

RF Exposure Requirements

Product Description: Wireless Speaker

Model No.: Spring A

FCC ID:2AP5N-ARTOP

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:

GFSK:

Tx frequency range: 2402MHz

Min. test separation distance: 5mm

GFSK: Maximum Conducted Output Power: -1.98dBm(0.6339mW)

4QDPSK: Maximum Conducted Output Power: -2.86dBm(0.5176mW)

8DPSK: Maximum Conducted Output Power: -2.42dBm(0.5728mW)

Tune-Up output power: 0dBm(1mW)

RF channel transmit frequency: 2402MHz

Result: 0.31

Limit: 3.0

Tx frequency range: 2441MHz

Min. test separation distance: 5mm

GFSK: Maximum Conducted Output Power: -1.04dBm(0.787 mW)

4QDPSK: Maximum Conducted Output Power: -1.89dBm(0.6471mW)

8DPSK: Maximum Conducted Output Power: -1.71dBm(0.6745 mW)

Tune-Up output power: 0dBm(1mW)

RF channel transmit frequency: 2440MHz

Result: 0.31

Limit: 3.0

Tx frequency range: 2480MHz

Min. test separation distance: 5mm

GFSK: Maximum Conducted Output Power: -0.78dBm(0.835 mW)

4QDPSK: Maximum Conducted Output Power: -1.59dBm(0.6934mW)

8DPSK: Maximum Conducted Output Power: -1.75dBm(0.6683mW)

Tune-Up output power: 0dBm(1mW)

RF channel transmit frequency: 2480MHz

Result: 0.31

Limit: 3.0

The exclusion thresholds is $0.31 < 3$, so the transmitter complies with the RF exposure requirements and the SAR is not required.