

MPE Calculator	Mikrotik		Test Number	101119
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 <sup>2</sup>			Antenna Gain (dBi)	14
Output Power dBd + 2.17 = dBi			dBi to dBd	2.17
Tx Frequency (MHz)	5785	(Watts)	0.400000	11.83
			Antenna minus cable (dBi)	14.00
Cable Loss (dB)	0.0	(dBm)	26.02	
Calculated ERP (mw)		6096.211	Radiated (EIRP) dBm	
Calculated EIRP (mw)		10047.546	Radiated (ERP) dBm	
			37.851	
<b>Occupational Limit</b>	<b>5.00000</b>	<b>mW/cm<sup>2</sup></b>	<div style="border: 1px solid black; padding: 5px;">           Power density (S) =            EIRP            ----- = mW/cm<sup>2</sup>            4 π r<sup>2</sup>            [ r (cm), EIRP (mW) ]         </div>	
<b>General Public Limit</b>	<b>1.00000</b>	<b>mW/cm<sup>2</sup></b>		
FCC radio frequency radiation exposure limits per 1.1310				
Frequency (MHz)		Occupational Limit	Public Limit	
300-1,500		ƒ/300	ƒ/1500	
1,500-100,000		5	1	
FCC radio frequency radiation exposure limits per 1.1310				
Frequency (MHz)		Occupational Limit @ Tx Freq (mW/cm <sup>2</sup> )	Public Limit @ Tx Freq (mW/cm <sup>2</sup> )	
300-1,500		19.28333333	3.856666667	
1,500-100,000		5	1	
EIRP		Distance	Distance	S
milliwatts		cm	inches	mW/cm <sup>2</sup>
10047.546		70.00	27.56	0.16318
10047.546		60.00	23.62	0.22210
10047.546		57.00	22.44	0.24609
10047.546		55.00	21.65	0.26432
10047.546		50.00	19.69	0.31982
10047.546		40.00	15.75	0.49972
10047.546		30.00	11.81	0.88840
10047.546		29.00	11.42	0.95072
10047.546		28.20	11.10	1.00543
10047.546		25.00	9.84	1.27929
10047.546		20.00	7.87	1.99890
10047.546		15.00	5.91	3.55359
10047.546		13.00	5.12	4.73111
10047.546		12.70	5.00	4.95727
10047.546		12.00	4.72	5.55249
FCC radio frequency radiation exposure limits per 1.1310				
Frequency (MHz)		Occupational Limit minimum Distance (cm)	Public Limit minimum distance (cm)	
300-1,500		N/A	N/A	
1,500-10,000		12.70	28.20	