Mikrotik		RB951Ui-2nD	Test Number:		150901		
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)		1
		Output Power			dBd + 2.17 = dBi	dBi to dBd	2.2
Tx Frequency (MHz)	2437	Maximum (Watts)		0.161000	Antenna Gain (dBd)		-1.17
Cable Loss (dB)	0.0	(dBm)		22.07	Antenna minus cable (dBi)		1.00
		Milliwatts					
	Calculated ERP (mw)	122.978			EIRP = Po(dBM) + Gain (dB)		
	Calculated EIRP (mw)	202.687			Radiated (EIRP) dBm		23.068
					ERP = EIRP - 2.17 dB		
	Occupational Limit		Power density (S)		Radiated (ERP) dBm		20.898

Occupational Limit:
$0.6455 f^{0.5}$ W/m^2
31.86574 W/^{2}

General Public Limit:
$0.02619 f^{0.6834}$ W/m^2
5.40397 W/m^2

Power density (S)
$$\frac{EIRP}{4 p r^2} = mW/cm^2$$
r (cm)   EIRP (mW)

FCC radio frequency radiation exposure limits per 1.1310		
Frequency (MHz)	Occupational Limit	Public Limit
300-1,500	f/300	f/1500
1,500-10,000	5	1

IC radio frequency radiation exposure limits per RSS-102		
Frequency (MHz)	Occupational Limit (W/m^2)	Public Limit (W/m^2)
48-300	6.455	1.291
300-6,000		$0.02619 f^{0.6834}$
100-6,000	$0.6455 f^{0.5}$	$0.02619 f^{0.6834}$
6,000-150,000	50	10

EIRP	S	S	Distance	Distance	Distance	Distance
milliwatts	mW/cm^2	W/m^2	cm	meter	inches	Feet
202.687	0.00161	0.01613	100.00	1.00	39.37	3.28
202.687	0.00199	0.01991	90.00	0.90	35.43	2.95
202.687	0.00252	0.02520	80.00	0.80	31.50	2.62
202.687	0.00329	0.03292	70.00	0.70	27.56	2.30
202.687	0.00448	0.04480	60.00	0.60	23.62	1.97
202.687	0.00645	0.06452	50.00	0.50	19.69	1.64
202.687	0.01008	0.10081	40.00	0.40	15.75	1.31
202.687	0.01792	0.17921	30.00	0.30	11.81	0.98
202.687	0.04032	0.40323	20.00	0.20	7.87	0.66
202.687	0.16129	1.61293	10.00	0.10	3.94	0.33
202.687	0.19913	1.99127	9.00	0.090	3.54	0.30
202.687	0.25202	2.52021	8.00	0.080	3.15	0.26
202.687	0.44804	4.48037	6.00	0.060	2.36	0.20
202.687	0.53320	5.33201	5.50	0.055	2.17	0.18
202.687	0.64517	6.45173	5.00	0.050	1.97	0.16
202.687	1.00808	10.08082	4.00	0.040	1.57	0.13
202.687	1.79215	17.92146	3.00	0.030	1.18	0.10

Frequency (MHz)	Occupational Limit minimum Distance (meters)	Occupational Limit minimum Distance (cm / inches)	Public Limit minimum distance (meters)	Public Limit minimum distance (cm / inches)
300-1,500	N/A	N/A	N/A	N/A
1,500-10,000			0.55	5.5 / 2.2

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

Mikrotikls SIA
Model: RB951Ui-2nD
Test #: 150901
Test to: CFR47 (15.247)
File: RB951Ui2nD RFExp

S/N: 5D4501DDA4E7/527
FCC ID#: TV7RB951UI-2ND
IC: 7442A-9512ND
Date: October 13, 2015
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