

# FCC ID:2BBWC-CB145

## 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	SAR Test Exclusion Threshold (mW)			
450	22	45	67	89	112				
835	16	33	49	66	82				
900	16	32	47	63	79				
1500	12	24	37	49	61				
1900	11	22	33	44	54				
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	3			

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  $\le 7.5$  for 10-g extremity SAR, where

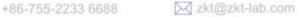
f<sub>(GHz)</sub> is the RF channel transmit frequency in GHz

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

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Here,

# For BLE

Mode	Frequency	Output power	Tune-up power	Max tune-up power	Max tune-up power	Min. Distance	Calc.	limit
	(MHz)	(dBm)	(dBm)	(dBm)	(mW)	(mm)	thresholds	
GFSK	2402	-0.074	-1±1	0	1.00	5	0.3100	3.0

### **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.





