1 FCC RF Exposure Evaluation

1.1 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 (minutes)
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

f = Frequency in MHz; *Plane-wave equivalent power density

1.2 MPE Calculation Formula

Equation: $S = PG / 4\pi R^2$ or $R = \sqrt{PG / 4\pi S}$

Where, S = Power Density

P = Power Input to Antenna

G = Antenna Gain

R = distance to the center of radiated antenna in cm

1.3 Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as Mobile Device.

1.4 Antenna information

Dipole antenna, 0 dbi gain

1.5 FCC RF Exposure Evaluation Results

Band (MHz)	Max Average Output Power (dBm)	Antenna Gain (dBi)	Separation distance (cm)	Power Density (mW/cm^2)	MPE Limit (mW/cm^2)
29.71	19.086	0	20	0.016	0.204
29.73	19.183	0	20	0.016	0.204
29.75	18.430	0	20	0.014	0.203
29.77	18.870	0	20	0.015	0.203
29.79	18.953	0	20	0.016	0.203

The above results show that the device complies with the FCC MPE requirement.