

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)	17			
		Output Power		dBd + 2.17 = dBi		dBd to dBd	2.2	
Tx Frequency (MHz)	2437	Maximum (Watts)	0.063000	Antenna Gain (dBi)			14.83	
Cable Loss (dB)	0.0	(dBm)	17.99	Antenna minus cable (dBi)			17.00	
	Calculated ERP (mw)	1915.758		EIRP = Po(dBm) + Gain (dB)				
	Calculated EIRP (mw)	3157.480		Radiated (EIRP) dBm			34.993	
				ERP = EIRP - 2.17 dB				
	Occupational Limit			Radiated (ERP) dBm			32.823	
	5.00000 mW/cm ²	<div style="border: 1px solid black; padding: 5px;"> Power density (S) EIRP ----- = mW/cm² $4 \pi r^2$ r (cm) EIRP (mW) </div>						
	50.00000 W/m ²							
	General Public Limit							
	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	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)	81.23333333	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		
3157.480	0.00101	0.01005	500.00	5.00	196.85	0.42		
3157.480	0.00157	0.01570	400.00	4.00	157.48	0.33		
3157.480	0.00279	0.02792	300.00	3.00	118.11	0.25		
3157.480	0.00628	0.06282	200.00	2.00	78.74	0.17		
3157.480	0.00820	0.08205	175.00	1.75	68.90	0.15		
3157.480	0.01117	0.11167	150.00	1.50	59.06	0.13		
3157.480	0.01608	0.16081	125.00	1.25	49.21	0.10		
3157.480	0.02513	0.25126	100.00	1.00	39.37	0.08		
3157.480	0.04467	0.44669	75.00	0.75	29.53	0.06		
3157.480	0.10051	1.00506	50.00	0.50	19.69	0.04		
3157.480	0.15704	1.57040	40.00	0.40	15.75	0.03		
3157.480	0.27918	2.79182	30.00	0.30	11.81	0.03		
3157.480	0.62816	6.28161	20.00	0.20	7.87	0.02		
3157.480	0.98150	9.81501	16.00	0.16	6.30	0.01		
3157.480	1.11673	11.16730	15.00	0.15	5.91	0.01		
3157.480	2.51264	25.12642	10.00	0.10	3.94	0.01		
3157.480	10.05057	100.50570	5.00	0.05	1.97	0.00		
			Occupational Limit minimum	Occupational Limit minimum	Public Limit	Public Limit		
			Distance	Distance	minimum	minimum		
			(meters)	(cm / inches)	distance (meters)	distance (cm / inches)		
			300-1,500	N/A	N/A	N/A		
			1,500-10,000	0.05	5 / 2	0.16	16 / 6.3	

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

Mikrotikls SIA
 Model: RBQRTG-2SHPnD
 Test #: 140121
 Test to: CFR47 (15.247)
 File: RFExp RBQRTG2SHPND

SN: 421901DD9807/325
 FCC ID#: TV7QRTG2SHPND
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