

**Scarlet Tech Co. Ltd.**  
347 4F-3, HePing E Rd, 2nd Sec, Daan Dist Taipei City Taiwan 106

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: Wireless Anemometer  
Model No: WL-21\_Wind Sensor

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: Wireless Anemometer  
will be integrated in the user's manual to provide end-users with transmitter operating conditions for satisfying RF exposure compliance.

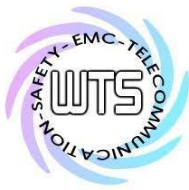
The appropriate information can be drawn from the test report no: W6M22109-21219-C-1 and the accompanying calculations.

Company: Scarlet Tech Co. Ltd.  
Address: 347 4F-3, HePing E Rd, 2nd Sec, Daan Dist Taipei City Taiwan 106

Date: 2021.11.09

Signature

A handwritten signature in black ink, appearing to be 'C. H. Y.', is written below the 'Signature' label.



Registration number: W6M22109-21219-C-1

FCC ID: 2A2MWSTWL21

## 3.2 Equivalent Isotropic Radiated Power (EIRP)

FCC Rule: 15.247(b)(3)

EIRP = max. conducted output power + antenna gain

EIRP = 6.77 dBm + ((-1.56) dBi [antenna gain claimed by manufacturer]) = 5.21 dBm = 3.3189 mW

## 3.3 Exemption Limits for Routine Evaluation according to

### 47 CFR FCC Part 2 Subpart J, section 2.1091

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.

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 20 cm normally can be maintained between the user and the device.

## MPE Calculation Method

### (A) Limits for Occupational/Controlled Exposure

| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/cm <sup>2</sup> ) | Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes) |
|-----------------------|-----------------------------------|-----------------------------------|---|---|
| 0.3-3.0               | 614                               | 1.63                              | (100)*                                  | 6   |
| 3.0-30                | 1842/f                            | 4.89/f                            | (900/f <sup>2</sup> )*                  | 6   |
| 30-300                | 61.4                              | 0.163                             | 1.0                                     | 6   |
| 300-1500              | --                                | --                                | f/300                                   | 6   |
| 1500-100,000          | --                                | --                                | 5                                       | 6   |

### (B) Limits for General Population/Uncontrolled Exposure

| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/cm <sup>2</sup> ) | Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes) |
|-----------------------|-----------------------------------|-----------------------------------|---|---|
| 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  |

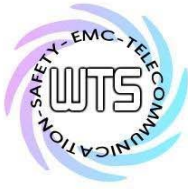
f = frequency in MHz

\*Plane-wave equivalent power density

E = Electric field (V/m) P = output power (W) G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to  $Pd \cdot \frac{30 \times P \times G}{377 \times d^2}$  mW/cm<sup>2</sup>.



## **Worldwide Testing Services(Taiwan) Co., Ltd.**

Registration number: W6M22109-21219-C-1  
FCC ID: 2A2MWSTWL21

Established separation distance is 20 cm.  
Operating frequency band : 902.9-926.6 MHz

The product meets RF exposure requirement.  
Because the power density of  $0.0007 \text{ mW/cm}^2$  at 902.9 MHz is below the power density limit of  $0.6019 \text{ mW/cm}^2$ .