

## MPE Calculation

RF function or Mode	Frequency range (MHz)		Max. tune-up EIRP (dBm) <sup>Note1</sup>	Max. tune-up EIRP (mW)	Maximum power density (mW/cm <sup>2</sup> )	Requirement (mW/cm <sup>2</sup> )
802.11ad	60480	~	60480	22.00	158.4894	0.0316
		~				1.000
		~				
		~				
		~				
		~				
		~				
		~				
		~				

**Note1:** Please refer to the Operational Description for Max tune-up EIRP.

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.

$$\begin{aligned}
 \bullet S &= \text{EIRP} / (4 R^2 \pi) & \text{- Note} \\
 &= 158.4894 / (4 \times 20^2 \times \pi) & S = \text{Maximum power density(mW/cm}^2\text{)} \\
 &= 0.0316 \text{ mW/cm}^2 & \text{EIRP} = \text{Equivalent Isotropic Radiated Power(mW)} \\
 & & R = \text{Distance to the center of the radiation of the antenna(20cm)}
 \end{aligned}$$

### ▪ Limits for General Population/Uncontrolled Exposure

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

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

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