

Table II

**Computation of Signal Level
on the Ground
W284AZ
SELDEN, NY**

Depression Angle, Degrees	Relative Field	ERP Watts	dBk	Distance to the Ground in Kilometers	Free Space Signal	dB Loss for Reflection	Signal Strength dBu
90	0.097	0.0941	-40.3	0.0910	87.5	2.47	85.0
85	0.122	0.1488	-38.3	0.0913	89.4	2.47	87.0
80	0.164	0.2690	-35.7	0.0924	91.9	2.47	89.4
75	0.219	0.4796	-33.2	0.0942	94.2	2.47	91.8
70	0.282	0.7952	-31.0	0.0968	96.2	2.47	93.7
65	0.346	1.1972	-29.2	0.1004	97.7	2.47	95.2
60	0.402	1.6160	-27.9	0.1051	98.6	2.47	96.1
55	0.433	1.8749	-27.3	0.1111	98.7	2.47	96.3
50	0.433	1.8749	-27.3	0.1188	98.2	2.47	95.7
45	0.398	1.5840	-28.0	0.1287	96.7	2.47	94.3
40	0.315	0.9923	-30.0	0.1416	93.9	2.47	91.4
35	0.180	0.3240	-34.9	0.1587	88.0	2.47	85.5
30	0.010	0.0010	-60.0	0.1820	61.7	2.47	59.2
25	0.212	0.4494	-33.5	0.2153	86.8	2.47	84.3
20	0.439	1.9272	-27.2	0.2661	91.3	2.47	88.8
15	0.659	4.3428	-23.6	0.3516	92.4	2.47	89.9
10	0.842	7.0896	-21.5	0.5240	91.0	2.47	88.6
5	0.959	9.1968	-20.4	1.0441	86.2	2.47	83.7

Notes:

Antenna radiation center above ground (meters):

Maximum ERP (watts) at 0° Depression angle:

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

Relative field based on 2 bay full wavelength interbay spacing antenna.

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