

RF Exposure Report

FCC ID: 2A3O9-APH320

The EUT is a Air Purifier in the 2412 ~ 2462MHz frequency band.

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

Note: f = frequency in MHz

MPE calculation method

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi r^2}$$

S: power density mW/ cm²;

P: power input to the antenna in mW;

g: numeric gain of antenna;

r: distance to centre of radiation in cm

Calculated result

Mode	Max. Peak output power (dBm)	Max. Tune-up output power (dBm)	Max. Tune-up output power (mW)	Power Density (S) (mW/ cm ²)	Limit of Power Density (S) (mW/ cm ²)
802.11b	15.23	15 ± 1	39.811	0.00792	1
802.11g	14.96	15 ± 1	39.811	0.00792	1
802.11n20	15.80	15 ± 1	39.811	0.00792	1

Note1: the maximum antenna gain is 0dBi.

Note2: Calculated distance is 20cm, which is declared by the manufacture.

The power density is less than the limit, so SAR test is not required.