

14th Channel Waiver

According to the new FCC rule 74.705 (d)(5)

Subpart G--Low Power TV, TV Translator, and TV Booster Stations

Sec. 74.705 TV broadcast analog station protection.

(d) A low power TV, TV translator, or TV booster station application will not be accepted if the ratio in dB of its field strength to that of the TV broadcast station at the protected contour fails to meet the following:

(5) 23 dB when the protected TV broadcast station operates on a UHF channel that is fourteen channels below the requested channel.

Please find attached a study which shows the proposed signal does not exceed a ratio of desired to undesired that exceeds the required +23 db within the TV broadcast stations protected contour, therefore, the station complies with the FCC rule and does not cause harmful interference to WLPB, Channel 27.

Contour At A Bearing of 000 Degrees From Proposed Station

WLPB -TV Distance-Km	12.71	13.15	14.04	14.94	15.85	20.53	25.34
Bearing-Deg	29.70	28.62	26.66	24.94	23.41	17.86	14.39
ERP-dBk	33.05	33.01	32.94	32.88	32.82	32.61	32.47
HAAT-m	299.10	299.02	298.87	298.73	298.62	299.28	300.78
Field Strength	108.60	108.03	106.93	105.88	104.88	99.92	95.91
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.22	1.67	1.11	.83	.67	.33	.22
ERP-dBk	-26.76	-24.60	-23.26	-23.01	-23.01	-23.01	-23.01
HAAT-m	58.22	58.22	58.22	58.22	58.22	58.22	58.22
Field Strength	76.64	69.19	63.56	58.84	54.99	42.82	35.80
Difference	-31.96	-38.84	-43.37	-47.04	-49.89	-57.10	-60.11

Contour At A Bearing of 030 Degrees From Proposed Station

WLPB -TV Distance-Km	12.93	13.43	14.43	15.43	16.43	21.42	26.42
Bearing-Deg	33.03	32.91	32.71	32.53	32.38	31.81	31.46
ERP-dBk	33.16	33.15	33.15	33.14	33.14	33.12	33.11
HAAT-m	298.88	298.89	298.91	298.92	298.94	298.98	299.01
Field Strength	108.44	107.83	106.69	105.63	104.58	99.62	95.72
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.33	1.75	1.16	.87	.70	.35	.23
ERP-dBk	-28.51	-25.91	-24.48	-24.11	-24.11	-24.11	-24.11
HAAT-m	60.94	60.94	60.94	60.94	60.94	60.94	60.94
Field Strength	74.89	68.27	62.74	58.14	54.28	42.13	35.10
Difference	-33.55	-39.56	-43.95	-47.49	-50.30	-57.49	-60.62

Contour At A Bearing of 060 Degrees From Proposed Station

WLPB -TV Distance-Km	12.79	13.25	14.18	15.12	16.06	20.86	25.73
Bearing-Deg	36.43	37.29	38.85	40.22	41.42	45.80	48.52
ERP-dBk	33.26	33.29	33.34	33.38	33.42	33.54	33.62
HAAT-m	298.61	298.55	298.42	298.36	298.51	299.08	299.43
Field Strength	108.71	108.17	107.15	106.18	105.26	100.55	96.73
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.41	1.80	1.20	.90	.72	.36	.24
ERP-dBk	-26.38	-23.41	-21.92	-21.46	-21.46	-21.46	-21.46
HAAT-m	63.00	63.00	63.00	63.00	63.00	63.00	63.00
Field Strength	77.02	70.93	65.53	61.05	57.21	45.06	38.04
Difference	-31.69	-37.24	-41.62	-45.13	-48.05	-55.49	-58.69

