

MPE ESTIMATION

FCC ID: 2BR9E-JD190H-B06

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

Note: F= Frequency in MHz

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)
EDR	2441	1.74	1±1(2)	1.585	2.25	1.68	0.00053
BLE	2440	1.38	1±1(2)	1.585	3.77	2.38	0.00075
2.4GWiFi	2462	14.27	14±1(15)	31.623	2.25	1.68	0.01057
5.2GWiFi	5200	6.33	6±1(7)	5.012	3.28	2.13	0.00212
5.8GWiFi	5785	6.80	6±1(7)	5.012	3.83	2.42	0.00241

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

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 **HK2507314231-1E/2E/3E/4E/5E**, BLE antenna gain=3.77dBi, EDR+2.4G WIFI antenna gain=2.25dBi, 5.2G antenna gain=3.28dBi, 5.8G antenna gain=3.83dBi.

Simultaneously MPE

EDR + BLE = 0.00053 + 0.00075 = 0.00128

EDR + 2.4GWiFi = 0.00053 + 0.01057 = 0.01110

BLE + 2.4GWiFi = 0.00075 + 0.01057 = 0.01132

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 0.01132 which is < 1.0; RF Exposure testing is not required.

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