

Transcore	Model: X5	Test Number:	091011		
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)	1.8000	Antenna Gain (dBd)	11.83
Cable Loss (dB)	0.0	(dBm)	32.55	Antenna minus cable (dBi)	14.00
	Calculated ERP (mw)	27432.950		EIRP = Po(dBm) + Gain (dB)	
	Calculated EIRP (mw)	45213.956		Radiated (EIRP) dBm	46.553
				ERP = EIRP - 2.17 dB	
				Radiated (ERP) dBm	44.383
Occupational Limit	3.05000 mW/cm ²	Power density (S) EIRP ----- = mW/cm ² 4 p r ²			
General Public Limit	0.61000 mW/cm ²	r (cm)	EIRP (mW)		
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 (mW/cm ²)	Public Limit @ Tx Freq (mW/cm ²)		
	300-1,500	3.05	0.61		
	1,500-10,000	5	1		
	EIRP	Distance	Distance	S	Distance
	milliwatts	cm	inches	mW/cm ²	Feet
	45213.956	100.00	39.37	0.35980	3.28
	45213.956	90.00	35.43	0.44420	2.95
	45213.956	80.00	31.50	0.56219	2.62
	45213.956	79.00	31.10	0.57651	2.59
	45213.956	78.00	30.71	0.59139	2.56
	45213.956	77.00	30.31	0.60685	2.53
	45213.956	76.00	29.92	0.62292	2.49
	45213.956	75.00	29.53	0.63965	2.46
	45213.956	70.00	27.56	0.73429	2.30
	45213.956	60.00	23.62	0.99945	1.97
	45213.956	50.00	19.69	1.43920	1.64
	45213.956	40.00	15.75	2.24876	1.31
	45213.956	35.00	13.78	2.93715	1.15
	45213.956	30.00	11.81	3.99779	0.98
	45213.956	25.00	9.84	5.75682	0.82
	Frequency (MHz)	Occupational Limit minimum Distance (cm / inches)	Public Limit minimum distance (cm / inches)		
	300-1,500	35 / 13.8	77 / 30.3		
	1,500-10,000	N/A	N/A		