RF Exposure Evaluation

FCC ID: 2ADSMJTL-8

1. Client Information

Applicant	:	Shenzhen Sunstar Tech CO., LTD.
Address	:	2-3 Floor, F Buliding, Guanlong 1st Industrial Zone, Xili Town, Nanshan District, Shenzhen, China
Manufacturer	:	Shenzhen Sunstar Tech CO., LTD.
Address	:	2-3 Floor, F Buliding, Guanlong 1st Industrial Zone, Xili Town, Nanshan District, Shenzhen, China

2. General Description of EUT

EUT Name	:	Bluetooth Speaker	
Models No.	:	JTL-8	
Model Difference	:	N/A	
Product Description	:	Operation Frequency: Bluetooth:2402~2480MHz	
		Number of Channel:	Bluetooth:79 Channels
		Max Peak Output Power:	GFSK: -4.53dBm
		Antenna Gain:	1.3 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 180mA 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)	Ant Gain (dBi)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	-4.53	1.3	±1	0.598	0.185	**3.0**
2.441	-6.53	1.3	±1	0.378	0.118	**3.0**
2.480	-6.81	1.3	±1	0.354	0.111	**3.0**
Bluetooth Mode (8-DPSK)						
Frequency (GHz)	Conducted Power (dBm)	Ant Gain (dBi)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	-8.98	1.3	±1	0.215	0.067	**3.0**
2.441	-6.27	1.3	±1	0.401	0.125	**3.0**
2.480	-5.60	1.3	±1	0.468	0.147	**3.0**

So standalone SAR measurements are not required.