

RF Exposure Evaluation

According to KDB 447498 and part 2.1093, Unless specifically required by the *published RF exposure KDB procedures*, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding *SAR Test Exclusion Threshold* condition(s), listed below, is (are) satisfied.

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:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f_{(\text{GHz})}}] \leq 3.0$ 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

Here,

For BLE

Test Mode	Channel Frequency(MHz)	Peak Power Output(dBm)
BLE 1M	2402	-10.755
	2442	-9.975
	2480	-9.511
BLE 2M	2402	-10.709
	2442	-9.937
	2480	-9.477

Test Mode	Channel Frequency (MHz)	Tune up tolerance(dBm)	Max tune up conducted power(dBm)	Output Peak power (mW)	Calculation Result	Limits
BLE 1M	2402	-10±1	-9	0.13	0.0390	3
	2442	-9±1	-8	0.16	0.0495	3
	2480	-9±1	-8	0.16	0.0499	3
BLE 2M	2402	-10±1	-9	0.13	0.0390	3
	2442	-9±1	-8	0.16	0.0495	3
	2480	-9±1	-8	0.16	0.0499	3

So a SAR test is not required