

## RF Exposure Requirements

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Product Description: 2.4GHz WIRELESS ACTIVE RFID TAG

Model No.: HKRAT-RT03, HKRAT-RT03-\*\*\*\*\* (\*=0, H, I, M, R, T, Z )

FCC ID: XNOHKRAT-RT03

According to the KDB 447498 D01 v06 section 4.3.1, for 100 MHz to 6 GHz and test separation distances  $\leq 50$  mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

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

- $f(\text{GHz})$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>
- The result is rounded to one decimal place for comparison

### Calculation Result:

Tx frequency range: 2402-2480MHz

Min. test separation distance: 5mm

Maximum Conducted Output Power: -0.106dBm

Tune-Up output power: 0dBm

RF channel transmit frequency: 2480MHz

Result: 0.3

Limit: 3.0

The exclusion thresholds is  $0.3 < 3$ , so the transmitter complies with the RF exposure requirements and the SAR is not required.