



# RF TEST REPORT

Product Name: Bluetooth Speaker

Model Name: A53, DB A53, SOAIY M3, A53A, A53B, A53C, A53D

FCC ID: 2BOBD-A53

Issued For : shenzhenshihongyineryuekejiyouxiangongsi  
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Issued By : Shenzhen LGT Test Service Co., Ltd.  
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Date of Issue: Jul. 16, 2025

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## TEST REPORT CERTIFICATION

**Applicant:** shenzhenshihongyineryuekejiyouxiangongsi  
**Address:** No. 208-28, Longhua Jianshe Road, Jinglong Community, Longhua Street, Longhua District, Shenzhen 51800, China  
**Manufacturer:** Dongguan Jin wen hua digital technology Co.,LTD  
**Address:** NO.1 hua Da Road,Long Bei Ling Village,Tangxia Town,Dongguan City,Guangdong,china  
**Product Name:** Bluetooth Speaker  
**Trademark:** dbsono  
**Model Name:** A53  
**Series Model:** DB A53, SOAIY M3, A53A, A53B, A53C, A53D  
**Sample Status:** Normal

| APPLICABLE STANDARDS                                                     |              |
|--------------------------------------------------------------------------|--------------|
| STANDARD                                                                 | TEST RESULTS |
| FCC 47 CFR §2.1093<br>KDB 447498 D01 General RF Exposure<br>Guidance v06 | PASS         |

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### **Revision History**

| Rev. | Issue Date    | Revisions     |
|------|---------------|---------------|
| 00   | Jul. 16, 2025 | Initial Issue |
|      |               |               |



## 1. GENERAL INFORMATION

### 1.1 GENERAL DESCRIPTION OF THE EUT

|                   |                                                                                                                     |                 |
|-------------------|---------------------------------------------------------------------------------------------------------------------|-----------------|
| Product Name:     | Bluetooth Speaker                                                                                                   |                 |
| Trademark:        | dbsono                                                                                                              |                 |
| Model Name:       | A53                                                                                                                 |                 |
| Series Model:     | DB A53, SOAIY M3, A53A, A53B, A53C, A53D                                                                            |                 |
| Model Difference: | All models are identical except the Bluetooth name and model number, therefore the test performed on the model A53. |                 |
| Frequency Bands:  | Bluetooth                                                                                                           | 2402 – 2480 MHz |
| Rating:           | Input: DC 5V 0.6A                                                                                                   |                 |
| Battery:          | Capacity: 700mAh 2.22Wh<br>Rated Voltage: 3.7V                                                                      |                 |
| Hardware Version: | V1.5                                                                                                                |                 |
| Software Version: | 8A83-A69709F7                                                                                                       |                 |

### 1.2 TEST LABORATORY

|                            |                                                                                                                                                          |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Company Name:              | Shenzhen LGT Test Service Co., Ltd.                                                                                                                      |
| Address:                   | Room 205, Building 13, Zone B, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, China |
| Accreditation Certificate: | A2LA Certificate No.: 6727.01                                                                                                                            |
|                            | FCC Registration No.: 746540                                                                                                                             |
|                            | CAB ID: CN0136                                                                                                                                           |



## 2. FCC 47CFR §2.1093 REQUIREMENT

### 2.1 TEST STANDARDS

The limit for Maximum Permissible Exposure (MPE) specified in KDB 447498 D01 General RF Exposure Guidance v06 is followed. The gain of the antennas used in the product is extracted from the Antenna data sheets provided and also the maximum total power input to the antenna is measured. Through the Friis transmission formula and the maximum gain of the antenna, we can calculate the distance, away from the product, where the limit of MPE is reached.

Although the Friis Transmission formula is far field assumption, the calculated result of that is an over-prediction for near field power density. It is taken as worst case to specify the safety range.

### 2.2 LIMIT

Approximate SAR Test Exclusion Power Thresholds at Selected Frequencies and Test Separation Distances are illustrated in the following Table.

| MHz  | 5   | 10  | 15  | 20  | 25  | mm                                      |
|------|-----|-----|-----|-----|-----|-----------------------------------------|
| 150  | 39  | 77  | 116 | 155 | 194 | SAR Test<br>Exclusion<br>Threshold (mW) |
| 300  | 27  | 55  | 82  | 110 | 137 |                                         |
| 450  | 22  | 45  | 67  | 89  | 112 |                                         |
| 835  | 16  | 33  | 49  | 66  | 82  |                                         |
| 900  | 16  | 32  | 47  | 63  | 79  |                                         |
| 1500 | 12  | 24  | 37  | 49  | 61  |                                         |
| 1900 | 11  | 22  | 33  | 44  | 54  |                                         |
| 2450 | 10  | 19  | 29  | 38  | 48  |                                         |
| 3600 | 8   | 16  | 24  | 32  | 40  |                                         |
| 5200 | 7   | 13  | 20  | 26  | 33  |                                         |
| 5400 | 6   | 13  | 19  | 26  | 32  |                                         |
| 5800 | 6   | 12  | 19  | 25  | 31  |                                         |
|      |     |     |     |     |     |                                         |
| MHz  | 30  | 35  | 40  | 45  | 50  | mm                                      |
| 150  | 232 | 271 | 310 | 349 | 387 | SAR Test<br>Exclusion<br>Threshold (mW) |
| 300  | 164 | 192 | 219 | 246 | 274 |                                         |
| 450  | 134 | 157 | 179 | 201 | 224 |                                         |
| 835  | 98  | 115 | 131 | 148 | 164 |                                         |
| 900  | 95  | 111 | 126 | 142 | 158 |                                         |
| 1500 | 73  | 86  | 98  | 110 | 122 |                                         |
| 1900 | 65  | 76  | 87  | 98  | 109 |                                         |
| 2450 | 57  | 67  | 77  | 86  | 96  |                                         |
| 3600 | 47  | 55  | 63  | 71  | 79  |                                         |
| 5200 | 39  | 46  | 53  | 59  | 66  |                                         |
| 5400 | 39  | 45  | 52  | 58  | 65  |                                         |
| 5800 | 37  | 44  | 50  | 56  | 62  |                                         |



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:

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

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

The result is rounded to one decimal place for comparison

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.



## 2.3 TEST RESULT

**The MPE result of worst mode:**

| RF Function | Frequency<br>(MHz) | Max Turn up<br>Power (dBm) | Max Turn up<br>Power (mW) | Estimated<br>SAR | Limit | Ratio | Result |
|-------------|--------------------|----------------------------|---------------------------|------------------|-------|-------|--------|
| BT          | 2441               | 2.00                       | 1.58                      | 0.495            | 3     | 0.165 | Pass   |

**Note:**

1. The Maximum Power Density is less than the limit, complies with the exemption requirements.

\*\*\*\*\*END OF THE REPORT\*\*\*\*\*