



Registration number: W6M21912-19587-C-1

FCC ID: 2AAGOMNB976RX

## 3.2 RF Exposure Compliance Requirements

FCC Rule: 15.247(b)(3)

EIRP = max. conducted output power + antenna gain

2.4GHz (2410-2477 MHz)

EIRP = 18.22 dBm+ ( 2 dBi [antenna gain claimed by manufacturer]) = 20.22 dBm = 105.1962 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



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

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

## **2.4GHz**

Established separation distance is 20 cm.

Operating frequency band: 2410-2477 MHz

The product meets RF exposure requirement.

Because the power density of 0.0209 mW/cm<sup>2</sup> at 2441.5 MHz is below the power density limit of 1 mW/cm<sup>2</sup>.

Limits:

| <b>Limit for General Population / Uncontrolled Exposure</b> |                                        |
|-------------------------------------------------------------|----------------------------------------|
| Frequency<br>(MHz)                                          | Power Density<br>(mW/cm <sup>2</sup> ) |
| 1500 – 100.000                                              | 1                                      |