

FOUR RIVERS COMMUNITY BROADCASTING CORPORATION

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

Antenna Make: PSI

Antenna Model: FML-2

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 Signal (<u>dBu</u>)	2.5 dB Loss for Reflection	Signal Strength at Ground (<u>dBu</u>)	Circular Distance From Tower (<u>m</u>)
90	0.001	0.000	-66.02	0.0520	66.58	0	66.58	0.00
85	0.087	1.892	-27.23	0.0522	105.34	0	105.34	4.55
80	0.173	7.482	-21.26	0.0528	111.21	0	111.21	9.17
75	0.257	16.512	-17.82	0.0538	114.48	0	114.48	13.93
70	0.336	28.224	-15.49	0.0553	116.57	0	116.57	18.93
65	0.404	40.804	-13.89	0.0574	117.85	0	117.85	24.25
60	0.456	51.984	-12.84	0.0600	118.51	0	118.51	30.02
55	0.483	58.322	-12.34	0.0635	118.53	0	118.53	36.41
50	0.477	56.882	-12.45	0.0679	117.83	0	117.83	43.63
45	0.428	45.796	-13.39	0.0735	116.20	0	116.20	52.00
40	0.332	27.556	-15.60	0.0809	113.16	0	113.16	61.97
35	0.188	8.836	-20.54	0.0907	107.23	0	107.23	74.26
30	0.001	0.000	-66.02	0.1040	60.56	0	60.56	90.07
25	0.218	11.881	-19.25	0.1230	105.87	0	105.87	111.51
20	0.447	49.952	-13.01	0.1520	110.27	0	110.27	142.87
15	0.664	110.224	-9.58	0.2009	111.28	0	111.28	194.07
10	0.842	177.241	-7.51	0.2995	109.88	0	109.88	294.91
5	0.959	229.920	-6.38	0.5966	105.02	0	105.02	594.36

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

Maximum ERP 250 watts
 Radiation Center AG 0.052 km
 Radiation Center AG 170.604 ft.

Max dBu to Ground Level 118.53