

**Channel 6 TV Protection Study**

The Channel 6 TV station that is within the required study distance of 257 km for FM Channel 202 is as follows:

Channel-Six TV Protection Study

KRISTV LI 06Z 3C Dom 100.000 kW 291 M HAAT VDHY  
Corpus Christi TX 307M COR AMSL  
N. Lat= 27 44 28, W. Lng= 97 36 08  
Kvoa Communications, Inc. BLCT19880331KT  
Fac ID# 959461433, Cutoff Date=  
Dist.=51.9 km, Azi=109.6°, Rev Azi=289.6°

Direct line HAAT Grade B, 47 dBu= 102.59 km & Grade A= 53.58 km

Distance from reference to Grade B = -50.69 km

Cutoff Dist from Full Service= 257

Maximum Co-located power= 1.9 kW

KRISTV Signal Contour at Reference location = 68.8 dBu

CH. 202, U/D ratio = -3.0 dB, Maximum FM signal = 65.8 dBu , add 6 dB if within angle.

TV/FM D to U values

47.0	50.8		55.0	55.8		63.0	61.3		71.0	67.7		79.0	74.8		87.0	82.2
48.0	51.4		56.0	56.4		64.0	62.0		72.0	68.5		80.0	75.8		88.0	83.1
49.0	52.0		57.0	57.1		65.0	62.7		73.0	69.4		81.0	76.7		89.0	84.0
50.0	52.6		58.0	57.8		66.0	63.5		74.0	70.3		82.0	77.6		90.0	84.9
51.0	53.2		59.0	58.5		67.0	64.3		75.0	71.2		83.0	78.5		91.0	84.9
52.0	53.8		60.0	59.2		68.0	65.1		76.0	72.1		84.0	79.4		92.0	84.9
53.0	54.5		61.0	59.9		69.0	66.0		77.0	73.0		85.0	80.4		93.0	84.9
54.0	55.1		62.0	60.6		70.0	66.8		78.0	73.9		86.0	81.3		94.0	84.9

The proposed FM will operate on CH 202 with an ERP of 23.7 kW (DA), vertical-polarization only, at a COR AMSL of 169 meters. Per Section 73.525, the maximum permissible vertically polarized ERP of 23.7 kW was calculated by multiplying the maximum horizontally polarized ERP of .593 kW (DA) by 40, as the FM predicted interference area lies entirely outside the limits of a city of 50,000 persons or more.

Page 2 contains the affected CH 6 TV protected contours and the distances to those contours from 250 – 300 degrees.

Pages 3-5 contains the corresponding FM interference contours with the azimuth / distances circled that were used to calculate the population contained within the FM predicted interference area.

Page 6 contains a US Census map showing the CH 6 TV protected contours and the FM predicted interference area.

The FM predicted interference area will contain 1,329 persons, therefore, the proposed FM is in compliance with the CH 6 TV protection requirements of Section 73.525.

**Channel 6 Protection Study**

KRISTV CH 6 affected contours

Azimuth	HAAT (m)	62 dBu (km)	64 dBu (km)	66 dBu (km)	68 dBu (km)	70 dBu (km)	72 dBu (km)	74 dBu (km)	76 dBu (km)	78 dBu (km)
250	289.1	66.9	62.3	57.9	53.6	49.4	45.2	41.4	37.8	34.2
260	288.7	66.8	62.3	57.9	53.6	49.3	45.2	41.4	37.7	34.2
270	288.7	66.8	62.3	57.9	53.6	49.3	45.2	41.4	37.7	34.2
280	288.7	66.8	62.3	57.9	53.6	49.3	45.2	41.4	37.7	34.2
290	288.5	66.8	62.3	57.9	53.6	49.3	45.2	41.4	37.7	34.2
300	288.2	66.8	62.2	57.8	53.5	49.3	45.2	41.4	37.7	34.1

