

MPE ESTIMATION

FCC ID: 2BOM8HW-410WT-NI

1,Per FCC Part 2.1091 Radiofrequency radiation exposure evaluation: mobile devices, the 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

Mode	Frequency (MHz)	Max PK Output power(dBm)	Tune Up Power(dBm)	Max Tune Up power(mW)	Antenna Gain(dBi)	Antenna Gain (linear)	MPE (mW/cm ²)
BLE	2480	-0.84	0±1(1)	1.26	2.54	1.79	0.00045
2.4G WIFI	2462	13.21	13±1(14)	25.12	2.54	1.79	0.00895
$Pd = \frac{P_{out} * G}{4\pi r^2} ;$							
Note:							
Note: The estimation distance is 20cm							
Note:							
PK Output power= conducted power.							
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 HK2502250782-1E/2E, antenna gain=2.54dBi.							
2.4G WIFI (max)= 0.00895							
BLE (max)= 0.00045							
simultaneously MPE=0.00895/1+0.00045/1=0.0093							

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 0.0093 which is<1.0, RF Exposure testing is not required.

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