

Mikrotik	Model: RB2011US-2HnD-IN	Test Number: 120416				
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					
		Output Power		Antenna Gain (dBi)		5
				dBd + 2.17 = dBi	dBd to dBd	2.2
Tx Frequency (MHz)	2437	Maximum (Watts)	1.000000	Antenna Gain (dBi)		2.83
Cable Loss (dB)	0.0	(dBm)	30.00	Antenna minus cable (dBi)		5.00
	Calculated ERP (mw)	1918.669		EIRP = Po(dBm) + Gain (dB)		
	Calculated EIRP (mw)	3162.278		Radiated (EIRP) dBm		35.000
				ERP = EIRP - 2.17 dB		
				Radiated (ERP) dBm		32.830
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	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/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	Distance
milliwatts	mW/cm ²	W/m ²	cm	meter	inches	Feet
3162.278	0.00101	0.01007	500.00	5.00	196.85	0.42
3162.278	0.00157	0.01573	400.00	4.00	157.48	0.33
3162.278	0.00280	0.02796	300.00	3.00	118.11	0.25
3162.278	0.00629	0.06291	200.00	2.00	78.74	0.17
3162.278	0.00822	0.08217	175.00	1.75	68.90	0.15
3162.278	0.01118	0.11184	150.00	1.50	59.06	0.13
3162.278	0.01611	0.16105	125.00	1.25	49.21	0.10
3162.278	0.02516	0.25165	100.00	1.00	39.37	0.08
3162.278	0.10066	1.00658	50.00	0.50	19.69	0.04
3162.278	0.15728	1.57279	40.00	0.40	15.75	0.03
3162.278	0.27961	2.79607	30.00	0.30	11.81	0.03
3162.278	0.62912	6.29115	20.00	0.20	7.87	0.02
3162.278	0.98299	9.82992	16.00	0.16	6.30	0.01
3162.278	1.11843	11.18427	15.00	0.15	5.91	0.01
3162.278	2.51646	25.16461	10.00	0.10	3.94	0.01
3162.278	4.99199	49.91987	7.10	0.07	2.80	0.01
3162.278	5.13563	51.35634	7.00	0.07	2.76	0.01
	Frequency (MHz)	Occupational Limit minimum Distance (meters)	Occupational Limit minimum Distance (cm / inches)	Public Limit minimum distance (meters)	Public Limit minimum distance (cm / inches)	
	300-1,500	N/A	N/A	N/A	N/A	
	1,500-10,000	0.07	7.1 / 2.8	0.16	16 / 6.3	

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Revision 1

Mikrotiks SIA
Model: RB2011US-2HnD-IN
Test #: 120416
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