

# KEVIN M. FITZGERALD

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

Antenna Make: KAT

Antenna Model: CL-FMRX Vertical

Depression Angle from Antenna	Antenna Relative Field	ERP Watts	ERP dBk	Distance to Ground from Antenna (km)	Free Space Signal (dBu)	Signal Strength at Ground (dBu)	Circular Distance From Tower (m)
90	0.010	0.010	-50.04	0.0340	86.25	86.25	0.00
85	0.010	0.010	-50.04	0.0341	86.21	86.21	2.97
80	0.010	0.010	-50.04	0.0345	86.11	86.11	6.00
75	0.010	0.010	-50.04	0.0352	85.95	85.95	9.11
70	0.020	0.040	-44.02	0.0362	91.73	91.73	12.37
65	0.045	0.200	-36.98	0.0375	98.46	98.46	15.85
60	0.085	0.715	-31.46	0.0393	103.59	103.59	19.63
55	0.155	2.378	-26.24	0.0415	108.32	108.32	23.81
50	0.250	6.188	-22.08	0.0444	111.89	111.89	28.53
45	0.360	12.830	-18.92	0.0481	114.36	114.36	34.00
40	0.470	21.869	-16.60	0.0529	115.85	115.85	40.52
35	0.562	31.269	-15.05	0.0593	116.41	116.41	48.56
30	0.645	41.186	-13.85	0.0680	116.42	116.42	58.89
25	0.735	53.482	-12.72	0.0805	116.09	116.09	72.91
20	0.820	66.568	-11.77	0.0994	115.20	115.20	93.41
15	0.895	79.301	-11.01	0.1314	113.54	113.54	126.89
10	0.950	89.348	-10.49	0.1958	110.59	110.59	192.82
5	0.980	95.080	-10.22	0.3901	104.88	104.88	388.62

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

Maximum ERP                      99 watts

Radiation Center AG            0.034 km

Radiation Center AG            111.549 ft.

Max dBu to Gr                      116.42