

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

Applicable Standard

According to subpart 15.247 (i) 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)(3)(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 | $0.0128 R^2f$. |
| 1,500-100,000 | $19.2R^2$. |

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 (mW) |
|------------|-------------------------|--------------------------------------|---------------------------|-------|-------|--------|-------------------------|----------------|
| | | (dBm) | (dBi) | (dBd) | (dBm) | (mW) | | |
| BLE | 2402-2480 | 6.5 | 1.56 | -0.59 | 5.91 | 3.90 | 0.2 | 768 |
| 2.4G Wi-Fi | 2412-2462 | 27.0 | 2.66 | 0.51 | 27.51 | 563.64 | 0.2 | 768 |
| 5.2G Wi-Fi | 5180-5240 | 11.5 | 3.10 | 0.95 | 12.45 | 17.58 | 0.2 | 768 |
| 5.3G Wi-Fi | 5260-5320 | 13.0 | 3.10 | 0.95 | 13.95 | 24.83 | 0.2 | 768 |
| 5.6G Wi-Fi | 5500-5600/ 5650-5700 | 12.5 | 3.10 | 0.95 | 13.45 | 22.13 | 0.2 | 768 |
| 5.8G Wi-Fi | 5745-5825 | 11.5 | 3.10 | 0.95 | 12.45 | 17.58 | 0.2 | 768 |

- Note: 1. The tune up conducted power and antenna gain was declared by the applicant.
 2. The BLE, 2.4G Wi-Fi and 5G Wi-Fi cannot transmit at same time.
 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.