

**ORing Industrial Networking Corp.  
3F., No.542-2, Zhongzheng Rd., Xindian Dist.,  
New Taipei City 23148, Taiwan (R.O.C)**

Federal Communications Commission  
Authorization and Evaluation Division  
Equipment Authorization Branch  
7435 Oakland Mills Road  
Columbia, MD 21046

**Applicant's declaration concerning RF Radiation Exposure**

We hereby indicate that the product  
Product description: WiFi Module  
Model No: OWMH-DS6311-01

The equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. The integral antennas used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter within the host device.

A safety statement concerning minimum separation distances from enclosure of the  
Product: WiFi Module  
will be integrated in the user's manual to provide end-users with transmitter operating conditions for satisfying RF exposure compliance.

The appropriate information can be drawn from the test report no: W6M21811-18613-C-1,  
W6M21811-18613-C-54 and the accompanying calculations.

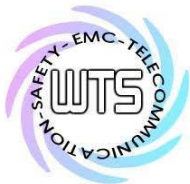
Company: ORing Industrial Networking Corp.

Address: 3F., No.542-2, Zhongzheng Rd., Xindian Dist., New Taipei City 23148,  
Taiwan (R.O.C)

Date: 2018-12-12

Signature

A handwritten signature in black ink, appearing to read "Bruce Chang", is written over a light blue horizontal line.



Registration number: W6M21811-18613-C-1

FCC ID: WHD-OWMHDS6311-01

## **3.2 Equivalent isotropic radiated power**

FCC Rule: 15.247(b)(3)

Test exclusion = max. conducted output power

Test exclusion = 22.22 dBm

### **RESULT:**

Test standard : FCC KDB Publication  
447498 D01 General RF Exposure Guidance v06

## **3.3 RF Exposure Compliance Requirements**

FCC OET Bulletin 65 Edition 97.01 determines the equations for predicting RF fields and applicable limits.

The prediction for power density in the far-field but will over-predict power density in the near field, where it could be used for walking a “worst case” or conservative prediction.

$$S = \frac{PG}{4\pi R^2}$$

S – Power Density

P – Output power ERP

R – Distance

D – Cable Loss

AG – Antenna Gain

| Item | Unit               | Value  | Remarks          |
|------|--------------------|--------|------------------|
| P    | mW                 | 166.7  | Peak value       |
| D    | dB                 |        |                  |
| AG   | dBi                | 7.01   |                  |
| G    |                    | 5.0234 | Calculated Value |
| R    | cm                 | 20     | Assumed value    |
| S    | mW/cm <sup>2</sup> | 0.1666 | Calculated value |

Limits:

| Limit for General Population / Uncontrolled Exposure |  |
|--|--|
| Frequency<br>(MHz)                                   | Power Density<br>(mW/cm <sup>2</sup> ) |
| 1500 – 100.000                                       | 1.0                                    |



Registration number: W6M21811-18613-C-54

FCC ID: WHD-OWMHDS6311-01

### **3.9 Equivalent isotropic radiated power, FCC 15.407 (f)**

FCC Rule: 15.407(b)(3)

For systems using digital modulation in the 5.150 GHz-5.250 GHz and 5.725 GHz-5.850GHz bands: 1 Watt.

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test equipment used: ETSTW-RE 055

### **3.10 RF Exposure Compliance Requirements**

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.25 m normally can be maintained between the user and the device.

FCC OET Bulletin 65 Edition 97.01 determines the equations for predicting RF fields and applicable limits.

The prediction for power density in the far-field but will over-predict power density in the near field, where it could be used for walking a “worst case” or conservative prediction.

$$S = \frac{PG}{4\pi R^2}$$

S – Power Density

P – Output power ERP

R – Distance

D – Cable Loss

AG – Antenna Gain

#### **Band 1**

| Item | Unit               | Value  | Remarks          |
|------|--------------------|--------|------------------|
| P    | mW                 | 200.12 | Peak value       |
| D    | dB                 |        |                  |
| AG   | dBi                | 9.01   |                  |
| G    |                    | 7.9616 | Calculated Value |
| R    | cm                 | 20     | Assumed value    |
| S    | mW/cm <sup>2</sup> | 0.3170 | Calculated value |

#### **Band 4**

| Item | Unit               | Value  | Remarks          |
|------|--------------------|--------|------------------|
| P    | mW                 | 220.87 | Peak value       |
| D    | dB                 |        |                  |
| AG   | dBi                | 9.01   |                  |
| G    |                    | 7.9616 | Calculated Value |
| R    | cm                 | 20     | Assumed value    |
| S    | mW/cm <sup>2</sup> | 0.3498 | Calculated value |