



**Intertek Testing Services Shenzhen Ltd.
Guangzhou Branch**

Job No.: 160309129GZU

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FCC ID: 2AHP4-ONOBCE668

RF Exposure Compliance Requirement

1. Standard requirement

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 level 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 0.2m normally can be 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/cm²) | Averaging Times 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 |
| 1500-100000 | -- | -- | 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/cm²) | Averaging Times 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 |
| 1500-100000 | -- | -- | 1.0 | 30 |

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

2. MPE Calculation Method

$$E (V/m) = (30 \cdot P \cdot G)^{0.5} / d \quad \text{Power Density: } Pd(W/m^2) = E^2 / 377$$

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

$$Pd = (30 \cdot P \cdot G) / (377 \cdot d^2)$$

From the peak 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.

3. Calculated Result and Limit

(1) 802.11b 11Mbps data rate:

| Frequency (MHz) | Antenna Gain (Numeric) | Peak Output Power (dBm) | Peak Output Power (mW) | Power Density (S) (mW/cm ²) | Limit of Power Density (S) (mW/cm ²) | Test Result |
|-----------------|------------------------|-------------------------|------------------------|---|--|-------------|
| 2412 | 1.585 | 18.72 | 74.47 | 0.0235 | 1 | Complies |
| 2437 | 1.585 | 20.43 | 110.41 | 0.0348 | 1 | Complies |
| 2462 | 1.585 | 20.94 | 124.17 | 0.0392 | 1 | Complies |

(2) 802.11g 9Mbps data rate:

| Frequency (MHz) | Antenna Gain (Numeric) | Peak Output Power (dBm) | Peak Output Power (mW) | Power Density (S) (mW/cm ²) | Limit of Power Density (S) (mW/cm ²) | Test Result |
|-----------------|------------------------|-------------------------|------------------------|---|--|-------------|
| 2412 | 1.585 | 25.82 | 381.94 | 0.1204 | 1 | Complies |
| 2437 | 1.585 | 23.04 | 201.37 | 0.0635 | 1 | Complies |
| 2462 | 1.585 | 23.69 | 233.88 | 0.0737 | 1 | Complies |

(3) 802.11n HT20 6.5Mbps data rate:

| Frequency (MHz) | Antenna Gain (Numeric) | Peak Output Power (dBm) | Peak Output Power (mW) | Power Density (S) (mW/cm ²) | Limit of Power Density (S) (mW/cm ²) | Test Result |
|-----------------|------------------------|-------------------------|------------------------|---|--|-------------|
| 2412 | 1.585 | 22.31 | 170.22 | 0.0537 | 1 | Complies |
| 2437 | 1.585 | 23.14 | 206.06 | 0.0650 | 1 | Complies |
| 2462 | 1.585 | 24.65 | 291.74 | 0.0920 | 1 | Complies |

(4) 802.11n HT40 130Mbps data rate:

| Frequency (MHz) | Antenna Gain (Numeric) | Peak Output Power (dBm) | Peak Output Power (mW) | Power Density (S) (mW/cm ²) | Limit of Power Density (S) (mW/cm ²) | Test Result |
|-----------------|------------------------|-------------------------|------------------------|---|--|-------------|
| 2422 | 1.585 | 22.09 | 161.81 | 0.0510 | 1 | Complies |
| 2437 | 1.585 | 22.39 | 173.38 | 0.0547 | 1 | Complies |
| 2452 | 1.585 | 22.65 | 184.08 | 0.0580 | 1 | Complies |