

# RF Exposure Evaluation

**FCC ID: 2AMWY-UG-05**

## 1. Client Information

|                     |   |                                                                                                                   |
|---------------------|---|-------------------------------------------------------------------------------------------------------------------|
| <b>Applicant</b>    | : | Shenzhen PINCUN digital technology Co., Ltd.                                                                      |
| <b>Address</b>      | : | 5C038, Exchange Square, 2 South China City, Pinghu Street, Longgang District, Shenzhen China                      |
| <b>Manufacturer</b> | : | Shenzhen Shenzhen Electronics CO., LTD.                                                                           |
| <b>Address</b>      | : | 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):<br>2402MHz~2480MHz            |
|                                                                                                                                                | : | Number of Channel:                                                        | 79 channels                                           |
|                                                                                                                                                | : | RF Output Power:                                                          | -0.43dBm (Max)                                        |
|                                                                                                                                                | : | Antenna Gain:                                                             | 0.5dBi PCB Antenna                                    |
|                                                                                                                                                | : | Modulation Type:                                                          | GFSK(1Mbps)<br>$\pi$ /4-DQPSK(2Mbps)<br>8-DPSK(3Mbps) |
| Power Rating                                                                                                                                   | : | Input: DC 5V/0.8A<br>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  $\leq 5$  mm are determined by:

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

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

## 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                 | $0 \pm 1$                    | 1                                    | 1.259                               | 0.390             | 3.0             |
| 2.441                | -1                    | $-1 \pm 1$                   | 0                                    | 1.0                                 | 0.312             | 3.0             |
| 2.480                | -2.25                 | $-2 \pm 1$                   | -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                 | $0 \pm 1$                    | 1                                    | 1.259                               | 0.390             | 3.0             |
| 2.441                       | -1.48                 | $-1 \pm 1$                   | 0                                    | 1.0                                 | 0.312             | 3.0             |
| 2.480                       | -2.47                 | $-2 \pm 1$                   | -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                  | $0 \pm 1$                    | 1                                    | 1.259                               | 0.390             | 3.0             |
| 2.441                | -1.13                 | $-1 \pm 1$                   | 0                                    | 1.0                                 | 0.312             | 3.0             |
| 2.480                | -2.56                 | $-2 \pm 1$                   | -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.

-----END OF REPORT-----