

MPE ESTIMATION

FCC ID: 2BPI7-FCV5006

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)=85.01(dBuV/m)-95.2=-10.19(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 (mW/cm ²)	Ratios
BLE	2402	7.57	7±1(8)	6.31	3.28	2.13	0.00267	1.0	0.00267
EDR	2441	8.04	8±1(9)	7.94	3.28	2.13	0.00336	1.0	0.00336
2.4G WiFi	2412	15.39	15±1(16)	39.81	3.28	2.13	0.01686	1.0	0.01686
NFC	13.56	-10.19	-10±1(-9)	0.13	0	1.00	0.00003	1.0	0.00003

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

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 HK2511106105-1E/2E/3E/4E, BLE antenna gain=3.28dBi, EDR antenna gain=3.28dBi, 2.4GWiFi antenna gain=3.28dBi, NFC antenna gain=0dBi.

Simultaneously MPE Ratios: 2.4GWiFi + NFC = 0.01686 + 0.00003 = 0.01689

2.4GWiFi and BT cannot be transmitted at the same time

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 0.01689 which is < 1.0 , RF Exposure testing is not required.

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