**Channel 6 Protection Study**

FM interference contours

ERP = .593 kW, -2.269 dBk	Radial	HAAT	kW	FM - 2-6 dBk	CH6 Tables Field	62 60.6 dBu.1	64 62 dBu.1	66 63.5 dB
0 Degr.	79.4M	0.095	-10.219	0.400	8.8	8.0	7.4	
10 Degr.	81.7M	0.150	-8.235	0.503	10.0	9.2	8.4	
20 Degr.	84.9M	0.238	-6.240	0.633	11.4	10.5	9.7	
30 Degr.	90.2M	0.375	-4.256	0.796	13.1	12.1	11.1	
40 Degr.	92.2M	0.593	-2.269	1.000	14.8	13.6	12.5	
50 Degr.	93.6M	0.593	-2.269	1.000	15.1	13.7	12.6	
60 Degr.	99.3M	0.593	-2.269	1.000	15.7	14.2	13.0	
70 Degr.	101.6M	0.593	-2.269	1.000	15.9	14.3	13.1	
80 Degr.	105.2M	0.593	-2.269	1.000	16.3	14.6	13.4	
90 Degr.	108.0M	0.593	-2.269	1.000	16.6	14.8	13.6	
100 Degr.	111.3M	0.593	-2.269	1.000	16.9	15.2	13.8	
110 Degr.	116.1M	0.593	-2.269	1.000	17.3	15.6	14.0	
120 Degr.	114.4M	0.593	-2.269	1.000	17.2	15.5	13.9	
130 Degr.	113.0M	0.593	-2.269	1.000	17.1	15.4	13.9	
140 Degr.	111.4M	0.593	-2.269	1.000	16.9	15.2	13.8	
150 Degr.	109.2M	0.593	-2.269	1.000	16.7	15.0	13.6	
160 Degr.	107.1M	0.593	-2.269	1.000	16.5	14.7	13.5	
170 Degr.	105.2M	0.593	-2.269	1.000	16.3	14.6	13.4	
180 Degr.	101.6M	0.593	-2.269	1.000	15.9	14.3	13.1	
190 Degr.	97.9M	0.593	-2.269	1.000	15.5	14.1	12.9	
200 Degr.	94.8M	0.593	-2.269	1.000	15.2	13.8	12.7	
210 Degr.	93.9M	0.593	-2.269	1.000	15.1	13.8	12.7	
220 Degr.	89.4M	0.593	-2.269	1.000	14.6	13.4	12.4	
230 Degr.	82.8M	0.593	-2.269	1.000	14.0	12.9	11.9	
240 Degr.	77.4M	0.593	-2.269	1.000	13.5	12.5	11.6	
250 Degr.	72.3M	0.593	-2.269	1.000	13.1	12.2	11.2	
260 Degr.	70.0M	0.593	-2.269	1.000	12.9	12.0	11.0	
270 Degr.	68.2M	0.593	-2.269	1.000	12.8	11.9	10.9	
280 Degr.	61.2M	0.593	-2.269	1.000	12.2	11.3	10.4	
290 Degr.	68.7M	0.593	-2.269	1.000	12.8	11.9	11.0	
300 Degr.	63.2M	0.375	-4.256	0.796	11.1	10.3	9.4	
310 Degr.	55.9M	0.238	-6.240	0.633	9.4	8.6	7.8	
320 Degr.	64.9M	0.150	-8.235	0.503	8.9	8.2	7.5	
330 Degr.	68.4M	0.095	-10.219	0.400	8.1	7.4	6.8	
340 Degr.	73.9M	0.095	-10.219	0.400	8.4	7.7	7.1	
350 Degr.	77.2M	0.095	-10.219	0.400	8.6	7.9	7.3	

Ant. COR= 169.0M AMSL

**Channel 6 Protection Study**

FM interference contours

ERP = .593 kW, -2.269 dBk	CH6	68	70	72			
Radial	HAAT	kW	FM - 2-6 dBk	Tables Field	65.1 dBu.1	66.8 dBu.1	68.5
0 Degr.	79.4M	0.095	-10.219	0.400	6.7	6.1	5.6
10 Degr.	81.7M	0.150	-8.235	0.503	7.6	6.9	6.3
20 Degr.	84.9M	0.238	-6.240	0.633	8.8	7.9	7.2
30 Degr.	90.2M	0.375	-4.256	0.796	10.2	9.2	8.3
40 Degr.	92.2M	0.593	-2.269	1.000	11.5	10.5	9.5
50 Degr.	93.6M	0.593	-2.269	1.000	11.6	10.5	9.6
60 Degr.	99.3M	0.593	-2.269	1.000	11.9	10.8	9.8
70 Degr.	101.6M	0.593	-2.269	1.000	12.0	10.9	10.0
80 Degr.	105.2M	0.593	-2.269	1.000	12.2	11.1	10.1
90 Degr.	108.0M	0.593	-2.269	1.000	12.4	11.3	10.3
100 Degr.	111.3M	0.593	-2.269	1.000	12.6	11.4	10.4
110 Degr.	116.1M	0.593	-2.269	1.000	12.8	11.7	10.6
120 Degr.	114.4M	0.593	-2.269	1.000	12.7	11.6	10.5
130 Degr.	113.0M	0.593	-2.269	1.000	12.6	11.5	10.5
140 Degr.	111.4M	0.593	-2.269	1.000	12.6	11.4	10.4
150 Degr.	109.2M	0.593	-2.269	1.000	12.4	11.3	10.3
160 Degr.	107.1M	0.593	-2.269	1.000	12.3	11.2	10.2
170 Degr.	105.2M	0.593	-2.269	1.000	12.2	11.1	10.1
180 Degr.	101.6M	0.593	-2.269	1.000	12.0	10.9	10.0
190 Degr.	97.9M	0.593	-2.269	1.000	11.8	10.8	9.8
200 Degr.	94.8M	0.593	-2.269	1.000	11.6	10.6	9.6
210 Degr.	93.9M	0.593	-2.269	1.000	11.6	10.5	9.6
220 Degr.	89.4M	0.593	-2.269	1.000	11.3	10.3	9.3
230 Degr.	82.8M	0.593	-2.269	1.000	10.9	9.9	9.0
240 Degr.	77.4M	0.593	-2.269	1.000	10.6	9.6	8.7
250 Degr.	72.3M	0.593	-2.269	1.000	10.3	9.3	8.4
260 Degr.	70.0M	0.593	-2.269	1.000	10.1	9.1	8.2
270 Degr.	68.2M	0.593	-2.269	1.000	10.0	9.0	8.1
280 Degr.	61.2M	0.593	-2.269	1.000	9.5	8.6	7.7
290 Degr.	68.7M	0.593	-2.269	1.000	10.0	9.1	8.1
300 Degr.	63.2M	0.375	-4.256	0.796	8.5	7.7	6.9
310 Degr.	55.9M	0.238	-6.240	0.633	7.1	6.4	5.9
320 Degr.	64.9M	0.150	-8.235	0.503	6.8	6.2	5.6
330 Degr.	68.4M	0.095	-10.219	0.400	6.3	5.7	5.2
340 Degr.	73.9M	0.095	-10.219	0.400	6.5	5.9	5.4
350 Degr.	77.2M	0.095	-10.219	0.400	6.6	6.0	5.5

