

FCC ID : 2BKEPFX-41

➤ Test Standards and Limits

1. According to KDB 447498 D01 v06, Section 4.3.1

2. FCC Radiofrequency radiation exposure limits:

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

$[(\text{max power of channel})/(\text{min test separation distance})] * [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds

The test exclusions are applicable only when the minimum test separation distance is \leq 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 according to 4.1 f) is applied to determine SAR test exclusion.

For 2.4G band device, the limit of worse case is

$$P_{\text{max}} \leq 3.0 * D_{\text{min}} / f = 3.0 * 5 / [\sqrt{2.474}] = 9.537 \text{ mW}$$

➤ Measurement and Calculation

1. Maximum transmit power

2.4G SRD, Antenna Gain: -0.01dBi

Operation Mode	Channel Number	Channel Frequency (MHz)	Emission Level(dBuV/m)	EIRP (dBm)
2.4G SRD	1	2449	80.83	-14.40
	11	2461	78.68	-16.55
	22	2472	77.69	-17.84
* EIRP[dBm] = E[dB μ V/m] + 20 log(d[meters]) - 104.77				

2. MPE Calculation

According to the formula. calculate the EIRP test result:

$$\text{EIRP} = 0.036 \text{ mW} < 9.525 \text{ mW}$$

So the SAR report is not required.

-End of the Report-