

MPE ESTIMATION

FCC ID: 2BPI7-FCV5005

1, According to §1.1310, Limit for General Population/ Uncontrolled Exposures

Frequency	Power density (mW/ cm ²)	Averaging time(minutes)
1.34MHz----30MHz	*(180/f ²)	30
300MHz----1.5GHz	F/1500	30
1.5GHz---100GHz	1.0	30

Note: F= Frequency in MHz. *=Plane-wave equivalent power density.

NFC:

EIRP(dBm)=83.01(dBuV/m)-95.2=-12.1(dBm)

2, Estimation Result

	Frequency (MHz)	Max PK Output power(dBm)	Tune Up Power(dBm)	Max Tune Up power(mW)	Antenna Gain(dBi)	Antenna Gain (numerical)	MPE (mW/cm ²)	Limit	Ratios
2.4G WiFi	2437	14.66	14±1(15)	31.623	3.28	2.128	0.01339	1.0	0.01339
NFC	13.56	-12.1	-12±1(-11)	0.079	0	1.000	0.00002	1.0	0.00002

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

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 HK2511106103-1E /2E, 2.4GWiFi antenna gain=3.28dBi, NFC antenna gain=0dBi.

Simultaneously MPE Ratios: 2.4GWiFi + NFC =0.01339 + 0.00002 = 0.01341

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 0.01341 which is<1.0, RF Exposure testing is not required.

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