

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 \leq 50 mm are determined by:

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

Where:

$$\text{Result} = P/D \cdot \sqrt{f}$$

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

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

Distance=5mm