

RF Exposure Evaluation

FCC ID: 2AMWY-UG-05

1. Client Information

Applicant	:	Shenzhen PINCUN digital technology Co., Ltd.
Address	:	5C038, Exchange Square, 2 South China City, Pinghu Street, Longgang District, Shenzhen China
Manufacturer	:	Shenzhen Shenzhen Electronics CO., LTD.
Address	:	Factory: 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)	:	UG-05	
Model Difference	:	----	
Product Description	:	Operation Frequency:	Bluetooth 5.0(BDR+EDR): 2402MHz~2480MHz
	:	Number of Channel:	79 channels
	:	RF Output Power:	-0.43dBm (Max)
	:	Antenna Gain:	0.5dBi PCB Antenna
	:	Modulation Type:	GFSK(1Mbps) π /4-DQPSK(2Mbps) 8-DPSK(3Mbps)
Power Rating	:	Input: DC 5V/0.8A DC 3.7V by 1000mAh/3.7Wh Rechargeable Li-ion Battery	
Software Version	:	V1.61	
Hardware Version	:	V1.61	
Connecting I/O Port(S)	:	Please refer to the User's Manual	

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						
GFSK Mode (1Mbps)						
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	-0.43	0 ± 1	1	1.259	0.390	3.0
2.441	-1	-1 ± 1	0	1.0	0.312	3.0
2.480	-2.25	-2 ± 1	-1	0.794	0.250	3.0

Test separation: 5mm						
$\pi/4$ -DQPSK Mode (2Mbps)						
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	-0.61	0 ± 1	1	1.259	0.390	3.0
2.441	-1.48	-1 ± 1	0	1.0	0.312	3.0
2.480	-2.47	-2 ± 1	-1	0.794	0.250	3.0

Test separation: 5mm						
8-DPSK Mode (3Mbps)						
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	-0.6	0 ± 1	1	1.259	0.390	3.0
2.441	-1.13	-1 ± 1	0	1.0	0.312	3.0
2.480	-2.56	-2 ± 1	-1	0.794	0.250	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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