



Specification and operating instuction

The form number: QR-RD-161-A1 (20180622)

(including product technical specifications and operation instructions)

product type	<input checked="" type="checkbox"/> headset <input type="checkbox"/> speakers <input type="checkbox"/> other		
project name	Wireless noise cancelling headset-B057-C-001	filling date	2021/01/30
Image	B057	BOM bare code	

Product Specifications (measured and filled by electroacoustic and electronic engineers)

1、Brief description of the scheme:

Bluetooth solution	BES2300Y
Bluetooth Standard:	BT5.0
Profile	A2DP v1.3 AVRCP v1.5 HFP v1.6
Audio transmission format	SBC AAC
RF launch	8dB
Transmission Range (Hz)	2402-2480mHz
Receive Sensitivity:	$\leq -85\text{dBm}$
Direct distance	outdoor ≥ 15 米 indoor ≥ 20 米
Pairing name	SOUNDPEATS A6

2、Micro head parameters:

Microphone Unit:	4015
Directivity:	Omnidirectional /Omni-Directional
S.P.L:	-42dB
Impedance:	0.96K Ω
Frequency Response:	20Hz-20KHz
Operating voltage:	2V

3、The horn parameters

Speaker diameter:	$40 \pm 0.3\text{mm}$
Impedance:	$32 \Omega \pm 15\%$
S.P.L:	$117\text{dB} \pm 3\text{dB}$ (1K, 1mW IEC318)
Rated power:	10mW
Frequency Response:	20Hz-20KHz

4、Parameters of noise reduction part:

Microphone Unit:	6022
Directivity:	Omnidirectional /Omni-Directional
Impedance:	2.2K Ω
S.P.L:	$-34 \pm 1\text{dB}$
Noise amplitude:	$30 \pm 2\text{dB}$

5、The battery

Working mode	
Li-battery Capability	500mAH
Talking time	20 hours BT
Playing time	15hours BT+ANC
Charging time	0.8--1 hours
Charging Mode	Type-C/5V
Charger Current	1.5A the output current of the power adapter need to be $\geq 1.5\text{A}$ to ensure the charging time)



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Bluetooth headset instructions			
Function	Key operation	Function description on detail	LED status
Power on	Press and hold the power button for 3 seconds	When off, press and hold the power button for 3 seconds and the headphones will turn on, with the audio prompt "Power on". If there is a pairing record, enter the connection status to connect the last connected device. If unsuccessful, it will automatically enter the pairing state after 7 seconds.	The blue LED lights for 2 seconds then flashes once every 3 seconds



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		After 10 minutes of standby, it will automatically shut down if there is no connection. when no pairing record ,it enters the pairing state ; After 10 minutes of standby, it will automatically shut down if there is no connection.	
Power off	Press and hold the power button for 4 seconds	When on, Press and hold the power button for 4 seconds, and the headphones will turn off with the audio prompt “power off”, the red LED lights for 2 seconds then shut off.	The red LED lights for 2 seconds then shut off.
/Pairing mode	Press and hold the power button for 5 seconds	1. With power-off, press and hold the power button for 5 seconds and the headphone will enter pairing mode. The LED will alternately flash Red and Blue.	The LED with alternately flash red and blue.
Connectio n state	N/A	When pairing successful ,the headphones will audio prompt “Connected”, and the blue LED will flashes once every 5 seconds	The blue LED flashes once every 5 seconds
Connect back	Short press the power button	When on without connection or in pairing status, short press the power button, will connect back to the last connected device	The blue LED flashes once every 5 seconds
Connect back when exceed the distance	N/A	When connected status, the distance exceeded, it will enter the standby status, the blue LED flashes once every 3 seconds for 10 mintues; after 10 minutes if no connected, it will automatically shut down. In this state, it will active connect back to the last connected device.	The blue LED flashes once every 3 seconds
Disconnec ted state	N/A	When disconnected the bluetooth manually, the headphones will audio prompt “Connected”, the LED will altermately flash red and blue to enter the pairing state	The LED will alternately flash Red and blue.
Playing	Short press the power button	Short press the power button can replay the media while the headphone is in pause status	The blue LED flashes once every 5 seconds
/Pause playing	Short press the power button	Short press the power button can pause the media while the headphone is in playing media status	The blue LED flashes once every 5 seconds
/Volume up	Short press the “+”	Short press + button can increase the volume level while on music palying mode or talk mode, there will hear “beep” while the volume is to Max, the Volume memory is saved as a final adjustment.	The blue LED flashes once every 5 seconds
/Volume down	Short press the “-”	Short press - button can decrease the volume level while on music playing mode or talk mode, , there will hear “beep” while the volume is to Min, the Volume memory is saved as a final adjustment.	The blue LED flashes once every 5 seconds
/Next song	Press and hold the Volume+	Press and hold the Volume+ for approximately 1 second to go to next song	The blue LED flashes once every 5 seconds
/Last	Press and hold the		The blue LED



