

NCEE Labs 4740 Discovery Drive Lincoln, NE 68521 402-323-6233

FCC ID: QQIET100

Maximum exposure limits from CFR 47, FCC Part 1.1310:

Table 1—Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm²)	Averaging time (minutes)				
(A) Limits for Occupational/Controlled Exposure								
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				
300-1,500			f/300	6				
1,500-100,000			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				
300-1,500			f/1500	30				
1,500-100,000			<mark>1.0</mark>	30				

The power density is calculated as shown below:

 $S = (P \times G)/(4 \times \pi \times d^2)$ – used to calculate exposure at 20 cm

 $d = \sqrt{(S/(P \times G) \times 4 \times \pi)}$ – used to calculate minimum distance to meet limits

S= power density

P = transmitter conducted power (in mW)

G = antenna numeric gain

d = distance to radiation center



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Table 2 – Power Density Calculations

Frequency	Antenna Gain	Output power	Power Density	Limit	Distance
MHz	dBi	mW	mW/cm^2	mW/cm^2	
923.3	2.14	7.59	0.0035563	0.0616	20
925.6	2.14	6.35	0.0029753	0.0617	20
927.5	2.14	6.38	0.0029894	0.0618	20

Note: This equipment is not intended to be operated by hand. It is expected that a 20cm separation will be maintained at all times.