

RF Exposure Evaluation

FCC ID: 2A2P2-SXE-24

1. Client Information

Applicant	:	Shenshen SPAZO technology co.,Ltd
Address	:	D503-f15, Fude center, 145 Longping East Road, Longgang District, Shenzhen
Manufacturer	:	Shenzhen Xingguo Technology co.,Ltd
Address	:	4f, No.2, Huahan science and Technology Industrial Park, No. 16 Jinniu West Road, Pingshan District, Shenzhen, Guangdong, China

2. General Description of EUT

EUT Name	:	2.4G TWS Gaming Earphone
Model(s)	:	SXE-24, SXE24A019b, SXE24-02A, SXE24-02B, SXE24-02C, SXE24-02D, SXE24-02E, SXE24-02F, SXE24-02G, SXE24-02H, SXE24-02I, SXE24-02J
Model Difference	:	All PCB boards and circuit diagrams are the same, the only difference is the name.
Sample ID	:	20210330-12-1#&20210330-12-2#
Product Description	Operation Frequency:	2405.889MHz~2477.569MHz
	RF Output Power:	7dBm
	Antenna Gain:	0dBi Ceramic Antenna
	Modulation Type:	GFSK
	Bit Rate of Transmitter:	2405.889MHz~2477.569MHz
Power Rating (Charger Box)	:	Input: DC 5V DC 3.7V by 5000mAh Li-ion battery
Power Rating (Dongle)	:	Input: DC 5V
Power Supply (Earphone)	:	Input: DC 5V DC 3.7V by 100mAh Li-ion battery
Software Version	:	V1.10
Hardware Version	:	V1.10
Connecting I/O Port(S)	:	Please refer to the User's Manual

TB-RF-074-1.0

Remark: The antenna gain provided by the applicant, the adapter and verified for the RF conduction test and adapter provided by TOBY test lab.

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 v06.
 - (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							
2.4G Mode							
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dBm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value	
2.405889	7	7±1	8	6.31	1.96	3.0	
2.440705	6.88	7±1	8	6.31	1.96	3.0	
2.477569	6.92	7±1	8	6.31	1.99	3.0	

Conclusion:

The measurement results comply with the FCC Limit per 47 CFR 2.1093 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 v06.

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