

## RF Exposure Report

**Report No.:** SA160819E01A

**FCC ID:** COF-WMBNBM26A

**Test Model:** WM-BN-BM-26\_A

**Received Date:** June 28, 2017

**Test Date:** July 13, 2017

**Issued Date:** Aug. 04, 2017

**Applicant:** UNIVERSAL GLOBAL SCIENTIFIC INDUSTRIAL CO., LTD.

**Address:** 141, Lane 351, Sec. 1, Taiping Road., Tsautuen, Nantou 54261, Taiwan

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

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Taiwan R.O.C.

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### Release Control Record

| Issue No.    | Description       | Date Issued   |
|--------------|-------------------|---------------|
| SA160819E01A | Original release. | Aug. 04, 2017 |

## 1 Certificate of Conformity

**Product:** 802.11b/g/n + BT Wireless LAN Module

**Brand:** USI

**Test Model:** WM-BN-BM-26\_A

**Sample Status:** ENGINEERING SAMPLE

**Applicant:** UNIVERSAL GLOBAL SCIENTIFIC INDUSTRIAL CO., LTD.

**Test Date:** July 13, 2017

**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 EMC characteristics under the conditions specified in this report.

**Prepared by :**

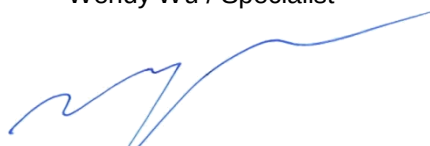


**Date:**

Aug. 04, 2017

Wendy Wu / Specialist

**Approved by :**



**Date:**

Aug. 04, 2017

May Chen / Manager

## 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 provided to the EUT, please refer to the following table:

| Brand | Model             | Antenna Net Gain(dBi) | Frequency range (GHz to GHz) | Antenna Type | Connector Type |
|-------|-------------------|-----------------------|------------------------------|--------------|----------------|
| YAGEO | ANT3216LL11R2400A | 3.68                  | 2.4~2.4835                   | Chip         | NA             |

## 2.5 Calculation Result of Maximum Conducted Power

For WLAN

| Frequency Band (MHz) | Max Power (mW) | Antenna Gain (dBi) | Distance (cm) | Power Density (mW/cm <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) |
|----------------------|----------------|--------------------|---------------|-------------------------------------|-----------------------------|
| 2412-2462            | 293.765        | 3.68               | 20            | 0.13637                             | 1                           |

For BT-EDR:

| Frequency Band (MHz) | Max Power (mW) | Antenna Gain (dBi) | Distance (cm) | Power Density (mW/cm <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) |
|----------------------|----------------|--------------------|---------------|-------------------------------------|-----------------------------|
| 2402-2480            | 3.819          | 3.68               | 20            | 0.00177                             | 1                           |

For BT-LE:

| Frequency Band (MHz) | Max Power (mW) | Antenna Gain (dBi) | Distance (cm) | Power Density (mW/cm <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) |
|----------------------|----------------|--------------------|---------------|-------------------------------------|-----------------------------|
| 2402-2480            | 3.412          | 3.68               | 20            | 0.00158                             | 1                           |

--- END ---