FCC ID : 2AOKI-WFM603UWC1

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

ANT 1: 2dBi

Mode	Channel Freq. (MHz)	Measured power (dBm)	Max tune-up power (dBm)	Antenna Gain Numeric	Evaluation result (mW/cm2)	Power density Limits (mW/cm2)
802.11b	2412	16.81	18	1.58	0.01989	1
802.11b	2437	16.66	18	1.58	0.01989	1
802.11b	2462	16.73	18	1.58	0.01989	1
802.11g	2412	21.49	22	1.58	0.04997	1
802.11g	2437	21.32	22	1.58	0.04997	1
802.11g	2462	21.37	22	1.58	0.04997	1
802.11n _HT20	2412	20.67	22	1.58	0.04997	1
802.11n _HT20	2437	20.62	22	1.58	0.04997	1
802.11n _HT20	2462	20.63	22	1.58	0.04997	1
802.11n _HT40	2422	20.58	22	1.58	0.04997	1
802.11n _HT40	2437	20.64	22	1.58	0.04997	1
802.11n _HT40	2452	20.44	22	1.58	0.04997	1

ANT 2: 2dBi

Mode	Channel Freq. (MHz)	Measured power (dBm)	Max tune-up power (dBm)	Antenna Gain Numeric	Evaluation result (mW/cm2)	Power density Limits (mW/cm2)
802.11b	2412	16.62	18	1.58	0.01989	1
802.11b	2437	16.75	18	1.58	0.01989	1
802.11b	2462	16.75	18	1.58	0.01989	1
802.11g	2412	20.49	22	1.58	0.04997	1
802.11g	2437	20.71	22	1.58	0.04997	1
802.11g	2462	20.89	22	1.58	0.04997	1
802.11n _HT20	2412	18.54	20	1.58	0.03153	1
802.11n _HT20	2437	18.83	20	1.58	0.03153	1
802.11n _HT20	2462	18.96	20	1.58	0.03153	1
802.11n _HT40	2422	18.94	20	1.58	0.03153	1
802.11n _HT40	2437	19.05	20	1.58	0.03153	1
802.11n _HT40	2452	19.27	20	1.58	0.03153	1

Total

Mode	Channel Freq. (MHz)	Measured power (dBm)	Max tune-up power (dBm)	Antenna Gain Numeric	Evaluation result (mW/cm2)	Power density Limits (mW/cm2)
802.11b	2412	19.73	21	1.58	0.03969	1
802.11b	2437	19.72	21	1.58	0.03969	1
802.11b	2462	19.75	21	1.58	0.03969	1
802.11g	2412	24.03	25	1.58	0.09971	1
802.11g	2437	24.04	25	1.58	0.09971	1
802.11g	2462	24.15	25	1.58	0.09971	1
802.11n _HT20	2412	22.74	24	1.58	0.07920	1
802.11n _HT20	2437	22.83	24	1.58	0.07920	1
802.11n _HT20	2462	22.89	24	1.58	0.07920	1
802.11n _HT40	2422	22.85	24	1.58	0.07920	1
802.11n _HT40	2437	22.93	24	1.58	0.07920	1
802.11n _HT40	2452	22.90	24	1.58	0.07920	1