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Project No: CB10408042

Maximum Permissible Exposure

| | |
|------------------------|---|
| Applicant's company | PEGATRON CORPORATION |
| Applicant Address | 5F., NO. 76, LIGONG ST., BEITOU DISTRICT, TAIPEI CITY 11259, Taiwan |
| FCC ID | VUIUPWL6031SP |
| Manufacturer's company | Maintek Computer (Suzhou) Co., Ltd |
| Manufacturer Address | Bldg. 6 NB, 233 Jin Feng Rd, Suzhou District Jiangsu China |

| | |
|------------------|---|
| Product Name | Wireless module |
| Brand Name | PEGATRON |
| Model Name | UPWL6031SP |
| Ref. Standard(s) | 47 CFR FCC Part 2 Subpart J, section 2.1091 |
| EUT Freq. Range | 2400 ~ 2483.5MHz |
| Received Date | Jul. 27, 2015 |
| Final Test Date | Jul. 30, 2015 |
| Submission Type | Original Equipment |

Sam Chen

SPORTON INTERNATIONAL INC.



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History of This Test Report

| REPORT NO. | VERSION | DESCRIPTION | ISSUED DATE |
|------------|---------|-------------------------|---------------|
| FA572816 | Rev. 01 | Initial issue of report | Aug. 11, 2015 |
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1. MAXIMUM PERMISSIBLE EXPOSURE

1.1. Applicable Standard

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 that distance of at least 0.2 m is normally maintained between the user and the device.

(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 ²) | Averaging Time E ² , H ² or S (minutes) |
|-----------------------|-----------------------------------|-----------------------------------|--|---|
| 0.3-3.0 | 614 | 1.63 | (100)* | 6 |
| 3.0-30 | 1842 / f | 4.89 / f | (900 / f)* | 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 ²) | Averaging Time E ² , H ² or S (minutes) |
|-----------------------|-----------------------------------|-----------------------------------|--|---|
| 0.3-1.34 | 614 | 1.63 | (100)* | 30 |
| 1.34-30 | 824/f | 2.19/f | (180/f)* | 30 |
| 30-300 | 27.5 | 0.073 | 0.2 | 30 |
| 300-1500 | | | F/1500 | 30 |
| 1500-100,000 | | | 1.0 | 30 |

Note: f = frequency in MHz ; *Plane-wave equivalent power density

1.2. MPE Calculation Method

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } Pd \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

E = Electric field (V/m)

P = Peak RF output power (W)

G = EUT Antenna numeric gain (numeric)

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

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$

From the EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained.

1.3. Calculated Result and Limit

Exposure Environment: General Population / Uncontrolled Exposure

Antenna Type : PCB Antenna

Conducted Power for IEEE 802.11n MCS0 HT20: 24.96 dBm

| Distance (m) | Test Freq. (MHz) | Antenna Gain (dBi) | Antenna Gain (numeric) | The maximum combined Average Output Power | | Power Density (S) (mW/cm ²) | Limit of Power Density (S) (mW/cm ²) | Test Result |
|--------------|------------------|--------------------|------------------------|---|----------|---|--|-------------|
| | | | | (dBm) | (mW) | | | |
| 0.2 | 2437 | 2.94 | 1.9679 | 24.9611 | 313.4096 | 0.122762 | 1 | Complies |