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# RF Exposure Evaluation Report

**Report No.:** CQASZ20220500783E-03  
**Applicant:** ORAIMO TECHNOLOGY LIMITED  
**Address of Applicant:** FLAT 39 8/F BLOCK D WAH LOK INDUSTRIAL CENTRE 31-35 SHAN MEI STREET FOTAN NT  
**Equipment Under Test (EUT):**  
**EUT Name:** Smart Watch  
**Model No.:** boAt Wave Connect RTL, boAt Wave Connect F, boAt Wave Connect A, boAt Wave Connect Plus, boAt Wave Connect Pro, boAt Wave Connect Max , boAt Wave Connect, ID208, ID208 BT  
**Test Model No.:** ID208 BT  
**Brand Name:** oraimo  
**FCC ID:** 2AXYP-ID208  
**Standards:** 47 CFR Part 1.1307  
47 CFR Part 2.1093  
KDB447498D01 General RF Exposure Guidance v06  
**Date of Receipt:** 2021-12-23  
**Date of Test:** 2021-12-23 to 2021-12-30  
**Date of Issue:** 2022-6-22  
**Test Result:** PASS\*

\*In the configuration tested, the EUT complied with the standards specified above

**Tested By:** Lewis Zhou

( Lewis Zhou )

**Reviewed By:** K. Liao

( K Liao )

**Approved By:** Jack Ai

( Jack Ai )



## Version

### Revision History Of Report

| Report No.           | Version | Description    | Issue Date |
|----------------------|---------|----------------|------------|
| CQASZ20220500783E-03 | Rev.01  | Initial report | 2022-6-22  |

Note:

This test report (Ref. No.: CQASZ20220500783E-03)

All test data comes from source test reports (Ref. No.: CQASZ20211202223E-03).

Only on the basis of the original report Change Brand Name, Applicant, Address of Applicant.

The tested samples have not been changed.

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## 2 General Information

### 2.1 Client Information

|                          |                                                                                                  |
|--------------------------|--------------------------------------------------------------------------------------------------|
| Applicant:               | ORAIMO TECHNOLOGY LIMITED                                                                        |
| Address of Applicant:    | FLAT 39 8/F BLOCK D WAH LOK INDUSTRIAL CENTRE 31-35 SHAN MEI STREET FOTAN NT                     |
| Manufacturer:            | Shenzhen DO Intelligent Technology Co., Ltd                                                      |
| Address of Manufacturer: | 11th Floor, 3# Building, Guole Tech Park, Lirong Road, Dalang, Longhua District, Shenzhen, China |
| Factory:                 | Shenzhen DO Intelligent Technology Co., Ltd                                                      |
| Address of Factory:      | 11th Floor, 3# Building, Guole Tech Park, Lirong Road, Dalang, Longhua District, Shenzhen, China |

### 2.2 General Description of EUT

|                   |                                                                                                                                                                            |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name:     | Smart Watch                                                                                                                                                                |
| Model No.:        | boAt Wave Connect RTL, boAt Wave Connect F, boAt Wave Connect A, boAt Wave Connect Plus, boAt Wave Connect Pro, boAt Wave Connect Max , boAt Wave Connect, ID208, ID208 BT |
| Test Model No.:   | ID208 BT                                                                                                                                                                   |
| Trade Mark:       | oraimo                                                                                                                                                                     |
| Software Version: | V1                                                                                                                                                                         |
| Hardware Version: | V1.1                                                                                                                                                                       |
| Power Supply:     | lithium battery:DC3.8V, 300mAh, 1.140Wh, Charge by DC5.0V 280mA                                                                                                            |

### 2.3 General Description of BLE

|                      |                                                                                                                    |
|----------------------|--------------------------------------------------------------------------------------------------------------------|
| Operation Frequency: | 2402MHz~2480MHz                                                                                                    |
| Modulation Type:     | GFSK                                                                                                               |
| Transfer Rate:       | 1Mbps                                                                                                              |
| Number of Channel:   | 40                                                                                                                 |
| Product Type:        | <input type="checkbox"/> Mobile <input checked="" type="checkbox"/> Portable <input type="checkbox"/> Fix Location |
| Antenna Type:        | FPC antenna                                                                                                        |
| Antenna Gain:        | -0.61dBi                                                                                                           |

### 2.4 General Description of BT

|                      |                                                                                                                    |
|----------------------|--------------------------------------------------------------------------------------------------------------------|
| Operation Frequency: | 2402MHz~2480MHz                                                                                                    |
| Modulation Type:     | GFSK, $\pi/4$ DQPSK, 8DPSK                                                                                         |
| Transfer Rate:       | 1Mbps/2Mbps/3Mbps                                                                                                  |
| Number of Channel:   | 79                                                                                                                 |
| Product Type:        | <input type="checkbox"/> Mobile <input checked="" type="checkbox"/> Portable <input type="checkbox"/> Fix Location |
| Antenna Type:        | FPC antenna                                                                                                        |
| Antenna Gain:        | -0.61dBi                                                                                                           |

### 3 SAR Evaluation

#### 3.1 RF Exposure Compliance Requirement

##### 3.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

##### 4.3.1. Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

##### 3.1.2 Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$$\left[ \frac{(\text{max. power of channel, including tune-up tolerance, mW})}{(\text{min. test separation distance, mm})} \right] \cdot \sqrt{f(\text{GHz})} \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$

