

Bluetooth Receiver Board (BRB) Series

Bluetooth Audio Receiver Board V4.0 with Control Panel - BRB6P (AA-AB41158)



Key Features:

- CSR8645 Chipset
- Bluetooth V4.0+A2DP
- 3.5mm AUX IN & Line Output
- Power Supply:
- Supporting 12V-24V Power Adapter
- Supporting 3S 18650 Battery Board
- Closable Backlight Behind Buttons
- External Bluetooth Antenna Included (I-PEX Micro RF Coax Connector)
- Bluetooth Pairing Name Customizable
- Button for Bluetooth Pairing Cancel

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	24	VDC
Distortion	Vo=700mVrms, f=1kHz	-	0.12	-	%
Quiescent Current	Vin=12V	-	20	30	mA
Maximum Current	-	-	35	40	mA
BT Wireless Range(with BT Antenna)	-	10	-	-	m
Operating Temperature	-	0	20	55	°C
Storage Temperature	-	-40	20	105	°C

Audio Performance

Specifications typical @ +25°C, Powered by 12V DC, unless otherwise noted. Specifications subject to change

Parameter	Conditions	Min.	Typ.	Max.	Units
THD	Vo=700mVrms, f=1kHz	-	0.12	-	%
Output Noise Level	Vin=12V	-	9	-	µV
SNR	Vo=700mVrms, f=1kHz	-	90	-	dB
VOM	THD=1%	-	-	1	Vrms

Model Selection Guide—Bluetooth Audio Receiver Board Series*

SKU	Model	Bluetooth version	Power Supply Range	Bluetooth Name Customization	APT-X	Bluetooth Antenna	PCB Size
AA-AB41132	BRB2	V4.0	DC 8-14V	•	-	-	3" x 2" #1
AA-AB41136	BRB3	V4.0	DC 8-14V	•	•	-	3" x 2"
AA-AB41155	BRB4	V4.0	DC 9-24V	•	•	•	3.6" x 2.7" #2
AA-AB41157	BRB6	V4.0	DC 9-24V	•	•	•	3.6" x 2.7"
AA-AB41158	BRB6P	V4.0	DC 12-24V	•	•	•	5" x 2.3" #3

Notes: • means this function is available. - means this function is not available.
The size of AA-AB41158 in this sheet refers to the size of control panel. The PCB size is 4.6" x 1.6".



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:



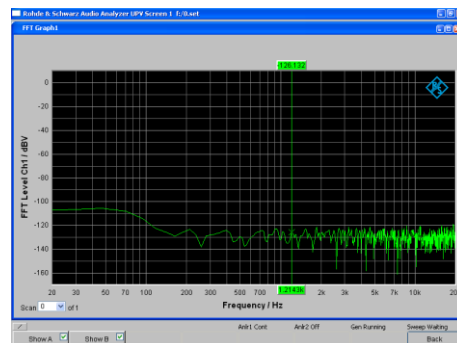
Contact info

• Email:
info@sure-electronics.com

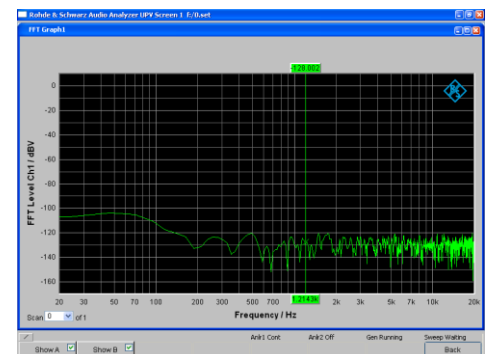


Typical Performance Graphs

Frequency Response

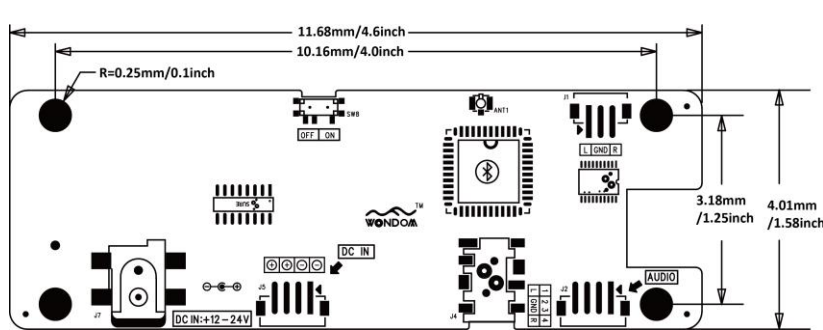
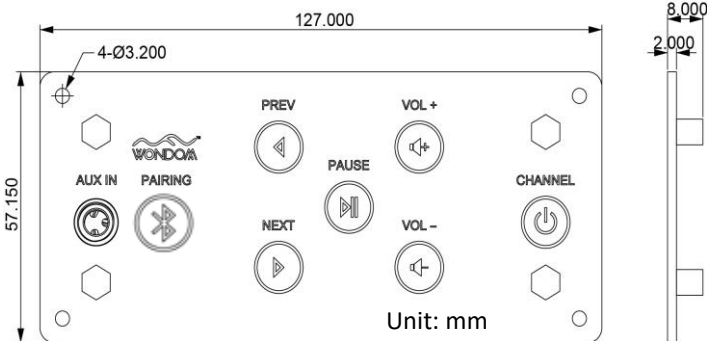


