

FCC ID : QKLSSM1

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: $P_d = \frac{P_{out} \cdot G}{4 \cdot \pi \cdot R^2}$

Where

P_d = Power density in mW/cm²

P_{out} =output power to antenna in mW

G= Numeric gain of the antenna relative to isotropic antenna

π =3.1416

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

P_d the limit of MPE, 1mW/cm². 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 2 Measurement Result

WIFI 2.4G

Channel Freq. (MHz)	modulation	conducted power (mW)	EIRP (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	11.12	10.46	10dBm to 12dBm	12	1	0.00315	1
2.437	11b	15.38	11.87	10dBm to 12dBm	12	1	0.00315	1
2.462	11b	14.89	11.73	10dBm to 12dBm	12	1	0.00315	1
2.412	11g	18.97	12.78	12dBm to 14dBm	14	1	0.00500	1
2.437	11g	21.73	13.37	12dBm to 14dBm	14	1	0.00500	1
2.462	11g	25.00	13.98	12dBm to 14dBm	14	1	0.00500	1
2.412	11n HT20	19.50	12.90	12.5dBm to 14.5dBm	14.5	1	0.00561	1
2.437	11n HT20	24.43	13.88	12.5dBm to 14.5dBm	14.5	1	0.00561	1
2.462	11n HT20	25.41	14.05	12.5dBm to 14.5dBm	14.5	1	0.00561	1
2.422	11n HT40	23.99	13.80	12.5dBm to 14.5dBm	14.5	1	0.00561	1
2.437	11n HT40	26.61	14.25	12.5dBm to 14.5dBm	14.5	1	0.00561	1
2.452	11n HT40	22.59	13.54	12.5dBm to 14.5dBm	14.5	1	0.00561	1

Signature:



Lisa Wang/Manager

Date: 2018-08-27