

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)

FCC ID: 2AJON-SECD-5I0A

EUT Specification

EUT	Display screen
Frequency band (Operating)	<input checked="" type="checkbox"/> WLAN: 2.412GHz ~ 2.462GHz <input checked="" type="checkbox"/> GSM: 850/1900 <input checked="" type="checkbox"/> WCDMA: UMTS FDD Band II, UMTS FDD Band IV, UMTS FDD Band V <input checked="" type="checkbox"/> E-UTRA: LTE Band 2, LTE Band 4, LTE Band 5, LTE Band 17 <input type="checkbox"/> Others
Device category	<input type="checkbox"/> Portable (<20cm separation) <input checked="" type="checkbox"/> Mobile (>20cm separation) <input type="checkbox"/> Others ____
Exposure classification	<input type="checkbox"/> Occupational/Controlled exposure (S = 5mW/cm ²) <input checked="" type="checkbox"/> General Population/Uncontrolled exposure (S=1mW/cm ²)
Antenna diversity	<input checked="" type="checkbox"/> Single antenna <input type="checkbox"/> Multiple antennas <input type="checkbox"/> Tx diversity <input type="checkbox"/> Rx diversity <input type="checkbox"/> Tx/Rx diversity
Antenna gain (Max)	1 dBi
Evaluation applied	<input checked="" type="checkbox"/> MPE Evaluation <input type="checkbox"/> SAR Evaluation

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

Friis transmission formula: $P_d = \frac{P_{out} * G}{4 * \pi * R^2}$

Where

P_d = Power density in mW/cm²

P_{out} = output power to antenna in Mw

G = gain of antenna in linear scale

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.

Measurement Result

Operating Mode	Max. Measured Power (dBm)	Tune up tolerance (dBm)	Max. Tune up Power (dBm)	Antenna Gain	Power density at 20cm (mW/ cm ²)	Power density Limits (mW/cm ²)
GSM850	31.34	32.0 ± 1	33	1	0.4997	0.550
GSM1900	29.34	29.0 ± 1	30	1	0.2505	1.000
WCDMA850	22.72	22.0 ± 1	23	1	0.0500	0.550
WCDMA1700	21.79	21.0 ± 1	22	1	0.0397	1.000
WCDMA1900	23.16	22.0 ± 2	24	1	0.0629	1.000
LTE Band 2	22.69	22.0 ± 1	23	1	0.0500	1.000
LTE Band 4	23.85	22.0 ± 2	24	1	0.0629	1.000
LTE Band 5	23.77	22.0 ± 2	24	1	0.0629	0.550
LTE Band 17	22.82	22.0 ± 2	24	1	0.0629	0.471

Operating Mode	Channel Frequency (MHz)	Measured Power (dBm)	Tune up tolerance (dBm)	Max. Tune up Power (dBm)	Antenna Gain (dBi)	Power density at 20cm (mW/cm ²)	Power density Limits (mW/cm ²)
802.11b	2412	15.97	15.97±1	16.97	1	0.0125	1
	2437	16.07	16.07±1	17.07	1	0.0128	1
	2462	16.77	16.77±1	17.77	1	0.0150	1
802.11g	2412	14.48	14.48±1	15.48	1	0.0088	1
	2437	15.84	15.84±1	16.84	1	0.0121	1
	2462	15.28	15.28±1	16.28	1	0.0106	1
802.11n (HT20)	2412	14.77	14.77±1	15.77	1	0.0095	1
	2437	14.69	14.69±1	15.69	1	0.0093	1
	2462	14.37	14.37±1	15.37	1	0.0086	1
802.11n (HT40)	2422	13.31	13.31±1	14.31	1	0.0068	1
	2437	13.44	13.44±1	14.44	1	0.0070	1
	2452	13.71	13.71±1	14.71	1	0.0074	1