

Mikrotik	R11e-5HacD	Test Number: 140610				
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)		32
		Output Power		dBd + 2.17 = dBi	dBi to dBd	2.2
Tx Frequency (MHz)	5785	Maximum (Watts)	0.524240	Antenna Gain (dBd)		29.83
Cable Loss (dB)	0.0	(dBm)	27.20	Antenna minus cable (dBi)		32.00
	Calculated ERP (mw)	504115.770		EIRP = Po(dBm) + Gain (dB)		
	Calculated EIRP (mw)	830864.653		Radiated (EIRP) dBm		59.195
				ERP = EIRP - 2.17 dB		
				Radiated (ERP) dBm		57.025
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	f/300	f/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)	19.28333333	3.856666667			
	300-1,500 (W/m2)	192.8333333	38.56666667			
	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
830864.653	0.26447	2.64472	500.00	5.00	196.85	0.42
830864.653	0.41324	4.13238	400.00	4.00	157.48	0.33
830864.653	0.73465	7.34646	300.00	3.00	118.11	0.25
830864.653	0.87429	8.74289	275.00	2.75	108.27	0.23
830864.653	0.97808	9.78079	260.00	2.60	102.36	0.22
830864.653	1.05789	10.57890	250.00	2.50	98.43	0.21
830864.653	1.30604	13.06037	225.00	2.25	88.58	0.19
830864.653	1.65295	16.52953	200.00	2.00	78.74	0.17
830864.653	2.15896	21.58959	175.00	1.75	68.90	0.15
830864.653	2.93858	29.38583	150.00	1.50	59.06	0.13
830864.653	3.37337	33.73373	140.00	1.40	55.12	0.12
830864.653	3.91231	39.12314	130.00	1.30	51.18	0.11
830864.653	4.23156	42.31559	125.00	1.25	49.21	0.10
830864.653	4.59154	45.91535	120.00	1.20	47.24	0.10
830864.653	4.99948	49.99479	115.00	1.15	45.28	0.10
830864.653	5.46431	54.64306	110.00	1.10	43.31	0.09
830864.653	6.61181	66.11811	100.00	1.00	39.37	0.08
			Occupational Limit minimum	Occupational Limit minimum	Public Limit	Public Limit
			Distance	Distance	minimum	minimum
	Frequency (MHz)		(meters)	(cm / inches)	distance (meters)	distance (cm / inches)
	300-1,500		N/A	N/A	N/A	N/A
	1,500-10,000		1.15	115 / 45.3	2.60	260 / 102

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Revision 1

Mikrotik SIA
Model: R11e-5HacD
Test #: 140610
Test to: CFR47 (15.247)
File: RFExp R11e5HacD

SN: 3F1E04E68BEF/001
FCC ID#: TV7R11E5HACD
Date: July 3, 2014
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