Noise Floor



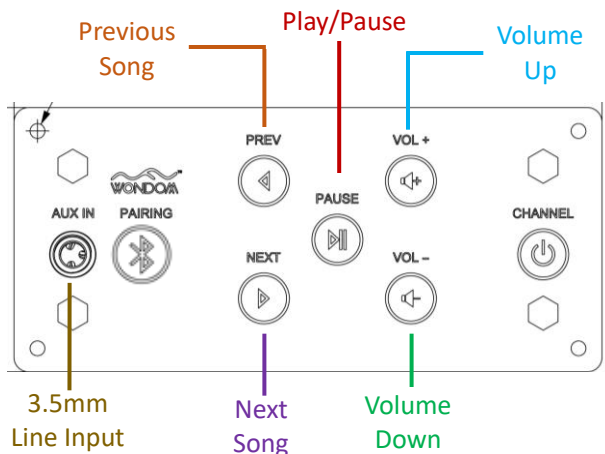
All parameters were tested with Rohde & Schwarz UPV audio analyzer (AES17 filter enabled) and Audio Precision AUX0025 filter. For authorized distributors and OEM customers who need more detailed performance graphs and parameter settings, please send an inquiry e-mail to us. (Not available for retail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

Mechanical Dimensions



Notes: Tolerance x.xx = ±0.02 (±0.50)

Connections



Bluetooth Paring Cancel Button & LED Indicator for Bluetooth

- When Bluetooth is paired, short press this button to cancel Bluetooth paring; Long press this button to turn on/off Bluetooth.
- LED STATUS:

Bluetooth	LED
Connected	ON
Not Connected	Blinking



Channel Switch between Bluetooth Input and 3.5mm Line Input

- Press 'CHANNEL' button for channel switch between Bluetooth and line input.
- When customers use different device for Bluetooth input and 3.5mm line input, press the 'CHANNEL' button for channel switch.
- When customers use one device for Bluetooth input and 3.5mm input, press "CHANNEL" button for switch. Since the default input channel is Bluetooth, **if Bluetooth is connected, the audio source is still Bluetooth input.**

AUX IN

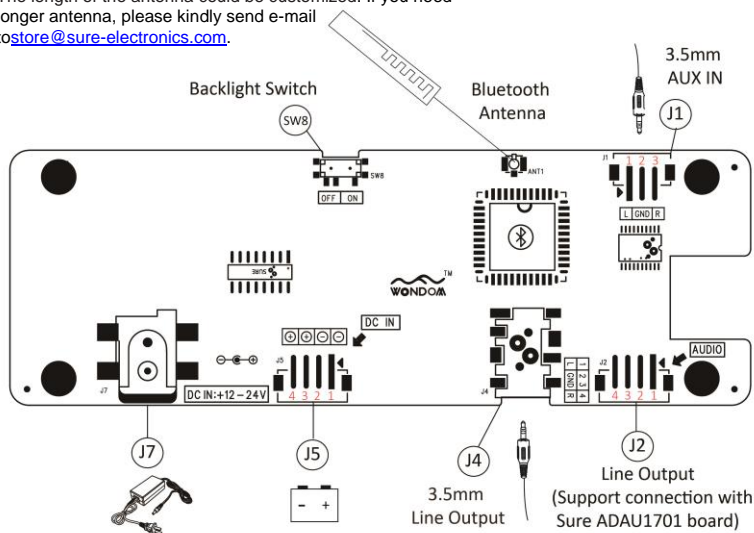


3.5mm AUX IN

1pc 3.5mm AUX IN cable is sent with AA-AB41158 and customers can install it if you want to use line input. Take off the screw, put the 3.5mm connector into the mounting hole, then tighten the screw to fix it.

Note: The control buttons (Pre Song/Next Song/Play/Pause/Volume Up/Volume Down) malfunction under using 3.5mm input condition.

The length of the antenna could be customized. If you need longer antenna, please kindly send e-mail to store@sure-electronics.com.



Power Adapter Connector:

- J7 DC Jack ID 2.1mm x OD 5.5mm



Connector for Battery Board:

- J5 PH-4POS-2mm

Pin	Definition
1	-
2	-
3	+
4	+

Audio Input Connector:

- J1 PH-3POS-2mm

Pin	Definition
1	L
2	GND
3	R

Audio Output Connector:

- J4 3.5mm Line Output
- J2 Line Output, supporting connection with Sure ADAU1701 board

Pin	Definition
1	L
2	GND
3	GND
4	R

Switch for Backlight:

- SW8

Customized Services

1) Antenna

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

2) Bluetooth Paring Name

Customers could pay US\$0.99 EA and send the paring name by e-mail to store@sure-electronics.com for confirmation. All models could be pre-programmed for Bluetooth Paring Name.



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