

MPE Calculator	Transcore	Test Number	091116
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)	2.8
	Output Power	dBd + 2.17 = dBi	dBi to dBd
Tx Frequency (MHz)	915	(Watts)	1.000000
			Antenna minus cable (dBi)
Cable Loss (dB)	0.0	(dBm)	30.00
	Calculated ERP (mw)	1156.112	Radiated (EIRP) dBm
	Calculated EIRP (mw)	1905.461	
			Radiated (ERP) dBm
			30.630
Occupational Limit	3.05000	mW/cm²	
General Public Limit	0.61000	mW/cm²	
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> Power density (S) = EIRP ----- = mW/cm² 4 π r² [r (cm), EIRP (mW)] </div>			
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
milliwatts	cm	inches	mW/cm ²
1905.461	70.00	27.56	0.03095
1905.461	60.00	23.62	0.04212
1905.461	50.00	19.69	0.06065
1905.461	40.00	15.75	0.09477
1905.461	30.00	11.81	0.16848
1905.461	20.00	7.87	0.37908
1905.461	15.75	6.20	0.61126
1905.461	15.00	5.91	0.67392
1905.461	10.00	3.94	1.51632
1905.461	7.05	2.78	3.05079
1905.461	6.40	2.52	3.70195
1905.461	6.00	2.36	4.21199
1905.461	5.00	1.97	6.06527
1905.461	4.00	1.57	9.47698
1905.461	3.00	1.18	16.84797
Frequency (MHz)	Occupational Limit minimum Distance (cm / in)	Public Limit minimum distance (cm / in)	
300-1,500	7.05 / 2.8	15.75 / 6.2	
1,500-10,000	N/A	N/A	