

## MPE Calculation : WLAN

RF function or Mode	Frequency range (MHz)			Max Target Power (dBm)	ANT Gain (dBi)	Maximum EIRP (dBm)	Maximum EIRP (mW)	Maximum power density (mW/cm <sup>2</sup> )
802.11b	2412.00	~	2462.00	10.00	-0.941	9.059	8.052	0.002
802.11g	2412.00	~	2462.00	11.50	-0.941	10.559	11.374	0.003
802.11n(HT20)	2412.00	~	2462.00	11.50	-0.941	10.559	11.374	0.003
802.11a	5180.00	~	5240.00	12.70	-1.773	10.927	12.380	0.003
802.11a	5745.00	~	5825.00	12.70	2.376	15.076	32.182	0.007
802.11n(HT20)	5180.00	~	5240.00	11.50	-1.773	9.727	9.391	0.002
802.11n(HT20)	5745.00	~	5825.00	11.50	2.376	13.876	24.412	0.005
		~						

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.

$$\begin{aligned}
 S &= \text{EIRP} / (4 R^2 \pi) \\
 &= 8.052 / (4 \times 20^2 \times \pi) \\
 &= 0.002 \text{ mW/cm}^2
 \end{aligned}$$

### - Note

S= Maximum power density(mW/cm<sup>2</sup>)

EIRP= Equivalent Isotropic Radiated Power(mW)

R= Distance to the center of the radiation of the antenna(20

### ▪ Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)			Electric Field strength (V/m)	Magnetic field strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Averageing time (minutes)
0.3	~	1.34	614	1.63	*100	30
1.34	~	30	824/f	2.19 / f	*180 / f <sup>2</sup>	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

[illegible]

