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Report Template Version: V05
Report Template Revision Date: 2021-11-03

RF Exposure Evaluation Report

Report No.:	CQASZ20211202183E-02
Applicant:	HONGKONG VIMAI TECHNOLOGY CO., LIMITED
Address of Applicant:	FLAT/RM H29, 1/F PHASE 2 KWAI SHING IND BLDG NO.42-46, TAI LIN PAI ROAD KWAI CHUNG, HONG KONG
Equipment Under Test (EUT):	
EUT Name:	Wireless microphone
Test Model No.:	AP021C
Model No.:	AP021C
Brand Name:	N/A
FCC ID:	2AVLI-AP021C
Standards:	47 CFR Part 1.1307 47 CFR Part 2.1093 KDB447498D01 General RF Exposure Guidance v06
Date of Receipt:	2021-12-16
Date of Test:	2021-12-16 to 2022-01-06
Date of Issue:	2022-01-12
Test Result:	**PASS***

***In the configuration tested, the EUT complied with the standards specified above**

Tested By: lewis zhou

(Lewis Zhou)

Reviewed By: Rock Huang

(Rock Huang)

Approved By:

(Jack ai)

1 Version

Revision History Of Report

Report No.	Version	Description	Issue Date
CQASZ20211202183E-02	Rev.01	Initial report	2022-01-12

2 Contents

3 General Information

3.1 Client Information

Applicant:	HONGKONG VIMAI TECHNOLOGY CO., LIMITED
Address of Applicant:	FLAT/RM H29, 1/F PHASE 2 KWAI SHING IND BLDG NO.42-46, TAI LIN PAI ROAD KWAI CHUNG, HONG KONG
Manufacturer:	SHEN ZHEN VIMAI TECHNOLOGY CO., LTD
Address of Manufacturer:	Floor 3, building B, no. 5 huating road, tongsheng community, dalang street, longhua district, shenzhen
Factory:	SHEN ZHEN VIMAI TECHNOLOGY CO., LTD
Address of Factory:	Floor 3, building B, no. 5 huating road, tongsheng community, dalang street, longhua district, shenzhen

3.2 General Description of EUT

Product Name:	Wireless microphone
Model No.:	AP021C
Test Model No	AP021C
Trade Mark:	N/A
EUT Supports Radios application:	Bluetooth mode 2402-2480MHz
Software Version:	AP021C_mic_1.prd
Hardware Version:	EP033TZ-LX-MIC-V1.2
Sample Type:	☐ Mobile ☒ Portable ☐ Fix Location
EUT Power Supply:	Charging box: Li-ion battery: DC 3.7V 1000mAh, Charge by DC 5V for adapter
	Transmitter: Li-ion battery: DC 3.7V 230mAh, Charge by DC 3.7V for Charging box
	Receiver: Li-ion battery: DC 3.7V 230mAh, Charge by DC 3.7V for Charging box

3.3 General Description of BT

Operation Frequency:	2402MHz~2480MHz
Bluetooth Version:	V5.0
Modulation Technique:	Frequency Hopping Spread Spectrum(FHSS)
Modulation Type:	GFSK, π/4DQPSK, 8DPSK
Number of Channel:	79
Transfer Rate:	1Mbps/2Mbps/3Mbps
Test Software of EUT:	BT_Tool V1.1.0
Antenna Type:	Chip antenna
Antenna Gain:	1.8 dBi

4 SAR Evaluation

4.1 RF Exposure Compliance Requirement

4.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

4.3.1. Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

4.1.2 Limits

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:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

f(GHz) is the RF channel transmit frequency in GHz
Power and distance are rounded to the nearest mW and mm before calculation[17]
The result is rounded to one decimal place for comparison

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 is applied to determine SAR test exclusion

4.1.3 EUT RF Exposure

Measurement Data

Maximum power mode: π/4DQPSK mode

Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	-2.77	-2±1	-1	0.7943	0.246	3.0
Middle (2440MHz)	-0.7	0±1	1	1.2589	0.393	
Highest (2480MHz)	0.95	1.0±1	2.0	1.585	0.499	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

Remark: The Max Conducted Peak Output Power data refer to report Report No.: CQASZ20211202183E-01.

*** END OF REPORT ***