

Mikrotik	Model: SXTG 5HnD		Test Number: 110914A			
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)	14	
		Output Power		dBd + 2.17 = dBi	dBi to dBd	2.2
Tx Frequency (MHz)	5785	Maximum (Watts)	0.400000		Antenna Gain (dBd)	11.83
Cable Loss (dB)	0.0	(dBm)	26.02		Antenna minus cable (dBi)	14.00
	Calculated ERP (mw)	6096.211		EIRP = Po(dBm) + Gain (dB)		
	Calculated EIRP (mw)	10047.546			Radiated (EIRP) dBm	40.021
				ERP = EIRP - 2.17 dB		
	<b>Occupational Limit</b>				Radiated (ERP) dBm	37.851
	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 p 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 (mW/cm <sup>2</sup> )						
	Frequency (MHz)	Occupational Limit	Public Limit			
	300-1,500	ƒ300	ƒ1500			
	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/cm <sup>2</sup> )	19.28333333	3.856666667			
	300-1,500 (W/m <sup>2</sup> )	192.8333333	38.56666667			
	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
10047.546	0.00125	0.01249	800.00	8.00	314.96	0.67
10047.546	0.00320	0.03198	500.00	5.00	196.85	0.42
10047.546	0.01279	0.12793	250.00	2.50	98.43	0.21
10047.546	0.07996	0.79956	100.00	1.00	39.37	0.08
10047.546	0.09871	0.98711	90.00	0.90	35.43	0.08
10047.546	0.12493	1.24931	80.00	0.80	31.50	0.07
10047.546	0.16318	1.63175	70.00	0.70	27.56	0.06
10047.546	0.22210	2.22100	60.00	0.60	23.62	0.05
10047.546	0.31982	3.19823	50.00	0.50	19.69	0.04
10047.546	0.49972	4.99724	40.00	0.40	15.75	0.03
10047.546	0.65270	6.52701	35.00	0.35	13.78	0.03
10047.546	0.88840	8.88398	30.00	0.30	11.81	0.03
10047.546	1.01984	10.19845	28.00	0.28	11.02	0.02
10047.546	1.99890	19.98896	20.00	0.20	7.87	0.02
10047.546	3.55359	35.53592	15.00	0.15	5.91	0.01
10047.546	4.73111	47.31114	13.00	0.13	5.12	0.01
10047.546	7.99558	79.95583	10.00	0.10	3.94	0.01
			Occupational Limit minimum Distance (meters)	Occupational Limit minimum Distance (cm / inches)	Public Limit minimum distance (meters)	Public Limit minimum distance (cm / inches)
			300-1,500	N/A	N/A	N/A
			1,500-10,000	0.13	13 / 5.1	0.28