



RF EXPOSURE REPORT

For

Quanzhou KST Electronics Co., Limited

No.69, Guangfu Industry Park, Xiamei, Nan'an, Quanzhou, Fujian, China

FCC ID: 2AL6T-WM500

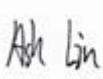
Report Type:	Product Name:
Original Report	Wireless Speaker Microphone
Report Number:	2507R19540E-RF-03
Report Date:	2025-05-20
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TABLE OF CONTENTS

REPORT REVISION HISTORY.....3

GENERAL INFORMATION.....4

 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)4

RF EXPOSURE EVALUATION5

EUT PHOTOGRAPHS6

REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	2507R19540E-RF-03	R1V1	2025-05-20	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product Name:	Wireless Speaker Microphone
Tested Model:	WM500
Series Models:	ABBREE AR-890, BAOFENG BF-890, Arridioter AD-890
Power Supply:	DC 3.7V from battery or DC 5V
Maximum Output Power:	BT: 5.22dBm BLE:-1.72dBm
Operating Band/Frequency:	2402-2480 MHz
Modulation Type:	BT: GFSK, $\pi/4$ -DQPSK BLE:GFSK
Antenna Type:	PCB Antenna
★Maximum Antenna Gain:	0 dBi
EUT Received Status:	Good
<i>Note:</i> 1. The Maximum Antenna Gain was declared by manufacturer. 2. The series model is identify with the tested model except for the model name, please refer to declaration letter for more detail. 3. The EUT supplied by the applicant was received on 2025-03-06)	

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Xiamen) to collect test data is located on the Unit 102, No. 902 Meifeng South Road, Binhai West Avenue, Science and Technology Innovation Park, Torch High tech Zone XiaMen.

Bay Area Compliance Laboratories Corp. (Xiamen) Lab is accredited to ISO/IEC 17025 by A2LA (Certificate Number: 7134.01) and the lab has been recognized as the FCC accredited lab under the KDB 974614 D01, the FCC Designation No. : CN1384.

RF EXPOSURE EVALUATION

Applicable Standard

According to §2.1093, systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline

According to KDB447498 D01 General RF Exposure Guidance v06

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances < 50 mm are determined by:

$$\left[\frac{\text{(max. power of channel, mW)}}{\text{(min. test separation distance, mm)}} \right] - [\sqrt{f(\text{GHz})}] < 3.0 \text{ for 1-g SAR and } < 7.5 \text{ for 10-g extremity SAR, where}$$

$f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation

The result is rounded to one decimal place for comparison

3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

Measurement Result

For BT:

The max conducted power including tune-up tolerance is 5.5 dBm (3.5 mW).

$$\left[\frac{\text{(max. power of channel, mW)}}{\text{(min. test separation distance, mm)}} \right] [\sqrt{f(\text{GHz})}]$$
$$= 3.5/5 * (\sqrt{2.480}) = 1.1 < 3.0$$

For BLE:

The max conducted power including tune-up tolerance is -1.5 dBm (0.7 mW).

$$\left[\frac{\text{(max. power of channel, mW)}}{\text{(min. test separation distance, mm)}} \right] [\sqrt{f(\text{GHz})}]$$
$$= 0.7/5 * (\sqrt{2.480}) = 0.2 < 3.0$$

Result: Compliant. The stand-alone SAR evaluation is not necessary

EUT PHOTOGRAPHS

Please refer to the attachment 2507R19540E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and 2507R19540E-RF-INP EUT INTERNAL PHOTOGRAPHS.

Declarations

1. Bay Area Compliance Laboratories Corp. (Xiamen) is not responsible for authenticity of any information provided by the applicant. Information from the applicant that may affect test results are marked with an asterisk “★”.
2. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested.
3. Unless required by the rule provided by the applicant or product regulations, then decision rule in this report did not consider the uncertainty.
4. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor $k=2$ with the 95.45% confidence interval.
5. This report cannot be reproduced except in full, without prior written approval of Bay Area Compliance Laboratories Corp. (Xiamen).
6. This report is valid only with a valid digital signature. The digital signature may be available only under the adobe software above version 7.0.

******* END OF REPORT *******