

Mikrotik		Model: RB mAP 2n	Test Number: 140422				
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 <sup>2</sup>						
				Antenna Gain (dBi)	2		
		Output Power		dBd + 2.17 = dBi	dBi to dBd	2.2	
Tx Frequency (MHz)	2437	Maximum (Watts)	0.063000		Antenna Gain (dBd)	-0.17	
Cable Loss (dB)	0.0	(dBm)	17.99		Antenna minus cable (dBi)	2.00	
	Calculated ERP (mw)	60.582		EIRP = Po(dBm) + Gain (dB)			
	Calculated EIRP (mw)	99.848			Radiated (EIRP) dBm	19.993	
				EIRP = EIRP - 2.17 dB			
	<b>Occupational Limit</b>				Radiated (ERP) dBm	17.823	
	5.00000 mW/cm <sup>2</sup>	<div style="border: 1px solid black; padding: 5px;">           Power density (S)            EIRP            ----- = mW/cm<sup>2</sup>            4 π r<sup>2</sup>            r (cm) EIRP (mW)         </div>					
	50.00000 W/m <sup>2</sup>						
	<b>General Public Limit</b>						
	1.00000 mW/cm <sup>2</sup>						
	10.00000 W/m <sup>2</sup>						
FCC radio frequency radiation exposure limits per 1.1310 (mW/cm2)							
	Frequency (MHz)	Occupational Limit	Public Limit				
	300-1,500	ƒ/300	ƒ/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)	81.233333333	16.246666667				
	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 <sup>2</sup>	W/m <sup>2</sup>	cm	meter	inches	Feet	
99.848	0.00003	0.00032	500.00	5.00	196.85	0.42	
99.848	0.00005	0.00050	400.00	4.00	157.48	0.33	
99.848	0.00009	0.00088	300.00	3.00	118.11	0.25	
99.848	0.00020	0.00199	200.00	2.00	78.74	0.17	
99.848	0.00026	0.00259	175.00	1.75	68.90	0.15	
99.848	0.00035	0.00353	150.00	1.50	59.06	0.13	
99.848	0.00051	0.00509	125.00	1.25	49.21	0.10	
99.848	0.00079	0.00795	100.00	1.00	39.37	0.08	
99.848	0.00141	0.01413	75.00	0.75	29.53	0.06	
99.848	0.00318	0.03178	50.00	0.50	19.69	0.04	
99.848	0.00497	0.04966	40.00	0.40	15.75	0.03	
99.848	0.00883	0.08829	30.00	0.30	11.81	0.03	
99.848	0.01986	0.19864	20.00	0.20	7.87	0.02	
99.848	0.07946	0.79457	10.00	0.10	3.94	0.01	
99.848	0.31783	3.17827	5.00	0.05	1.97	0.00	
99.848	0.88285	8.82853	3.00	0.03	1.18	0.00	
99.848	1.98642	19.86418	2.00	0.02	0.79	0.00	
			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		0.02	2 / 0.8	0.03	3 / 1.2	

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 Revision 1

Mikrotiks SIA  
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 File: RFExp RBmAP 2n

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 Page 1 of 1