

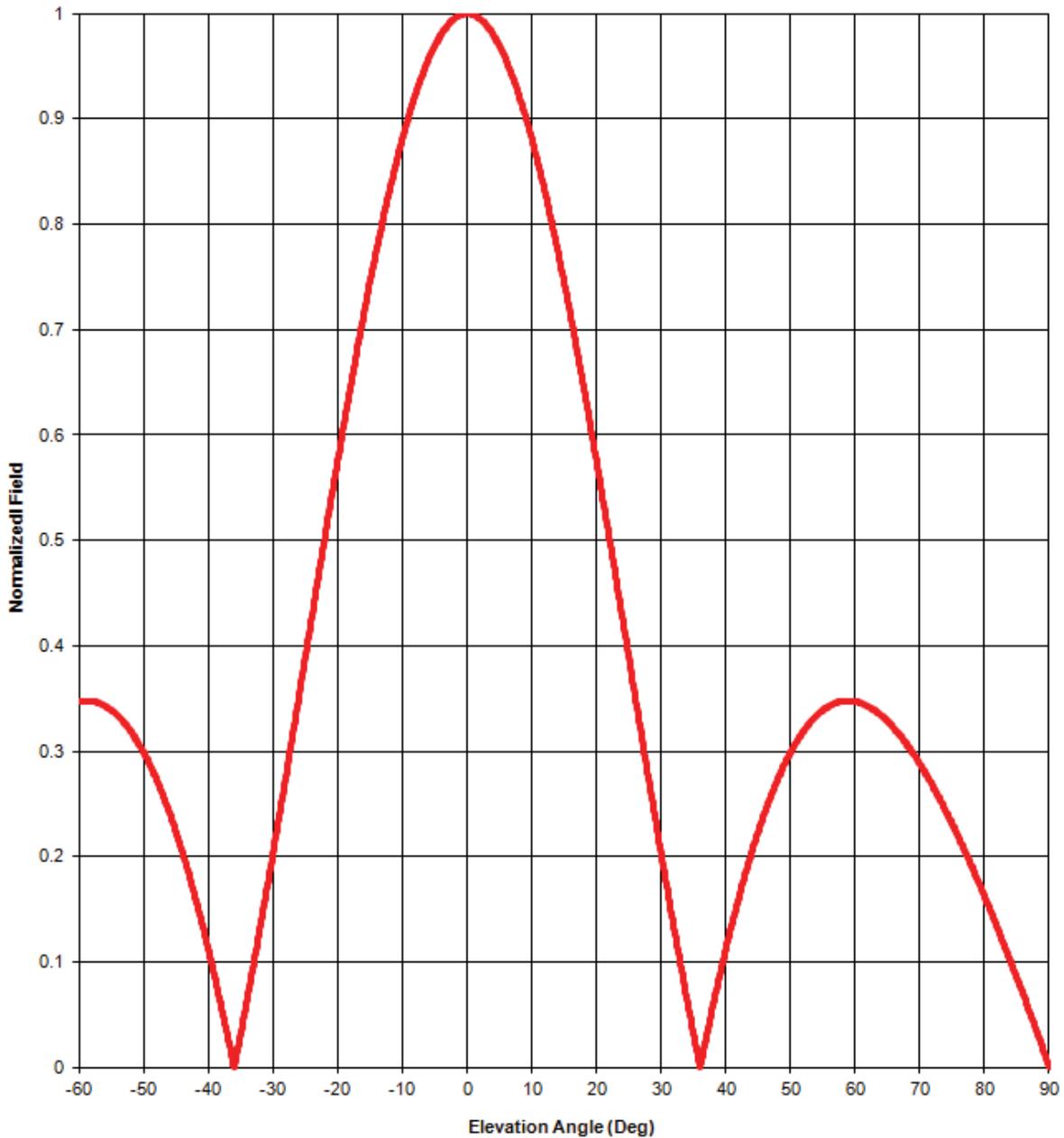
Exhibit 11 Page 1
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Second-Adjacent Waiver Request
Chattanooga, TN

