

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)	16.5	
		Output Power		dBd + 2.17 = dBi	dBi to dBd 2.2	
Tx Frequency (MHz)	5785	Maximum (Watts)	1.00	Antenna Gain (dBd)	14.33	
Cable Loss (dB)	0.0	(dBm)	30.00	Antenna minus cable (dBi)	16.50	
	Calculated ERP (mw)	27101.916		EIRP = Po(dBm) + Gain (dB)		
	Calculated EIRP (mw)	44668.359		Radiated (EIRP) dBm	46.500	
				ERP = EIRP - 2.17 dB		
	<b>Occupational Limit</b>	Power density (S)		Radiated (ERP) dBm	44.330	
	5.00000 mW/cm <sup>2</sup>	EIRP				
	50.00000 W/m <sup>2</sup>	----- = mW/cm <sup>2</sup>				
	<b>General Public Limit</b>	4 p r <sup>2</sup>				
	1.00000 mW/cm <sup>2</sup>	r (cm) EIRP (mW)				
	10.00000 W/m <sup>2</sup>					
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 <sup>2</sup>	W/m <sup>2</sup>	cm	meter	inches	Feet
44668.359	0.01422	0.14218	500.00	5.00	196.85	0.42
44668.359	0.02222	0.22216	400.00	4.00	157.48	0.33
44668.359	0.03950	0.39496	300.00	3.00	118.11	0.25
44668.359	0.08886	0.88865	200.00	2.00	78.74	0.17
44668.359	0.11607	1.16068	175.00	1.75	68.90	0.15
44668.359	0.15798	1.57982	150.00	1.50	59.06	0.13
44668.359	0.35546	3.55460	100.00	1.00	39.37	0.08
44668.359	0.43884	4.38839	90.00	0.90	35.43	0.08
44668.359	0.55541	5.55405	80.00	0.80	31.50	0.07
44668.359	0.72543	7.25428	70.00	0.70	27.56	0.06
44668.359	0.98739	9.87388	60.00	0.60	23.62	0.05
44668.359	1.42184	14.21838	50.00	0.50	19.69	0.04
44668.359	2.22162	22.21622	40.00	0.40	15.75	0.03
44668.359	3.94955	39.49550	30.00	0.30	11.81	0.03
44668.359	4.87599	48.75988	27.00	0.27	10.63	0.02
44668.359	5.25828	52.58277	26.00	0.26	10.24	0.02
44668.359	5.68735	56.87352	25.00	0.25	9.84	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)		N/A	N/A	N/A	N/A
	300-1,500		N/A	N/A	N/A	N/A
	1,500-10,000		0.27	27 / 10.6	0.60	60 / 23.6

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Revision 1

Mikrotiks SIA SN's: 46470000000 and 438002C7DF9B/316  
Models: RouterBOARD SXT G-5HPnD-HG r2, RouterBOARD SXT G-5HPND-SA r2  
Test #: 140120  
Test to: CFR47 (15.247)  
File: RFExp RBSXTG5HPND

FCC ID#: TV7SXTG-5HPND  
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