

# FCC RF Exposure

EUT Description: NS87 KEYBORD

Model No.: NS87

FCC ID: **2BBYJ-NS87**

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

BLE:

Frequency (MHz)	Output power (dBm)	Tune Up Power (dBm)	Max Tune Up power dBm/mW	Min test separation distance mm	Result	Limit (mW/cm <sup>2</sup> )	SAR Test Exclusion
2440	3.69	3±1	4/2.512	5	0.785	3.0	Pass

Note:  
PK Output power= conducted power.  
Conducted power see the test report **HK2305302228-1E**, antenna gain= 0dBi

2.4G:

$$\text{EIRP (dBm)} = 101.49(\text{dBuV/m}) - 95.2 = 6.29(\text{dBm})$$

Frequency (MHz)	Output power (dBm)	Tune Up Power (dBm)	Max Tune Up power dBm/mW	Min test separation distance mm	Result	Limit (mW/cm <sup>2</sup> )	SAR Test Exclusion
2480	6.29	6±1	7/5.012	5	1.579	3.0	Pass

Note:  
PK Output power= conducted power.  
Conducted power see the test report **HK2305302228-2E**, antenna gain= 0dBi

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 1.579 which is <= 3, RF Exposure testing is not required.

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

$f_{(GHz)}$  is the RF channel transmit frequency in GHz

Distance=5mm