

# DTV Adjacent Channel

According to the new FCC rule 74.706 (d)(2)

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

Sec. 74.706 Digital TV (DTV) 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 DTV station (L/D ratio) fails to meet the following:

(2) + 48 dB for adjacent channel operations at:

(i) The DTV noise-limited perimeter if a low power TV, TV translator or TV booster station is located outside that perimeter.

(ii) At all points within the DTV noise-limited area if a low power TV or TV translator is located within the DTV noise-limited perimeter, as demonstrated by the applicant.

Please find attached a study which shows your signal does not exceed a ratio of desired to undesired that exceeds the required +48 db within the DTV noise-limited perimeter, therefore, the proposed station complies with the FCC rule and does not cause harmful interference to WZZM DTV Channel 39.

Contour At A Bearing of 000 Degrees From Proposed Station

WZZM -DT Distance-Km	19.99	19.85	19.63	19.51	19.48	20.76	24.00
Bearing-Deg	257.13	259.05	262.98	266.98	270.99	290.26	305.81
ERP-dBk	30.00	30.00	30.00	30.00	30.00	30.00	30.00
HAAT-m	332.96	333.99	334.44	334.37	333.94	326.66	319.80
Field Strength	98.09	98.26	98.49	98.61	98.63	97.19	94.13
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.18	1.63	1.09	.82	.65	.33	.22
ERP-dBk	6.44	6.70	6.84	6.87	6.87	6.87	6.87
HAAT-m	57.00	57.00	57.00	57.00	57.00	57.00	57.00
Field Strength	104.99	100.30	93.48	88.56	84.72	72.82	65.85
Difference	6.90	2.04	-5.01	-10.05	-13.91	-24.37	-28.28

Contour At A Bearing of 030 Degrees From Proposed Station

WZZM -DT Distance-Km	19.52	19.21	18.63	18.11	17.67	16.71	17.98
Bearing-Deg	255.98	257.57	260.89	264.41	268.13	288.68	308.87
ERP-dBk	30.00	30.00	30.00	30.00	30.00	30.00	30.00
HAAT-m	332.35	333.20	334.48	334.42	334.35	327.29	318.81
Field Strength	98.55	98.89	99.54	100.09	100.58	101.52	99.85
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.18	1.63	1.09	.82	.65	.33	.22
ERP-dBk	-11.05	-10.80	-10.65	-10.63	-10.63	-10.63	-10.63
HAAT-m	57.00	57.00	57.00	57.00	57.00	57.00	57.00
Field Strength	87.49	82.81	75.98	71.06	67.23	55.32	48.35
Difference	-11.06	-16.08	-23.56	-29.03	-33.35	-46.20	-51.50

Contour At A Bearing of 060 Degrees From Proposed Station

WZZM -DT Distance-Km	19.33	18.94	18.15	17.37	16.62	13.17	10.69
Bearing-Deg	253.53	254.25	255.79	257.47	259.30	271.47	290.62
ERP-dBk	30.00	30.00	30.00	30.00	30.00	30.00	30.00
HAAT-m	331.05	331.43	332.25	333.15	334.12	333.76	326.48
Field Strength	98.71	99.13	100.00	100.89	101.80	105.60	108.76
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.18	1.63	1.09	.82	.65	.33	.22
ERP-dBk	-15.14	-14.88	-14.74	-14.71	-14.71	-14.71	-14.71
HAAT-m	57.00	57.00	57.00	57.00	57.00	57.00	57.00
Field Strength	83.41	78.72	71.90	66.98	63.15	51.24	44.27
Difference	-15.30	-20.41	-28.10	-33.91	-38.65	-54.36	-64.49

