RF Exposure Calculations

MPE Calculator	Model: SXT LIte 5 RBSXTS MPE uses EIRP for calculation dBi = dB gain compared to a S = power density in mW/cm	on. EIRP is based on TX	Fest Number:  power added to the antenna gain in dBi.	170208		
	dBi = dB gain compared to a					
x Frequency (MHz)					Antenna Gain (dBi)	
x Frequency (MHz)		Output Power		dBd + 2.17 = dBi	dBi to dBd	2
, ()	5785	Maximum (Watts)	0.10906		Antenna Gain (dBd)	13.8
able Loss (dB)	0.0	(dBm)	20	4	Antenna minus cable (dBi)	16.0
5 50		(==,				
	Calculated ERP (mw)	2634.337		EIRP = Po(dBM) + Gain (dB)		
	Calculated EIRP (mw)				Radiated (EIRP) dBm	36.3
	, ,	Power density (S)		ERP = EIRP - 2.17 dB	,	
		rower delisity (3)			Radiated (ERP) dBm	34.2
		EIRP			` /	
		= mW/cm	r^2			
		4 p r^2				
		EIRP (mW), r (cm)				
	Occupational Limit		FCC radio frequency radiation exposur	re limits per 1.1310		
	mW/cm <sup>2</sup>	Frequency (MHz)	Occupational Limit (mW/cm²)	Public Limit (mW/cm <sup>2</sup> )		
	W/m <sup>2</sup>	300-1,500	f/300	f/1500		
	W/m General Public Limit	1,500-10,000	5	1 1300		
		1,300-10,000	3	1		
1	mW/cm <sup>2</sup>					
10	W/m <sup>2</sup>					
	Occupational Limit		IC radio frequency radiation exposure l	limits per RSS-102		
$0.6455 f^{0.5}$	$W/m^2$	Frequency (MHz)	Occupational Limit (W/m <sup>2</sup> )	Public Limit (W/m <sup>2</sup> )		
49.09621	$W/m^2$	100-6,000	$0.6455 f^{0.5}$			
	General Public Limit	6,000-15,000	50			
$0.02619 f^{0.6834}$	W/m <sup>2</sup>	48-300		1.291		
9.75649	W/m <sup>2</sup>	300-6,000		$0.02619f^{0.6834}$		
	W/III	6,000-15,000	50	10		
		0,000-13,000	30	10		
EIRP	S	S	Distance	Distance	Distance	Distance
	•	_				
milliwatts	mW/cm <sup>2</sup>	W/m <sup>2</sup>	cm	meter	inches	Feet
4341.816	0.03455	0.346	100.00	1.00	39.37	3.28
4341.816	0.04266	0.427	90.00	0.90	35.43	2.95
4341.816	0.05399	0.540	80.00	0.80	31.50	2.62
4341.816	0.07051	0.705	70.00	0.70	27.56	2.30
4341.816	0.09598	0.960	60.00 50.00	0.60	23.62	1.97
4341.816	0.13820	1.382		0.50	19.69	1.64
4341.816	0.21594	2.159	40.00	0.40	15.75	1.31
4341.816 4341.816	0.38390	3.839	30.00 20.00	0.30 0.20	11.81 7.87	0.98
	0.86378	8.638	19.00	0.20	7.48	0.66
4341.816	0.95709	9.571	15.00			0.62
4341.816 4341.816	1.53560 3.45511	15.356 34.551	10.00	0.150 0.100	5.91 3.94	0.49
4341.816	4.26556	42.656	9.00	0.100	3.54	0.30
4341.816	5.39860	53.986	8.00	0.090	3.15	0.30
4341.816	7.05124	70.512	7.00	0.080	2.76	0.28
4341.816	9.59752	95.975	6.00	0.070	2.76	0.23
4341.816	13.82043	138.204	5.00	0.060	1.97	0.20
4341.810	13.82043	138.204	3.00	0.030	1.97	0.10
			Occupational Limit minimum Distance			
		Frequency (MHz)	(meters)	Public Limit minimum distance (meters)		
				0.19		
	l	47CFR 1.1310	0.09	0.19	1	

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Revision 1

Mikrotikls SIA Model: RBSXT5nDr2-US Test #: 161122

Test to: CFR47 15(c) and RSS-247 File: RBSXT5nDr2-US RFExp

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