

FCC ID : 2AJ9T-F18I

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 antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

11.2 Measurement Result

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	48.75	16.88	16dBm to 18dBm	18	1.23	0.01544	1
2.437	11b	48.98	16.90	16dBm to 18dBm	18	1.23	0.01544	1
2.462	11b	45.08	16.54	16dBm to 18dBm	18	1.23	0.01544	1
2.412	11g	53.46	17.28	17dBm to 19dBm	19	1.23	0.01944	1
2.437	11g	65.61	18.17	17dBm to 19dBm	19	1.23	0.01944	1
2.462	11g	67.30	18.28	17dBm to 19dBm	19	1.23	0.01944	1
2.412	11n HT20	51.29	17.10	17dBm to 19dBm	19	1.23	0.01944	1
2.437	11n HT20	61.52	17.89	17dBm to 19dBm	19	1.23	0.01944	1
2.462	11n HT20	65.16	18.14	17dBm to 19dBm	19	1.23	0.01944	1
2.422	11n HT40	51.17	17.09	17dBm to 19dBm	19	1.23	0.01944	1
2.437	11n HT40	61.24	17.87	17dBm to 19dBm	19	1.23	0.01944	1
2.452	11n HT40	63.68	18.04	17dBm to 19dBm	19	1.23	0.01944	1