

Mikrotik	Model: SXT r2 5nD	Test Number: 120917				
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)	15	
		Output Power	dBd + 2.17 = dBi	dBi to dBd	2.2	
Tx Frequency (MHz)	5785	Maximum (Watts)	0.251785	Antenna Gain (dBd)	12.83	
Cable Loss (dB)	0.0	(dBm)	24.01	Antenna minus cable (dBi)	15.00	
	Calculated ERP (mw)	4830.922		EIRP = Po(dBm) + Gain (dB)		
	Calculated EIRP (mw)	7962.143		Radiated (EIRP) dBm	39.010	
				ERP = EIRP - 2.17 dB		
				Radiated (ERP) dBm	36.840	
Occupational Limit	Power density (S)					
5.00000 mW/cm ²	EIRP					
50.00000 W/m ²	----- = mW/cm ²					
General Public Limit	4 p r ²					
1.00000 mW/cm ²	r (cm) EIRP (mW)					
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
7962.143	0.06336	0.63361	100.00	1.00	39.37	0.08
7962.143	0.07822	0.78223	90.00	0.90	35.43	0.08
7962.143	0.09900	0.99001	80.00	0.80	31.50	0.07
7962.143	0.12931	1.29308	70.00	0.70	27.56	0.06
7962.143	0.17600	1.76002	60.00	0.60	23.62	0.05
7962.143	0.25344	2.53443	50.00	0.50	19.69	0.04
7962.143	0.39600	3.96005	40.00	0.40	15.75	0.03
7962.143	0.70401	7.04008	30.00	0.30	11.81	0.03
7962.143	1.01377	10.13772	25.00	0.25	9.84	0.02
7962.143	1.58402	15.84018	20.00	0.20	7.87	0.02
7962.143	6.33607	63.36072	10.00	0.10	3.94	0.01
7962.143	7.82231	78.22312	9.00	0.09	3.54	0.01
7962.143	9.90011	99.00113	8.00	0.08	3.15	0.01
7962.143	12.93076	129.30760	7.00	0.07	2.76	0.01
7962.143	17.60020	176.00201	6.00	0.06	2.36	0.01
7962.143	25.34429	253.44290	5.00	0.05	1.97	0.00
7962.143	39.60045	396.00453	4.00	0.04	1.57	0.00
			Occupational Limit minimum	Occupational Limit minimum	Public Limit	Public Limit
			Distance	Distance	minimum	minimum distance
			(meters)	(cm / inches)	distance (meters)	(cm / inches)
			300-1,500	N/A	N/A	N/A
			1,500-10,000	0.08	8 / 3.2	25 / 10

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Revision 1

Mikrotik SIA
Model: RouterBOARD SXT 5nD r2
Test #: 120917
Test to: CFR47 (15.247)
File: RFExp RBSXT5nDr2

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