

FCC ID : 2AVV2A200LL177

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/cm²)	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: $P_d = (P_{out} * G) / (4 * \pi * R^2)$

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 20cm

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

Mode	Max Measured power (dBm)	Antenna gain (dBi)	Antenna Gain Numeric	R (cm)	Evaluation result (mW/cm ²)	Power density Limits (mW/cm ²)
WIFI2.4G	6.29	5	3.16	20	0.0027	1
WCDMA I	25	8	6.310	20	0.397	1
WCDMA IV	25	5	3.162	20	0.199	1
WCDMA V	25	9.416	8.742	20	0.550	1
LTE B2	25	8	6.310	20	0.397	1
LTE B4	25	5	3.162	20	0.199	1
LTE B5	25	9.416	8.742	20	0.550	1
LTE B12	25	8.734	7.471	20	0.470	1
LTE B13	25	9.173	8.266	20	0.520	1
LTE B14	25	9.255	8.424	20	0.530	1
LTE B66	25	5	3.162	20	0.199	1
LTE B71	25	8.545	7.153	20	0.450	1