

Mikrotik	Model: RB953GS-5HnT	Test Number: 140605				
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		2.2
Tx Frequency (MHz)	5785	Maximum (Watts)	0.996000	Antenna Gain (dBd)		29.83
Cable Loss (dB)	0.0	(dBm)	29.98	Antenna minus cable (dBi)		32.00
	Calculated ERP (mw)	957765.829		EIRP = Po(dBM) + Gain (dB)		
	Calculated EIRP (mw)	1578553.620			Radiated (EIRP) dBm	61.983
				ERP = EIRP - 2.17 dB		
	Occupational Limit	Power density (S)			Radiated (ERP) dBm	59.813
	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	ƒ300	ƒ1500			
	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
1578553.620	0.50247	5.02469	500.00	5.00	196.85	0.42
1578553.620	0.78511	7.85108	400.00	4.00	157.48	0.33
1578553.620	0.89328	8.93279	375.00	3.75	147.64	0.31
1578553.620	0.99676	9.96765	355.00	3.55	139.76	0.30
1578553.620	1.02545	10.25447	350.00	3.50	137.80	0.29
1578553.620	1.18928	11.89276	325.00	3.25	127.95	0.27
1578553.620	1.39575	13.95748	300.00	3.00	118.11	0.25
1578553.620	1.66106	16.61055	275.00	2.75	108.27	0.23
1578553.620	2.00988	20.09877	250.00	2.50	98.43	0.21
1578553.620	2.48133	24.81329	225.00	2.25	88.58	0.19
1578553.620	3.14043	31.40433	200.00	2.00	78.74	0.17
1578553.620	4.10179	41.01790	175.00	1.75	68.90	0.15
1578553.620	4.90693	49.06926	160.00	1.60	62.99	0.13
1578553.620	5.58299	55.82991	150.00	1.50	59.06	0.13
1578553.620	8.03951	80.39508	125.00	1.25	49.21	0.10
1578553.620	12.56173	125.61731	100.00	1.00	39.37	0.08
1578553.620	22.33197	223.31965	75.00	0.75	29.53	0.06
			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		1.60	160 / 63	3.55	355 / 140

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Revision 1

Mikrotik SIA
Model: RouterBOARD 953GS-5HnT
Test #: 140605
Test to: CFR47 (15.247)
File: RFExp RB953GS5HnT

SN: 49C5028C45D2/421
FCC ID#: TV7RB953GS-5HNT
Date: June 26, 2014
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