

Transcore	MPI6000A		Test Number:	130210		
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)	14
		Output Power		dBd + 2.17 = dBi	dBi to dBd	2.2
Tx Frequency (MHz)	915	Maximum (Watts)	2.000000		Antenna Gain (dBd)	11.83
Cable Loss (dB)	0.0	(dBm)	33.01		Antenna minus cable (dBi)	14.00
	Calculated ERP (mw)	30481.055		ERP = Po(dBm) + Gain (dB)		
	Calculated EIRP (mw)	50237.729			Radiated (EIRP) dBm	47.010
				ERP = EIRP - 2.17 dB		
	Occupational Limit				Radiated (ERP) dBm	44.840
	3.05000 mW/cm ²	<div style="border: 1px solid black; padding: 5px;"> Power density (S) EIRP ----- = mW/cm² 4 p r² 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
50237.729	0.01599	0.15991	500.00	5.00	196.85	0.42
50237.729	0.02499	0.24986	400.00	4.00	157.48	0.33
50237.729	0.04442	0.44420	300.00	3.00	118.11	0.25
50237.729	0.09994	0.99945	200.00	2.00	78.74	0.17
50237.729	0.39978	3.99779	100.00	1.00	39.37	0.08
50237.729	0.49355	4.93554	90.00	0.90	35.43	0.08
50237.729	0.60933	6.09327	81.00	0.81	31.89	0.07
50237.729	0.62465	6.24655	80.00	0.80	31.50	0.07
50237.729	0.81588	8.15876	70.00	0.70	27.56	0.06
50237.729	1.11050	11.10498	60.00	0.60	23.62	0.05
50237.729	1.59912	15.99117	50.00	0.500	19.69	0.042
50237.729	2.49862	24.98620	40.00	0.400	15.75	0.033
50237.729	2.92023	29.20227	37.00	0.370	14.57	0.031
50237.729	3.26350	32.63503	35.00	0.350	13.78	0.029
50237.729	4.44199	44.41990	30.00	0.300	11.81	0.025
50237.729	9.99448	99.94479	20.00	0.200	7.87	0.017
50237.729	39.97791	399.77914	10.00	0.100	3.94	0.008
			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	0.37	37 / 15	0.81	81 / 32
		1,500-10,000	N/A	N/A	N/A	N/A

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