Contour At A Bearing of 090 Degrees From Proposed Station

WZZM -DT Distance-Km	19.51	19.17	18.49	17.81	17.13	13.82	10.74
Bearing-Deg	250.52	250.15	249.38	248.56	247.66	241.91	232.71
ERP-dBk	30.00	30.00	30.00	30.00	30.00	30.00	30.00
HAAT-m	329.44	329.24	328.97	328.72	328.44	326.66	326.23
Field Strength	98.49	98.84	99.55	100.29	101.06	104.67	108.67
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.18	1.63	1.09	.82	.65	.33	.24
ERP-dBk	-19.58	-19.32	-19.18	-19.15	-19.15	-19.15	-19.15
HAAT-m	57.00	57.00	57.00	57.00	57.00	57.00	63.99
Field Strength	78.97	74.28	67.46	62.54	58.70	46.79	41.12
Difference	-19.52	-24.56	-32.09	-37.75	-42.36	-57.88	-67.55

Contour At A Bearing of 120 Degrees From Proposed Station

WZZM -DT Distance-Km	20.02	19.86	19.57	19.32	19.12	18.77	19.55
Bearing-Deg	247.88	246.62	244.05	241.40	238.70	224.61	210.84
ERP-dBk	30.00	30.00	30.00	30.00	30.00	30.00	30.00
HAAT-m	328.51	328.12	327.32	326.51	326.10	326.52	326.41
Field Strength	97.96	98.11	98.38	98.61	98.81	99.19	98.38
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.18	1.63	1.09	.82	.67	.35	.22
ERP-dBk	-15.14	-14.88	-14.74	-14.71	-14.71	-14.71	-14.71
HAAT-m	57.00	57.00	57.00	57.00	58.56	60.63	58.74
Field Strength	83.41	78.72	71.90	66.98	63.38	51.79	44.54
Difference	-14.55	-19.39	-26.48	-31.63	-35.43	-47.40	-53.84

Contour At A Bearing of 150 Degrees From Proposed Station

WZZM -DT Distance-Km	20.68	20.76	20.98	21.26	21.61	24.27	28.07
Bearing-Deg	246.37	244.67	241.31	238.04	234.86	220.80	210.01
ERP-dBk	30.00	30.00	30.00	30.00	30.00	30.00	30.00
HAAT-m	328.04	327.52	326.48	326.11	326.18	326.69	326.38
Field Strength	97.30	97.21	96.98	96.70	96.37	94.08	91.18
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.18	1.63	1.09	.85	.71	.33	.23
ERP-dBk	-11.05	-10.80	-10.65	-10.63	-10.63	-10.63	-10.63
HAAT-m	57.00	57.00	57.00	59.15	62.04	57.00	59.02
Field Strength	87.49	82.81	75.98	71.39	67.98	55.32	48.67
Difference	-9.81	-14.40	-21.00	-25.31	-28.39	-38.76	-42.51

Contour At A Bearing of 180 Degrees From Proposed Station

WZZM -DT Distance-Km	21.29	21.58	22.20	22.89	23.64	28.09	33.37
Bearing-Deg	246.28	244.62	241.43	238.41	235.59	223.99	215.81
ERP-dBk	30.00	30.00	30.00	30.00	30.00	30.00	30.00
HAAT-m	328.01	327.50	326.51	326.11	326.17	326.55	326.58
Field Strength	96.72	96.44	95.85	95.23	94.59	91.17	87.36
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.18	1.63	1.09	.84	.70	.34	.22
ERP-dBk	6.44	6.70	6.84	6.87	6.87	6.87	6.87
HAAT-m	57.00	57.00	57.00	58.81	61.38	59.97	57.07
Field Strength	104.99	100.30	93.48	88.83	85.38	73.27	65.86
Difference	8.27	3.86	-2.37	-6.40	-9.21	-17.90	-21.50

Contour At A Bearing of 210 Degrees From Proposed Station

WZZM -DT Distance-Km	21.69	22.09	22.92	23.79	24.69	29.56	34.86
Bearing-Deg	247.53	246.29	243.94	241.76	239.74	231.57	225.80
ERP-dBk	30.00	30.00	30.00	30.00	30.00	30.00	30.00
HAAT-m	328.40	328.02	327.29	326.62	326.08	326.25	326.47
Field Strength	96.36	95.99	95.23	94.48	93.72	90.14	86.02
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.18	1.63	1.09	.82	.66	.37	.24
ERP-dBk	9.87	10.12	10.27	10.29	10.29	10.29	10.29
HAAT-m	57.00	57.00	57.00	57.00	57.61	65.02	61.92
Field Strength	108.41	103.73	96.90	91.98	88.24	77.64	70.10
Difference	12.05	7.74	1.67	-2.50	-5.48	-12.50	-15.92

