

RF Exposure Evaluation

FCC ID: 2ACUS-2735

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

EUT Name	:	Bluetooth Speaker
Models No.	:	2735
Model Difference	:	N/A
Product Description	:	Operation Frequency: Bluetooth:2402~2480MHz
	:	Number of Channel: Bluetooth:79 Channels
	:	Max Peak Output Power: GFSK: 0.238 dBm
	:	Antenna Gain: 0 dBi PIFA Antenna
	:	Modulation Type: GFSK 1Mbps(1 Mbps) π /4-DQPSK(2 Mbps) 8-DPSK(3 Mbps)
Power Supply	:	DC Voltage supplied from Host System by USB cable DC power by Li-ion Battery
Power Rating	:	DC 5.0V by USB cable. DC 3.7V Li-ion Battery
Connecting I/O Port(S)	:	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 ≤ 50 mm are determined by:
$$\frac{[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] \times [\sqrt{f_{\text{(GHz)}}}]}{\leq 3.0 \text{ for 1-g SAR}}$$

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

2.
Calculation:

Bluetooth Mode (GFSK)						
Frequency (GHz)	Conducted Power (dBm)	Ant Gain (dBi)	TX Power (mW)	Distance (mm)	Calculation Value	Threshold Value
2.402	0.238	0	1.056	5	0.327	3.0
2.441	0.019	0	1.004	5	0.314	3.0
2.480	-0.466	0	0.898	5	0.283	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	-0.097	0	0.978	5	0.303	3.0
2.441	-0.342	0	0.924	5	0.289	3.0
2.480	-0.587	0	0.874	5	0.275	3.0

So standalone SAR measurements are not required.