



- In compliance with 47 CFR 74.1204(g) the proposed facility operates at an effective radiated power which is over 100 watts, therefore protection to intermediate frequency facilities has been calculated and meets all mileage separation requirements.
- The proposed location is within the protected 60dbu (50,50) contour of third-adjacent station KONE (FM) channel 266-c1 located 27.5 km away. Therefore, an interference analysis has been conducted based on the u/d ratio of +40 db at the proposed site. The signal of KONE (FM) at the proposed location is 81.3 dBu (50,50) making the relevant interfering contour of the proposed facility 121.3 dBu (50,10). The free space distance to this contour in a worse-case scenario utilizing a single dipole antenna is 95 meters.
- The proposed antenna height is 57 meters above ground. The attached vertical radiation chart uses the field values provided by the manufacturer and demonstrates that the 81.3 dBu contour does not reach the ground at any depression angle making the interfering contour 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.

**NICOM BKG77**  
1-Bay Circularly Polarized FM Antenna



Frequency = 

101.7
121.3

 Mhz  
Interfering Contour 

dBu (50,10)
-------------

ERP= 

250
-----

 watts  
Height = 

53
----

 m AGL

Depression Angle	Relative Field (o)	Effective Power (w)	Distance to Contour (m)	Distance from Antenna to Ground (m)	Clearance (m)
1	1.000	250.0	95.49	4,049.01	3954
2	0.996	248.0	95.11	2,024.81	1930
3	0.992	246.0	94.73	1,350.22	1255
4	0.989	244.5	94.44	1,013.02	919
5	0.983	241.6	93.87	810.79	717
6	0.981	240.6	93.68	676.04	582
7	0.979	239.6	93.49	579.84	486
8	0.975	237.7	93.11	507.75	415
9	0.973	236.7	92.91	451.72	359
10	0.971	235.7	92.72	406.94	314
11	0.970	235.2	92.63	370.34	278
12	0.969	234.7	92.53	339.88	247
13	0.968	234.3	92.44	314.13	222
14	0.966	233.3	92.25	292.10	200
15	0.965	232.8	92.15	273.03	181
16	0.961	230.9	91.77	256.37	165
17	0.957	229.0	91.39	241.70	150
18	0.953	227.1	91.00	228.68	138
19	0.949	225.2	90.62	217.05	126
20	0.945	223.3	90.24	206.61	116
21	0.941	221.4	89.86	197.19	107
22	0.938	220.0	89.57	188.64	99
23	0.934	218.1	89.19	180.85	92
24	0.930	216.2	88.81	173.74	85
25	0.926	214.4	88.43	167.21	79
26	0.915	209.3	87.38	161.20	74
27	0.904	204.3	86.33	155.65	69
28	0.894	199.8	85.37	150.52	65
29	0.883	194.9	84.32	145.76	61
30	0.872	190.1	83.27	141.33	58
31	0.868	188.4	82.89	137.20	54
32	0.863	186.2	82.41	133.35	51
33	0.858	184.0	81.93	129.75	48
34	0.850	180.6	81.17	126.37	45
35	0.843	177.7	80.50	123.20	43
36	0.834	173.9	79.64	120.22	41
37	0.824	169.7	78.69	117.42	39
38	0.816	166.5	77.92	114.78	37
39	0.807	162.8	77.06	112.29	35
40	0.798	159.2	76.20	109.94	34
41	0.788	155.2	75.25	107.71	32
42	0.778	151.3	74.29	105.61	31
43	0.767	147.1	73.24	103.61	30
44	0.755	142.5	72.10	101.73	30
45	0.744	138.4	71.05	99.94	29

Depression Angle	Relative Field	Effective Power (w)	Distance to Contour (m)	Distance from Antenna to Ground (m)	Distance from Antenna to Ground (m)	Clearance (m)
46	0.729	132.9	69.61	73.68	98.21	29
47	0.716	128.2	68.37	72.47	96.60	28
48	0.704	123.9	67.23	71.32	95.07	28
49	0.693	120.1	66.18	70.23	93.61	27
50	0.682	116.3	65.13	69.19	92.23	27
51	0.670	112.2	63.98	68.20	90.91	27
52	0.659	108.6	62.93	67.26	89.65	27
53	0.648	105.0	61.88	66.36	88.46	27
54	0.637	101.4	60.83	65.51	87.33	26
55	0.626	98.0	59.78	64.70	86.25	26
56	0.611	93.3	58.35	63.93	85.22	27
57	0.602	90.6	57.49	63.20	84.24	27
58	0.588	86.4	56.15	62.50	83.31	27
59	0.579	83.8	55.29	61.83	82.42	27
60	0.563	79.2	53.76	61.20	81.58	28
61	0.551	75.9	52.62	60.60	80.78	28
62	0.538	72.4	51.38	60.03	80.01	29
63	0.523	68.4	49.94	59.48	79.29	29
64	0.511	65.3	48.80	58.97	78.60	30
65	0.499	62.3	47.65	58.48	77.95	30
66	0.484	58.6	46.22	58.02	77.33	31
67	0.469	55.0	44.79	57.58	76.75	32
68	0.454	51.5	43.35	57.16	76.20	33
69	0.439	48.2	41.92	56.77	75.68	34
70	0.424	44.9	40.49	56.40	75.18	35
71	0.409	41.8	39.06	56.05	74.72	36
72	0.398	39.6	38.01	55.73	74.28	36
73	0.381	36.3	36.38	55.42	73.88	37
74	0.366	33.5	34.95	55.14	73.50	39
75	0.351	30.8	33.52	54.87	73.14	40
76	0.338	28.6	32.28	54.62	72.81	41
77	0.319	25.4	30.46	54.39	72.51	42
78	0.302	22.8	28.84	54.18	72.23	43
79	0.290	21.0	27.69	53.99	71.97	44
80	0.277	19.2	26.45	53.82	71.74	45
81	0.261	17.0	24.92	53.66	71.53	47
82	0.248	15.4	23.68	53.52	71.34	48
83	0.231	13.3	22.06	53.40	71.18	49
84	0.215	11.6	20.53	53.29	71.04	51
85	0.200	10.0	19.10	53.20	70.92	52
86	0.189	8.9	18.05	53.13	70.82	53
87	0.174	7.6	16.62	53.07	70.75	54
88	0.161	6.5	15.37	53.03	70.69	55
89	0.147	5.4	14.04	53.01	70.66	57
90	0.134	4.5	0.00	53.00	70.65	71

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