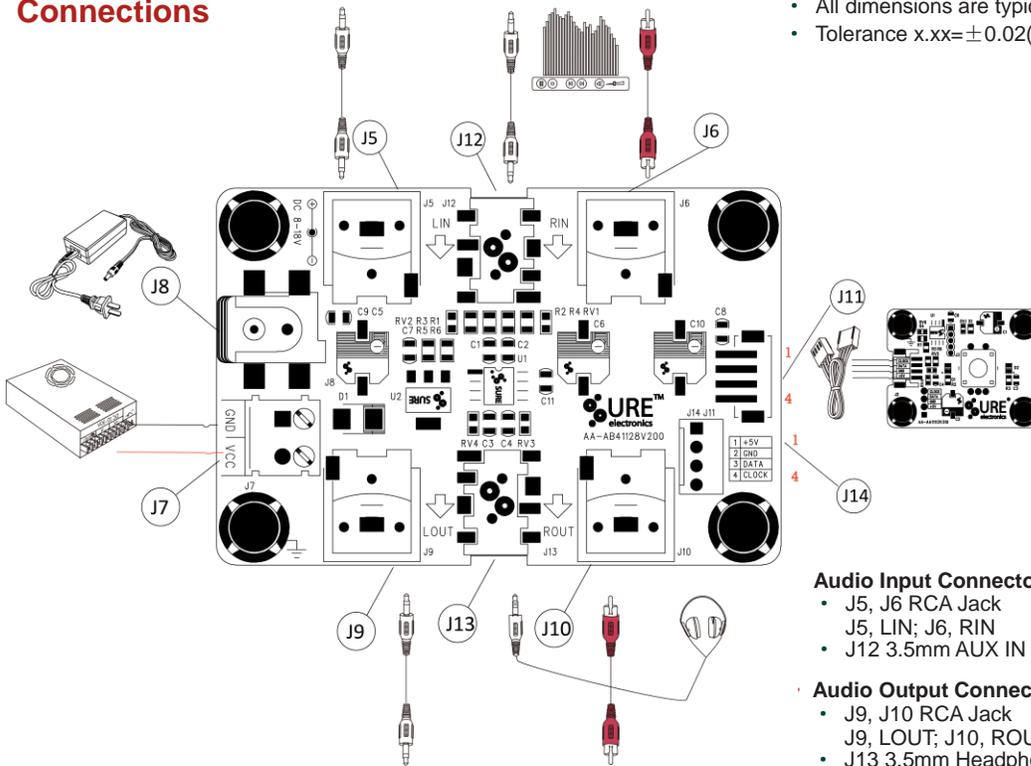


Mechanical Dimensions



Dimension	A (inch/mm)	A1 (inch/mm)	B (inch/mm)	B1 (inch/mm)	D (inch/mm)
Decode Board	2/50.8	1.6/40.64	1.5/38.1	1.1/27.94	0.14/3.6
#1	1.1/27.9	-	0.9/22.9	-	-
#2	3.0/76.2	2.7/68.6	2.0/50.8	1.7/43.2	0.14/3.6
#3	3.6/100.3	3.3/83.8	2.7/68.6	2.4/61.0	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

Connections



Notes:

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

Power Supply Connector:

- J8 DC Jack 5.5mm/2.1mm
- J7 Terminal Block RJ128 (optional)

Pin	Function
■	GND
●	VCC

Audio Input Connector:

- J5, J6 RCA Jack
- J5, LIN; J6, RIN
- J12 3.5mm AUX IN Jack

Audio Output Connector:

- J9, J10 RCA Jack
- J9, LOUT; J10, ROUT
- J13 3.5mm Headphone Output Jack

Rotary Encoder Connector

- J11 4Pin cable

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