

$$S = PG/4\pi R^2$$

S = Power Density mW/m²

P = Power (mW)

R = Distance to the center of radiation of the antenna (m)

G = Maximum antenna gain dBi

Freq. = 928

P = 12.5

R = 0.015

G = 1

DC = <1

$$\text{Power Density (mW/m}^2\text{)} = 4423.213022$$

$$\text{Power Density (mW/cm}^2\text{)} = 0.442321302$$

$$\text{Limit in the 300-1500MHz BAND is } f/300 = 3.093333333$$

Table 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)	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

f = frequency in MHz

* = Plane-wave equivalent power density