

# 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  $\leq 50$  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  $\leq 7.5$  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 calculation<sup>17</sup>

The result is rounded to one decimal place for comparison

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 is applied to determine SAR test exclusio

### 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	$\pm 1$	5.56	3.597	1.115	3
Conclusion: the calculated value $\leq 3.0$ , 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	$\pm 1$	-16.18	0.024	0.007	3
Conclusion: the calculated value $\leq 3.0$ , SAR is exempted.							

$\text{dBm} = \text{dBuV/m} - 95.2$

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