**RF** Exposure Calculations

	Calculations		T . N 1		161100		
		odel: RB911-5HacD-US Test Number:			161122		
MPE Calculator	MPE uses EIRP for calculation. EIRP is based on TX power added to the			enna gain in dBi.			
	dBi = dB gain compared to an isotropic radiator.						
	S = power density in mW/cn	n^2					
						Antenna Gain (dBi)	
		Output Power			dBd + 2.17 = dBi	dBi to dBd	- 1
x Frequency (MHz)	5785	Maximum (Watts)		0.023000		Antenna Gain (dBd)	29.
Cable Loss (dB)  5 50	0.0	(dBm)	13.6			Antenna minus cable (dBi)	32.
	Calculated ERP (mw)	22117.092			EIDD = Do(dDM) + Coin (dD)		
	Calculated EIRP (mw)				EIRP = Po(dBM) + Gain (dB)	D- 4:-4- 4 (EIDD) 4D	45 (
	Calculated EIRP (ffiw)				ERP = EIRP - 2.17 dB	Radiated (EIRP) dBm	45.6
		Power density (S)			ERT - ERG - 2.17 dB	Radiated (ERP) dBm	43.4
		EIRP				Radiated (ERI ) dBill	43
		= mW/c	m^2				
		4 p r^2					
		4012					
		EIRP (mW), r (cm)					
	Occupational Limit	FCC radio frequency radiation exposure		limits per 1.1310			
		Frequency (MHz)	Occupational Lir		Public Limit (mW/cm <sup>2</sup> )		
		300-1,500	f/30		f/1500		
	General Public Limit	1,500-10,000	5	,	1		
	mW/cm <sup>2</sup>	1,500-10,000			1		
1							
10	W/m <sup>2</sup>						
	Occupational Limit	IC radio frequency radiation exposure lir		nits per RSS-102			
$0.6455 f^{0.5}$	W/m <sup>2</sup>	Frequency (MHz)			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 <i>f</i> <sup>0.6834</sup> 9.75649	$W/m^2$	48-300			1.291		
	$W/m^2$	300-6,000			$0.02619f^{0.6834}$		
		6,000-15,000	50		10		
EIRP	S	S	Distar	ce	Distance	Distance	Distance
milliwatts	mW/cm <sup>2</sup>	W/m <sup>2</sup>	cm		meter	inches	Feet
36452.543	0.35812	3.58124	90.00		0.90	35.43	2.95
36452.543	0.45325	4.53250	80.00		0.80	31.50	2.62
36452.543	0.59200	5.92000	70.00		0.70	27.56	2.30
36452.543	0.80578	8.05778	60.00		0.60	23.62	1.97
36452.543	0.95894	9.58943	55.00		0.55	21.65	1.80
36452.543	1.81300	18.13001	40.00		0.40	15.75	1.31
36452.543	3.22311	32.23112	30.00		0.30	11.81	0.98
36452.543	4.64128	46.41282	25.00		0.25	9.84	0.82
36452.543	17.16450	171.64504	13.0		0.13	5.12	0.43
36452.543	45.32502	453.25019	8.00		0.08	3.15	0.26
36452.543	59.20003	592.00025	7.00		0.070	2.76	0.23
36452.543	68.65802	686.58017	6.50		0.065	2.56	0.21
36452.543	80.57781	805.77812	6.00		0.060	2.36	0.20
36452.543	116.03205	1160.32049	5.00		0.050	1.97	0.16
36452.543	181.30008	1813.00077	4.00		0.040	1.57	0.13
36452.543	322.31125	3223.11249	3.00		0.030	1.18	0.10
36452.543	725.20031	7252.00309	2.00		0.020	0.79	0.07
			Occupational Limit n	ninimum Distance			
		Frequency (MHz)	(mete		Public Limit minimum distance (meters)		
		47CFR 1.1310	0.25		0.55		

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Revision 1

Mikrotikls SIA Model: RB911-5HacD-US

Test #: 161122

Test to: CFR47 15(c) and RSS-247 File: RB911-5HacD-US RFExp

S/N: 67D80599ACC5

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