Contour At A Bearing of 240 Degrees From Proposed Station

WZZM -DT Distance-Km	21.79	22.20	23.04	23.89	24.74	29.07	33.50
Bearing-Deg	249.76	249.21	248.18	247.22	246.32	242.65	239.93
ERP-dBk	30.00	30.00	30.00	30.00	30.00	30.00	30.00
HAAT-m	329.09	328.92	328.60	328.30	328.03	326.89	326.07
Field Strength	96.29	95.91	95.16	94.44	93.73	90.49	87.23
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.18	1.63	1.09	.82	.65	.33	.22
ERP-dBk	10.88	11.14	11.28	11.30	11.30	11.30	11.30
HAAT-m	57.00	57.00	57.00	57.00	57.00	57.00	57.43
Field Strength	109.42	104.74	97.92	93.00	89.16	77.25	70.35
Difference	13.13	8.83	2.76	-1.44	-4.57	-13.24	-16.88

Contour At A Bearing of 270 Degrees From Proposed Station

WZZM -DT Distance-Km	21.59	21.94	22.64	23.34	24.04	27.57	31.12
Bearing-Deg	252.45	252.74	253.29	253.80	254.29	256.34	257.93
ERP-dBk	30.00	30.00	30.00	30.00	30.00	30.00	30.00
HAAT-m	330.47	330.62	330.92	331.19	331.45	332.54	333.39
Field Strength	96.50	96.19	95.57	94.97	94.39	91.69	89.29
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.18	1.63	1.09	.82	.65	.33	.22
ERP-dBk	10.88	11.14	11.28	11.30	11.30	11.30	11.30
HAAT-m	57.00	57.00	57.00	57.00	57.00	57.00	57.00
Field Strength	109.42	104.74	97.92	93.00	89.16	77.25	70.29
Difference	12.92	8.55	2.35	-1.97	-5.23	-14.44	-19.00

Contour At A Bearing of 300 Degrees From Proposed Station

WZZM -DT Distance-Km	21.16	21.38	21.84	22.33	22.85	25.80	29.19
Bearing-Deg	254.99	256.09	258.23	260.29	262.25	270.75	277.41
ERP-dBk	30.00	30.00	30.00	30.00	30.00	30.00	30.00
HAAT-m	331.82	332.41	333.55	334.49	334.45	334.03	331.51
Field Strength	96.93	96.74	96.34	95.92	95.47	93.04	90.52
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.18	1.63	1.09	.82	.65	.33	.22
ERP-dBk	10.88	11.14	11.28	11.30	11.30	11.30	11.30
HAAT-m	57.00	57.00	57.00	57.00	57.00	57.00	57.00
Field Strength	109.42	104.74	97.92	93.00	89.16	77.25	70.29
Difference	12.49	8.00	1.58	-2.92	-6.31	-15.79	-20.23

Contour At A Bearing of 330 Degrees From Proposed Station

WZZM -DT Distance-Km	20.59	20.64	20.79	21.02	21.31	23.73	27.36
Bearing-Deg	256.72	258.44	261.84	265.19	268.45	283.04	294.36
ERP-dBk	30.00	30.00	30.00	30.00	30.00	30.00	30.00
HAAT-m	332.74	333.66	334.46	334.40	334.35	329.40	324.57
Field Strength	97.50	97.48	97.35	97.13	96.85	94.59	91.64
Proposed Distance-Km	1.50	2.00	3.00	4.00	5.00	10.00	15.00
Tilt (Deg)	2.18	1.63	1.09	.82	.65	.33	.22
ERP-dBk	9.87	10.12	10.27	10.29	10.29	10.29	10.29
HAAT-m	57.00	57.00	57.00	57.00	57.00	57.00	57.00
Field Strength	108.41	103.73	96.90	91.98	88.15	76.24	69.27
Difference	10.91	6.25	-.45	-5.15	-8.70	-18.35	-22.37