

**47 C.F.R. Part 1, Subpart I, Section 1.1310  
47 C.F.R. Part 2, Subpart J, Section 2.1091  
Maximum Permissible Exposure Calculations**

**For FCC ID: 2AXWYERIKA**

**2.4 GHz ISM Band Transceiver**

EUT Device Category = General Population/Uncontrolled Exposure

EUT consists of one ISM band radio transmitting operating over a range of:  
**2404 MHz to 2478 MHz**

MPE Summary:

KDB 447498 D01 General RF Exposure Guidance v06 gives the 1-g and 10-g SAR test exclusion thresholds. The limits for 100 MHz to 6 GHz and a test separation distance of ≤50 mm are defined by the following equation:

$$((\text{max EIRP} + \text{tune up tolerance, mW} / (\text{minimum separation, mm}) * \sqrt{f_{\text{GHz}}}) \leq 3.0 \text{ for 1-g SAR or } \leq 7.5 \text{ for 10-g SAR}$$

EIRP calculations

| Device     | Frequency (GHz) | Peak Power (dBuV/m) | Calculated EIRP (dBm) | Calculated EIRP (mW) |
|------------|-----------------|---------------------|-----------------------|----------------------|
| Receiver   | 2.404           | 98.25               | 3.02                  | 2.01                 |
|            | 2.440           | 98.78               | 3.55                  | 2.27                 |
|            | 2.478           | 97.74               | 2.51                  | 1.78                 |
| Microphone | 2.404           | 98.45               | 3.22                  | 2.10                 |
|            | 2.440           | 99.11               | 3.88                  | 2.44                 |
|            | 2.478           | 97.08               | 1.85                  | 1.53                 |

MPE and Limit are calculated as follows:

| Max EIRP | Separation | Frequency | Density | Limit | Result | Limit | Result |
|----------|------------|-----------|---------|-------|--------|-------|--------|
| mW       | (mm)       | GHz       | mW/mm   | 1-g   |        | 10-g  |        |
| 2.01     | 5.0        | 2.404     | 0.62    | 3.0   | Exempt | 7.5   | Exempt |
| 2.27     | 5.0        | 2.440     | 0.70    | 3.0   | Exempt | 7.5   | Exempt |
| 1.78     | 5.0        | 2.478     | 0.60    | 3.0   | Exempt | 7.5   | Exempt |
| 2.10     | 5.0        | 2.404     | 0.70    | 3.0   | Exempt | 7.5   | Exempt |
| 2.44     | 5.0        | 2.440     | 0.80    | 3.0   | Exempt | 7.5   | Exempt |
| 1.53     | 5.0        | 2.478     | 0.50    | 3.0   | Exempt | 7.5   | Exempt |

**Result:** The device meets FCC MPE limit for General Population/Uncontrolled Exposure