

# RF Exposure Evaluation

## FCC ID: 2ACUS-2733

### 1. Client Information

**Applicant** : Shenzhen ShengHeDa Electronic Technology Co., Ltd  
**Address** : 2nd Floor, Bada Industrial, Heping, Fuyong, Baoan District, Shenzhen, Guangdong , China  
**Manufacturer** : Shenzhen ShengHeDa Electronic Technology Co., Ltd  
**Address** : 2nd Floor, Bada Industrial, Heping, Fuyong, Baoan District, Shenzhen, Guangdong , China

### 2. General Description of EUT

<b>EUT Name</b>	: Bluetooth Speaker	
<b>Models No.</b>	: 2733	
<b>Model Difference</b>	: N/A	
<b>Product Description</b>	Operation Frequency: Bluetooth:2402~2480MHz	
	Number of Channel:	Bluetooth:79 Channels
	Max Peak Output Power:	GFSK:-2.043 dBm
	Antenna Gain:	0 dBi PIFA Antenna
	Modulation Type:	GFSK 1Mbps(1 Mbps) $\pi$ /4-DQPSK(2 Mbps) 8-DPSK(3 Mbps)
<b>Power Supply</b>	: DC Voltage supplied from Host System by USB cable DC power by Li-ion Battery	
<b>Power Rating</b>	: DC 5.0V by USB cable. DC 3.7V 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 v05r02.

- (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  $\leq 50$  mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})]^{1/2} \leq 3.0$  for 1-g SAR

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})]^{1/2} \leq 7.5.0$  for 10-g SAR

## 2.

**Calculation:**

Bluetooth Mode (GFSK)						
Frequency (GHz)	Conducted Power (dBm)	Ant Gain (dBi)	TX Power (mW)	Distance (mm)	Calculation Value	Threshold Value
2.402	-2.043	0	0.625	5	0.194	3.0
2.441	-2.275	0	0.592	5	0.185	3.0
2.480	-2.971	0	0.505	5	0.159	3.0

  

Bluetooth Mode (8-DPSK)						
Frequency (GHz)	Conducted Power (dBm)	Ant Gain (dBi)	TX Power (mW)	Distance (mm)	Calculation Value	Threshold Value
2.402	-2.064	0	0.622	5	0.193	3.0
2.441	-2.275	0	0.592	5	0.185	3.0
2.480	-3.049	0	0.496	5	0.156	3.0

**So standalone SAR measurements are not required.**