

# Appendix 5

## RF Exposure Information

**Maximum transmitter power:**

Frequency (MHz)	Maximum peak output power (dBm)	Output power(mW)
2412	-15.88	0.025822
2432	-17.70	0.016982
2457	-20.14	0.009682

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,<sup>24</sup> 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<sup>25</sup>
- 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:**

$$(0.025822/5) \cdot \sqrt{2.412} = 0.008 < 3.0$$

$$(0.016982/5) \cdot \sqrt{2.432} = 0.005 < 3.0$$

$$(0.009682/5) \cdot \sqrt{2.457} = 0.003 < 3.0$$

**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

**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.