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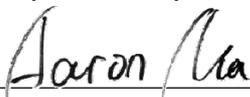
RF Exposure Evaluation Report

Report No. : CQASZ20200100012E-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: True wireless Earbuds
Model No.: EP024
Brand Name: N/A
FCC ID: 2AVLI-EP024
Standards: 47 CFR Part 1.1307
47 CFR Part 1.1310
KDB447498D01 General RF Exposure Guidance v06
Date of Receipt: 2020-01-07
Date of Test: 2020-01-07 to 2020-01-14
Date of Issue: 2020-01-14
Test Result : **PASS***

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

Tested By: 

(Tom Chen)

Reviewed By: 

(Aaron Ma)

Approved By: 

(Jack Ai)



1 Version

Revision History Of Report

Report No.	Version	Description	Issue Date
CQASZ20200100012E-02	Rev.01	Initial report	2020-01-14

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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:	SHENZHEN VIMAI TECHNOLOGY CO.,LIMITED
Address of Manufacturer:	Floor 3, building B, no. 5 huating road, tongsheng community, dalang street, longhua district, shenzhen

3.2 General Description of EUT

Product Name:	True wireless Earbuds
Model No.:	EP024
Trade Mark:	N/A
Hardware Version:	V2_20191213
Software Version:	V2.1_20191217
Operation Frequency:	2402MHz~2480MHz
Bluetooth Version:	V4.2
Modulation Technique:	Frequency Hopping Spread Spectrum(FHSS)
Modulation Type:	GFSK, $\pi/4$ DQPSK, 8DPSK
Transfer Rate:	1Mbps/2Mbps/3Mbps
Number of Channel:	79
Hopping Channel Type:	Adaptive Frequency Hopping systems
Product Type:	<input type="checkbox"/> Mobile <input checked="" type="checkbox"/> Portable <input type="checkbox"/> Fix Location
Test Software of EUT:	LabTest Tool-2.2.4 (manufacturer declare)
Antenna Type:	Ceramic antenna
Antenna Gain:	2.5dBi
Power Supply:	lithium battery:DC3.7V, Charge by DC5.0V

Note:

- Both the left and right ears were tested, find the left ear is the worst case, only the worst case is recorded in the report.
- Only one model number: EP024, but it comes in tow colors (Black, White), only black EUT were tested.

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:

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

f(GHz) is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation¹⁷

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

GFSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	2.670	2.0±1	3.0	1.995
Middle(2441MHz)	2.060	1.5±1	2.5	1.778
Highest(2480MHz)	1.680	1.0±1	2.0	1.585
π/4DQPSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	3.750	3.0±1	4.0	2.512
Middle(2441MHz)	3.070	2.5±1	3.5	2.239
Highest(2480MHz)	2.720	2.0±1	3.0	1.995
8DPSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	3.750	3.0±1	4.0	2.512
Middle(2441MHz)	3.100	2.5±1	3.5	2.239
Highest(2480MHz)	2.710	2.0±1	3.0	1.995

Worst case: 8DPSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	3.750	3.0±1	4.0	2.512	0.779	3.0
Middle (2441MHz)	3.100	2.5±1	3.5	2.239	0.700	
Highest (2480MHz)	2.710	2.0±1	3.0	1.995	0.628	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

Remark: The Max Conducted Peak Output Power data refer to report Report No.: CQASZ20200100012E-01