The proposed LPFM station will broadcast on channel 259, which is within the 21 kilometers second-adjacent minimum distance separation of station W257AZ (License and CP) on channel 257. The W257AZ interfering contour at the LPFM tower site is 70.0 dB μ F(50,50). Using the ratio of 40:1 (LPFM to W227AZ) on the second-adjacent channel, the population within the proposed LPFM 110.0 dB μ contour is zero. Applying the antenna manufacturer's vertical radiation pattern the area of interference can be more accurately calculated geometrically, rather than just by using the free space equation alone. This particular antenna is a two bay full-wave spaced Shively 6812b. It was determined from the manufacturer's vertical plan that at 50 degrees below horizontal the interference area would extend 50.6 meters toward the ground and 42.4 meters horizontally. We have proposed the antenna radiation center will be 50 meters above ground, thus the interference area will reach the ground. However, there are no occupied structures or elevated roadways within the interference area. Therefore, the application is in compliance with §73.807(e)(1) *Waiver of the second-adjacent channel separations.*

Exhibit 11 Figure 1 Minimum Ground Clearance

Depression Angle Below Horizontal	Antenna Relative Field	ERP (Watts)	Distance to interfering Contour from Antenna (m)	Horizontal Distance of Interfering contour from tower (m)	Vertical Clearance of Interfering contour above TGL (m)
5	0.969	93.9	215	214.2	31.3
10	0.881	77.6	195	192.0	16.1
15	0.745	55.5	165	159.4	7.3
20	0.576	33.2	128	120.3	6.2
25	0.389	15.1	86	77.9	13.7
30	0.203	4.1	45	39.0	27.5
35	0.032	0.1	7	5.7	46.0
40	0.112	1.3	25	19.2	33.9
45	0.224	5.0	50	35.4	14.6
50	0.299	8.9	66	42.4	-0.6
55	0.339	11.5	75	43.0	-11.4
60	0.347	12.0	77	38.5	-16.7
65	0.328	10.8	73	30.9	-16.2
70	0.288	8.3	64	21.9	-10.1
75	0.231	5.3	51	13.2	0.7
80	0.162	2.6	36	6.3	14.5
85	0.085	0.7	19	1.7	31.1
90	0.000	0.0	0	0.0	50.0
Minimum Clearance above TGL:					-0.6

Elevation pattern



Antenna model: 6812b, 2-bay full-wave-spaced

Test frequency: 98.1 MHz

Gain (maximum):

Power	dB
1.00	0.02 dB

Document No. 6812b 2-bay fw (130701)

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Degrees	Rel. Field								
1	0.999	19	0.612	37	0.029	55	0.339	73	0.256
2	0.995	20	0.576	38	0.058	56	0.343	74	0.244
3	0.989	21	0.539	39	0.086	57	0.346	75	0.231
4	0.980	22	0.502	40	0.112	58	0.348	76	0.218
5	0.969	23	0.465	41	0.137	59	0.348	77	0.205
6	0.956	24	0.427	42	0.161	60	0.347	78	0.191
7	0.941	25	0.389	43	0.183	61	0.345	79	0.177
8	0.923	26	0.352	44	0.204	62	0.343	80	0.162
9	0.903	27	0.314	45	0.224	63	0.339	81	0.148
10	0.881	28	0.277	46	0.242	64	0.334	82	0.132
11	0.858	29	0.240	47	0.258	65	0.328	83	0.117
12	0.832	30	0.203	48	0.273	66	0.322	84	0.101
13	0.805	31	0.168	49	0.287	67	0.315	85	0.085
14	0.776	32	0.132	50	0.299	68	0.306	86	0.069
15	0.745	33	0.098	51	0.310	69	0.298	87	0.052
16	0.714	34	0.065	52	0.319	70	0.288	88	0.036
17	0.681	35	0.032	53	0.327	71	0.278	89	0.018
18	0.647	36	0.001	54	0.334	72	0.267	90	0.000

Elevation Pattern Tabulation

Antenna model: 6812b, 2-bay full-wave-spaced

Relative Field at 0° Depression = 1.000

Exhibit 11 Figure 2 Page 2 Manufacturer Elevation Pattern

Exhibit 11 Figure 3
Aerial Photo of the Vicinity Surrounding the Proposed Tower Site

