



- In compliance with 47 CFR 74.1204(g) the proposed facility operates at an effective radiated power which is not over 100 watts, therefore protection to intermediate frequency facilities has been not been calculated.

- The proposed location is within the protected 60dbu (50,50) contour of second adjacent station KRKI(FM) channel 258-C1 located 50.74km away. Therefore, an interference analysis has been conducted based on the u/d ratio of +40 dB at the proposed site. The signal of KRKI (FM) at the proposed location is 69.6 dBu (50,50) making the relevant interfering contour of the proposed facility 109.6 dBu (50,10).

- The proposed location is within the protected 60dbu (50,50) contour of third-adjacent station KFXS(FM) channel 262-C1 located 4.9km away. Therefore, an interference analysis has been conducted based on the u/d ratio of +40 dB at the proposed site. The signal of KFXS(FM) at the proposed location is 108.0 dBu (50,50) making the relevant interfering contour of the proposed facility 148.0 dBu (50,10).

- The applicant proposes the use of the Telewave Model FM90D antenna which has the vertical characteristics in the attached chart. The values were provided by the manufacturer and the calculations demonstrate that the larger of the interfering contours - the 109.6dBu - will not exceed a distance of 56 meters at any depression angle.

The attached aerial photograph is an accurate depiction of the tower location and surrounding area. The population-free area of 100 meters from the tower is imposed upon the photo demonstrating that neither of the interfering contours is incapable of reaching the general public. Based on this showing, a waiver of section 74.1204 is requested in accordance with Living Way Ministries, Inc. (FCC 08-242) on the basis of zero population in the area of interference. It should be noted that should any actual real world interference occur, the applicant acknowledges that it will promptly suspend operation of this translator in accordance with 47 C.F.R. 74.1203.

TELEWAVE
Model FM90D 1-Bay Vertically Polarized FM Antenna



Frequency =

99.9
109.6

 Mhz
Interfering Contour

dBu (50,10)

ERP=

10

 watts
Height =

4

 m AGL

Depression Angle	Relative Field (o)	Effective Power (w)	Distance to Contour (m)	Distance from Antenna to Ground (m)	Clearance (m)
1	0.999	10.0	73.38	229.19	156
2	0.999	10.0	73.38	114.61	41
3	0.998	10.0	73.30	76.43	3
4	0.997	9.9	73.23	57.34	(16)
5	0.996	9.9	73.16	45.89	(27)
6	0.993	9.9	72.94	38.27	(35)
7	0.991	9.8	72.79	32.82	(40)
8	0.989	9.8	72.64	28.74	(44)
9	0.985	9.7	72.35	25.57	(47)
10	0.982	9.6	72.13	23.04	(49)
11	0.977	9.5	71.76	20.96	(51)
12	0.973	9.5	71.47	19.24	(52)
13	0.967	9.4	71.03	17.78	(53)
14	0.962	9.3	70.66	16.53	(54)
15	0.956	9.1	70.22	15.45	(55)
16	0.950	9.0	69.78	14.51	(55)
17	0.942	8.9	69.19	13.68	(56)
18	0.935	8.7	68.68	12.94	(56)
19	0.927	8.6	68.09	12.29	(56)
20	0.918	8.4	67.43	11.70	(56)
21	0.909	8.3	66.77	11.16	(56)
22	0.899	8.1	66.03	10.68	(55)
23	0.889	7.9	65.30	10.24	(55)
24	0.878	7.7	64.49	9.83	(55)
25	0.867	7.5	63.68	9.46	(54)
26	0.855	7.3	62.80	9.12	(54)
27	0.842	7.1	61.85	8.81	(53)
28	0.830	6.9	60.96	8.52	(52)
29	0.816	6.7	59.94	8.25	(52)
30	0.803	6.4	58.98	8.00	(51)
31	0.788	6.2	57.88	7.77	(50)
32	0.774	6.0	56.85	7.55	(49)
33	0.758	5.7	55.68	7.34	(48)
34	0.743	5.5	54.57	7.15	(47)
35	0.727	5.3	53.40	6.97	(46)
36	0.711	5.1	52.22	6.81	(45)
37	0.695	4.8	51.05	6.65	(44)
38	0.678	4.6	49.80	6.50	(43)
39	0.662	4.4	48.62	6.36	(42)
40	0.645	4.2	47.38	6.22	(41)
41	0.628	3.9	46.13	6.10	(40)
42	0.610	3.7	44.81	5.98	(39)
43	0.593	3.5	43.56	5.87	(38)
44	0.575	3.3	42.23	5.76	(36)
45	0.558	3.1	40.99	5.66	(35)

Depression Angle	Relative Field	Effective Power (w)	Distance to Contour (m)	Distance from Antenna to Ground (m)	Clearance (m)
46	0.541	2.9	39.74	5.56	(34)
47	0.523	2.7	38.42	5.47	(33)
48	0.506	2.6	37.17	5.38	(32)
49	0.489	2.4	35.92	5.30	(31)
50	0.472	2.2	34.67	5.22	(29)
51	0.455	2.1	33.42	5.15	(28)
52	0.438	1.9	32.17	5.08	(27)
53	0.421	1.8	30.92	5.01	(26)
54	0.404	1.6	29.67	4.94	(25)
55	0.388	1.5	28.50	4.88	(24)
56	0.372	1.4	27.32	4.82	(22)
57	0.356	1.3	26.15	4.77	(21)
58	0.341	1.2	25.05	4.72	(20)
59	0.326	1.1	23.95	4.67	(19)
60	0.310	1.0	22.77	4.62	(18)
61	0.296	0.9	21.74	4.57	(17)
62	0.282	0.8	20.71	4.53	(16)
63	0.268	0.7	19.68	4.49	(15)
64	0.254	0.6	18.66	4.45	(14)
65	0.240	0.6	17.63	4.41	(13)
66	0.226	0.5	16.60	4.38	(12)
67	0.214	0.5	15.72	4.35	(11)
68	0.201	0.4	14.76	4.31	(10)
69	0.188	0.4	13.81	4.28	(10)
70	0.176	0.3	12.93	4.26	(9)
71	0.164	0.3	12.05	4.23	(8)
72	0.152	0.2	11.16	4.21	(7)
73	0.141	0.2	10.36	4.18	(6)
74	0.130	0.2	9.55	4.16	(5)
75	0.119	0.1	8.74	4.14	(5)
76	0.108	0.1	7.93	4.12	(4)
77	0.098	0.1	7.20	4.11	(3)
78	0.087	0.1	6.39	4.09	(2)
79	0.077	0.1	5.66	4.07	(2)
80	0.067	0.0	4.92	4.06	(1)
81	0.057	0.0	4.19	4.05	(0)
82	0.047	0.0	3.45	4.04	1
83	0.038	0.0	2.79	4.03	1
84	0.028	0.0	2.06	4.02	2
85	0.019	0.0	1.40	4.02	3
86	0.010	0.0	0.73	4.01	3
87	0.010	0.0	0.73	4.01	3
88	0.010	0.0	0.73	4.00	3
89	0.017	0.0	1.25	4.00	3
90	0.025	0.0	0.00	4.00	4

NOTES:
 - HEIGHT HAS BEEN REDUCED BY 2 METERS TO ALLOW FOR HUMAN EXPOSURE
 - DISTANCE FROM ANTENNA TO GROUND IS ACTUALLY TO A POINT 2 METERS ABOVE GROUND

