RF Exposure Evaluation

FCC ID: 2ADXM5B103BT

1. Client Information

Applicant	:	SHENZHEN TEKSUN TECHNOLOGY CO.,LTD
Address	:	3F, bldg F7, F518 Idea Land, Baoyuan Road, Xixiang Avenue, Bao'an District, Shenzhen, China
Manufacturer	:	SHENZHEN TEKSUN TECHNOLOGY CO.,LTD
Address	:	3F, bldg F7, F518 Idea Land, Baoyuan Road, Xixiang Avenue, Bao'an District, Shenzhen, China

2. General Description of EUT

EUT Name	:	Bluetooth speaker	
Models No.	:	5B103BT, 14008BT	
Model difference	:	All these models are identical in the same PCB, layout and electrical circuit, the only difference is model name for commercial.	
Product Description	:	Operation Frequency: Bluetooth:2402~2480MHz	
		Number of Channel:	Bluetooth:79 Channels
		Max Peak Output Power:	8-DPSK: -0.435 dBm
		Antenna Gain:	1.2 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	-2.275	±0.5	0.665	0.206	**3.0**
2.441	-3.565	±0.5	0.494	0.154	**3.0**
2.480	-5.491	±0.5	0.317	0.100	**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	-0.950	±0.5	0.902	0.279	**3.0**
2.441	-2.352	±0.5	0.653	0.204	**3.0**
2.480	-4.015	±0.5	0.445	0.140	**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	-0.435	±0.5	1.015	0.315	**3.0**
2.441	-2.048	±0.5	0.700	0.219	**3.0**
2.480	-3.554	±0.5	0.495	0.156	**3.0**

So standalone SAR measurements are not required.