Transcore - Ametech	Model: E4PART90		Test Number:	160622		
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)	13.8
		Output Power		dBd + 2.17 = dBi	dBi to dBd	2.2
Tx Frequency (MHz)	915	Maximum (Watts)	2.070		Antenna Gain (dBd)	11.63
Cable Loss (dB)	0.0	(dBm)	33.2		Antenna minus cable (dBi)	13.80
	Calculated ERP (mw)	30130.060		EIRP = Po(dBM) + Gain (dB)		
	Calculated EIRP (mw)	49659.232			Radiated (EIRP) dBm	46.960
				ERP = EIRP - 2.17 dB		
					Radiated (ERP) dBm	44.790

Power density (S)

EIRP
------- = mW/cm^2
4 p r^2

EIRP (mW), r (cm)

	Occupational Limit	FCC radio frequency radiation exposure limits per 1.1310		
3.05	mW/cm^2	Frequency (MHz)	Occupational Limit (mW/cm^2)	Public Limit (mW/cm^2)
30.50	W/m^2	300-1,500	f/300	f/1500
	General Public Limit	1,500-10,000	5	1
0.61	mW/cm^2			
6.10	W/m^2			

	Occupational Limit	IC radio frequency radiation exposure limits per RSS-102		
$0.6455f^{0.5}$	W/m^2	Frequency (MHz)	Occupational Limit (W/m^2)	Public Limit (W/m^2)
19.52571	W/m^2	100-6,000	$0.6455f^{0.5}$	
	General Public Limit	6,000-15,000	50	
$0.02619f^{0.6834}$	W/m^2	48-300		1.291
2.76675	W/m^2	300-6,000		$0.02619f^{0.6834}$
		6,000-15,000	50	10

EIRP	S	S	Distance	Distance	Distance	Distance
milliwatts	mW/cm^2	W/m^2	cm	meter	inches	Feet
49659.232	0.09879	0.98794	200.00	2.00	78.74	6.56
49659.232	0.17563	1.75634	150.00	1.50	59.06	4.92
49659.232	0.25291	2.52912	125.00	1.25	49.21	4.10
49659.232	0.27443	2.74428	120.00	1.20	47.24	3.94
49659.232	0.29368	2.93680	116.00	1.16	45.67	3.81
49659.232	0.30407	3.04075	114.00	1.14	44.88	3.74
49659.232	0.32659	3.26591	110.00	1.10	43.31	3.61
49659.232	0.39518	3.95176	100.00	1.00	39.37	3.28
49659.232	0.48787	4.87871	90.00	0.90	35.43	2.95
49659.232	0.60231	6.02310	81.00	0.81	31.89	2.66
49659.232	0.80648	8.06481	70.00	0.700	27.56	2.30
49659.232	1.09771	10.97710	60.00	0.600	23.62	1.97
49659.232	1.95148	19.51485	45.00	0.450	17.72	1.48
49659.232	3.04919	30.49195	36.00	0.360	14.17	1.18
49659.232	4.39084	43.90840	30.00	0.300	11.81	0.98
49659.232	5.42079	54.20790	27.00	0.270	10.63	0.89
49659.232	2.46985	24.69848	40.00	0.400	15.75	1.31

Frequency (MHz)	Occupational Limit minimum Distance (meters)	Public Limit minimum distance (meters)
47CFR 1.1310	0.36	0.81
RSS-102	0.45	1.20