



MPE Calculation : WLAN

Mode(Worst case)	Frequency range (MHz)	Max Target Power (dBm)	ANT Gain (dBi)	Maximum EIRP (dBm)	Maximum EIRP (mW)	Maximum power density (mW/cm ²)	Requirment (mW/cm ²)
802.11b	2412.00 ~ 2462.00	17.00	-1.80	15.20	33.114	0.0066	1.000
802.11a	5180.00 ~ 5240.00	13.00	-2.60	10.40	10.965	0.0022	1.000
802.11a	5260.00 ~ 5320.00	13.00	-2.80	10.20	10.472	0.0021	1.000
802.11a	5500.00 ~ 5720.00	13.00	-2.00	11.00	12.590	0.0026	1.000
802.11a	5745.00 ~ 5825.00	13.00	-2.10	10.90	12.303	0.0025	1.000
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Note: Please refer to the "Maximum Power Document" for Max tune-up power.

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

The MPE sample calculation for this exposure is shown below.

$$\begin{aligned}
 S &= \text{EIRP} / (4 R^2 \pi) \\
 &= 10.965 / (4 \times 20^2 \times \pi) \\
 &= 0.002 \text{ mW/cm}^2
 \end{aligned}$$

- Note

S= Maximum power density(mW/cm²)

EIRP= Equivalent Isotropic Radiated Power(mW)

R= Distance to the center of the radiation of the antenna

▪ Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric Field strength (V/m)	Magnetic field strength (A/m)	Power Density (mW/cm ²)	Averageing 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			1.0	30

Conclusion : The exposure condition of this device is compliant with FCC