

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* \leq 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

- $f(\text{GHz})$ 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:

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

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

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

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 \leq 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