

## Electromagnetic Compatibility Criteria for Intentional Radiators

### § 15.247(i) Maximum Permissible Exposure

SAR Exclusion Calculation:

For 100 MHz to 6 GHz and test separation distances  $\leq 50$  mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:  $[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR, and  $\leq 7.5$  for 10-g extremity SAR, 30 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>31</sup>
- The result is rounded to one decimal place for comparison
- The values 3.0 and 7.5 are referred to as numeric thresholds in step b) below

For 100 MHz to 6 GHz and test separation distances  $> 50$  mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$\{[\text{Power allowed at numeric threshold for 50 mm in step a)}] + [(\text{test separation distance} - 50 \text{ mm}) \cdot 10]\}$  mW, for  $> 1500$  MHz and  $\leq 6$  GHz

Frequency (GHz)	Output Power (dBm)	Tune Up (dBm)	Tune Up (dBm)	Tune up (mW)	Distance (mm)	SAR	Limit	Result
2.402	2.79	2.79±1	5.4	3.46736 8505	50	0.1074 77238	$\leq 3.0$ for 1-g SAR, and $\leq 7.5$ for 10-g extremity SAR	Exempt
2.44	4.3	4.3±1	5.4	3.46736 8505	50	0.1083 24055	$\leq 3.0$ for 1-g SAR, and $\leq 7.5$ for 10-g extremity SAR	Exempt
2.48	4.36	4.36±1	5.4	3.46736 8505	50	0.1092 08348	$\leq 3.0$ for 1-g SAR, and $\leq 7.5$ for 10-g extremity SAR	Exempt

Conclusion: No SAR is required.