

County of Montgomery - Upper Gwynedd Amendment

Freespace Interference Study for a Shively 6812B-3-SS antenna based on Vertical Radiation Pattern

Antenna Make: SHI

Antenna Model: Series 6812B-3-SS 3-bay Half 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	-75.69	0.0360	60.11	0	60.11	0.00
85	0.032	0.028	-45.58	0.0361	90.18	0	90.18	3.15
80	0.062	0.104	-39.84	0.0366	95.82	0	95.82	6.35
75	0.090	0.219	-36.60	0.0373	98.89	0	98.89	9.65
70	0.115	0.357	-34.47	0.0383	100.78	0	100.78	13.10
65	0.134	0.485	-33.14	0.0397	101.80	0	101.80	16.79
60	0.142	0.544	-32.64	0.0416	101.90	0	101.90	20.78
55	0.135	0.492	-33.08	0.0439	100.98	0	100.98	25.21
50	0.107	0.309	-35.10	0.0470	98.38	0	98.38	30.21
45	0.052	0.073	-41.37	0.0509	91.42	0	91.42	36.00
40	0.033	0.029	-45.32	0.0560	86.64	0	86.64	42.90
35	0.147	0.583	-32.34	0.0628	98.63	0	98.63	51.41
30	0.289	2.255	-26.47	0.0720	103.30	0	103.30	62.35
25	0.448	5.419	-22.66	0.0852	105.65	0	105.65	77.20
20	0.612	10.113	-19.95	0.1053	106.52	0	106.52	98.91
15	0.765	15.801	-18.01	0.1391	106.04	0	106.04	134.35
10	0.890	21.387	-16.70	0.2073	103.89	0	103.89	204.17
5	0.972	25.509	-15.93	0.4131	98.67	0	98.67	411.48

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

Maximum ERP 27 watts

Radiation Center AG 0.036 km

Radiation Center AG 118.110 ft.

Max dBu to Ground Level

106.52