

## RF Exposure Evaluation

### FCC ID: 2A4MJ-JX-80

#### 1. Client Information

|              |   |                                                                                                                                             |
|--------------|---|---------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant    | : | Jiaxing Yuejia Trading Co., Ltd                                                                                                             |
| Address      | : | Room 1201-A3, Suyin Building, No. 999, Hongxing Road Jiaxing City<br>Economic-Technological Development Area Zhejiang Province 314000<br>CN |
| Manufacturer | : | Jiaxing Yuejia Trading Co., Ltd                                                                                                             |
| Address      | : | Room 1201-A3, Suyin Building, No. 999, Hongxing Road Jiaxing City<br>Economic-Technological Development Area Zhejiang Province 314000<br>CN |

#### 2. General Description of EUT

|                                                                                                                                                          |   |                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|---|----------------------------------------------------------------------------------------------|
| EUT Name                                                                                                                                                 | : | True wireless stereo Earphone                                                                |
| Model(s) No.                                                                                                                                             | : | JX-80, S19, S03, TWST20, MY14, Q80, C19, S518, S29, X20,<br>G700, S99, M30, T25              |
| Model Difference                                                                                                                                         | : | All PCB boards and circuit diagrams are the same, the only<br>difference is that appearance. |
| Product<br>Description                                                                                                                                   | : | RF Output Power: BT: -3.846dBm                                                               |
|                                                                                                                                                          | : | Antenna Gain: 2.7dBi Ceramic Antenna                                                         |
| Power Supply<br>(Earphone)                                                                                                                               | : | DC 3.7V by 25mAh Rechargeable Li-ion battery                                                 |
| Power Supply<br>(Charge box)                                                                                                                             | : | Input: DC 5V<br>DC 3.7V by 400mAh Rechargeable Li-ion battery                                |
| Software Version                                                                                                                                         | : | V1.0                                                                                         |
| Hardware Version                                                                                                                                         | : | V5.0                                                                                         |
| <b>Remark:</b> The antenna gain provided by the applicant, the adapter and verified for the RF<br>conduction test and adapter provided by TOBY test lab. |   |                                                                                              |

**Note:** More test information about the EUT please refer the RF Test Report.

## The RF Exposure Evaluation for FCC:

### SAR Test Exclusion Calculations

FCC: According to 447498 D04 Interim General RF Exposure Guidance v01.

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold  $P_{th}$  (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive).  $P_{th}$  is given by Formula (B.2).

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

where

$$x = -\log_{10} \left( \frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and  $f$  is in GHz,  $d$  is the separation distance (cm), and  $ERP_{20 \text{ cm}}$  is per Formula (B.1). The example values shown in Table B.2 are for illustration only.

Table B.2—Example Power Thresholds (mW)

| Frequency (MHz) | Distance (mm) |    |    |     |     |     |     |     |     |     |
|-----------------|---------------|----|----|-----|-----|-----|-----|-----|-----|-----|
|                 | 5             | 10 | 15 | 20  | 25  | 30  | 35  | 40  | 45  | 50  |
| 300             | 39            | 65 | 88 | 110 | 129 | 148 | 166 | 184 | 201 | 217 |
| 450             | 22            | 44 | 67 | 89  | 112 | 135 | 158 | 180 | 203 | 226 |
| 835             | 9             | 25 | 44 | 66  | 90  | 116 | 145 | 175 | 207 | 240 |
| 1900            | 3             | 12 | 26 | 44  | 66  | 92  | 122 | 157 | 195 | 236 |
| 2450            | 3             | 10 | 22 | 38  | 59  | 83  | 111 | 143 | 179 | 219 |
| 3600            | 2             | 8  | 18 | 32  | 49  | 71  | 96  | 125 | 158 | 195 |
| 5800            | 1             | 6  | 14 | 25  | 40  | 58  | 80  | 106 | 136 | 169 |

### Calculation:

| Test separation: 5mm |                       |              |                              |                                      |                                     |                            |
|----------------------|-----------------------|--------------|------------------------------|--------------------------------------|-------------------------------------|----------------------------|
| BT (GFSK)            |                       |              |                              |                                      |                                     |                            |
| Frequency (GHz)      | Conducted Power (dBm) | Antenna Gain | Turn-up Power Tolerance (dB) | Max power of tune up tolerance (dBm) | Max power of tune up tolerance (mW) | Limit P <sub>th</sub> (mW) |
| 2.402                | -4.771                | 2.7          | -2±1                         | -1                                   | 0.794                               | 3                          |
| 2.441                | -5.419                | 2.7          | -2±1                         | -1                                   | 0.794                               | 3                          |
| 2.480                | -5.443                | 2.7          | -2±1                         | -1                                   | 0.794                               | 3                          |
| BT (π/4-DQPSK)       |                       |              |                              |                                      |                                     |                            |
| Frequency (GHz)      | Conducted Power (dBm) | Antenna Gain | Turn-up Power Tolerance (dB) | Max power of tune up tolerance (dBm) | Max power of tune up tolerance (mW) | Limit P <sub>th</sub> (mW) |
| 2.402                | -3.846                | 2.7          | -1±1                         | 0                                    | 1.000                               | 3                          |
| 2.441                | -4.519                | 2.7          | -2±1                         | -1                                   | 0.794                               | 3                          |
| 2.480                | -4.416                | 2.7          | -2±1                         | -1                                   | 0.794                               | 3                          |

### 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, No SAR is required.

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