

## 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 <sup>2</sup> )	Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> 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 <sup>2</sup> )	Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> 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/ cm<sup>2</sup>;

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 <sup>2</sup> )	Limit of Power Density (S) (mW/ cm <sup>2</sup> )
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.