Contour At A Bearing of 090 Degrees From Proposed Station

WLPB -TV Distance-Km	12.32	12.65	13.32	14.04	14.79	18.88	23.33
Bearing-Deg	39.25	41.01	44.25	47.18	49.81	59.65	65.86
ERP-dBk	33.35	33.40	33.50	33.58	33.66	33.89	33.99
HAAT-m	298.39	298.46	298.88	299.26	299.59	301.64	302.37
Field Strength	109.38	109.03	108.31	107.57	106.84	102.82	99.00
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.45	1.84	1.22	.92	.73	.37	.25
ERP-dBk	-24.14	-20.97	-19.43	-18.93	-18.93	-18.93	-18.93
HAAT-m	64.11	64.11	64.11	64.11	64.11	64.11	64.11
Field Strength	79.25	73.47	68.13	63.72	59.89	47.75	40.72
Difference	-30.13	-35.56	-40.18	-43.85	-46.95	-55.07	-58.28

Contour At A Bearing of 120 Degrees From Proposed Station

WLPB -TV Distance-Km	11.62	11.73	11.99	12.34	12.75	15.63	19.40
Bearing-Deg	40.83	43.23	47.88	52.31	56.47	73.11	83.95
ERP-dBk	33.40	33.47	33.60	33.72	33.82	34.06	34.08
HAAT-m	298.44	298.75	299.35	300.10	300.98	303.17	303.60
Field Strength	110.36	110.30	110.09	109.77	109.38	106.47	102.57
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.55	1.91	1.27	.96	.76	.38	.26
ERP-dBk	-15.68	-11.97	-10.34	-9.73	-9.73	-9.73	-9.73
HAAT-m	66.70	66.70	66.70	66.70	66.70	66.70	66.70
Field Strength	87.72	82.66	77.49	73.23	69.42	57.29	50.27
Difference	-22.64	-27.64	-32.60	-36.54	-39.96	-49.18	-52.30

Contour At A Bearing of 150 Degrees From Proposed Station

WLPB -TV Distance-Km	10.85	10.69	10.44	10.29	10.23	11.34	14.23
Bearing-Deg	40.53	43.06	48.31	53.78	59.36	85.53	104.01
ERP-dBk	33.39	33.47	33.62	33.75	33.88	34.07	33.80
HAAT-m	298.40	298.73	299.40	300.41	301.58	303.48	304.99
Field Strength	111.44	111.75	112.29	112.69	112.94	111.55	107.75
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.60	1.95	1.30	.98	.78	.39	.26
ERP-dBk	6.55	10.58	12.25	12.94	12.94	12.94	12.94
HAAT-m	68.16	68.16	68.16	68.16	68.16	68.16	68.16
Field Strength	109.94	105.31	100.24	96.06	92.26	80.14	73.12
Difference	-1.50	-6.44	-12.05	-16.63	-20.68	-31.41	-34.63

Contour At A Bearing of 180 Degrees From Proposed Station

WLPB -TV Distance-Km	10.22	9.83	9.08	8.39	7.77	6.32	8.34
Bearing-Deg	38.07	39.87	43.91	48.65	54.20	94.13	130.87
ERP-dBk	33.32	33.37	33.49	33.63	33.76	33.99	33.03
HAAT-m	298.48	298.34	298.84	299.45	300.50	303.52	307.92
Field Strength	112.31	112.98	114.36	115.76	117.12	120.51	115.43
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.61	1.96	1.30	.98	.78	.39	.26
ERP-dBk	10.19	14.25	15.94	16.63	16.63	16.63	16.63
HAAT-m	68.31	68.31	68.31	68.31	68.31	68.31	68.31
Field Strength	113.59	109.00	103.94	99.76	95.97	83.85	76.83
Difference	1.28	-3.98	-10.42	-16.00	-21.15	-36.66	-38.60

Contour At A Bearing of 210 Degrees From Proposed Station

WLPB -TV Distance-Km	9.94	9.44	8.44	7.45	6.45	1.57	3.65
Bearing-Deg	33.95	34.16	34.65	35.28	36.09	55.82	199.18
ERP-dBk	33.19	33.19	33.21	33.23	33.25	33.80	26.74
HAAT-m	298.81	298.79	298.76	298.71	298.64	300.84	307.87
Field Strength	112.63	113.45	115.23	117.19	119.41	136.03	120.09
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.65	1.99	1.33	.99	.80	.40	.27
ERP-dBk	9.92	14.25	15.98	16.72	16.72	16.72	16.72
HAAT-m	69.43	69.43	69.43	69.43	69.43	69.43	69.43
Field Strength	113.32	109.08	104.09	99.98	96.19	84.09	77.06
Difference	.69	-4.37	-11.14	-17.21	-23.22	-51.94	-43.03

