

Mikrotik	Model: RBLDF-2nD	Test Number:	180330		
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>				
		Output Power	dBd + 2.17 = dBi	Antenna Gain (dBi)	13
Tx Frequency (MHz)	2437	Maximum (Watts)	0.032700	dBi to dBd	2.2
				Antenna Gain (dBd)	10.83
Cable Loss (dB)	0.0	(dBm)	15.1	Antenna minus cable (dBi)	13.00
	Calculated ERP (mw)	395.866	EIRP = Po(dBm) + Gain (dB)		
	Calculated EIRP (mw)	652.451		Radiated (EIRP) dBm	28.145
		Power density (S)	ERP = EIRP - 2.17 dB	Radiated (ERP) dBm	25.975
		EIRP ----- = mW/cm <sup>2</sup> 4 π r <sup>2</sup>			
		EIRP (mW), r (cm)			
	Occupational Limit	FCC radio frequency radiation exposure limits per 1.1310			
5	mW/cm <sup>2</sup>	Frequency (MHz)	Occupational Limit (mW/cm <sup>2</sup> )	Public Limit (mW/cm <sup>2</sup> )	
50	W/m <sup>2</sup>	300-1,500	ƒ300	ƒ1500	
	General Public Limit	1,500-10,000	5	1	
1	mW/cm <sup>2</sup>				
10	W/m <sup>2</sup>				
	Occupational Limit	IC radio frequency radiation exposure limits per RSS-102			
0.6455 <sup>f0.5</sup>	W/m <sup>2</sup>	Frequency (MHz)	Occupational Limit (W/m <sup>2</sup> )	Public Limit (W/m <sup>2</sup> )	
31.86574	W/m <sup>2</sup>	100-6,000	0.6455 <sup>f0.5</sup>		
	General Public Limit	6,000-15,000	50		
0.02619 <sup>f0.834</sup>	W/m <sup>2</sup>	48-300		1.291	
5.40397	W/m <sup>2</sup>	300-6,000		0.02619 <sup>f0.834</sup>	
		6,000-15,000	50	10	
EIRP	S	S	Distance	Distance	Distance
milliwatts	mW/cm <sup>2</sup>	W/m <sup>2</sup>	cm	meter	inches
652.451	0.00519	0.052	100.00	1.00	39.37
652.451	0.00641	0.064	90.00	0.90	35.43
652.451	0.00811	0.081	80.00	0.80	31.50
652.451	0.01060	0.106	70.00	0.70	27.56
652.451	0.01442	0.144	60.00	0.60	23.62
652.451	0.02077	0.208	50.00	0.50	19.69
652.451	0.03245	0.325	40.00	0.40	15.75
652.451	0.05769	0.577	30.00	0.30	11.81
652.451	0.12980	1.298	20.00	0.20	7.87
652.451	0.51920	5.192	10.00	0.10	3.94
652.451	0.64099	6.410	9.00	0.090	3.54
652.451	0.81126	8.113	8.00	0.080	3.15
652.451	1.05960	10.596	7.00	0.070	2.76
652.451	1.44223	14.422	6.00	0.060	2.36
652.451	2.07682	20.768	5.00	0.050	1.97
652.451	3.24502	32.450	4.00	0.040	1.57
652.451	5.76893	57.689	3.00	0.030	1.18
		Frequency (MHz)	Occupational Limit minimum Distance (meters)	Public Limit minimum distance (meters)	
		47CFR 1.1310	N/A	0.20	
		RSS-102	N/A	0.20	

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Revision 1

Mikrotikls SIA  
Model: RBLDF-2nD  
Test #: 180330  
Test to: 47CFR 15.247, RSS-247  
File: RBLDF2ND RFExp

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IC: 7442A-LDF2ND  
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