

FCC RF Exposure

EUT Description: LiFePO4 battery

Model No.: ECO-LFP4810001

FCC ID: 2BAJ5ECO-LFP4810001

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

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
2480	2.93	3±1(4)	2.512	5	0.791	3.0	Pass

Note:

PK Output power = conducted power.

Conducted power see the test report HK2410115930-E, antenna gain=2.85dBi

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 0.791 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