

Analysis of Signal Levels At Ground Level

Translator H AGL	98	
Translator ERP	185	
Translator channel	297	
Translator HAAT	100	
Interference Contour	108.25	
Highest signal on ground	106.69	Adequate Choice

Depression Angle, Degrees	Relative Field	ERP Watts	dBk	Distance to the Ground in Kilometers	Free Space Signal
90	0.010	0.0185	-47.3	0.0980	79.77
85	0.068	0.8631	-30.6	0.0984	96.42
80	0.129	3.0693	-25.1	0.0995	101.83
75	0.180	5.9889	-22.2	0.1015	104.57
70	0.218	8.7900	-20.6	0.1043	106.00
65	0.239	10.5539	-19.8	0.1081	106.48
60	0.238	10.5097	-19.8	0.1132	106.06
55	0.213	8.3640	-20.8	0.1196	104.59
50	0.159	4.6632	-23.3	0.1279	101.47
45	0.075	1.0526	-29.8	0.1386	94.31
40	0.036	0.2455	-36.1	0.1525	87.16
35	0.173	5.5395	-22.6	0.1709	99.70
30	0.328	19.8497	-17.0	0.1960	104.05
25	0.490	44.4580	-13.5	0.2319	106.09
20	0.649	77.9250	-11.1	0.2865	106.69
15	0.791	115.7088	-9.4	0.3786	105.99
10	0.903	150.8834	-8.2	0.5644	103.68
5	0.975	175.9225	-7.5	1.1244	98.35
4	0.984	179.1466	-7.5	1.4049	96.50
3	0.991	181.6881	-7.4	1.8725	94.06
2	0.996	183.5219	-7.4	2.8081	90.59
1	0.999	184.6295	-7.3	5.6153	84.60
0.1	1.000	185.0000	-7.3	56.1499	64.60

Notes:

Antenna radiation center above ground (meters):	98
Maximum ERP (watts) at 0° Depression angle:	185

Free Space Signal = $106.92 - 20 \cdot \log(\text{distance in km}) + \text{dBk}$

TWO PSIFMLOGS SPACED 83 INCHES