

# KEVIN M. FITZGERALD

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

Antenna Make: SCALA

Antenna Model: FMV-2 2-bay Half-Wave Dipole Array

Depression Angle from Antenna	Antenna Relative Field	ERP Watts	ERP dBk	Distance to Ground from Antenna (km)	Free Space Signal (dBu)	Circular Distance From Tower (m)
90	0.023	0.002	-56.74	0.0450	77.1	0.00
85	0.018	0.001	-58.87	0.0452	74.9	3.94
80	0.060	0.014	-48.42	0.0457	85.3	7.93
75	0.104	0.043	-43.64	0.0466	89.9	12.06
70	0.148	0.088	-40.57	0.0479	92.7	16.38
65	0.189	0.143	-38.45	0.0497	94.6	20.98
60	0.222	0.197	-37.05	0.0520	95.6	25.98
55	0.240	0.230	-36.38	0.0549	95.7	31.51
50	0.235	0.221	-36.56	0.0587	95.0	37.76
45	0.198	0.157	-38.05	0.0636	92.8	45.00
40	0.119	0.057	-42.47	0.0700	87.5	53.63
35	0.010	0.000	-63.98	0.0785	65.0	64.27
30	0.163	0.106	-39.74	0.0900	88.1	77.94
25	0.350	0.490	-33.10	0.1065	93.3	96.50
20	0.545	1.188	-29.25	0.1316	95.3	123.64
15	0.726	2.108	-26.76	0.1739	95.4	167.94
10	0.873	3.049	-25.16	0.2591	93.5	255.21
5	0.967	3.740	-24.27	0.5163	88.4	514.35

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

Maximum ERP	4 watts	Max dBu to Ground Level	95.55
Radiation Center AG	0.045 km		
Radiation Center AG	147.638 ft.		