K211DA Computation of Signal Level / Field Strength on the Ground (2m AGL)
Selma, CA
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Important Forumulas:
Free Space Signal Strength (dBuV/m) = 104.77 + 2.15 + ERP_dBkW - 20*log(distance_km)
Free Space Distance to Contour(km) = 10^((104.77+2.15+ERP_dBkW)/20)

Total Antenna Height AGL	11	meters
Distance to 2m AGL	9	meters
ERP Vertical	0.5	watts
ERP Horizontal	0	watts
Total ERP (ERPH+ERPHV)	0.5	watts
Antenna Model	Kathrein-Scala FMV	

Horizontal Distance from Tower (m)	Declination Angle (degrees)	Rel Field (from Manufacturer data)	Power (watts)	Total Distance from Antenna	Power Density (uW/cm^2)	Free Space Field Strength (dbuV/m)
0	-90.0	0.025	0.00031	9.0	0.0001	82.8
1	-83.7	0.038	0.00072	9.1	0.0003	86.4
2	-77.5	0.108	0.00583	9.2	0.0023	95.3
3	-71.6	0.164	0.01345	9.5	0.0050	98.7
4	-66.0	0.226	0.02554	9.8	0.0088	101.1
5	-60.9	0.296	0.04381	10.3	0.0138	103.1
6	-56.3	0.372	0.06919	10.8	0.0198	104.6
7	-52.1	0.438	0.09592	11.4	0.0246	105.6
8	-48.4	0.523	0.13676	12.0	0.0315	106.7
9	-45.0	0.558	0.15568	12.7	0.0321	106.7
10	-42.0	0.61	0.18605	13.5	0.0343	107.0
11	-39.3	0.657	0.21582	14.2	0.0357	107.2
12	-36.9	0.695	0.24151	15.0	0.0359	107.2
13	-34.7	0.727	0.26426	15.8	0.0353	107.2
14	-32.7	0.758	0.28728	16.6	0.0346	107.1
15	-31.0	0.803	0.3224	17.5	0.0352	107.1

Summary:
The field strength of the transmit signal is never more than 40 dB above that of KWYE when measured or calculated at a height of 2 meter above ground level. KWYE's predicted signal strength at the tower site for K211DA is 67.4 dBuV/m. 40 dB above this would be 107.4 dBuV/m.
The maximum field strength 2 meters above ground from K211DA would be 107.2 dBuV/m.
So, the interfereing contour never touches the ground and doesn't encompass any people.