

RF Exposure Evaluation

FCC ID: 2AFNM-JT2693

1. Client Information

Applicant : Shenzhen Jinruitai Electronics Co.,Ltd
Address : 4F, Building A, Taixinglong Industrial Town, Zhongwu Xixiang, Baoan District, Shenzhen City, GuangDong Province, China
Manufacturer : Shenzhen Jinruitai Electronics Co.,Ltd
Address : 4F, Building A, Taixinglong Industrial Town, Zhongwu Xixiang, Baoan District, Shenzhen City, GuangDong Province, China

2. General Description of EUT

EUT Name	:	Waterproof Bluetooth Speaker
Models No.	:	JT2693
Model difference	:	N/A
Product Description	Operation Frequency: Bluetooth:2402~2480MHz	
	Number of Channel:	Bluetooth:79 Channels
	Max Peak Output Power:	Bluetooth: -0.126 dBm(8-DPSK)
	Antenna Gain:	0 dBi PCB 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 400mAh 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 ≤ 5 mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{(\text{GHz})}}] \leq 3.0 \text{ for 1-g SAR}$$
$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{(\text{GHz})}}] \leq 7.5.0 \text{ for 10-g SAR}$$

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	-0.402	± 0.5	1.023	0.317	3.0
2.441	-0.281	± 0.5	1.052	0.329	3.0
2.480	-0.368	± 0.5	1.031	0.325	3.0
Bluetooth Mode ($\pi/4$ -DQPSK)					
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	-0.393	± 0.5	1.025	0.318	3.0
2.441	-0.231	± 0.5	1.064	0.332	3.0
2.480	-0.320	± 0.5	1.042	0.328	3.0
Bluetooth Mode (8-DPSK)					
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	-0.254	± 0.5	1.058	0.328	3.0
2.441	-0.126	± 0.5	1.090	0.341	3.0
2.480	-0.251	± 0.5	1.059	0.334	3.0

So standalone SAR measurements are not required.