



## 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](http://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:         | <input checked="" type="checkbox"/> Mobile <input type="checkbox"/> Portable <input type="checkbox"/> 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<br>Model: CW1803500<br>Input: 100~240V 50/60Hz 1.2A Max<br>Output: DC 18V 3.5A 63.0W         |
| Adapter 2:            | Manufacturer: Boshenggao<br>Model: BSG-60W1803500<br>Input: 100~240V 50/60Hz 1.5A<br>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  $\leq 50$  mm are determined by:

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

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

Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  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<br>(dBm) | Tune up tolerance<br>(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<br>(dBm) | Tune up tolerance<br>(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<br>(dBm) | Tune up tolerance<br>(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<br>Conducted<br>Output Power<br>(dBm) | Tune up<br>tolerance<br>(dBm) | Maximum tune-<br>up Power |       | Calculated<br>value | Exclusion<br>threshold |
|                                                         |                                                    |                               | (dBm)                     | (mW)  |                     |                        |
| Lowest<br>(2402MHz)                                     | 4.310                                              | 4.0±1                         | 5                         | 3.162 | 0.98                | 3.0                    |
| Middle<br>(2441MHz)                                     | 1.790                                              | 1.5±1                         | 2.5                       | 1.778 | 0.56                |                        |
| Highest<br>(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