RF Exposure Evaluation

FCC ID: 2AHM5L2-BTP2

1. Client Information

Applicant : DongGuan Shangyuan Eletronics Co.,Ltd

Address : The 4th Building, Xintang Comprehensive Development Zone, Hengli Town, Dongguan City, Guangdong Province, China

Manufacturer : DongGuan Shangyuan Eletronics Co.,Ltd

Address : The 4th Building, Xintang Comprehensive Development Zone, Hengli Town, Dongguan City, Guangdong Province, China

2. General Description of EUT

EUT Name	:	Bluetooth speaker	
Models No.	:	L2-BTP2	
Model Difference	:	N/A	
Product Description	:	Operation Frequency: Bluetooth 2.1+EDR:2402~2480MHz	
		Number of Channel:	Bluetooth:79 Channels
		Max Peak Output Power:	Bluetooth: -0.463 dBm(π/4-DQPSK)
		Antenna Gain:	0.68 dBi PCB Antenna
		Modulation Type:	GFSK 1Mbps(1 Mbps) π/4-DQPSK(2 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 by 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.

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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≤5 mm are determined by:
   [(max. power of channel, including tune-up tolerance, mW)/(min. test separation, mm)]*[$\sqrt{f_{(GHz)}}$] ≤3.0 for 1-g SAR
   [(max. power of channel, including tune-up tolerance, mW)/(min. test separation, mm)]*[$\sqrt{f_{(GHz)}}$] ≤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 (mw)	Calculation Value	Threshold Value
2.402	-1.403	±0.5	0.812	0.252	**3.0**
2.441	-1.429	±0.5	0.807	0.252	**3.0**
2.480	-1.500	±0.5	0.794	0.250	**3.0**
Bluetooth Mode (π/4-DQPSK)					
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	-0.463	±0.5	1.009	0.313	**3.0**
2.441	-0.478	±0.5	1.005	0.314	**3.0**
2.480	-0.603	±0.5	0.977	0.308	**3.0**

So standalone SAR measurements are not required.