

# RF Exposure Evaluation

## FCC ID: 2ANO3-P2

### 1. Client Information

**Applicant** : ShenZhen SHIDU Digital Technolgy Co.,Ltd  
**Address** : F6, Zhaofeng, Hangkong Rd, Bao'an, Shenzhen, China  
**Manufacturer** : ShenZhen SHIDU Digital Technolgy Co.,Ltd  
**Address** : F6, Zhaofeng, Hangkong Rd, Bao'an, Shenzhen, China

### 2. General Description of EUT

|                               |   |                                                                                                                                      |                                                |
|-------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| <b>EUT Name</b>               | : | Bluetooth Speaker                                                                                                                    |                                                |
| <b>Models No.</b>             | : | P2, SD-T1, SD-T3, SD-T4, SD-T6, SD-T7, SD-T8, P3, P5, P6, P7                                                                         |                                                |
| <b>Model Difference</b>       | : | All models are identical in the same PCB layout interior structure and electrical circuits, The only difference is appearance color. |                                                |
| <b>Product Description</b>    | : | Operation Frequency:                                                                                                                 | Bluetooth V4.0+EDR: 2402~2480 MHz              |
|                               |   | RF Output Power:                                                                                                                     | Bluetooth: 6.889dBm(Max)<br>BLE: 3.738dBm(Max) |
|                               |   | Antenna Gain:                                                                                                                        | 1.2dBi PCB Antenna                             |
| <b>Power Supply</b>           | : | DC Voltage supplied by USB cable<br>DC Voltage supplied by Li-ion battery                                                            |                                                |
| <b>Power Rating</b>           | : | DC 5.0V by USB cable<br>DC 3.7V by 1500mAh Li-ion battery                                                                            |                                                |
| <b>Connecting I/O Port(S)</b> | : | Please refer to the User's Manual                                                                                                    |                                                |

**Note:** More test information about the EUT please refer the RF Test Report.

## SAR Test Exclusion Calculations

1. FCC: According to KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies v06.

- (1) Clause 4.3: General SAR test reduction and exclusion guidance

- Sub clause 4.31: Standalone SAR test exclusion considerations

- 1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6GHz at test separation distance  $\leq 5$  mm are determined by:

- [(max. power of channel, including tune-up tolerance, mW)/(min. test separation, mm)] \*  $\sqrt{f_{\text{GHz}}}$  ]  $\leq 3.0$  for 1-g SAR

- [(max. power of channel, including tune-up tolerance, mW)/(min. test separation, mm)] \*  $\sqrt{f_{\text{GHz}}}$  ]  $\leq 7.5.0$  for 10-g SAR

## 2. Calculation:

| Test separation: 5mm       |                       |                              |                                      |                                     |                   |                 |
|----------------------------|-----------------------|------------------------------|--------------------------------------|-------------------------------------|-------------------|-----------------|
| Bluetooth Mode (GFSK)      |                       |                              |                                      |                                     |                   |                 |
| Frequency (GHz)            | Conducted Power (dBm) | Turn-up Power Tolerance (dB) | Max power of tune up tolerance (dbm) | Max power of tune up tolerance (mw) | Calculation Value | Threshold Value |
| 2.402                      | 2.304                 | 3±1                          | 4                                    | 2.512                               | 0.779             | 3.0             |
| 2.441                      | 2.868                 | 3±1                          | 4                                    | 2.512                               | 0.785             | 3.0             |
| 2.480                      | 3.569                 | 3±1                          | 4                                    | 2.512                               | 0.791             | 3.0             |
| Bluetooth Mode (π/4-DQPSK) |                       |                              |                                      |                                     |                   |                 |
| Frequency (GHz)            | Conducted Power (dBm) | Turn-up Power Tolerance (dB) | Max power of tune up tolerance (dbm) | Max power of tune up tolerance (mw) | Calculation Value | Threshold Value |
| 2.402                      | 5.142                 | 6±1                          | 7                                    | 5.012                               | 1.554             | 3.0             |
| 2.441                      | 5.903                 | 6±1                          | 7                                    | 5.012                               | 1.566             | 3.0             |
| 2.480                      | 6.813                 | 6±1                          | 7                                    | 5.012                               | 1.579             | 3.0             |
| Bluetooth Mode (8-DPSK)    |                       |                              |                                      |                                     |                   |                 |
| Frequency (GHz)            | Conducted Power (dBm) | Turn-up Power Tolerance (dB) | Max power of tune up tolerance (dbm) | Max power of tune up tolerance (mw) | Calculation Value | Threshold Value |
| 2.402                      | 5.493                 | 6±1                          | 7                                    | 5.012                               | 1.554             | 3.0             |
| 2.441                      | 6.362                 | 6±1                          | 7                                    | 5.012                               | 1.566             | 3.0             |
| 2.480                      | 6.889                 | 6±1                          | 7                                    | 5.012                               | 1.579             | 3.0             |
| BLE Mode (GFSK)            |                       |                              |                                      |                                     |                   |                 |
| Frequency (GHz)            | Conducted Power (dBm) | Turn-up Power Tolerance (dB) | Max power of tune up tolerance (dbm) | Max power of tune up tolerance (mw) | Calculation Value | Threshold Value |
| 2.402                      | 2.225                 | 3±1                          | 4                                    | 2.512                               | 0.779             | 3.0             |
| 2.442                      | 2.911                 | 3±1                          | 4                                    | 2.512                               | 0.785             | 3.0             |
| 2.480                      | 3.738                 | 3±1                          | 4                                    | 2.512                               | 0.791             | 3.0             |

So standalone SAR measurements are not required.

-----END OF REPORT-----