

# RF Exposure Requirements

## 1.1 Product Description for Equipment Under Test (EUT)

### Client Information

Applicant: sichuanhuangchongwangluokejiyouxiangongsi  
Address of applicant: tianhuayilu99hao7dong6ceng10hao Gaoxinqv  
chengdu

Manufacturer: sichuanhuangchongwangluokejiyouxiangongsi  
Address of manufacturer: tianhuayilu99hao7dong6ceng10hao Gaoxinqv  
chengdu

General Description of EUT	
Product Name:	Speaker tumbler
Brand Name:	/
Model No.:	AGH-A-1
Adding Model(s):	AGH-A-2, AGH-A-3, AGH-A-4, AGH-A-5, AGH-A-6, AGH-B-1, AGH-B-2, AGH-B-3, AGH-B-4, AGH-B-5, AGH-B-6, AGH-C-1, AGH-C-2, AGH-C-3, AGH-C-4, AGH-C-5, AGH-C-6, AGH-D-1, AGH-D-2, AGH-D-3, AGH-D-4, AGH-D-5, AGH-D-6, AGH-E-1, AGH-E-2, AGH-E-3, AGH-E-4, AGH-E-5, AGH-E-6
Rated Voltage:	DC 3.7V from Battery
Battery Capacity:	/
Software Version:	/
Hardware Version:	/
Serial Number:	A05
FCC ID:	2BA2WAGH-A

Technical Characteristics of EUT	
Bluetooth Version:	V5.3 BLE
Frequency Range:	2402-2480MHz
RF Output Power:	-2.14dBm
Data Rate:	1Mbps
Modulation:	GFSK
Quantity of Channels:	40
Channel Separation:	2MHz
Type of Antenna:	PCB
Antenna Gain:	-0.68dBi

## 1.2 Standard Applicable

According to §1.1307(b)(1) and KDB 447498 D01 General RF Exposure Guidance v06, the following RF exposure evaluation shall to demonstrate RF exposure compliance.

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$$

Where

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

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

-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 according to 4.1 f) is applied to determine SAR test exclusion.

## 1.3 Calculation Method

### Bluetooth

Tx frequency range: 2402~2480MHz

Min. test separation distance: 5mm

Maximum Tune-up Conducted Output Power: -2dBm

RF channel transmit frequency: 2440MHz

Result: 0.197

Limit: 3.0

So the transmitter complies with the RF exposure requirements and the SAR is not required.