



Shenzhen Huaxia Testing Technology Co., Ltd

1F., Block A of Tongsheng Technology Building, Huahui Road, Dalang Street, Longhua District, Shenzhen, China

Telephone: +86-755-26648640

Fax: +86-755-26648637

Website: www.cqa-cert.com

Report Template Version: V04

Report Template Revision Date: 2018-07-06

RF Exposure Evaluation Report

Report No. : CQASZ20200400308E-02
Applicant: Shenzhen Mengxiang Technology Co., Ltd
Address of Applicant: 3 Floor, No. 16 Building, Tongfucun Park, Dalang, Longhua District, Shenzhen City, Guangdong Province, Christmas Island
Equipment Under Test (EUT):
EUT Name: Speaker
Model No.: S5AM-6
Brand Name: Decohome
FCC ID: 2AN3IS5AM-6
Standards: 47 CFR Part 1.1307
47 CFR Part 2.1093
KDB447498D01 General RF Exposure Guidance v06
Date of Receipt: 2020-04-27
Date of Test: 2020-04-27 to 2020-05-07
Date of Issue: 2020-05-09
Test Result : PASS*

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

Tested By:

Tom Chen

(Tom Chen)

Reviewed By:

Sheek, Luo

(Sheek Luo)

Approved By:

Jack Ai

(Jack Ai)



1 Version

Revision History Of Report

Report No.	Version	Description	Issue Date
CQASZ20200400308E-02	Rev.01	Initial report	2020-05-09

2 Contents

	Page
1 VERSION.....	2
2 CONTENTS.....	3
3 GENERAL INFORMATION.....	4
3.1 CLIENT INFORMATION.....	4
3.2 GENERAL DESCRIPTION OF EUT.....	4
4 SAR EVALUATION.....	5
4.1 RF EXPOSURE COMPLIANCE REQUIREMENT.....	5
4.1.1 <i>Standard Requirement</i>	5
4.1.2 <i>Limits</i>	5
4.1.3 <i>EUT RF Exposure</i>	6

3 General Information

3.1 Client Information

Applicant:	Shenzhen Mengxiang Technology Co., Ltd
Address of Applicant:	3 Floor, No. 16 Building, Tongfucun Park, Dalang, Longhua District, Shenzhen City, Guangdong Province, Christmas Island
Manufacturer:	Shenzhen Mengxiang Technology Co., Ltd
Address of Manufacturer:	3 Floor, No. 16 Building, Tongfucun Park, Dalang, Longhua District, Shenzhen City, Guangdong Province, Christmas Island

3.2 General Description of EUT

Product Name:	Speaker
Model No.:	S5AM-6
Brand Name:	Decohome
Hardware Version:	V1
Software Version:	V1
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:	☒ Mobile ☐ Portable ☐ Fix Location
Test Software of EUT:	MV Frequency Tool v0.2.5 (manufacturer declare)
Antenna Type:	PCB antenna
Antenna Gain:	2.5dBi
Power Supply:	DC18V by adapter
Adapter 1:	Manufacturer: Cenwell Model: CW1803500 Input: 100~240V 50/60Hz 1.2A Max Output: DC 18V 3.5A 63.0W
Adapter 2:	Manufacturer: Boshenggao Model: BSG-60W1803500 Input: 100~240V 50/60Hz 1.5A Output: DC 18V 3.5A

Note:

1. The test EUT combined with adapter 1 and adapter 2 tested all test items, the test data combined with adapter 1 was found to be the worst, and only the worst case is recorded in the report.

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:

$$\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{[\sqrt{f(\text{GHz})}]^2} \right] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$

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

Power and distance are rounded to the nearest mW and mm before 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)	4.310	4.0±1	5	3.162
Middle(2441MHz)	1.790	1.5±1	2.5	1.778
Highest(2480MHz)	-0.460	-0.5±1	0.5	1.122
π/4DQPSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	4.310	4.0±1	5	3.162
Middle(2441MHz)	1.760	1.5±1	2.5	1.778
Highest(2480MHz)	-0.450	-0.5±1	0.5	1.122
8DPSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	4.310	4.0±1	5	3.162
Middle(2441MHz)	1.750	1.5±1	2.5	1.778
Highest(2480MHz)	-0.470	-0.5±1	0.5	1.122

Worst case: GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune- up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	4.310	4.0±1	5	3.162	0.98	3.0
Middle (2441MHz)	1.790	1.5±1	2.5	1.778	0.56	
Highest (2480MHz)	-0.460	-0.5±1	0.5	1.122	0.35	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

Remark: The Max Conducted Peak Output Power data refer to report Report No.: CQASZ20200400308E-01