

FOUR RIVERS COMMUNITY BROADCASTING CORPORATION

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

Antenna Make: SHI Antenna Model: 6812-1 1-bay

Depression Angle from Antenna	Antenna Relative Field	ERP Watts	ERP dBr	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	0.1300	44.6	2.5	42.1	0.00
85	0.087	0.076	-41.21	0.1305	83.4	2.5	80.9	11.37
80	0.174	0.303	-35.19	0.1320	89.3	2.5	86.8	22.92
75	0.259	0.671	-31.73	0.1346	92.6	2.5	90.1	34.83
70	0.342	1.170	-29.32	0.1383	94.8	2.5	92.3	47.32
65	0.423	1.789	-27.47	0.1434	96.3	2.5	93.8	60.62
60	0.500	2.500	-26.02	0.1501	97.4	2.5	94.9	75.06
55	0.573	3.283	-24.84	0.1587	98.1	2.5	95.6	91.03
50	0.643	4.134	-23.84	0.1697	98.5	2.5	96.0	109.08
45	0.707	4.998	-23.01	0.1838	98.6	2.5	96.1	130.00
40	0.766	5.868	-22.32	0.2022	98.5	2.5	96.0	154.93
35	0.819	6.708	-21.73	0.2266	98.1	2.5	95.6	185.66
30	0.866	7.500	-21.25	0.2600	97.4	2.5	94.9	225.17
25	0.906	8.208	-20.86	0.3076	96.3	2.5	93.8	278.79
20	0.940	8.836	-20.54	0.3801	94.8	2.5	92.3	357.17
15	0.966	9.332	-20.30	0.5023	92.6	2.5	90.1	485.17
10	0.985	9.702	-20.13	0.7486	89.3	2.5	86.8	737.27
5	0.996	9.920	-20.03	1.4916	83.4	2.5	80.9	1485.91

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

Maximum ERP	10 watts	Max dBu to Ground Level	95.99
Radiation Center AG	0.130 km		
Radiation Center AG	426.509 ft.		