

MPE ESTIMATION

FCC ID: **2A8EB-900-00021**

1, Limit for General Population/ Uncontrolled Exposures

Frequency	Power density (mW/ cm ²)	Averaging time(minutes)
300MHz----1.5GHz	F/1500	30
1.5GHz---100GHz	1.0	30

2, Estimation Result

For 2.4G/5G WIFI:

Mode	Max PK Output power(dBm)	Tune Up Power(dBm)	Max Tune Up power(mW)	Antenna Gain(dBi)	Antenna Gain (linear)	MPE (mW/cm ²)
2.4G WIFI Ant1	14.22	13.5±1(14.5)	28.18	12	15.85	0.08891
2.4G WIFI Ant2	13.62	13±1(14)	25.12	12	15.85	0.07924
MIMO	/	/	/	/	/	0.16815
5.2G WIFI Ant1	9.80	9±1(10)	10.00	23	199.53	0.39715
5.2G WIFI Ant2	9.56	9±1(10)	10.00	23	199.53	0.39715
MIMO	/	/	/	/	/	0.79429
5.3G WIFI Ant1	5.79	5±1(6)	3.98	23	199.53	0.15811
5.3G WIFI Ant2	4.21	4±1(5)	3.16	23	199.53	0.12559
MIMO	/	/	/	/	/	0.28370
5.6G WIFI Ant1	3.61	3±1(4)	2.51	23	199.53	0.09976
5.6G WIFI Ant2	3.84	3±1(4)	2.51	23	199.53	0.09976
MIMO	/	/	/	/	/	0.19952
5.8G WIFI Ant1	9.36	8.5±1(9.5)	8.91	23	199.53	0.35396
5.8G WIFI Ant2	9.87	9±1(10)	10.00	23	199.53	0.39715
MIMO	/	/	/	/	/	0.75110

$$Pd = \frac{P_{out} * G}{4\pi r^2} ;$$

Note:

Note: The estimation distance is 20cm

Note: PK Output power= conducted power.

Conducted power see the test report **HK2210094428-1E/-2E/3E/4E**,

2.4G antenna gain=12dBi.

5G antenna gain=23dBi.

2.4G WIFI MPE (max)= 0.16815 (mW/cm²)

5G WIFI MPE (max)= 0.79429 (mW/cm²)

simultaneously MPE= 0.16815+0.79429=0.96244

when the minimum test separation distance is >20 cm, a distance of 20 cm is applied to determine RF Exposure test exclusion. The test exclusion threshold is 0.96244 which is < 1.0, RF Exposure testing is not required.

-----The End-----