

RF Exposure Requirements

Product Description:Bluetooth hat

Model No.:

MZ012,MZ011,MZ015,MZ013,MZ014,MZ019,MZ023,MZ026,MZ028,MZ029,MZ033,MZ035,
MZ036,MZ038,MZ039,MZ040

FCC ID:2AQ9P-MZ012

According to the KDB 447498 D01 v06 section 4.3.1, for 100 MHz to 6 GHz and test separation distances ≤ 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:2402MHz

Min. test separation distance: 5mm

Maximum Conducted Output Power:-4.79dBm(0.332mW)

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

RF channel transmit frequency:2402MHz

Result: 0.31

Limit: 3.0

Tx frequency range:2442MHz

Min. test separation distance: 5mm

Maximum Conducted Output Power:-4.37dBm(0.366 mW)

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

RF channel transmit frequency:2442MHz

Result: 0.31

Limit: 3.0

Tx frequency range:2480MHz

Min. test separation distance: 5mm

Maximum Conducted Output Power:-7.12dBm(0.194 mW)

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.