

FCC RF Exposure

EUT Description: EK653 Keyboard

Model No.: EK653

FCC ID: 2BEPS-K653

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:

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

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

$$\text{EIRP(dBm)} = 97.36(\text{dBuV/m}) - 95.2 = 2.16(\text{dBm})$$

Frequency (MHz)	Output power (dBm)	Tune Up Power (dBm)	Max Tune Up power dBm/mW	Min test separation distance mm	Result	Limit	SAR Test Exclusion
2441.85	2.16	2±1(3)	1.995	5	0.624	3.0	Pass

Note:

PK Output power = conducted power.

Conducted power see the test report HK2504071688-E, antenna gain = 1.8dBi

Per KDB 447498 D01, when the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion. The test exclusion threshold is 0.624 which is ≤ 3 , SAR testing is not required.

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

f(GHz) is the RF channel transmit frequency in GHz

Distance = 5mm