

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)	24
		Output Power		dBd + 2.17 = dBi	2.2
Tx Frequency (MHz)	2437	Maximum (Watts)	0.493171	Antenna Gain (dBd)	21.83
Cable Loss (dB)	0.0	(dBm)	26.93	Antenna minus cable (dB)	24.00
	Calculated ERP (mw)	75161.859		EIRP = Po(dBm) + Gain (dB)	
	Calculated EIRP (mw)	123878.950		Radiated (EIRP) dBm	50.930
				ERP = EIRP - 2.17 dB	
	Occupational Limit	Power density (S)		Radiated (ERP) dBm	48.760
	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/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)	8.123333333	1.624666667		
	300-1,500 (W/m2)	81.23333333	16.24666667		
	1,500-10,000 (mW/cm2)	5	1		
	1,500-10,000 (W/m2)	50	10		
EIRP	S	S	Distance	Distance	Distance
milliwatts	mW/cm ²	W/m ²	cm	meter	inches
123878.950	0.03943	0.39432	500.00	5.00	196.85
123878.950	0.06161	0.61612	400.00	4.00	157.48
123878.950	0.10953	1.09533	300.00	3.00	118.11
123878.950	0.24645	2.46449	200.00	2.00	78.74
123878.950	0.32189	3.21893	175.00	1.75	68.90
123878.950	0.43813	4.38132	150.00	1.50	59.06
123878.950	0.48889	4.88890	142.00	1.42	55.91
123878.950	0.68458	6.84581	120.00	1.20	47.24
123878.950	0.81471	8.14709	110.00	1.10	43.31
123878.950	0.84516	8.45162	108.00	1.08	42.52
123878.950	0.89415	8.94147	105.00	1.05	41.34
123878.950	0.94752	9.47518	102.00	1.02	40.16
123878.950	0.98580	9.85797	100.00	1.00	39.37
123878.950	3.94319	39.43189	50.00	0.50	19.69
123878.950	4.86814	48.68135	45.00	0.45	17.72
123878.950	6.16123	61.61233	40.00	0.40	15.75
123878.950	10.95330	109.53304	30.00	0.30	11.81
			Occupational Limit minimum	Occupational Limit minimum	Public Limit
			Distance	Distance	minimum
	Frequency (MHz)		(meters)	(cm / inches)	distance (meters)
	300-1,500		N/A	N/A	N/A
	1,500-10,000		0.45	45 / 18	1.00
					Public Limit
					minimum distance
					(cm / inches)
					N/A
					100 / 39

Rogers Labs, Inc.
4405 W. 259th Terrace
Louisburg, KS 66053
Phone/Fax: (913) 837-3214
Revision 1

Mikrotikls SIA
Model: RB911-2HnD
Test #: 140324
Test to: CFR47 (15.247)
File: RFExp RB9112HnD

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