

Mikrotik	Model:	RB751U-2HnD	Test Number:	110802			
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 <sup>2</sup>						
					Antenna Gain (dBi)	8.5	
		Output Power		dBd + 2.17 = dBi	dBi to dBd	2.2	
Tx Frequency (MHz)	2437	Maximum (Watts)	1.0000		Antenna Gain (dBd)	6.33	
Cable Loss (dB)	0.0	(dBm)	30.00		Antenna minus cable (dBi)	8.50	
	Calculated ERP (mw)	4295.364		EIRP = Po(dBm) + Gain (dB)			
	Calculated EIRP (mw)	7079.458			Radiated (EIRP) dBm	38.500	
				ERP = EIRP - 2.17 dB			
	<b>Occupational Limit</b>				Radiated (ERP) dBm	36.330	
	5.00000 mW/cm <sup>2</sup>	<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>					
	50.00000 W/m <sup>2</sup>						
	<b>General Public Limit</b>						
	1.00000 mW/cm <sup>2</sup>						
	10.00000 W/m <sup>2</sup>						
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	Public Limit @ Tx Freq (mW/cm <sup>2</sup> )				
	300-1,500 (mW/cm <sup>2</sup> )	8.123333333	1.624666667				
	300-1,500 (W/m <sup>2</sup> )	81.23333333	16.24666667				
	1,500-10,000 (mW/cm <sup>2</sup> )	5	1				
	1,500-10,000 (W/m <sup>2</sup> )	50	10				
EIRP	S	S	Distance	Distance	Distance	Distance	
milliwatts	mW/cm <sup>2</sup>	W/m <sup>2</sup>	cm	meter	inches	Feet	
7079.458	0.05634	0.56337	100.00	1.00	39.37	0.08	
7079.458	0.06955	0.69551	90.00	0.90	35.43	0.08	
7079.458	0.08803	0.88026	80.00	0.80	31.50	0.07	
7079.458	0.10015	1.00154	75.00	0.75	29.53	0.06	
7079.458	0.11497	1.14973	70.00	0.70	27.56	0.06	
7079.458	0.22535	2.25346	50.00	0.50	19.69	0.04	
7079.458	0.27821	2.78205	45.00	0.45	17.72	0.04	
7079.458	0.35210	3.52103	40.00	0.40	15.75	0.03	
7079.458	0.45989	4.59890	35.00	0.35	13.78	0.03	
7079.458	0.62596	6.25962	30.00	0.30	11.81	0.03	
7079.458	0.90138	9.01385	25.00	0.25	9.84	0.02	
7079.458	0.97806	9.78065	24.00	0.24	9.45	0.02	
7079.458	1.06496	10.64963	23.00	0.23	9.06	0.02	
7079.458	1.16398	11.63978	22.00	0.22	8.66	0.02	
7079.458	1.27747	12.77472	21.00	0.21	8.27	0.02	
7079.458	1.40841	14.08413	20.00	0.20	7.87	0.02	
7079.458	1.56057	15.60569	19.00	0.190	7.48	0.02	
			Occupational Limit minimum Distance (meters)	Occupational Limit minimum Distance (cm / inches)	Public Limit minimum distance (meters)	Public Limit minimum distance (cm / inches)	
		Frequency (MHz)					
		300-1,500	N/A	N/A	N/A	N/A	
		1,500-10,000	0.23	23 / 9	0.75	75 / 30	