FCC ID: 2AHCK-WE55UN4108

RF Exposure

Test Requirement:FCC Part 1.1307Evaluation Method:FCC Part 2.1091 & KDB 447498 D01 General RF Exposure Guidance v06

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 0.2 m normally can be maintained between the user and the device.

The procedures / limit

| 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 |

(A) Limits for Occupational / Controlled Exposure

(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

MPE Calculation Method

$$\mathbf{S} = \frac{P \times G}{4 \times \pi \times R^2}$$

S = power density (in appropriate units, e.g. mW/cm^2)

- P = output power to the antenna (in appropriate units, e.g., mW).
- G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain.
- R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

From the peak EUT RF output power, the minimum mobile separation distance, R=20cm, as well as the gain of the used antenna, the RF power density can be obtained

ANTA

| Antenna Gain (dBi) | Antenna Gain (numeric) | Maximum conducted (average) output power (dBm) | Maximum conducted (average) output power (mw) | Power Density (mW/cm2) | Limit of Power Density (mW/cm2) | Result |
|-----------------------|------------------------------|---|---|------------------------------|--|------------|
| 2.00 | 1.585 | 15.38 | 34.51 | 0.0109 | 1 | Compliance |

ANTB

| Antenna Gain (dBi) | Antenna Gain (numeric) | Maximum conducted (average) output power (dBm) | Maximum conducted (average) output power (mw) | Power Density (mW/cm2) | Limit of Power Density (mW/cm2) | Result |
|-----------------------|------------------------------|---|---|------------------------------|--|------------|
| 2.00 | 1.585 | 15.41 | 34.75 | 0.0110 | 1 | Compliance |

ANTA+ANTB

| Antenna Gain (dBi) | Antenna Gain (numeric) | Maximum conducted (average) output power (dBm) | Maximum conducted (average) output power (mw) | Power Density (mW/cm2) | Limit of Power Density (mW/cm2) | Result |
|-----------------------|------------------------------|---|---|------------------------------|--|------------|
| 2.00 | 1.585 | 14.39 | 27.48 | 0.0087 | 1 | Compliance |