

Appendix 5

RF Exposure Information

Maximum transmitter power:

Frequency (MHz)	Maximum peak output power (dBm)	Output power(mW)
2402	-4.71	0.3381
2440	-4.90	0.3236
2480	-5.21	0.3013

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:

$$(0.3381/5) \cdot \sqrt{2.402} = 0.105 < 3.0$$

$$(0.3236/5) \cdot \sqrt{2.440} = 0.101 < 3.0$$

$$(0.3013/5) \cdot \sqrt{2.480} = 0.095 < 3.0$$

Conclusion:

No SAR is required.

For IC

According to table 1 in RSS-102 Issue 5, below exemption limit at separation distance of ≤ 5mm is applied:

Frequency (MHz)	Exemption limits (mW, by linear interpolation)
2400	4.273
2483.5	3.936

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 without SAR evaluation.