

FCC RF Exposure

Product Name: wireless gaming mouse

FCC ID: 2BRCY-TILION

Model(s): Tilion

1. Limits

According to KDB 447498 D01 General RF Exposure Guidance v06 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:

Result = $P/D \cdot \sqrt{F}$

F = the RF channel transmit frequency in GHz

P = Maximum turn - up power in mw

D = Min. test separation distance in mm

2. Test Result of RF Exposure Evaluation

2.4g tx: EIRP(dBm) = 90.46 (dBuV/m) - 95.2 = -4.74(dBm)

Frequency (MHz)	Output power (dBm)	Tune Up Power (dBm)	Max Tune Up power dBm/mW	Min test separation distance mm	Result	Limit (mW/cm ²)	SAR Test Exclusion
2.4g tx: 2402	-4.74	-4 ± 1	-3/0.5	5	0.155	3.0	Pass
BLE: 2480	0.66	0 ± 1	1/1.26	5	0.397	3.0	Pass
Note: PK Output power = conducted power. Conducted power see the test report HK2507234045-1E/2E, antenna gain = 2dBi. The device could not transmit simultaneously in BT and SRD.							

Per KDB 447498 D01, when the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine RF Exposure test exclusion. The test exclusion threshold is 0.397 which is ≤ 3 , RF Exposure testing is not required.

Note: Exclusion Thresholds Results = $[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}]$

$f(\text{GHz})$ is the RF channel transmit frequency in GHz

Distance = 5mm