

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;

Pi = 3.1416, **R** = distance between observation point and center of the radiator in cm

TEST RESULT

☒ **Passed**

☐ **Not Applicable**

Type	Frequency (MHz)	Conducted Average Power (dBm)	Maximum Tune-	Power Density (mW/cm ²)	Limit (mW/cm ²)	Result
GSM850	824.2	25.81	26.00	0.11187	0.5495	Pass
PCS1900	1850.2	22.81	23.00	0.07059	1.0000	Pass
WCDMA Band II	1852.4	25	26.00	0.11187	1.0000	Pass
WCDMA Band IV	1712.4	25	26.00	0.08886	1.0000	Pass
WCDMA Band V	826.4	25	26.00	0.08886	0.5509	Pass
LTE Band 2	1850.7	25	26.00	0.11187	1.0000	Pass
LTE Band 4	1710.7	25	26.00	0.11187	1.0000	Pass
LTE Band 5	824.70	25	26.00	0.08886	0.5498	Pass
LTE Band 7	2502.50	25	26.00	0.12552	1.0000	Pass
LTE Band 12	699.70	25	26.00	0.08105	0.4665	Pass
LTE Band 13	779.50	25	26.00	0.08105	0.5197	Pass
LTE Band 25	1850.7	25	26.00	0.11187	1.0000	Pass
LTE Band 26	814.7	25	26.00	0.08886	0.5431	Pass
LTE Band 38	2572.5	25	26.00	0.11988	1.0000	Pass
LTE Band 41	2498.5	25	26.00	0.11988	1.0000	Pass
LTE Band 26 (814-824)	814.7	25	26.00	0.08886	0.5431	Pass
2.4G WIFI	2412	16.86	26.00	0.01958	1.0000	Pass

Note:

- 1) The maximum antenna gain is 3.0dBi
- 2) The exposure evaluation safety distance is 20cm.