FCC ID : 2AJZ4-S15F

RF EXPOSURE EVALUATION

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency(RF) Radiation as specified in §1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density(mW/cm^2)	Average Time
(A) Limits for Occupational/Control Exposures				
300-1500	**--**	**--**	**F/300**	**6**
1500-100000	**--**	**--**	**5**	**6**
(B) Limits for General Population/Uncontrol Exposures				
300-1500	**--**	**--**	**F/1500**	**6**
1500-100000	**--**	**--**	**1**	**30**

11.1 Friis transmission formula: Pd= (Pout*G)\ ($4*pi*R^2$)

Where

Pd= Power density in mW/cm^2

Pout=output power to antenna in mW

G= Numeric gain of the antenna relative to isotropic antenna

Pi=3.1416

R= distance between observation point and center of the radiator in 20cm

Pd the limit of MPE, $1mW/cm^2$. If we know the maximum gain of the nd total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

11.2 Measurement Result

WIFI 2.4G:

Channel Freq. (MHz)	modulation	conducted power (mW)	conducted power (dBm)	Tune-up power (dBm)	Max tune-up power (dBm)	Antenna Gain Numeric	Evaluation result (mW/cm2)	Power density Limits (mW/cm2)
2.412	11b	20.84	13.19	13dBm to 15dBm	15	1.82	0.01	<1
2.437	11b	23.71	13.75	13dBm to 15dBm	15	1.82	0.01	<1
2.462	11b	28.18	14.50	13dBm to 15dBm	15	1.82	0.01	<1
2.412	11g	55.46	17.44	16dBm to 18dBm	18	1.82	0.02	<1
2.437	11g	50.00	16.99	16dBm to 18dBm	18	1.82	0.02	<1
2.462	11g	56.10	17.49	16dBm to 18dBm	18	1.82	0.02	<1
2.412	11n HT20	52.00	17.16	16dBm to 18dBm	18	1.82	0.02	<1
2.437	11n HT20	52.60	17.21	16dBm to 18dBm	18	1.82	0.02	<1
2.462	11n HT20	58.21	17.65	16dBm to 18dBm	18	1.82	0.02	<1
2.422	11n HT40	43.75	16.41	16dBm to 18dBm	18	1.82	0.02	<1
2.437	11n HT40	50.70	17.05	16dBm to 18dBm	18	1.82	0.02	<1
2.452	11n HT40	53.21	17.26	16dBm to 18dBm	18	1.82	0.02	<1