

Mikrotik	Model: R5SPHn	Test Number: 110826M				
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)		32
		Output Power		dBd + 2.17 = dBi	dBi to dBd	2.2
Tx Frequency (MHz)	5785	Maximum (Watts)	0.970510		Antenna Gain (dBd)	29.83
Cable Loss (dB)	0.0	(dBm)	29.87		Antenna minus cable (dBi)	32.00
	Calculated ERP (mw)	933254.301		EIRP = Po(dBm) + Gain (dB)		
	Calculated EIRP (mw)	1538154.640			Radiated (EIRP) dBm	61.870
				ERP = EIRP - 2.17 dB		
					Radiated (ERP) dBm	59.700
Occupational Limit	<div style="border: 1px solid black; padding: 5px;"> Power density (S) $EIRP$ $----- = mW/cm^2$ $4 \pi r^2$ $r (cm) \quad EIRP (mW)$ </div>					
5.00000 mW/cm ²						
50.00000 W/m ²						
General Public Limit						
1.00000 mW/cm ²						
10.00000 W/m ²						
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 ²	W/m ²	cm	meter	inches	Feet
1538154.640	0.19125	1.91254	800.00	8.00	314.96	0.67
1538154.640	0.24980	2.49801	700.00	7.00	275.59	0.58
1538154.640	0.34001	3.40007	600.00	6.00	236.22	0.50
1538154.640	0.48961	4.89610	500.00	5.00	196.85	0.42
1538154.640	0.54250	5.42504	475.00	4.75	187.01	0.40
1538154.640	0.60446	6.04457	450.00	4.50	177.17	0.38
1538154.640	0.66199	6.61993	430.00	4.30	169.29	0.36
1538154.640	0.76502	7.65015	400.00	4.00	157.48	0.33
1538154.640	0.99920	9.99204	350.00	3.50	137.80	0.29
1538154.640	1.36003	13.60027	300.00	3.00	118.11	0.25
1538154.640	1.95844	19.58439	250.00	2.50	98.43	0.21
1538154.640	3.06006	30.60061	200.00	2.00	78.74	0.17
1538154.640	3.99681	39.96815	175.00	1.75	68.90	0.15
1538154.640	4.96582	49.65818	157.00	1.57	61.81	0.13
1538154.640	12.24025	122.40246	100.00	1.00	39.37	0.08
1538154.640	15.11141	151.11414	90.00	0.90	35.43	0.08
1538154.640	19.12538	191.25384	80.00	0.80	31.50	0.07
			Occupational Limit minimum	Occupational Limit minimum	Public Limit	Public Limit
			Distance	Distance	minimum	minimum distance
	Frequency (MHz)		(meters)	(cm / inches)	distance (meters)	(cm / inches)
	300-1,500		N/A	N/A	N/A	N/A
	1,500-10,000		1.57	157 / 62	3.50	350 / 138

Rogers Labs, Inc.
4405 W. 259th Terrace
Louisburg, KS 66053
Phone/Fax: (913) 837-3214
Revision 1

Mikrotiks SIA
Model: R5SHPn
Test #: 110826M
Test to: CFR47 (15.247)
File: RFExp R5SHPn

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