

FCC Part 2 section 2.1091

(ii) Limits for General Population/Uncontrolled Exposure				
Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
0.3-1.34	614	1.63	*(100)	<30
1.34-30	824/f	2.19/f	*(180/f ²)	<30
30-300	27.5	0.073	0.2	<30
300-1,500			f/1500	<30
1,500-100,000			1	<30

f = frequency in MHz. * = Plane-wave equivalent power density.

The EUT will only be used with a separation of 20 centimeters or greater between the antenna and the body of the user.

$$S = \text{EIRP} / (4 R^2 \pi)$$

- Note

S= Maximum power density(mW/cm²)

EIRP= Equivalent Isotropic Radiated Power(mW)

R= Distance to the center of the radiation of the antenna(Over 20cm)

Maximum Permissible Exposure Calculation

Operation Mode	Evaluation Frequency (MHz)	MAX Output Power (dBm)	Antenna Gain (dBi)	MAX. EIRP (dBm)	MAX. EIRP (mW)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Result
2.4G WIFI	2412-2462	16.88	1.18	18.06	63.97	20	0.013	1	Pass
2.4G BT	2402-2480	11.56	1.18	12.74	18.79	20	0.004	1	Pass
2.4G LE	2402-2480	14.04	1.18	15.22	33.27	20	0.007	1	Pass
5G WIFI NII 1	5180-5240	5.27	1.56	6.83	4.82	20	0.001	1	Pass
5G WIFI NII 3	5745-5825	5.22	1.46	6.68	4.66	20	0.001	1	Pass

Conclusion of Simultaneous Transmitter

WIFI + BT

The formula of calculated the MPE is CPD1 / LPD 1 + CPD2 / LPD 2 + < 1

CPD = Calculation power density / LPD = Limit of power density

$$\text{Result : } 0.013 + 0.007 = 0.019 < 1$$

Conclusion

maximum calculations of above situations are less than the “1” limit.