

## **FCC §15.247 (I) & §1.1307 (B) (3) & §2.1091- MPE-BASED EXEMPTION**

### **Applicable Standard**

According to subpart 1.1307 (b) (3) and subpart 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

According to KDB 447498 D04 Interim General RF Exposure Guidance

MPE-Based Exemption:

General frequency and separation-distance dependent MPE-based effective radiated power(ERP) thresholds are in Table B.1 [Table 1 of § 1.1307(b)(1)(i)(C)] to support an exemption from further evaluation from 300 kHz through 100 GHz.

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

| RF Source frequency (MHz) | Threshold ERP (watts) |
|---------------------------|-----------------------|
| 0.3-1.34                  | $1,920 R^2$ .         |
| 1.34-30                   | $3,450 R^2/f^2$ .     |
| 30-300                    | $3.83 R^2$ .          |
| 300-1,500                 | $0.0128 R^2 f$ .      |
| 1,500-100,000             | $19.2 R^2$ .          |

R is the minimum separation distance in meters

f = frequency in MHz

### **Result**

| Mode       | Frequency (MHz) | Tune up conducted power | Antenna Gain |       | ERP   |       | Evaluation Distance (m) | ERP Limit (W) |
|------------|-----------------|-------------------------|--------------|-------|-------|-------|-------------------------|---------------|
|            |                 | (dBm)                   | (dBi)        | (dBd) | (dBm) | (W)   |                         |               |
| 2.4G Wi-Fi | 2412-2462       | 16.5                    | 2.9          | 0.75  | 17.25 | 0.053 | 0.2                     | 0.768         |
| 5G Wi-Fi   | 5150-5250       | 16.0                    | 3.5          | 1.35  | 17.35 | 0.054 | 0.2                     | 0.768         |
|            | 5725-5850       | 16.0                    | 3.5          | 1.35  | 17.35 | 0.054 | 0.2                     | 0.768         |

Note: 1. The tune up conducted power and antenna gain was declared by the applicant.  
 2. The 2.4G/5G Wi-Fi cannot Simultaneous transmitting  
 3. 0dBd=2.15dBi

To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 20cm from nearby persons.

**Result: Compliant.**