

Bluetooth Receiver Board (BRB) Series

Bluetooth Audio Receiver Board V4.0 – BRB2 (AA-AB41132)



Key Features:

- Wide Frequency Range
- Single-end Audio Signal Output
- LED Status Indicator
- External Power and Signal Output Connector
- Anti-reverse Function
- Audio output distortion degree of 0.5% or less
- Size: 3.00 x 2.00 inches PCB Size

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.

Ready for:



Contact info

• Email:
info@sure-electronics.com



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	-	8	12	14	VDC
Maximum Current	-	-	0.5	-	A
BT Wireless Range	Class 2	-	-	10	m
Operating Temperature	-	-	20	50	°C
Storage Temperature	-	-20	20	105	°C
Idle Power	@12V,no signal	-	0.25	-	W

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
THD	Vout=650mVrms, f=1kHz	-	0.03	-	%
Output Noise Level	Vsupply=12V ,input=GND	-	-80	-	dBa
VOM	THD=1%	-	1.5	-	Vrms
Dynamic Range	-	-	80	-	dBa
IMD+Noise	f1=60Hz, f2=7kHz Vout=1.0Vrms	-	0.09	-	%
Bandwidth	±0.5dB	20	-	20k	Hz

Model Selection Guide——Bluetooth Audio Receiver Board Series*

Part Number P/N	Model	Output				APT-X	PIN Code Customizable	Dimension
		RCA Analog	3.5mm Analog	I2S	S/PDIF			
AA-AB41151	BRB1	•	•	-	-	-	-	3.0"X2.0"#1
AA-AB41132	BRB2	•	•	-	-	-	-	3.0"X2.0"
AA-AB41136	BRB3	•	•	-	-	•	-	3.0"X2.0"
AA-AB41155	BRB4	•	•	-	-	•	-	3.6"X2.7"#2
AA-AB41156	BRB5	•	•	•	•	•	•	4.8"X3.6"#3
AA-AB41157	BRB6	•	•	-	-	•	-	3.6"X2.7"

Notes: • means this function is available. - means this function is not available.

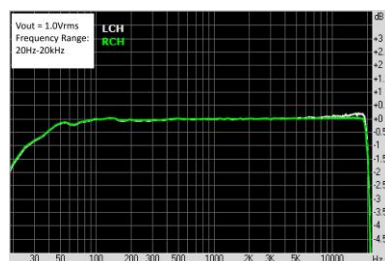
Sure Electronics provide the following customized services:

*Bluetooth Paring Name. This is applicable to all models.

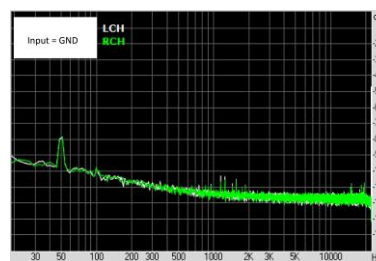
•PIN Code. This only apply to BRB5. (Please send e-mails to store@sure-electronics.com for confirmation before purchasing.)
•Boot Music. This only applies to BRB1.

Typical Performance Graphs

Frequency Response



Noise Floor

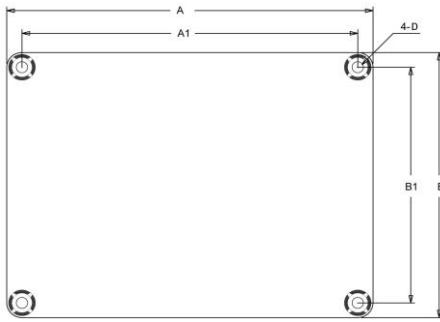


IMD+N



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)

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	3.60/91.4	3.30/83.8	2.70/68.6	2.40/61.0	0.14/3.6
#3	4.80/121.9	4.40/111.8	3.60/91.4	3.20/81.3	0.15/3.8

Notes:

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

Connections

Power Supply Connector:

- J13 DC Jack 5.5mm/2.5mm
- J1 Terminal Block RJ128 (optional)