Contour At A Bearing of 240 Degrees From Proposed Station

WLPB -TV Distance-Km	10.12	9.69	8.86	8.06	7.31	5.12	6.99
Bearing-Deg	29.63	28.13	24.72	20.61	15.63	332.58	286.99
ERP-dBk	33.04	32.99	32.87	32.72	32.52	28.93	24.32
HAAT-m	299.10	298.98	298.72	298.40	300.24	306.57	309.34
Field Strength	112.21	112.84	114.14	115.47	116.80	118.21	109.43
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.69	2.02	1.34	1.01	.81	.40	.27
ERP-dBk	8.36	12.89	14.69	15.46	15.47	15.47	15.47
HAAT-m	70.40	70.40	70.40	70.40	70.40	70.40	70.40
Field Strength	111.76	107.79	102.90	98.83	95.06	82.96	75.94
Difference	-.45	-5.05	-11.24	-16.64	-21.74	-35.25	-33.49

Contour At A Bearing of 270 Degrees From Proposed Station

WLPB -TV Distance-Km	10.68	10.47	10.10	9.82	9.63	10.23	12.91
Bearing-Deg	26.70	24.26	19.08	13.56	7.76	338.83	317.67
ERP-dBk	32.94	32.85	32.66	32.44	32.18	29.83	26.12
HAAT-m	298.87	298.68	298.75	301.14	303.43	305.77	308.27
Field Strength	111.24	111.47	111.85	112.13	112.22	108.97	101.67
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.74	2.06	1.37	1.03	.82	.41	.27
ERP-dBk	-6.61	-1.79	.17	.95	1.02	1.02	1.02
HAAT-m	71.86	71.86	71.86	71.86	71.86	71.86	71.86
Field Strength	96.79	93.22	88.52	84.49	80.78	68.68	61.66
Difference	-14.45	-18.25	-23.33	-27.64	-31.44	-40.29	-40.01

Contour At A Bearing of 300 Degrees From Proposed Station

WLPB -TV Distance-Km	11.44	11.49	11.65	11.89	12.20	14.73	18.31
Bearing-Deg	25.91	23.42	18.53	13.80	9.29	350.79	338.59
ERP-dBk	32.91	32.82	32.64	32.45	32.26	31.10	29.80
HAAT-m	298.81	298.62	298.99	301.03	302.92	304.07	305.80
Field Strength	110.13	109.97	109.58	109.12	108.56	104.47	99.42
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.62	1.97	1.31	.98	.79	.39	.26
ERP-dBk	-24.44	-20.28	-18.58	-17.87	-17.87	-17.87	-17.87
HAAT-m	68.71	68.71	68.71	68.71	68.71	68.71	68.71
Field Strength	78.96	74.50	69.46	65.31	61.52	49.41	42.38
Difference	-31.17	-35.47	-40.12	-43.81	-47.04	-55.06	-57.04

Contour At A Bearing of 330 Degrees From Proposed Station

WLPB -TV Distance-Km	12.18	12.46	13.06	13.70	14.38	18.25	22.57
Bearing-Deg	27.10	25.17	21.57	18.29	15.32	4.09	356.96
ERP-dBk	32.96	32.89	32.76	32.63	32.51	31.99	31.56
HAAT-m	298.90	298.75	298.48	299.09	300.38	304.66	305.38
Field Strength	109.18	108.75	107.87	107.00	106.15	101.64	97.29
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.31	1.73	1.16	.87	.69	.35	.23
ERP-dBk	-25.75	-23.22	-21.81	-21.46	-21.46	-21.46	-21.46
HAAT-m	60.51	60.51	60.51	60.51	60.51	60.51	60.51
Field Strength	77.65	70.89	65.34	60.73	56.87	44.71	37.69
Difference	-31.53	-37.86	-42.53	-46.27	-49.28	-56.93	-59.60