

MPE ESTIMATION
FCC ID: 2A36D-D75C

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

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)
ZIGBEE	2.32	2±1(3)	2	1	1.26	0.0005
WIFI	26.62	26±1(27)	501.19	3.4	2.19	0.21847

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

Note:

Note: The estimation distance is 20cm

Note: PK Output power= conducted power.

Conducted power see the test report HK2110254022-1E/2E

ZIGBEE Gantenna gain=1dBi

WIFI Gantenna gain=3.4dBi

ZIGBEE MPE (max)= 0.0005 (mW/cm²)

WIFI MPE (max)= 0.21847 (mW/cm²)

simultaneously MPE=0.0005+0.21847=0.21897(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 0.21897mW/cm² which is< 1.0mW/cm², RF Exposure testing is not required.

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