RADIO FREQUENCY EXPOSURE

Limit

Following FCC KDB 447498 D01v06 “General SAR test exclusion guidance” The corresponding SAR Exclusion Threshold condition, listed below:

- 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)] [√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 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.

- At 100 MHz to 6 GHz and for test separation distances > 50 mm, the SAR test exclusion threshold is determined according to the following:

  - [Threshold at 50 mm in step 1) + (test separation distance - 50mm) (f(MHz)/150)] mW, at 100MHz to 1500 MHz;
  - [Threshold at 50 mm in step 1) + (test separation distance - 50 mm)-10] mW at > 1500 MHz and ≤6 GHz;

- At frequencies below 100 MHz, the following may be considered for SAR test exclusion.

  - The threshold at the corresponding test separation distance at 100 MHz in step 2) is multiplied by [1 + log(100/f(MHz))] for test separation distances > 50 mm and < 200 mm.
  - The threshold determined by the equation in a) for 50 mm and 100 MHz is multiplied by 1/2 for test separation distances ≤ 50 mm.

SAR measurement procedures are not established below 100 MHz. When SAR test exclusion cannot be applied, a KDB inquiry is required to determine SAR evaluation requirements for any test results to be acceptable.

Results

BR/EDR

Test Mode	Max Conducted Power(dBm)	Test distance (mm)	Calculation Value for 1g SAR (Note 1)	Exemption Limit for 1g SAR
GFSK	-1.634	5	0.213	3
π /4-DQPSK	-0.788	5	0.259	3
8DPSK	-0.374	5	0.284	3

BLE

Test Mode	Max Conducted Power(dBm)	Test distance (mm)	Calculation Value for 1g SAR (Note 1)	Exemption Limit for 1g SAR
GFSK_1Mbps	-1.479	5	0.220	3
GFSK_2Mbps	-1.575	5	0.216	3

Note:

1. Calculation Value = [(max. power of channel, mW) / (min. test separation distance, mm)] ·[√f(GHz)].

Conclusion: The SAR evaluation is not required.

2. The above wireless technologies cannot transmit at the same time.