RF Exposure Evaluation

According to *KDB 447498 D01 General RF Exposure Guidance v06* 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 mm, the 1-g and 10-g SAR test
exclusion thresholds are determined by the following:
[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance,
mm)] · [$\sqrt{f_{(GHz)}}$] ≤ 3.0 for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR, where

$f_{(GHz)}$ 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,

BT-BLE								
Mode	Freque ncy (MHz)	Max Power (dBm)	Target power W/ tolerance (dBm)	Max tune up power tolerance (dBm)	Max Power (mW)	Min. Distance (mm)	Calc. thresholds	limit
GFSK	2402	-1.73	-2±1.0	-1.0	0.794	5.00	0.246	3.0
	2440	-1.88	-2±1.0	-1.0	0.794	5.00	0.248	3.0
	2480	-2.27	-2±1.0	-1.0	0.794	5.00	0.250	3.0

WIFI 2.4G								
Mode	Frequen cy (MHz)	Max Power (dBm)	Target power W/ tolerance (dBm)	Max tune up power tolerance (dBm)	Max Power (mW)	Min. Distance (mm)	Calc. thresholds	limit
802.11b	2412	6.25	6±1.0	7.0	5.012	5.00	1.557	3.0
	2437	4.86	5±1.0	6.0	3.981	5.00	1.243	3.0
	2462	6.10	6±1.0	7.0	5.012	5.00	1.573	3.0
802.11g	2412	7.04	7±1.0	8.0	6.310	5.00	1.960	3.0
	2437	7.30	7±1.0	8.0	6.310	5.00	1.970	3.0
	2462	7.10	7±1.0	8.0	6.310	5.00	1.980	3.0
802.11n (HT20)	2412	6.41	6±1.0	7.0	5.012	5.00	1.557	3.0
	2437	6.13	6±1.0	7.0	5.012	5.00	1.565	3.0
	2462	6.54	6±1.0	7.0	5.012	5.00	1.573	3.0
802.11n (HT40)	2422	6.53	6±1.0	7.0	5.012	5.00	1.557	3.0
	2437	6.35	6±1.0	7.0	5.012	5.00	1.565	3.0
	2452	6.93	7±1.0	8.0	6.310	5.00	1.976	3.0

Remark：1. BT& wifi2.4G Antenna gain is 2.5dBi,
  2. BT and wifi can transmit at the same time
  3. In the case of simultaneous launches for wifi and BT:
The Max Calc. Thresholds : BT: 0.250,   Wifi: 1.980

BT and Wifi: 0.250/3+1.980/3 =0.743 ≤ 1

So a SAR test is not required