

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 ≤ 5.0 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,

2.4GWIFI-worst mode and channel				
Frequency (MHz)	Max Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up	
			(dBm)	(mW)
802.11g-2412MHz	8.237	8 ± 1	9	7.943

Maxtune-up Power (dBm)	Max tune-up Power (mW)	Frequency (MHz)	Min. distance (mm)	Calc. thresholds	limit
9	7.943	2412	5	2.467	3.0

BLE-worst mode and channel				
Frequency (MHz)	Max Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up	
			(dBm)	(mW)
BLE-2480MHz	-3.327	-3 ± 1	-2	0.631

Maxtune-up Power (dBm)	Max tune-up Power (mW)	Frequency (MHz)	Min. distance (mm)	Calc. thresholds	limit
-2	0.631	2480	5	0.199	3.0

Simultaneous transmission mode	The sum of the ratios	SUM	Limit
2.4G WIFI + BT	2.467/3+0.199/3	0.889	1.0
conclusion : 0.889 < 1, So there is no sar requirement			