

RF Exposure Evaluation

FCC ID: 2ACYKSKY-A1

1. Client Information

Applicant : Shenzhen SKYWAVE Technology Co.,Ltd.
Address : 4th Floor, Building B, Yufeng Industrial Park, Yangguang Industrial Zone, Xili, Nanshan District, Shenzhen, China
Manufacturer : Shenzhen SKYWAVE Technology Co.,Ltd.
Address : 4th Floor, Building B, Yufeng Industrial Park, Yangguang Industrial Zone, Xili, Nanshan District, Shenzhen, China

2. General Description of EUT

EUT Name	:	Bluetooth Speaker
Models No.	:	SKY-A1, SKY-A2, SKY-A3, SKY-A5, SKY-A6, SKY-A8, SKY-A9, SKY-F1, SKY-F2, SKY-F3, SKY-F5, SKY-G1, SKY-G2, SKY-G3, SKY-G5, SKY-G6
Model difference	:	All models are identical in the same PCB layout, interior structure and electrical circuits, The only difference is model name for commercial purpose.
Product Description	:	Operation Frequency: Bluetooth:2402~2480MHz Number of Channel: Bluetooth:79 Channels Max Peak Output Power: 8-DPSK: 8.012dBm Antenna Gain: 0 dBi PCB Antenna Modulation Type: GFSK 1Mbps(1 Mbps) $\pi/4$ -DQPSK(2 Mbps) 8-DPSK(3 Mbps)
Power Supply	:	DC power by USB cable from Host System DC power by Li-ion battery
Power Rating	:	DC 5V by USB Cable from PC system. DC 3.7V by 400 mAh 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:

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

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})]^* [\sqrt{f_{(\text{GHz})}}] \leq 7.5.0$ 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	4.126	± 0.5	2.901	0.899	3.0
2.441	5.249	± 0.5	3.758	1.174	3.0
2.480	5.948	± 0.5	4.414	1.390	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	6.361	± 0.5	4.854	1.505	3.0
2.441	7.312	± 0.5	6.042	1.888	3.0
2.480	8.012	± 0.5	7.099	2.236	3.0

So standalone SAR measurements are not required.