

RF Exposure Requirements

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 ≤ 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 calculation¹⁷

- 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.