



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/cm <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposure</b>				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f <sup>2</sup>	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f <sup>2</sup>	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

The power density is calculated as shown below:

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

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

- 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	Output Power +10% for tolerance	Power Density	Limit	Distance
MHz	numerical	mW	mW	mW/cm <sup>2</sup>	mW/cm <sup>2</sup>	
902.3	1	11.56	12.716	0.0025311	0.0602	20
908.6	1	11.17	12.287	0.0024457	0.0606	20
914.9	1	13.52	14.872	0.0029602	0.0610	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.

The EIRP values were calculated from the maximized field strength from all possible angles of the EUT.