

Transcore		5946	Test Number:	150915a		
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					
		Output Power		dBd + 2.17 = dBi	Antenna Gain (dBi)	1
Tx Frequency (MHz)	914.89	Maximum (Watts)	0.006873		dBi to dBd	2.2
					Antenna Gain (dBd)	-1.17
Cable Loss (dB)	0.0	(dBm)	8.37		Antenna minus cable (dBi)	1.00
	Calculated ERP (mw)	5.250		EIRP = Po(dBm) + Gain (dB)		
	Calculated EIRP (mw)	8.652			Radiated (EIRP) dBm	9.371
				ERP = EIRP - 2.17 dB		
	Occupational Limit				Radiated (ERP) dBm	7.201
	0.6455/0.5 W/m ²	<div style="border: 1px solid black; padding: 5px;"> Power density (S) EIRP ----- = mW/cm² $4 \pi r^2$ r (cm) EIRP (mW) </div>				
	0.90775 W/m ²					
	General Public Limit					
	0.02619/0.6834 W/m ²					
	2.76653 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			
IC radio frequency radiation exposure limits per RSS-102						
	Frequency (MHz)	Occupational Limit (W/m ²)	Public Limit (W/m ²)			
	100-6,000	0.6455 f ^{0.5}				
	6,000-15,000	50				
	300-6,000		0.02619 f ^{0.6834}			
	6,000-15,000	50	10			
EIRP	S	S	Distance	Distance	Distance	Distance
milliwatts	mW/cm ²	W/m ²	cm	meter	inches	Feet
8.652	0.00009	0.00085	90.00	0.90	35.43	2.95
8.652	0.00011	0.00108	80.00	0.80	31.50	2.62
8.652	0.00014	0.00141	70.00	0.70	27.56	2.30
8.652	0.00019	0.00191	60.00	0.60	23.62	1.97
8.652	0.00028	0.00275	50.00	0.50	19.69	1.64
8.652	0.00043	0.00430	40.00	0.40	15.75	1.31
8.652	0.00077	0.00765	30.00	0.30	11.81	0.98
8.652	0.00172	0.01721	20.00	0.20	7.87	0.66
8.652	0.00689	0.06885	10.00	0.10	3.94	0.33
8.652	0.00850	0.08500	9.00	0.09	3.54	0.30
8.652	0.01076	0.10758	8.00	0.080	3.15	0.26
8.652	0.01405	0.14051	7.00	0.070	2.76	0.23
8.652	0.01913	0.19125	6.00	0.060	2.36	0.20
8.652	0.02754	0.27540	5.00	0.050	1.97	0.16
8.652	0.04303	0.43032	4.00	0.040	1.57	0.13
8.652	0.07650	0.76501	3.00	0.030	1.18	0.10
8.652	0.17213	1.72128	2.00	0.020	0.79	0.07
		Frequency (MHz)	Occupational Limit minimum Distance (meters)	Occupational Limit minimum Distance (cm / inches)	Public Limit minimum distance (meters)	Public Limit minimum distance (cm / inches)
		300-1,500	N/A	N/A	N/A	N/A
		1,500-10,000				

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 Revision 1

Transcore Amtech Technology Center
 Model: 05946
 Test #: 150915a
 Test to: 47CFR Parts 2, 90 and RSS-137
 File: 05946 RFExp

S/N: ENG1
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