

### 1. Limits

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

| Frequency range (MHz)                                   | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm <sup>2</sup> ) | Averaging time (minutes) |
|---|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| (A) Limits for Occupational/Controlled Exposures        |                               |                               |                                     |                          |
| 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 |                               |                               |                                     |                          |
| 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                       |

### 2. Test Procedure

Equation from page 18 of OET Bulletin 65, Edition 97-01

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

Where:

S = power density

P = power input to the antenna

G = numeric gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the centre of radiation of the antenna

### 3. Result

| Frequency (MHz) | Maximum Output power (dBm) | Maximum Output power (mW) | Antenna Gain (dBi) | Antenna Gain (numeric) | Distance (cm) | Result (mW/cm <sup>2</sup> ) | Limits for General Population/ Uncontrolled Exposure (mW/cm <sup>2</sup> ) |
|-----------------|----------------------------|---------------------------|--------------------|------------------------|---------------|------------------------------|--|
| BT              |                            |                           |                    |                        |               |                              |  |
| 2412            | 5.48                       | 3.53                      | 2                  | 1.58                   | 20.00         | 0.0011                       | 1.0  |
| BLE             |                            |                           |                    |                        |               |                              |  |
| 2442            | 6.29                       | 4.26                      | 2                  | 1.58                   | 20.00         | 0.0013                       | 1.0  |
| 2.4GWiFi        |                            |                           |                    |                        |               |                              |  |
| 2462            | 14.69                      | 29.44                     | 2                  | 1.58                   | 20.00         | 0.0093                       | 1.0  |
| 5GWiFi-band4    |                            |                           |                    |                        |               |                              |  |
| 5825            | 14.62                      | 28.97                     | 2                  | 1.58                   | 20.00         | 0.0091                       | 1.0  |

Note: Just the worst case mode was shown in report.

#### Max Simultaneous MPE calculation results

| Mode                   | MPE Ratio                   | Results      |
|------------------------|-----------------------------|--------------|
| BT+BLE+2.4GWiFi+5GWiFi | 0.0011+0.0013+0.0093+0.0091 | 0.0208 < 1.0 |

### 4. Conclusion

The device is exempt from the RF exposure evaluation.