



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.

SAR Test Exclusion Thresholds for 100 MHz - 6 GHz and ≤ 50 mm

Approximate SAR Test Exclusion Power Thresholds at Selected Frequencies and Test Separation Distances are illustrated in the following Table. The equation and threshold in 4.3.1 must be applied to determine SAR test exclusion.

MHz	5	10	15	20	25	mm		
150	39	77	116	155	194			
300	27	55	82	110	137			
450	22	45	67	89	112	SAR Test Exclusion		
835	16	33	49	66	82			
900	16	32	47	63	79			
1500	12	24	37	49	61			
1900	11	22	33	44	54	Threshold (mW)		
2450	10	19	29	38	48			
3600	8	16	24	32	40			
5200	7	13	20	26	33			
5400	6	13	19	26	32			
5800	6	12	19	25	31			

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:

[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] * $[\sqrt{f_{(GHz)}}] \le 3.0$ for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR, where

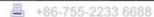
f_(GHz) is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation The result is rounded to one decimal place for comparison

Shenzhen ZKT Technology Co., Ltd.













Here,

BLE:

Frequency	Reading result(dBµV/m)	PK Output Power (dBm)	Output Power(mW)	Test Separation Distance (mm)	Measurement Result	1-g SAR
GFSK 2440 MHz	95.47	0.27	1.06	5	0.33	3.0

Note: PK Output Power (dBm)= Reading result(dBµV/m)-95.2

Conclusion:

- 1. [(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] * $[\sqrt{f(GHz)}] < 3.0$.
- 2. SAR Test Exclusion Thresholds is 3.0 for separation distance 5mm. Therefore, SAR test is not required.





