

Table II

**Computation of Signal Level
on the Ground
from Proposed CH 241 LPFM
Houston, Texas**

September, 2013

Depression Angle, Degrees	Relative Field	ERP Watts	dBk	Distance to the Ground in Kilometers	Free Space Signal
90	0.001	0.0000	-73.9	0.0440	60.2
85	0.096	0.3779	-34.2	0.0442	99.8
80	0.186	1.4184	-28.5	0.0447	105.4
75	0.273	3.0557	-25.1	0.0456	108.6
70	0.357	5.2254	-22.8	0.0468	110.7
65	0.437	7.8297	-21.1	0.0485	112.1
60	0.514	10.8320	-19.7	0.0508	113.1
55	0.586	14.0792	-18.5	0.0537	113.8
50	0.654	17.5364	-17.6	0.0574	114.2
45	0.717	21.0776	-16.8	0.0622	114.3
40	0.774	24.5621	-16.1	0.0685	114.1
35	0.826	27.9733	-15.5	0.0767	113.7
30	0.871	31.1043	-15.1	0.0880	113.0
25	0.910	33.9521	-14.7	0.1041	111.9
20	0.942	36.3819	-14.4	0.1286	110.3
15	0.967	38.3386	-14.2	0.1700	108.1
10	0.985	39.7792	-14.0	0.2534	104.8
5	0.996	40.6727	-13.9	0.5048	98.9

Notes:

Antenna radiation center above ground (meters): 44

Maximum ERP (watts) at 0° Depression angle: 41

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

Relative field based on one bay antenna.