

Mikrotik	Model: RB912G-5HPnD	Test Number: 120926				
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	dBi to dBd	2.2
Tx Frequency (MHz)	5785	Maximum (Watts)	1.000000	Antenna Gain (dBd)		29.83
Cable Loss (dB)	0.0	(dBm)	30.00	Antenna minus cable (dBi)		32.00
	Calculated ERP (mw)	961612.278		EIRP = Po(dBm) + Gain (dB)		
	Calculated EIRP (mw)	1584893.192		Radiated (EIRP) dBm		62.000
				ERP = EIRP - 2.17 dB		
				Radiated (ERP) dBm		59.830
Occupational Limit	Power density (S)					
5.00000 mW/cm ²	EIRP					
50.00000 W/m ²	----- = mW/cm ²					
	4 p r ²					
General Public Limit	r (cm) EIRP (mW)					
1.00000 mW/cm ²						
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
1584893.192	0.82920	8.29203	390.00	3.90	153.54	0.33
1584893.192	0.87342	8.73420	380.00	3.80	149.61	0.32
1584893.192	0.92127	9.21269	370.00	3.70	145.67	0.31
1584893.192	0.97316	9.73162	360.00	3.60	141.73	0.30
1584893.192	1.02957	10.29566	350.00	3.50	137.80	0.29
1584893.192	1.09102	10.91019	340.00	3.40	133.86	0.28
1584893.192	1.15814	11.58143	330.00	3.30	129.92	0.28
1584893.192	1.23166	12.31658	320.00	3.20	125.98	0.27
1584893.192	1.31240	13.12402	310.00	3.10	122.05	0.26
1584893.192	1.40135	14.01353	300.00	3.00	118.11	0.25
1584893.192	1.66773	16.67726	275.00	2.75	108.27	0.23
1584893.192	2.01795	20.17949	250.00	2.50	98.43	0.21
1584893.192	2.49129	24.91295	225.00	2.25	88.58	0.19
1584893.192	3.15304	31.53045	200.00	2.00	78.74	0.17
1584893.192	4.11826	41.18263	175.00	1.75	68.90	0.15
1584893.192	4.92663	49.26633	160.00	1.60	62.99	0.13
1584893.192	5.60541	56.05413	150.00	1.50	59.06	0.13
			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	1.60	3.50	350 / 138

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Revision 1

Mikrotik SIA
Model: RouterBOARD 912G-5HPnD
Test #: 120926
Test to: 47CFR, 15.247
File: RFExp RB912G5HPnD

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