

FOUR RIVERS COMMUNITY BROADCASTING CORPORATION

Freespace Interference Study based on Vertical (Elevation) Radiation Pattern

Antenna Make: SHI

Antenna Model: Series 6812-2-SS 2-bay Half wave spaced

Depression Angle from Antenna	Antenna Relative Field	ERP Watts	ERP dBk	Distance to Ground from Antenna (km)	Free Space Signal (dBu)	2.5 dB Loss for Reflection	Signal Strength at Ground (dBu)	Circular Distance From Tower (m)
90	0.001	0.000	-80.00	0.0190	61.34	0	61.34	0.00
85	0.001	0.000	-80.00	0.0191	61.31	0	61.31	1.66
80	0.004	0.000	-67.96	0.0193	73.25	0	73.25	3.35
75	0.014	0.002	-57.08	0.0197	83.97	0	83.97	5.09
70	0.032	0.010	-49.90	0.0202	90.91	0	90.91	6.92
65	0.062	0.038	-44.15	0.0210	96.34	0	96.34	8.86
60	0.104	0.108	-39.66	0.0219	100.44	0	100.44	10.97
55	0.161	0.259	-35.86	0.0232	103.75	0	103.75	13.30
50	0.231	0.534	-32.73	0.0248	106.30	0	106.30	15.94
45	0.314	0.986	-30.06	0.0269	108.27	0	108.27	19.00
40	0.408	1.665	-27.79	0.0296	109.72	0	109.72	22.64
35	0.508	2.581	-25.88	0.0331	110.63	0	110.63	27.13
30	0.612	3.745	-24.26	0.0380	111.06	0	111.06	32.91
25	0.714	5.098	-22.93	0.0450	110.94	0	110.94	40.75
20	0.807	6.512	-21.86	0.0556	110.16	0	110.16	52.20
15	0.887	7.868	-21.04	0.0734	108.56	0	108.56	70.91
10	0.948	8.987	-20.46	0.1094	105.67	0	105.67	107.75
5	0.987	9.742	-20.11	0.2180	100.04	0	100.04	217.17

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

Maximum ERP 10 watts

Max dBu to Ground Level

111.06

Radiation Center AG 0.019 km

Radiation Center AG 62.336 ft.