

## **Appendix A: FCC Part 1.1307, 1.1310, 2.1091, 2.1093; IC RSS-Gen: RF Exposure**

According to KDB 447498 D01 General RF Exposure Guidance v05 4.3.1. Standalone SAR test exclusion considerations, unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

### **Limits**

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

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

- $f(\text{GHz})$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before the calculation
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion

### **EUT RF Exposure**

The max conducted peak output power is 2.6 mW at 2440 MHz.

The best case gain of the antenna is 1.6 numeric

EIRP =  $2.6 \text{ mW} \times 1.64 = 4.3 \text{ mW}$  (rounding to the nearest mW = 4 mW)

General RF Exposure =  $(4 \text{ mW} / 5 \text{ mm}) \times \sqrt{2.440 \text{ GHz}} = 1.2$

Therefore, SAR test is not required since the result is below the  $\leq 3.0$  1-g SAR limit.