Mikrotik		Model: RB411AR/R	Test Number:	090609		
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)		24
		Output Power		dBd + 2.17 = dBi	dBi to dBd	2.2
Tx Frequency (MHz)	2442	Maximum (Watts)	0.1000		Antenna Gain (dBd)	21.83
Cable Loss (dB)	0.0	(dBm)	20.00		Antenna minus cable (dBi)	24.00
	Calculated ERP (mw)	15240.528		EIRP = Po(dBM) + Gain (dB)		
	Calculated EIRP (mw)	25118.864			Radiated (EIRP) dBm	44.000
				ERP = EIRP - 2.17 dB		
	Occupational Limit				Radiated (ERP) dBm	41.830
5.00000	**mW/cm^2**					
	General Public Limit					
1.00000	**mW/cm^2**					

Power density (S)

$$\frac{EIRP}{4\pi r^2} = mW/cm^2$$

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	8.14	1.628
1,500-10,000	5	1

EIRP	Distance	Distance	S	Distance
milliwatts	cm	inches	mW/cm^2	Feet
25118.864	100.00	39.37	0.19989	3.28
25118.864	90.00	35.43	0.24678	2.95
25118.864	80.00	31.50	0.31233	2.62
25118.864	70.00	27.56	0.40794	2.30
25118.864	60.00	23.62	0.55525	1.97
25118.864	50.00	19.69	0.79956	1.64
25118.864	49.00	19.29	0.83253	1.61
25118.864	48.00	18.90	0.86758	1.57
25118.864	47.00	18.50	0.90489	1.54
25118.864	46.00	18.11	0.94466	1.51
25118.864	45.00	17.72	0.98711	1.48
25118.864	44.00	17.32	1.03249	1.44
25118.864	40.00	15.75	1.24931	1.31
25118.864	20.00	7.87	4.99724	0.66
25118.864	19.00	7.48	5.53711	0.62

Frequency (MHz)	Occupational Limit minimum Distance (cm / inches)	Public Limit minimum distance (cm / inches)
300-1,500	N/A	N/A
1,500-10,000	20 / 7.9	45 / 17.7