

MPE ESTIMATION

FCC ID: 2ADUG-HW-AP80W2

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

For 2.4G /5GWIFI:

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)
2.4G WIFI Ant1	12.69	12±1(13)	19.953	6	3.9811	0.01581
2.4G WIFI Ant2	12.29	11.5±1(12.5)	17.783	6	3.9811	0.01409
MIMO	/	/	/	/	/	0.02990
5.2G WIFI Ant1	12.43	11.5±1(12.5)	17.783	6	3.9811	0.01409
5.2G WIFI Ant2	12.73	12±1(13)	19.953	6	3.9811	0.01581
MIMO	/	/	/	/	/	0.02990
5.8G WIFI Ant1	11.79	11±1(12)	15.849	6	3.9811	0.01256
5.8G WIFI Ant2	11.52	11±1(12)	15.849	6	3.9811	0.01256
MIMO	/	/	/	/	/	0.02512

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

Note:

Note: The estimation distance is 20cm

Note: PK Output power= conducted power.

Conducted power see the test report HK2103170865-1E/2E/3E,

2.4G antenna gain=6dBi.

5G antenna gain=6dBi.

2.4G WIFI MPE (max)= 0.02990 (mW/cm²)

5G WIFI MPE (max)= 0.02990 (mW/cm²)

simultaneously MPE=0.02990+0.02990=0.0598(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 0.0598mW/cm² which is < 1.0mW/cm², RF Exposure testing is not required.

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