

RF Exposure Evaluation

LIMIT

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)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*(900/f ²)	6
30–300	61.4	0.163	1.0	6
300–1500	-	-	f/300	6
1500–100,000	-	-	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f ²)	30
30–300	27.5	0.073	0.2	30
300–1500	-	-	f/1500	30
1500–100,000	-	-	1.0	30

Note: f = frequency in MHz

EVALUATION METHOD

Transmission formula: $Pd = (Pout * G) / (4 * \pi * r^2)$

Where

Pd = power density in mW/cm², $Pout$ = 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

TEST RESULT

Passed

Not Applicable

According to RF test report, the results are as follow:

Worst case at 802.11n(H20)

Channel	Max. tune-up Power (dBm)	Max. tune-up Power (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Result
01	16.00	0.0398	0.0079	1.0	PASS
06	16.00	0.0398	0.0079	1.0	PASS
11	16.00	0.0398	0.0079	1.0	PASS

FCCID: 2AAEEJK1V

Worst case at *BT-EDR 8PSK*

Channel	Max. tune-up Power (dBm)	Max. tune-up Power (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Result
00	1.50	1.40	0.0003	1.0	PASS
39	1.50	1.40	0.0003	1.0	PASS
78	1.50	1.40	0.0003	1.0	PASS

Note:

the below information is declared by the applicant,

- 1) *WIFI Antenna Gain= 0Bi, Bluetooth Antenna Gain= 0Bi*
- 2) *The exposure safety distance is 20cm.*