Table II

Computation of Signal Level on the Ground From Proposed K261CR FM Translator Chickasha, Oklahoma

July, 2017

Depression Angle, Degrees	Relative Field	ERP Watts	dBk	Distance to the Ground in Kilometers	Free Space Signal
90	0.074	1.3690	-28.6	0.1280	96.1
85	0.076	1.4440	-28.4	0.1285	96.3
80	0.086	1.8490	-27.3	0.1300	97.3
75	0.096	2.3040	-26.4	0.1325	98.1
70	0.089	1.9803	-27.0	0.1362	97.2
65	0.059	0.8703	-30.6	0.1412	93.3
60	0.001	0.0003	-66.0	0.1478	57.5
55	0.075	1.4063	-28.5	0.1563	94.5
50	0.144	5.1840	-22.9	0.1671	99.6
45	0.170	7.2250	-21.4	0.1810	100.4
40	0.120	3.6000	-24.4	0.1991	96.5
35	0.007	0.0123	-49.1	0.2232	70.8
30	0.161	6.4803	-21.9	0.2560	96.9
25	0.243	14.7623	-18.3	0.3029	99.0
20	0.161	6.4803	-21.9	0.3742	93.6
15	0.118	3.4810	-24.6	0.4946	88.5
10	0.517	66.8223	-11.8	0.7371	97.8
5	0.863	186.1923	-7.3	1.4686	96.3

Notes:

Antenna radiation center above ground (meters): 128

Maximum ERP (watts) at 0° Depression angle: 250

Free Space Signal = 106.92 -20*log(distance in km) + dBk

Relative field based on Nicom BKG88/4, 0.85 wave spaced