RF Exposure Evaluation

FCC ID: 2AFNM-JT2681

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.	:	JT2681	
Model difference	:	N/A	
Product Description	:	Operation Frequency: Bluetooth:2402~2480MHz	
		Number of Channel:	Bluetooth:79 Channels
		Max Peak Output Power:	Bluetooth: 2.111 dBm(GFSK)
		Antenna Gain:	-0.68 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 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	2.099	±0.5	1.819	0.564	**3.0**
2.441	2.111	±0.5	1.824	0.570	**3.0**
2.480	2.035	±0.5	1.793	0.565	**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	1.251	±0.5	1.497	0.464	**3.0**
2.441	1.249	±0.5	1.496	0.467	**3.0**
2.480	1.207	±0.5	1.481	0.467	**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	1.294	±0.5	1.511	0.469	**3.0**
2.441	1.258	±0.5	1.499	0.468	**3.0**
2.480	1.215	±0.5	1.484	0.467	**3.0**

So standalone SAR measurements are not required.