

# FOUR RIVERS COMMUNITY BROADCASTING CORPORATION

## Freespace Interference Study for a given antenna based on Vertical Radiation Pattern

Antenna Make: PSI

Antenna Model: FML (1-bay)

Depression Angle from <u>Antenna</u>	Antenna Relative <u>Field</u>	ERP <u>Watts</u>	ERP <u>dBk</u>	Distance to Ground from <u>Antenna (km)</u>	Free Space <u>Signal (dBu)</u>	2.5 dB Loss <u>for Reflection</u>	Signal Strength <u>at Ground (dBu)</u>	Circular Distance <u>From Tower (m)</u>
90	0.001	0.000	-76.02	0.0760	53.3	0	53.3	0.00
85	0.087	0.189	-37.23	0.0763	92.0	0	92.0	6.65
80	0.174	0.757	-31.21	0.0772	98.0	0	98.0	13.40
75	0.259	1.677	-27.75	0.0787	101.2	0	101.2	20.36
70	0.342	2.924	-25.34	0.0809	103.4	0	103.4	27.66
65	0.423	4.473	-23.49	0.0839	105.0	0	105.0	35.44
60	0.500	6.250	-22.04	0.0878	106.0	0	106.0	43.88
55	0.573	8.208	-20.86	0.0928	106.7	0	106.7	53.22
50	0.643	10.336	-19.86	0.0992	107.1	0	107.1	63.77
45	0.707	12.496	-19.03	0.1075	107.3	0	107.3	76.00
40	0.766	14.669	-18.34	0.1182	107.1	0	107.1	90.57
35	0.819	16.769	-17.75	0.1325	106.7	0	106.7	108.54
30	0.866	18.749	-17.27	0.1520	106.0	0	106.0	131.64
25	0.906	20.521	-16.88	0.1798	104.9	0	104.9	162.98
20	0.940	22.090	-16.56	0.2222	103.4	0	103.4	208.81
15	0.966	23.329	-16.32	0.2936	101.2	0	101.2	283.64
10	0.985	24.256	-16.15	0.4377	97.9	0	97.9	431.02
5	0.996	24.800	-16.06	0.8720	92.1	0	92.1	868.68

Distance to Ground Level assumes flat ground or a site where the ground level is above average terrain in all azimuths.

Maximum ERP                      25 watts  
Radiation Center AG              0.076 km  
Radiation Center AG              249.344 ft.

Max dBu to Ground Level                      107.13