

# FCC RF Exposure

EUT Description: Self-powered Wireless Switch

Model No.: QX-309FS

FCC ID: **2A42K-QX-309FS**

## 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

$$\text{EIRP(dBm)} = 73.35(\text{dBuV/m}) - 95.2 = -21.85(\text{dBm})$$

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
433.927	-21.85	-21±1	-20/0.01	5	0.00132	3.0	Pass

Note:  
PK Output power= conducted power.  
Conducted power see the test report **HK2503040926-E**, 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 0.00132 which is  $\leq 3$ , 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