

RF Exposure Evaluation

FCC ID: 2AMWY-B12

1. Client Information

Applicant	:	Shenzhen Pincun Digital Technology Co., LTD.
Address	:	5C038, Exchange Square, 2 South China City, Pinghu Street, Longgang District, Shenzhen, Guangdong, China. 518111
Manufacturer	:	Shenzhen Shenzhen Electronics CO., LTD.
Address	:	Building 6, No.1 Xuri East Road, Shanxia community, Pinghu, Longgang, Shenzhen, Guangdong, China, 518111

2. General Description of EUT

EUT Name	:	Wireless Headphone	
Model(s) No.	:	B12, Lucky cat, B11	
Model Different	:	All these models are identical in the same PCB, layout and electrical circuit, The only difference is model name.	
Product Description	:	Operation Frequency:	Bluetooth 5.0: 2402MHz~2480MHz
		Number of Channel:	Bluetooth 5.0: 79 channels
		Antenna Gain:	0.1 dBi PCB Antenna
		Modulation Type:	GFSK, Pi/4-DQPSK, 8-DPSK
		Bit Rate of Transmitter:	Bluetooth :1/2/3Mbps
Power Supply	:	Input: DC 5V DC 3.7V by 300mAh Rechargeable Li-ion battery	
Software Version	:	V1.3	
Hardware Version	:	V2.1	
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:

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

- $$\frac{[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation, mm})] \cdot [\sqrt{f_{\text{GHz}}]}]{\leq 7.5.0 \text{ for 10-g SAR}}$$

2. Calculation:

Test separation: 5mm						
Bluetooth Mode (GFSK)						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dBm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	-1.95	-1±1	0	1.0000	0.313	3.0
2.441	-1.14	-1±1	0	1.0000	0.313	3.0
2.480	-0.93	0±1	1.0	1.2589	0.394	3.0
Bluetooth Mode (Pi/4-DQPSK)						
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
2.402	-0.06	0±1	1.0	1.2589	0.394	3.0
2.441	-0.14	0±1	1.0	1.2589	0.394	3.0
2.480	-0.06	0±1	1.0	1.2589	0.394	3.0
Bluetooth Mode (8-DPSK)						
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
2.402	-1.95	-1±1	0	1.0000	0.313	3.0
2.441	-1.14	-1±1	0	1.0000	0.313	3.0
2.480	-0.93	0±1	1.0	1.2589	0.394	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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