

Transcore	Model:	05751	Test Number:	110728		
MPE Calculator	MPE uses EIRP for calculation. EIRP is based on TX power added to the antenna gain in dBi.					
	dBi = dB gain compared to an isotropic radiator.					
	S = power density in mW/cm ²					
					Antenna Gain (dBi)	3
		Output Power		dBd + 2.17 = dBi	dBi to dBd	2.2
Tx Frequency (MHz)	915	Maximum (Watts)	0.0004		Antenna Gain (dBd)	0.83
Cable Loss (dB)	0.0	(dBm)	-3.98		Antenna minus cable (dBi)	3.00
	Calculated ERP (mw)	0.484		EIRP = Po(dBm) + Gain (dB)		
	Calculated EIRP (mw)	0.798			Radiated (EIRP) dBm	-0.979
				ERP = EIRP - 2.17 dB		
	Occupational Limit				Radiated (ERP) dBm	-3.149
	3.05000 mW/cm ²	<div style="border: 1px solid black; padding: 5px;"> Power density (S) EIRP ----- = mW/cm² $4 \rho r^2$ r (cm) EIRP (mW) </div>				
	30.50000 W/m ²					
	General Public Limit					
	0.61000 mW/cm ²					
	6.10000 W/m ²					
FCC radio frequency radiation exposure limits per 1.1310						
	Frequency (MHz)	Occupational Limit	Public Limit			
	300-1,500	f/300	f/1500			
	1,500-10,000	5	1			
FCC radio frequency radiation exposure limits per 1.1310						
	Frequency (MHz)	Occupational Limit @ Tx Freq	Public Limit @ Tx Freq (mW/cm ²)			
	300-1,500 (mW/cm ²)	3.05	0.61			
	300-1,500 (W/m ²)	30.5	6.1			
	1,500-10,000 (mW/cm ²)	5	1			
	1,500-10,000 (W/m ²)	50	10			
EIRP	S	S	Distance	Distance	Distance	Distance
milliwatts	mW/cm ²	W/m ²	cm	meter	inches	Feet
0.798	0.00001	0.00006	100.00	1.00	39.37	0.08
0.798	0.00003	0.00025	50.00	0.50	19.69	0.04
0.798	0.00004	0.00040	40.00	0.40	15.75	0.03
0.798	0.00007	0.00071	30.00	0.30	11.81	0.03
0.798	0.00016	0.00159	20.00	0.20	7.87	0.02
0.798	0.00020	0.00196	18.00	0.18	7.09	0.02
0.798	0.00028	0.00282	15.00	0.15	5.91	0.01
0.798	0.00032	0.00324	14.00	0.14	5.51	0.01
0.798	0.00038	0.00376	13.00	0.13	5.12	0.01
0.798	0.00064	0.00635	10.00	0.10	3.94	0.01
0.798	0.00254	0.02540	5.00	0.05	1.97	0.00
0.798	0.06351	0.63511	1.00	0.01	0.39	0.00
0.798	0.07841	0.78409	0.90	0.01	0.35	0.00
0.798	0.09924	0.99236	0.80	0.01	0.31	0.00
0.798	0.12961	1.29615	0.70	0.01	0.28	0.00
0.798	0.17642	1.76420	0.60	0.01	0.24	0.00
0.798	0.25404	2.54045	0.50	0.005	0.20	0.00
			Occupational Limit minimum Distance (meters)	Occupational Limit minimum Distance (cm / inches)	Public Limit minimum distance (meters)	Public Limit minimum distance (cm / inches)
		Frequency (MHz)				
		300-1,500	N/A	N/A	0.005	0.5 / 0.2
		1,500-10,000	N/A	N/A	N/A	N/A