

Mikrotik	Model: RBSXTG-5HacD		Test Number: 140606			
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)	16	
		Output Power		dBd + 2.17 = dBi	dBi to dBd	2.2
Tx Frequency (MHz)	5785	Maximum (Watts)	1.00	Antenna Gain (dBd)	13.83	
Cable Loss (dB)	0.0	(dBm)	30.00	Antenna minus cable (dBi)	16.00	
	Calculated ERP (mw)	24154.608		EIRP = Po(dBm) + Gain (dB)		
	Calculated EIRP (mw)	39810.717			Radiated (EIRP) dBm	46.000
				ERP = EIRP - 2.17 dB		
	Occupational Limit	Power density (S)			Radiated (ERP) dBm	43.830
	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/cm ²)						
	Frequency (MHz)	Occupational Limit	Public Limit			
	300-1,500	ƒ/300	ƒ/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/cm ²)	19.28333333	3.856666667			
	300-1,500 (W/m ²)	192.8333333	38.56666667			
	1,500-10,000 (mW/cm ²)	5	1			
	1,500-10,000 (W/m ²)	50	10			
EIRP	S	S	Distance	Distance	Distance	Distance
milliwatts	mW/cm ²	W/m ²	cm	meter	inches	Feet
39810.717	0.01267	0.12672	500.00	5.00	196.85	0.42
39810.717	0.01980	0.19800	400.00	4.00	157.48	0.33
39810.717	0.03520	0.35200	300.00	3.00	118.11	0.25
39810.717	0.07920	0.79201	200.00	2.00	78.74	0.17
39810.717	0.10345	1.03446	175.00	1.75	68.90	0.15
39810.717	0.14080	1.40802	150.00	1.50	59.06	0.13
39810.717	0.31680	3.16804	100.00	1.00	39.37	0.08
39810.717	0.56321	5.63206	75.00	0.75	29.53	0.06
39810.717	0.74983	7.49831	65.00	0.65	25.59	0.05
39810.717	0.88001	8.80010	60.00	0.60	23.62	0.05
39810.717	0.97508	9.75080	57.00	0.57	22.44	0.05
39810.717	1.26721	12.67214	50.00	0.50	19.69	0.04
39810.717	1.98002	19.80023	40.00	0.40	15.75	0.03
39810.717	3.52004	35.20040	30.00	0.30	11.81	0.03
39810.717	4.34573	43.45729	27.00	0.27	10.63	0.02
39810.717	4.68644	46.86444	26.00	0.26	10.24	0.02
39810.717	5.06886	50.68858	25.00	0.25	9.84	0.02
			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		0.25	25 / 9.8	0.57	57 / 22.5

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Revision 1

MikrotikSIA
Models: RouterBOARD SXTG-5HPacD and RouterBOARD SXTG-5HPacD-SA
Test #: 140606 SN: 4F9B02FBA557/421
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