

## MPE Calculation

RF feature(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> )	Requirement (mW/cm <sup>2</sup> )
Bluetooth(BDR)	2402.00	~ 2480.00	6.50	2.24	8.74	7.482	0.002	1.000
Bluetooth(LE 1Mbps)	2402.00	~ 2480.00	6.00	2.24	8.24	6.669	0.002	1.000
WLAN(802.11b)	2412.00	~ 2462.00	14.50	2.24	16.74	47.207	0.010	1.000
WLAN(802.11a)	5180.00	~ 5240.00	9.00	3.20	12.20	16.596	0.004	1.000
		~						
		~						
		~						
		~						

Note: Please refer to the operation description 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.

$$\begin{aligned}
 S &= \text{EIRP} / (4 R^2 \pi) \\
 &= 7.482 / (4 \times 20^2 \times \pi) \\
 &= 0.002 \text{ mW/cm}^2
 \end{aligned}$$

**- 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> )	Averaging 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