MPE Calculation

Regulation(s): Part 1.1310, Part 2.1091

Method: KDB447498 D01v06

RF feature(Mode)	Frequency range (MHz)			Max Target Power (dBm)	ANT Gain (dBi)	Maximum EIRP (dBm)	Maximum EIRP (mW)	Maximum power density (mW/cm^2)	Requirement (mW/cm^2)
802.11n(HT20) - 2TX	2 412.00	~	2 462.00	19.00	5.07	24.07	255.271	0.050 8	1.000 0
802.11n(HT20) - 2TX	5 180.00	~	5 240.00	17.00	5.87	22.87	193.643	0.038 6	1.000 0
802.11n(HT20) - 2TX	5 240.00	~	5 320.00	19.00	6.05	25.05	319.890	0.063 7	1.000 0
802.11n(HT20) - 2TX	5 510.00	~	5 710.00	19.00	6.05	25.05	319.890	0.063 7	1.000 0
802.11n(HT40) - 2TX	5 745.00	~	5 825.00	19.00	5.50	24.50	281.839	0.056 1	1.000 0
		~							
		~							
		~							

Note: Please refer to the operation description for Max tune-up power. The EUT cannot support 2.4GHz and 5GHz simultaneous transmission.

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)

= 255.271 / (4 X 20^2 X π)

= 0.051 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 antenna(20cm)

Part 1.1310

▪ Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)			Electric Field strength (V/m)	Magnetic field strength (A/m)	Power Density (mW/cm^2)	Averaging 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