

# **Appendix 5**

## **RF Exposure Information**

**Maximum transmitter power:**

| Frequency (MHz) | Maximum peak output power (dBuV/m) | Output power (mW) | Separation distance (mm) |
|-----------------|------------------------------------|-------------------|--------------------------|
| 2423            | 85.6                               | 0.1089            | 5                        |
| 2436            | 86.6                               | 0.1371            | 5                        |
| 2458            | 89.2                               | 0.2495            | 5                        |

**For FCC**

According to KDB 447498 D01:

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR and ≤7.5 for 10-g extremity SAR, where

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

**Result:**

$$(0.1089/5) \cdot \sqrt{2.423} = 0.0339 < 3.0$$

$$(0.1371/5) \cdot \sqrt{2.436} = 0.0428 < 3.0$$

$$(0.2495/5) \cdot \sqrt{2.458} = 0.0782 < 3.0$$

**Conclusion:**

No SAR is required.

**For IC**

According to table 1 in RSS-102 Issue 5, below exemption limit is applied

Frequency: 2450MHz

At separation distance of ≤ 5mm

Exemption limits: 4mW

**Results:**

max. power of channel = 89.2 dBuV/m = 0.2495 mW < 4mW

**Conclusion:**

The maximum peak output power of the transmitter is less than the SAR evaluation exemption threshold and hence it complies with the RSS-102 RF exposure requirement