

TABLE I

**Computation of Signal Level
6' ABOVE GROUND
K208BV CH 262D
ENID, OKLAHOMA**

JUNE, 2004

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	1.1761	-29.3	0.0740	100.2	2.47	97.8
85	0.122	1.8605	-27.3	0.0743	102.2	2.47	99.7
80	0.164	3.3620	-24.7	0.0751	104.7	2.47	102.2
75	0.219	5.9951	-22.2	0.0766	107.0	2.47	104.5
70	0.282	9.9405	-20.0	0.0787	109.0	2.47	106.5
65	0.346	14.9645	-18.2	0.0816	110.4	2.47	108.0
60	0.402	20.2005	-16.9	0.0854	111.3	2.47	108.9
55	0.433	23.4361	-16.3	0.0903	111.5	2.47	109.0
50	0.433	23.4361	-16.3	0.0966	110.9	2.47	108.4
45	0.398	19.8005	-17.0	0.1047	109.5	2.47	107.0
40	0.315	12.4031	-19.1	0.1151	106.6	2.47	104.2
35	0.180	4.0500	-23.9	0.1290	100.8	2.47	98.3
30	0.010	0.0125	-49.0	0.1480	74.5	2.47	72.0
25	0.212	5.6180	-22.5	0.1751	99.6	2.47	97.1
20	0.439	24.0901	-16.2	0.2164	104.0	2.47	101.6
15	0.659	54.2851	-12.7	0.2859	105.1	2.47	102.7
10	0.842	88.6205	-10.5	0.4261	103.8	2.47	101.3
5	0.959	114.9601	-9.4	0.8491	98.9	2.47	96.5

Notes:

Antenna radiation center above ground (meters): 74
Maximum ERP (watts) at 0° Depression angle: 125
Free Space Signal = $106.92 - 20 \cdot \log(\text{distance in km}) + \text{dBk}$
Relative field based on 2 bay full wavelength interbay spacing antenna.