

# RF Exposure Evaluation

## FCC ID: 2AXJW-Q8

### 1. Client Information

|              |   |                                                                                                             |
|--------------|---|-------------------------------------------------------------------------------------------------------------|
| Applicant    | : | Shenzhen Kule Times Technology Co.,Ltd.                                                                     |
| Address      | : | 6B1-3, Block AB, TianXiang Building, CheGongMiao, Futian District, ShenZhen City, Guangdong Province, China |
| Manufacturer | : | Huizhou Jintaiyang Technology Co.,Ltd.                                                                      |
| Address      | : | 4F, Block B of Jiaping Company, No. 50 Community, Zhongkai High-tech Zone, Huizhou City, China              |

### 2. General Description of EUT

|                                                                                                                                                |   |                                                                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EUT Name                                                                                                                                       | : | Smart watch                                                                                                                                                                |
| Model(s) No.                                                                                                                                   | : | Q8, S9, S11, S60, S68, Q5, Q6, Q53, Q57, Q59, KT40, KT41, KT42, KT43, KT44, KT45, KT46, KT47, KT48, KT49, KT50, KT51, KT52, KT53, KT54, KT55, KT56, KT57, KT58, KT59, KT60 |
| Model Different                                                                                                                                | : | All these models are in the same PCB, layout and electrical circuit, the only difference is appearance.                                                                    |
| Product Description                                                                                                                            | : | Operation Frequency: Bluetooth 4.0(BLE): 2402MHz~2480MHz                                                                                                                   |
|                                                                                                                                                | : | RF Output Power: Bluetooth: -0.827 dBm(Max)<br>BLE: -2.453 dBm (Max)                                                                                                       |
|                                                                                                                                                | : | Antenna Gain: -1.5 dBi FPC Antenna                                                                                                                                         |
|                                                                                                                                                | : | Modulation Type: GFSK(1Mbps)<br>$\pi/4$ -DQPSK(2 Mbps)<br>8-DPSK(3 Mbps)<br>GFSK(BLE)                                                                                      |
| Power Rating                                                                                                                                   | : | USB Input:DC 5V<br>DC 3.7V 550mAh by Li-ion battery                                                                                                                        |
| Software Version                                                                                                                               | : | MT2502_AB024_DO05_B_1271_V0.0.1_2008281502                                                                                                                                 |
| Hardware Version                                                                                                                               | : | AB024_V1.0-20200608                                                                                                                                                        |
| 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:

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

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

## 2. Calculation:

| Test separation: 5mm |                       |                              |                                      |                                     |                   |                 |
|----------------------|-----------------------|------------------------------|--------------------------------------|-------------------------------------|-------------------|-----------------|
| BLE 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                | -2.746                | -2±1                         | -1                                   | 0.794                               | 0.246             | 3.0             |
| 2.442                | -2.453                | -2±1                         | -1                                   | 0.794                               | 0.247             | 3.0             |
| 2.480                | -2.952                | -3±1                         | -2                                   | 0.631                               | 0.199             | 3.0             |

| 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                       | -0.827                | 0±1                          | 1                                    | 1.259                               | 0.390             | 3.0             |
| 2.441                       | -0.901                | 0±1                          | 1                                    | 1.259                               | 0.393             | 3.0             |
| 2.480                       | -1.550                | -1±1                         | 0                                    | 1.000                               | 0.315             | 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                       | -1.704                | -1±1                         | 0                                    | 1.000                               | 0.310             | 3.0             |
| 2.441                       | -1.664                | -1±1                         | 0                                    | 1.000                               | 0.312             | 3.0             |
| 2.480                       | -2.209                | -2±1                         | -1                                   | 0.794                               | 0.250             | 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                       | -1.501                | -1±1                         | 0                                    | 1.000                               | 0.310             | 3.0             |
| 2.441                       | -1.432                | -1±1                         | 0                                    | 1.000                               | 0.312             | 3.0             |
| 2.480                       | -2.004                | -2±1                         | -1                                   | 0.794                               | 0.250             | 3.0             |

| Test separation: 5mm             |                 |
|----------------------------------|-----------------|
| The worst RF Exposure Evaluation |                 |
| Worst Calculation Value          | Threshold Value |
| 0.393                            | 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-----