

MPE ESTIMATION

FCC ID: **2ABFZ-ARC51-4WAP**

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	11.34	10.5±1(11.5)	14.125	12	15.8489	0.04456
2.4G WIFI Ant2	11.53	11±1(12)	15.849	12	15.8489	0.05000
MIMO	/	/	/	/	/	0.09456
5.2G WIFI Ant1	10.84	10±1(11)	12.589	14	25.1189	0.06294
5.2G WIFI Ant2	10.71	10±1(11)	12.589	14	25.1189	0.06294
MIMO	/	/	/	/	/	0.12589
5.8G WIFI Ant1	10.63	10±1(11)	12.589	14	25.1189	0.06294
5.8G WIFI Ant2	10.98	10±1(11)	12.589	14	25.1189	0.06294
MIMO	/	/	/	/	/	0.12589

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

Note:

Note: The estimation distance is 20cm

Note: PK Output power= conducted power.

Conducted power see the test report HK2104121068-1E/2E/3E,

2.4G antenna gain=12dBi.

5G antenna gain=14dBi.

2.4G WIFI MPE (max)= 0.09456 (mW/cm²)

5G WIFI MPE (max)= 0.12589 (mW/cm²)

simultaneously MPE=0.09456+0.12589=0.22045(mW/cm²)

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 0.22045mW/cm² which is < 1.0mW/cm², RF Exposure testing is not required.

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