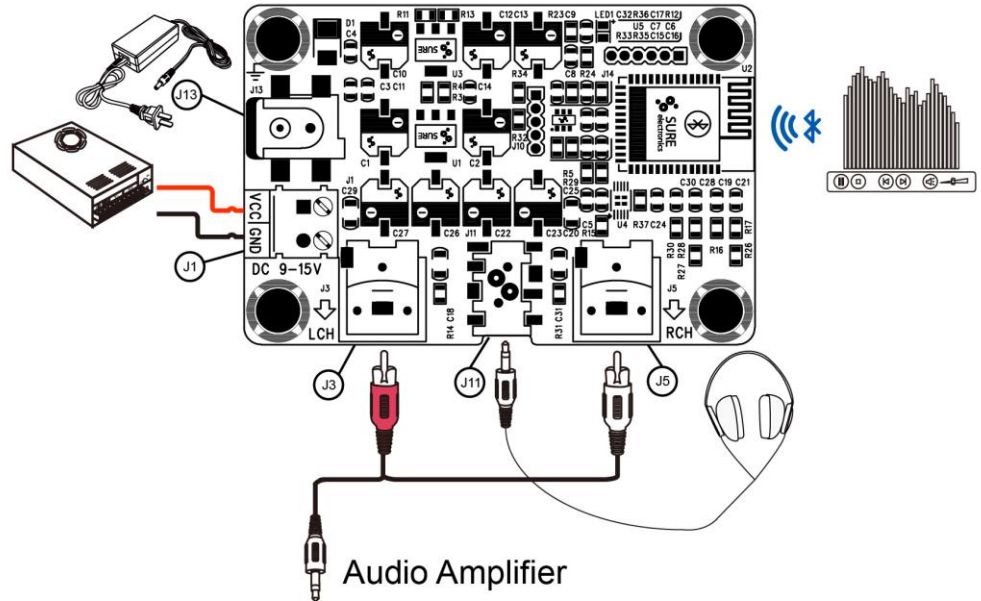
Inner ⊕ — Outer ⊖

Audio Source Input Connector:

- Bluetooth V4.0

Audio Amplifier Output Connector:

- J11 3.5mm Headphone Output Jack
- J3, RCA Jack for LCH
- J5, RCA Jack for RCH



Audio Amplifier

Customized Service

1) Bluetooth Pairing Name

Customers could pay US\$0.99 EA and send the pairing name by e-mail to store@surrelectronics.com for confirmation. All models could be pre-programmed for Bluetooth Pairing Name. Customers could also rename the Bluetooth with following two methods.(Please kindly be noticed the following two methods do not apply to BRB1 and BRB2.)

2) PIN Code

Customer could pay US\$0.99 EA and send the PIN code by e-mail to store@surrelectronics.com for confirmation before purchasing. Customized PIN code only applies to BRB5.

3) Antenna

The standard antenna is I-PEX. If you want to customize the length of antenna, please send e-mails to store@surrelectronics.com for confirmation. In addition, the socket could be customized but please kindly be noticed that MOQ would be required.

Method 1

- Choosing a PIC KIT 3 for Bluetooth pairing name programming.
- Installing the software (for more detailed information, please refer to PIC KIT 3 user manual.
- Connecting the Bluetooth receiver board
 - Plug in the USB/ power cable
 - Attach the communication cable(s) between programmer and Bluetooth receiver board if using RJ11 plug or connect directly to a 6-pin inline header.
- Settings
 - Under Device Family -> Midrange -> Standard.
 - From Device drop down select "PICF16F690" .
 - From Tools drop down select "Check Communication"
 - Uncheck the "Hex only" under Program Memory.
 - Under EEPROM Data.
 - Enable the Byte ASCII.
 - Change the first data to 00 on "00" line.
 - Bluetooth pairing name: "08" and "10" lines
 - PIN Code: "18" and "20" lines

Translate your pairing name and PIN code into ASCII, for example, "87 79 78 68 79 77" refer to "WONDOM" .

Method 2

- Choosing a USB to Serial adapter for Bluetooth pairing name programming.
- Connecting the Bluetooth receiver board
 - Plug in the USB/ power cable
 - Attach the communication cable(s) between programmer and Bluetooth receiver board if using RJ11 plug or connect directly to a 6-pin inline header.
- Settings
 - Double click "Hyper terminal" application and create a new connection, for ex. "BT_COM" .
 - Open device manager and check for a new assigned COM port.
 - From Connect using drop down select the new assigned COM port.
 - From Bits per second drop down select 115200.
 - Under File -> Properties -> Setting -> ASCII Setup
 - Enable "Echo typed character locally" . Click "OK" to finish the setting.
 - Enter "BPN: xxxxx" to program your unique pairing name.

➔ See more details in [Bluetooth Audio Receiver Board Brochure.pdf](#)