

FCC RF Exposure

EUT Description: 51.2V 100AH LIFEP04 BATTERY

Model No.: ECO-LFP4810002

FCC ID: 2BAJ5ECO-LFP4810002

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:

$$[(\text{max power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR,}$$

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

Frequency (MHz)	Output power (dBm)	Tune Up Power (dBm)	Max Tune Up power mW	Min test separation distance mm	Result	Limit	SAR Test Exclusion
2412	11.80	10.9 $\pm$ 1(11.9)	15.488	10	2.405	3.0	Pass
2480	0.09	0 $\pm$ 1(1)	1.259	10	0.198	3.0	Pass

Note:

PK Output power = conducted power.

Conducted power see the test report **HK2509014978-1E/2E**, antenna gain=4.49dBi

Per KDB 447498 D01, when the minimum test separation distance is < 10 mm, a distance of 10 mm is applied to determine SAR test exclusion. The test exclusion threshold is 2.405 which is ≤ 3 , SAR 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(GHz) is the RF channel transmit frequency in GHz

Distance = 10mm

Note: the device could not transmit simultaneously in Bluetooth and 2.4GWIFI.