

## RF Exposure Report

**Report No.:** SA170818C25C

**FCC ID:** X0J-WA2000

**Test Model:** WA2000C, WA2000U, WA2000M

**Received Date:** Jul. 23, 2018

**Date of Evaluation:** Oct. 15, 2018

**Issued Date:** Oct. 17, 2018

**Applicant:** Tibbo Technology Inc.

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**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

**Lab Address:** No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C.

**Test Location:** No. 19, Hwa Ya 2nd Rd, Wen Hwa Vil, Kwei Shan Dist., Taoyuan City 33383, Taiwan (R.O.C)

**FCC Registration /**

**Designation Number:** 788550 / TW0003



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### Release Control Record

| Issue No.    | Description      | Date Issued   |
|--------------|------------------|---------------|
| SA170818C25C | Original Release | Oct. 17, 2018 |

## 1 Certificate of Conformity

**Product:** WA2000

**Brand:** Tibbo Technology Inc.

**Test Model:** WA2000C, WA2000U, WA2000M

**Sample Status:** Production Unit

**Applicant:** Tibbo Technology Inc.

**Date of Evaluation:** Oct. 15, 2018

**Standards:** FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1-1992

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

**Prepared by :**  , **Date:** Oct. 17, 2018

Gina Liu / Specialist

**Approved by :**  , **Date:** Oct. 17, 2018

Dylan Chiou / Project Engineer

## 2 RF Exposure

### 2.1 Limits for Maximum Permissible Exposure (MPE)

| Frequency Range (MHz)                                 | Electric Field Strength (V/m) | Magnetic Field Strength (A/m) | Power Density (mW/cm <sup>2</sup> ) | Average Time (minutes) |
|---|-------------------------------|-------------------------------|-------------------------------------|------------------------|
| Limits For General Population / Uncontrolled Exposure |                               |                               |                                     |                        |
| 0.3-1.34  | 614                           | 1.63                          | (100)*                              | 30                     |
| 1.34-30   | 824/f                         | 2.19/f                        | (180/f <sup>2</sup> )*              | 30                     |
| 30-300  | 27.5                          | 0.073                         | 0.2                                 | 30                     |
| 300-1500  | ...                           | ...                           | f/1500                              | 30                     |
| 1500-100,000  | ...                           | ...                           | 1.0                                 | 30                     |

f = Frequency in MHz ; \*Plane-wave equivalent power density

### 2.2 MPE Calculation Formula

$$Pd = (Pout * G) / (4 * \pi * r^2)$$

where

Pd = power density in mW/cm<sup>2</sup>

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

### 2.3 Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user.

So, this device is classified as **Mobile Device**.

### 2.4 Antenna Gain

The antenna information is listed as below.

|   | Antenna Type | Brand                         | Model         | Antenna Gain (dBi) |              |            | Connector Type     |
|---|--------------|-------------------------------|---------------|--------------------|--------------|------------|--------------------|
|   |              |                               |               | BT                 | WLAN 2.4 GHz | WLAN 5 GHz |                    |
| 1 | PCB          | Johanson Technology           | 2450AD14A5500 | 1.0                | 1.0          | 4.0        | none (like solder) |
| 2 | Monopole     | WIFI-Link Technologies Co Ltd | WLD1          | 6.0                | 6.0          | 5.0        | R-SMA              |
| 3 | Monopole     | WIFI-Link Technologies Co Ltd | WLD1          | 6.0                | 5.0          | 5.0        | R-SMA              |

## 2.5 Calculation Result of Maximum Conducted Power

| Band | Frequency Band (MHz) | Max Power (dBm) | Antenna Gain (dBi) | Distance (cm) | Power Density (mW/cm <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) |
|------|----------------------|-----------------|--------------------|---------------|-------------------------------------|-----------------------------|
| WLAN | 2412-2462            | 24.27           | 6.0                | 20            | 0.212                               | 1.00                        |
|      | 5180-5240            | 14.02           | 5.0                | 20            | 0.016                               | 1.00                        |
|      | 5745-5825            | 13.21           | 5.0                | 20            | 0.013                               | 1.00                        |
| BT   | 2402-2480            | 6.07            | 6.0                | 20            | 0.003                               | 1.00                        |

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