$f(\text{GHz})$  is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion

### 3.1.3 EUT RF Exposure

#### 1) For BLE(1Mbps)

##### Measurement Data

| GFSK mode        |                            |                            |                       |       |
|------------------|----------------------------|----------------------------|-----------------------|-------|
| Test channel     | Peak Output Power<br>(dBm) | Tune up tolerance<br>(dBm) | Maximum tune-up Power |       |
|                  |                            |                            | (dBm)                 | (mW)  |
| Lowest(2402MHz)  | -1.57                      | -1.5±1                     | -0.5                  | 0.891 |
| Middle(2440MHz)  | 0.29                       | 0±1                        | 1                     | 1.259 |
| Highest(2480MHz) | 1.77                       | 1±1                        | 2                     | 1.585 |

| Worst case: GFSK mode                                   |                                                    |                               |                           |       |                     |                        |
|---------------------------------------------------------|----------------------------------------------------|-------------------------------|---------------------------|-------|---------------------|------------------------|
| Channel                                                 | Maximum Peak<br>Conducted<br>Output Power<br>(dBm) | Tune up<br>tolerance<br>(dBm) | Maximum tune-<br>up Power |       | Calculated<br>value | Exclusion<br>threshold |
|                                                         |                                                    |                               | (dBm)                     | (mW)  |                     |                        |
| Lowest<br>(2402MHz)                                     | -1.57                                              | -1.5±1                        | -0.5                      | 0.891 | 0.276               | 3.0                    |
| Middle<br>(2440MHz)                                     | 0.29                                               | 0±1                           | 1                         | 1.259 | 0.393               |                        |
| Highest<br>(2480MHz)                                    | 1.77                                               | 1±1                           | 2                         | 1.585 | 0.499               |                        |
| Conclusion: the calculated value ≤3.0, SAR is exempted. |                                                    |                               |                           |       |                     |                        |

Remark: The Max Conducted Peak Output Power data refer to report Report No.: CQASZ20220500783E-01  
BLE can not simultaneous transmitting at same time.

## 2) For BT

### Measurement Data

| GFSK mode        |                            |                            |                       |       |
|------------------|----------------------------|----------------------------|-----------------------|-------|
| Test channel     | Peak Output Power<br>(dBm) | Tune up tolerance<br>(dBm) | Maximum tune-up Power |       |
|                  |                            |                            | (dBm)                 | (mW)  |
| Lowest(2402MHz)  | -1.55                      | -2±1                       | -1                    | 0.794 |
| Middle(2441MHz)  | 0.22                       | 0±1                        | 1                     | 1.259 |
| Highest(2480MHz) | 1.41                       | 1±1                        | 2                     | 1.585 |
| π/4DQPSK mode    |                            |                            |                       |       |
| Test channel     | Peak Output Power<br>(dBm) | Tune up tolerance<br>(dBm) | Maximum tune-up Power |       |
|                  |                            |                            | (dBm)                 | (mW)  |
| Lowest(2402MHz)  | -1.86                      | -2±1                       | -1                    | 0.794 |
| Middle(2441MHz)  | -0.05                      | -1±1                       | 0                     | 1.000 |
| Highest(2480MHz) | 1.49                       | -0.5±1                     | 0.5                   | 1.585 |
| 8DPSK mode       |                            |                            |                       |       |
| Test channel     | Peak Output Power<br>(dBm) | Tune up tolerance<br>(dBm) | Maximum tune-up Power |       |
|                  |                            |                            | (dBm)                 | (mW)  |
| Lowest(2402MHz)  | -1.73                      | -2±1                       | -1                    | 0.794 |
| Middle(2441MHz)  | -0.06                      | -1±1                       | 0                     | 1.000 |
| Highest(2480MHz) | 1.32                       | 1±1                        | 2                     | 1.585 |

| Worst case: GFSK mode                                   |                                                    |                               |                           |       |                     |                        |
|---------------------------------------------------------|----------------------------------------------------|-------------------------------|---------------------------|-------|---------------------|------------------------|
| Channel                                                 | Maximum Peak<br>Conducted<br>Output Power<br>(dBm) | Tune up<br>tolerance<br>(dBm) | Maximum tune-<br>up Power |       | Calculated<br>value | Exclusion<br>threshold |
|                                                         |                                                    |                               | (dBm)                     | (mW)  |                     |                        |
| Lowest<br>(2402MHz)                                     | -1.55                                              | -2±1                          | -1                        | 0.794 | 0.246               | 3.0                    |
| Middle<br>(2441MHz)                                     | 0.22                                               | 0±1                           | 1                         | 1.259 | 0.393               |                        |
| Highest<br>(2480MHz)                                    | 1.41                                               | 1±1                           | 2                         | 1.585 | 0.499               |                        |
| Conclusion: the calculated value ≤3.0, SAR is exempted. |                                                    |                               |                           |       |                     |                        |

Remark: The Max Conducted Peak Output Power data refer to report Report No.: CQASZ20220500783E-02  
BLE can not simultaneous transmitting at same time.

\*\*\* END OF REPORT \*\*\*