

Mikrotik	Model: R11e-5HacT	Test Number:	171024			
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	dBd + 2.17 = dBi	Antenna Gain (dBi)	36.7	
Tx Frequency (MHz)	5240	Maximum (Watts)	0.740493	dBi to dBd	2.2	
				Antenna Gain (dBd)	34.53	
Cable Loss (dB)	0.0	(dBm)	28.7	Antenna minus cable (dBm)	36.70	
	Calculated ERP (mw)	2101459.053	EIRP = Po(dBm) + Gain (dB)			
	Calculated EIRP (mw)	3463545.779		Radiated (EIRP) dBm	65.395	
		Power density (S)	EIRP = EIRP - 2.17 dB			
		EIRP = mW/cm ² 4 p r ²		Radiated (ERP) dBm	63.225	
		EIRP (mW), r (cm)				
	Occupational Limit	FCC radio frequency radiation exposure limits per 1.1310				
	5	mW/cm ²	Frequency (MHz)	Occupational Limit (mW/cm ²)	Public Limit (mW/cm ²)	
	50	W/m ²	300-1,500	ƒ300	ƒ1500	
		General Public Limit	1,500-10,000	5	1	
	1	mW/cm ²				
	10	W/m ²				
		Occupational Limit	IC radio frequency radiation exposure limits per RSS-102			
	0.6455 ^{0.5}	W/m ²	Frequency (MHz)	Occupational Limit (W/m ²)	Public Limit (W/m ²)	
	46.72635	W/m ²	100-6,000	0.6455 ^{0.5}		
		General Public Limit	6,000-15,000	50		
	0.02619 ^{0.6834}	W/m ²	48-300		1.291	
	9.11857	W/m ²	300-6,000		0.02619 ^{0.6834}	
			6,000-15,000	50	10	
EIRP	S	S	Distance	Distance	Distance	Distance
milliwatts	mW/cm ²	W/m ²	cm	meter	inches	Feet
3463545.779	0.76561	7.656	600.00	6.00	236.22	19.69
3463545.779	0.91114	9.111	550.00	5.50	216.54	18.04
3463545.779	0.99998	10.000	525.00	5.25	206.69	17.22
3463545.779	1.36109	13.611	450.00	4.50	177.17	14.76
3463545.779	1.72263	17.226	400.00	4.00	157.48	13.12
3463545.779	2.24996	22.500	350.00	3.50	137.80	11.48
3463545.779	3.06245	30.624	300.00	3.00	118.11	9.84
3463545.779	3.64456	36.446	275.00	2.75	108.27	9.02
3463545.779	4.40992	44.099	250.00	2.50	98.43	8.20
3463545.779	4.59176	45.918	245.00	2.45	96.46	8.04
3463545.779	4.78507	47.851	240.00	2.40	94.49	7.87
3463545.779	4.90698	49.070	237.00	2.37	93.31	7.78
3463545.779	6.89051	68.905	200.00	2.00	78.74	6.56
3463545.779	14.06226	140.623	140.00	1.40	55.12	4.59
3463545.779	16.30889	163.089	130.00	1.30	51.18	4.27
3463545.779	19.14029	191.403	120.00	1.20	47.24	3.94
3463545.779	22.77853	227.785	110.00	1.10	43.31	3.61
			Frequency (MHz)	Occupational Limit minimum Distance (meters)	Public Limit minimum distance (meters)	
			47CFR 1.1310	2.37	5.25	

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Revision 1

Mikrotik SIA
Model: R11e-5HacT
Test #: 171024
Test to: 47CFR, 15.407, RSS-247
File: R11e5HacT FCC MPE

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