

Appendix 5

RF Exposure Information

Maximum transmitter power:

Frequency (MHz)	Maximum peak output power (dBm)	Duty Cycle %	Average Output power(mW)	Separation Distance (mm)
902.75	16.52	30%	13.462	5
914.75	16.55	30%	13.556	5
927.25	16.53	30%	13.493	5

Duty Cycle Calculation

Hopping rate = 50 Hz

Transmitter on time per hop = 6ms

$$\text{Duty cycle} = 6/20 * 100 = 30\%$$

According to KDB 447498 D01:

These test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring evaluation.

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,²⁴ where

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation²⁵
- 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:

$$(13.462/5) * \sqrt{0.90275} = 2.558 < 3.0$$

$$(13.556/5) * \sqrt{0.91475} = 2.593 < 3.0$$

$$(13.493/5) * \sqrt{0.92725} = 2.599 < 3.0$$

Conclusion:

No SAR is required.