

FOUR RIVERS COMMUNITY BROADCASTING CORPORATION

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

Antenna Make: SCALA

Antenna Model: FMV 1-bay

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	0.025	0.006	-52.04	0.0200	88.86	2.5	86.36	0.00
85	0.019	0.004	-54.42	0.0201	86.44	2.5	83.94	1.75
80	0.067	0.045	-43.48	0.0203	97.29	2.5	94.79	3.53
75	0.119	0.142	-38.49	0.0207	102.11	2.5	99.61	5.36
70	0.176	0.310	-35.09	0.0213	105.27	2.5	102.77	7.28
65	0.230	0.529	-32.77	0.0221	107.28	2.5	104.78	9.33
60	0.310	0.961	-30.17	0.0231	109.48	2.5	106.98	11.55
55	0.388	1.505	-28.22	0.0244	110.94	2.5	108.44	14.00
50	0.472	2.228	-26.52	0.0261	112.06	2.5	109.56	16.78
45	0.558	3.114	-25.07	0.0283	112.82	2.5	110.32	20.00
40	0.645	4.160	-23.81	0.0311	113.25	2.5	110.75	23.84
35	0.727	5.285	-22.77	0.0349	113.30	2.5	110.80	28.56
30	0.803	6.448	-21.91	0.0400	112.97	2.5	110.47	34.64
25	0.867	7.517	-21.24	0.0473	112.18	2.5	109.68	42.89
20	0.918	8.427	-20.74	0.0585	110.84	2.5	108.34	54.95
15	0.956	9.139	-20.39	0.0773	108.77	2.5	106.27	74.64
10	0.982	9.643	-20.16	0.1152	105.54	2.5	103.04	113.43
5	0.995	9.900	-20.04	0.2295	99.66	2.5	97.16	228.60

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	110.80
Radiation Center AG	0.020 km		
Radiation Center AG	65.617 ft.		