

MPE ESTIMATION

FCC ID: 2BPI7-QCC220-F

1, According to §1.1310, 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 13.56MHz and WIFI:

13.56MHz:EIRP(dBm)=90.99(dBuV/m)-95.2=-4.21(dBm)

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)
2437	14.54	14±1(15)	31.62	1.82	1.52	0.00957
13.56	-4.21	-4±1(-3)	0.50	0	1.00	0.00010

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

Note:

Note: The estimation distance is 20cm

Note: PK Output power= conducted power in mW.

G=power gain of the antenna in the direction of interest relative to an isotropic radiator

R=distance to the center of radiation of the antenna in cm

Conducted power see the test report HK2507183952-1E/2E,

2.4G antenna gain=1.82dBi;

13.56MHz antenna gain=0dBi;

2.4G WIFI MPE (max)=0.00957 (mW/cm²)

13.56MHz (max)= 0.00010 (mW/cm²)

simultaneously MPE=0.00957+0.00010=0.00967

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 0.00967 which is< 1.0, RF Exposure testing is not required.

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