FCC ID: GDDJR-5000

➢ 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 ≤50 mm are determined by:

[(max power of channel)/(min test separation distance)]*[√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
• 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 ≤ 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

$P_{max} ≤ 3.0*D_{min})/ f = 3.0*5/ [√2.474] = 9.537mW$

➢ Measurement and Calculation

1. Maximum transmit power

SRD 2.4G, Antenna Gain: -2.7 dBi

Operation Mode	Channel Number	Channel Frequency (MHz)	Emission Level(dBuV/m)	EIRP (dBm)
2.4G SRD	0	2402	89.78	-5.45
	19	2440	89.97	-5.26
	39	2480	88.92	-6.31
* EIRP[dBm] = E[dBµV/m] + 20 log(d[meters]) - 104.77				

2. MPE Calculation

According to the formula. calculate the EIRP test result:
EIRP= 0.3mW < 9.525mW

So the SAR report is not required.

Signature:

Date: 2024.1.18

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