RF EXPOSURE EVALUATION

FCC ID: 2BKBS-NIX

According to KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies v06.

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency(RF) Radiation as specified in §1.1307(b):

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:

[(*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,[16] where

- $f_{(GHz)}$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation[17]
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum *test separation distance* is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum *test separation distance* is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

Routine SAR evaluation refers to that specifically required by §2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval.

Channel (MHz)	Maximum output power (dBm)	Tune up tolerance (dBm)	Max Tune Up Power (dBm)	Distance (mm)	Calculation results	Limit	Operating Mode
2402	-1.45	-1.45 ±1	-0.450	5	0.279	3	GFSK
2441	0.30	0.30 ±1	1.300	5	0.422	3	
2480	0.07	0.07 ±1	1.070	5	0.403	3	
2402	-1.38	-1.38 ±1	-0.380	5	0.284	3	π/4-DQPSK
2441	0.54	0.54 ±1	1.540	5	0.445	3	
2480	0.16	0.16 ±1	1.160	5	0.411	3	
2402	-1.22	-1.22 ±1	-0.220	5	0.295	3	8DPSK
2441	0.58	0.58 ±1	1.580	5	0.450	3	
2480	0.04	0.04 ±1	1.040	5	0.400	3	
2402	-1.43	-1.43 ±1	-0.430	5	0.281	3	BLE_1M
2440	0.32	0.32 ±1	1.320	5	0.423	3	
2480	0.11	0.11 ±1	1.110	5	0.407	3	
2402	-1.50	-1.50 ±1	-0.500	5	0.276	3	BLE_2M
2440	0.33	0.33 ±1	1.330	5	0.424	3	
2480	0.05	0.05 ±1	1.050	5	0.401	3	

Result: No Standalone SAR test is required.