

FCC ID: 2BGW3-WJZH-M01

RF Exposure Evaluation

According to *KDB 447498 D01 General RF Exposure Guidance v06* and part 2.1093, Unless specifically required by the *published RF exposure KDB procedures*, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding *SAR Test Exclusion Threshold* condition(s), listed below, is (are) satisfied.

For 100 MHz to 6 GHz and test separation distances \leq 5 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 calculation

The result is rounded to one decimal place for comparison

$$\text{EIRP} = E_{\text{Meas}} + 20\log(d_{\text{Meas}}) - 104.7$$

E_{Meas} is the equivalent isotropically radiated power, in dBm

E_{Meas} is the field strength of the emission at the measurement distance, in dB μ V/m

d_{Meas} is the measurement distance, in m

Here,

For 433.92MHz

Frequency (MHz)	Field strength (dBuV/m)	EIRP (dBm)	Max tune-up (mW)
433.92	78.86	-16.34	0.023227

Frequency (MHz)	Max Power (dBm)	Target power W/ tolerance (dBm)	Max tune up power tolerance (dBm)	Max Power (mW)	Min. Distance (mm)	Calc. thresholds	limit
433.92	-16.34	-16 \pm 1.0	-15	0.0316	5.00	0.000007	3.0

The Antenna gain is 0.59dBi

So a SAR test is not required