

RF Exposure Evaluation Report

1 RF EXPOSURE

Product Name: mechanical keyboard

Model No: R100

FCC ID: 2BDJR-R100

1.1 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:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ 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 before calculation¹⁷

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

1.2 EUT RF EXPOSURE EVALUATION

Operational Mode: EDR						
Channel (MHz)	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dB)	Maximum tune-up Power (dBm)	Maximum tune-up Power (mW)	Calculated value	Exclusion threshold
2402	4.56	± 1	5.56	3.597	1.115	3
Conclusion: the calculated value ≤ 3.0 , SAR is exempted.						

Operational Mode: GFSK							
Channel (MHz)	Maximum Peak Conducted Output Power (dBuV/m)	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dB)	Maximum tune-up Power		Calculated value	Limit
				(dBm)	(mW)		
2480	78.02	-17.18	± 1	-16.18	0.024	0.007	3
Conclusion: the calculated value ≤ 3.0 , SAR is exempted.							

dBm=dBuV/m-95.2

The 2.4g protocol and the Bluetooth protocol cannot be transmitted at the same time.