Mikrotik	Model: RB931-2nD		Test Number:	160414C		
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)	2.7
		Output Power		dBd + 2.17 = dBi	dBi to dBd	2.2
Tx Frequency (MHz)	2437	Maximum (Watts)	0.097778		Antenna Gain (dBd)	0.53
Cable Loss (dB)	0.0	(dBm)	19.9		Antenna minus cable (dBi)	2.70
	Calculated ERP (mw)	110.470		EIRP = Po(dBM) + Gain (dB)		
	Calculated EIRP (mw)	182.072			Radiated (EIRP) dBm	22.602
			Power density (S)	ERP = EIRP - 2.17 dB		
			EIRP		Radiated (ERP) dBm	20.432
			------- = mW/cm^2			
			4 p r^2			
			EIRP (mW), r (cm)			

	Occupational Limit	FCC radio frequency radiation exposure limits per 1.1310		
5	mW/cm^2	Frequency (MHz)	Occupational Limit (mW/cm^2)	Public Limit (mW/cm^2)
50	W/m^2	300-1,500	f/300	f/1500
	General Public Limit	1,500-10,000	5	1
1	mW/cm^2			
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)
0.95332	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
5.40397	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
182.072	0.00179	0.01789	90.00	0.90	35.43	2.95
182.072	0.00226	0.02264	80.00	0.80	31.50	2.62
182.072	0.00296	0.02957	70.00	0.70	27.56	2.30
182.072	0.00402	0.04025	60.00	0.60	23.62	1.97
182.072	0.00580	0.05796	50.00	0.50	19.69	1.64
182.072	0.00906	0.09056	40.00	0.40	15.75	1.31
182.072	0.01610	0.16099	30.00	0.30	11.81	0.98
182.072	0.03622	0.36222	20.00	0.20	7.87	0.66
182.072	0.09273	0.92728	12.50	0.13	4.92	0.41
182.072	0.22639	2.26388	8.00	0.08	3.15	0.26
182.072	0.40247	4.02467	6.00	0.060	2.36	0.20
182.072	0.49687	4.96873	5.40	0.054	2.13	0.18
182.072	0.57955	5.79553	5.00	0.050	1.97	0.16
182.072	0.95259	9.52586	3.90	0.039	1.54	0.13
182.072	1.60987	16.09870	3.00	0.030	1.18	0.10
182.072	4.47186	44.71860	1.80	0.018	0.71	0.06
182.072	14.48883	144.88826	1.00	0.010	0.39	0.03

Frequency (MHz)	Occupational Limit minimum Distance (meters)	Public Limit minimum distance (meters)
47CFR 1.1310	0.20	0.20
RSS-102	0.20	0.20