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song	Volume-	Press and hold the Volume- for approximately 1 second to go to last song	flashes once every 5 seconds
/Answer the call	Short press the power button	Short press the power button can answer a call while there is a call incoming; There will have voice prompt“du”	Red light flash interval 200mS
/Calling	N/A	It can't turn it off when talking	The blue LED flashes once every 5 seconds
/Three-way call	/no function	When calling, another call comes in, short press the Power“button, you can hang up the current call and answer another call	Red light flash interval 200mS
Reject the call	Press and hold the power button for 2 seconds	Press and hold the power button for 2 seconds can reject a call while there is a call incoming	The blue LED flashes once every 5 seconds
End the call	Short press the power button	Short Press the power button can end a call while the call in progress	The blue LED flashes once every 5 seconds after ending the call
Redial last number	Double click the power button	Double click power button can do redial last number w	Red light flash interval 200mS
Voice assistant	Long press Power button for 2s then release	When the headset is in connected , press and hold the Power button for 2s and then release ,audio prompt“du” to turn on the voice assistant (Siri)	The blue LED flashes once every 5 seconds
Voice transfer	Long press Power button for 2s	Long press Power button for 2s audio prompt“du” to switch the sound between headphone and mobile phone when receiving a call	The blue LED flashes once every 5 seconds
AUX input	N/A	1. When the Bluetooth is turned on and not connected, when the AUX signal is inserted, the AUX signal is played, and the noise reduction key can be pressed to switch the noise reduction. When ANC is ON, there is noise reduction effect, and when ANC is OFF, there is no noise reduction effect; 2. When the Bluetooth is turned on and connected, when the AUX signal is inserted, the Bluetooth is automatically disconnected and the AUX signal is played; press the noise reduction button to switch noise reduction, ANC ON has noise reduction effect, and ANC OFF has no noise reduction effect ; 3、 When the AUX is unplugged, when the headset has a pairing record, it will enter the back-connecting stateTimeout of 7 seconds will enter the pairing state; when there is no pairing record, it will directly enter the pairing state. 4、 AUX is not available while the headset is charging	The red LED be on for 2 seconds then be off
ANC on/off	Short press the ANC button	1、 When on ,short press the ANC button ,Noise reduction is on,audio prompt“ANC ON”, and the blue LED be on;then short press the button ,the Noise reduction is off,audio prompt	



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		<p>“ANC OFF” ,the blue LED be off</p> <p>3. When ANC OFF, When the unconnected state reaches 10 minutes, the headset will automatically shut down;when ANC ON,When the unconnected state reaches 10 minutes, the headset enters a special state(The bluetooth light is off, and the bluetooth cannot be searched).In this state, the headset will never turn off.When the button turns off noise reduction and keeps it for 2 minutes, the headset will automatically turn off and turn on noise reduction again, returning to the state that noise reduction has been on.</p>	
Charging	Charging	<p>1、 The red LED is always on when charging ;when finished charging ,the red LED will be off.</p> <p>2、 When USB is plugged in for charging, it will power down and hardware reset ;</p> <p>3. press the power button can' t power on</p>	<p>When charging:the red LED is always on;</p> <p>Finished charging:the blue LED is always on</p>
DUT mode		<p>In the unconnected state and in the search match state, long press the power button and v- for 5s at once to enter the DUT mode</p>	<p>Purple LED be on for 1s and be off for 1s</p>
Clear up the phone pairin	<p>Press and hold the power button and V+ for 5 seconds at once</p>	<p>In the Off -call state ,Press and hold the power button and V+ for 5 seconds at once , till the purple LED be on for 2 seconds then off ,audio prompt“du du”,it automatically enters the pairing state.</p>	<p>The purple LED be on ,to enter the pairing state,alternately flash red and blue LED</p>
Low battery	<p>1、 Low battery reminder: Low-voltage alarm Bluetooth headset emits “Battery Low” prompt sound, red light flashes slowly, flashing once every 3 seconds</p> <p>2、 From low power to shutdown for about 10 minutes and alarm 3~5 times, once every 3 minutes, test conditions: turn on noise reduction, play ferry music, headset maximum volume, mobile phone 70% volume (That's 11 bars volume on the iPhone)</p>		

FCC STATEMENT :

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful



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interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

RF warning statement:

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

Preparation (Engineer) :

Approval (Project Manager) :