FCC ID: 2AI4I-AP6212

MPE Calculation : WLAN(2.4GHz)

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^2)	Requriment (mW/cm^2)
802.11b	2412.00	~	2462.00	8.50	3.69	12.19	16.562	**0.004**	**1.000**
802.11g	2412.00	~	2462.00	8.50	3.69	12.19	16.562	0.004	**1.000**
802.11n(HT20)	2412.00	~	2462.00	8.50	3.69	12.19	16.562	0.004	**1.000**
		~							
		~							
		~							
		~							
		~							
		~							

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.

▪ **S =** EIRP / (4 R^2 π)

= 16.562 / (4 X 20^2 X π)

= 0.004 mW/cm^2

- Note

S= Maximum power density(mW/cm^2)

EIRP= Equivalent Isotropic Radiated Power(mW)

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

▪ **Limits for General Population/Uncontrolled Exposure**

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

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

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

FCC ID: 2AI4I-AP6212

MPE Calculation : Bluetooth

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^2)	Requriment (mW/cm^2)
Bluetooth(1Mbps)	2402.00	~	2480.00	8.50	3.69	12.19	16.562	**0.004**	**1.000**
Bluetooth(2/3Mbps)	2402.00	~	2480.00	4.50	3.69	8.19	6.594	0.002	**1.000**
		~							
		~							
		~							
		~							
		~							
		~							
		~							

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.

▪ **S =** EIRP / (4 R^2 π)

= 16.562 / (4 X 20^2 X π)

= 0.004 mW/cm^2

- Note

S= Maximum power density(mW/cm^2)

EIRP= Equivalent Isotropic Radiated Power(mW)

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

▪ **Limits for General Population/Uncontrolled Exposure**

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

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

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

RF Exposure Compliance for simultaneous operations

▪ **Configurations for simultaneous**

- **Configuration 1:** 2.4GHz WLAN + Bluetooth

Note: Above configuration was declared from applicant.

▪ **Configurations for simultaneous**

RF function or mode	2.4GHz WLAN	Bluetooth	Σ of MPE ratios
Power Density (mW/cm2)	0.004	0.004	
Requirement (mW/cm2)	1.000	1.000	
MPE ratio (Power Density/Requirement)	0.004	0.004	
Configuration 1 (MPE ratio)	0.004	0.004	0.008

Note: The maximum power density in each RF function was used for above table.

▪ **Requirment = Σ of MPE ratios ≤ 1**

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