Mikrotik		Model: Sextant	Test Number:	110913		
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)	17
		Output Power		dBd + 2.17 = dBi	dBi to dBd	2.2
Tx Frequency (MHz)	5785	Maximum (Watts)	0.100000		Antenna Gain (dBd)	14.83
Cable Loss (dB)	0.0	(dBm)	20.00		Antenna minus cable (dBi)	17.00
	Calculated ERP (mw)	3040.885		EIRP = Po(dBM) + Gain (dB)		
	Calculated EIRP (mw)	5011.872			Radiated (EIRP) dBm	37.000
				ERP = EIRP - 2.17 dB		
	Occupational Limit				Radiated (ERP) dBm	34.830
5.00000	mW/cm^2					
50.00000	W/m^2					
	General Public Limit					
1.00000	mW/cm^2					
10.00000	W/m^2					

Power density (S)

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

r (cm) EIRP (mW)

FCC radio frequency radiation exposure limits per 1.1310 (mW/cm2)		
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	Public Limit
300-1,500 (mW/cm2)	19.28333333	3.856666667
300-1,500 (W/m2)	192.8333333	38.56666667
1,500-10,000 (mW/cm2)	5	1
1,500-10,000 (W/m2)	50	10

EIRP	S	S	Distance	Distance	Distance	Distance
milliwatts	mW/cm^2	W/m^2	cm	meter	inches	Feet
5011.872	0.00062	0.00623	800.00	8.00	314.96	0.67
5011.872	0.00160	0.01595	500.00	5.00	196.85	0.42
5011.872	0.00638	0.06381	250.00	2.50	98.43	0.21
5011.872	0.03988	0.39883	100.00	1.00	39.37	0.08
5011.872	0.04924	0.49239	90.00	0.90	35.43	0.08
5011.872	0.06232	0.62318	80.00	0.80	31.50	0.07
5011.872	0.08139	0.81394	70.00	0.70	27.56	0.06
5011.872	0.11079	1.10787	60.00	0.60	23.62	0.05
5011.872	0.15953	1.59533	50.00	0.50	19.69	0.04
5011.872	0.24927	2.49270	40.00	0.40	15.75	0.03
5011.872	0.32558	3.25577	35.00	0.35	13.78	0.03
5011.872	0.44315	4.43147	30.00	0.30	11.81	0.03
5011.872	0.63813	6.38131	25.00	0.25	9.84	0.02
5011.872	0.99708	9.97080	20.00	0.20	7.87	0.02
5011.872	1.77259	17.72587	15.00	0.15	5.91	0.01
5011.872	3.98832	39.88321	10.00	0.10	3.94	0.01
5011.872	4.92385	49.23853	9.00	0.09	3.54	0.01

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	0.09	9 / 3.5	0.20	20 / 7.9