

FOUR RIVERS COMMUNITY BROADCASTING CORPORATION

Freespace Interference Study for a given antenna based on Vertical 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	0.0240	59.32	2.5	56.82	0.00
85	0.001	0.000	-80.00	0.0241	59.28	2.5	56.78	2.10
80	0.004	0.000	-67.96	0.0244	71.22	2.5	68.72	4.23
75	0.014	0.002	-57.08	0.0248	81.94	2.5	79.44	6.43
70	0.032	0.010	-49.90	0.0255	88.88	2.5	86.38	8.74
65	0.062	0.038	-44.15	0.0265	94.31	2.5	91.81	11.19
60	0.104	0.108	-39.66	0.0277	98.41	2.5	95.91	13.86
55	0.161	0.259	-35.86	0.0293	101.72	2.5	99.22	16.80
50	0.231	0.534	-32.73	0.0313	104.27	2.5	101.77	20.14
45	0.314	0.986	-30.06	0.0339	106.24	2.5	103.74	24.00
40	0.408	1.665	-27.79	0.0373	107.69	2.5	105.19	28.60
35	0.508	2.581	-25.88	0.0418	108.60	2.5	106.10	34.28
30	0.612	3.745	-24.26	0.0480	109.03	2.5	106.53	41.57
25	0.714	5.098	-22.93	0.0568	108.91	2.5	106.41	51.47
20	0.807	6.512	-21.86	0.0702	108.13	2.5	105.63	65.94
15	0.887	7.868	-21.04	0.0927	106.53	2.5	104.03	89.57
10	0.948	8.987	-20.46	0.1382	103.65	2.5	101.15	136.11
5	0.987	9.742	-20.11	0.2754	98.01	2.5	95.51	274.32

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	106.53
Radiation Center AG	0.024 km		
Radiation Center AG	78.740 ft.		