

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

Antenna Make: NIC Antenna Model: BKG77-6 (6-bay Full 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	-67.96	0.0650	62.70	0	62.70	0.00
85	0.009	0.013	-48.87	0.0652	81.75	0	81.75	5.69
80	0.004	0.003	-55.92	0.0660	74.61	0	74.61	11.46
75	0.020	0.064	-41.94	0.0673	88.42	0	88.42	17.42
70	0.061	0.595	-32.25	0.0692	97.87	0	97.87	23.66
65	0.102	1.665	-27.79	0.0717	102.02	0	102.02	30.31
60	0.112	2.007	-26.97	0.0751	102.44	0	102.44	37.53
55	0.063	0.635	-31.97	0.0794	96.96	0	96.96	45.51
50	0.035	0.196	-37.08	0.0849	91.27	0	91.27	54.54
45	0.119	2.266	-26.45	0.0919	101.20	0	101.20	65.00
40	0.100	1.600	-27.96	0.1011	98.86	0	98.86	77.46
35	0.032	0.164	-37.86	0.1133	87.98	0	87.98	92.83
30	0.147	3.457	-24.61	0.1300	100.03	0	100.03	112.58
25	0.079	0.999	-30.01	0.1538	93.17	0	93.17	139.39
20	0.143	3.272	-24.85	0.1900	96.49	0	96.49	178.59
15	0.214	7.327	-21.35	0.2511	97.57	0	97.57	242.58
10	0.129	2.663	-25.75	0.3743	89.71	0	89.71	368.63
5	0.709	80.429	-10.95	0.7458	98.52	0	98.52	742.95
1	0.987	155.867	-8.07	3.7244	87.43	0	87.43	3723.85
0	1.000	160.000	-7.96					

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

Maximum ERP	160 watts	Max dBu to Ground Level	102.44
Radiation Center AG	0.065 km		
Radiation Center AG	213.255 ft.		