Ant. COR= 169.0M AMSL



**Channel 6 Protection Study**

FM interference contours

ERP = .593 kW, -2.269 dBk			CH 6		74	76	78
Radial	HAAT	kW	FM - 2-6	Tables	70.3 dBu.1	72.1 dBu.1	73.9
			dBk	Field			
0 Degr.	79.4M	0.095	-10.219	0.400	5.0	4.5	4.1
10 Degr.	81.7M	0.150	-8.235	0.503	5.7	5.2	4.6
20 Degr.	84.9M	0.238	-6.240	0.633	6.5	5.9	5.3
30 Degr.	90.2M	0.375	-4.256	0.796	7.5	6.8	6.1
40 Degr.	92.2M	0.593	-2.269	1.000	8.5	7.7	6.9
50 Degr.	93.6M	0.593	-2.269	1.000	8.6	7.7	7.0
60 Degr.	99.3M	0.593	-2.269	1.000	8.9	8.0	7.2
70 Degr.	101.6M	0.593	-2.269	1.000	9.0	8.1	7.3
80 Degr.	105.2M	0.593	-2.269	1.000	9.1	8.2	7.4
90 Degr.	108.0M	0.593	-2.269	1.000	9.3	8.3	7.5
100 Degr.	111.3M	0.593	-2.269	1.000	9.4	8.5	7.6
110 Degr.	116.1M	0.593	-2.269	1.000	9.6	8.7	7.8
120 Degr.	114.4M	0.593	-2.269	1.000	9.5	8.6	7.7
130 Degr.	113.0M	0.593	-2.269	1.000	9.5	8.5	7.7
140 Degr.	111.4M	0.593	-2.269	1.000	9.4	8.5	7.6
150 Degr.	109.2M	0.593	-2.269	1.000	9.3	8.4	7.6
160 Degr.	107.1M	0.593	-2.269	1.000	9.2	8.3	7.5
170 Degr.	105.2M	0.593	-2.269	1.000	9.1	8.2	7.4
180 Degr.	101.6M	0.593	-2.269	1.000	9.0	8.1	7.3
190 Degr.	97.9M	0.593	-2.269	1.000	8.8	7.9	7.2
200 Degr.	94.8M	0.593	-2.269	1.000	8.7	7.8	7.0
210 Degr.	93.9M	0.593	-2.269	1.000	8.6	7.7	7.0
220 Degr.	89.4M	0.593	-2.269	1.000	8.4	7.5	6.8
230 Degr.	82.8M	0.593	-2.269	1.000	8.0	7.2	6.6
240 Degr.	77.4M	0.593	-2.269	1.000	7.8	7.0	6.3
250 Degr.	72.3M	0.593	-2.269	1.000	7.5	6.8	6.1
260 Degr.	70.0M	0.593	-2.269	1.000	7.4	6.7	6.0
270 Degr.	68.2M	0.593	-2.269	1.000	7.3	6.6	6.0
280 Degr.	61.2M	0.593	-2.269	1.000	6.9	6.3	5.7
290 Degr.	68.7M	0.593	-2.269	1.000	7.3	6.6	6.0
300 Degr.	63.2M	0.375	-4.256	0.796	6.3	5.7	5.2
310 Degr.	55.9M	0.238	-6.240	0.633	5.3	4.8	4.3
320 Degr.	64.9M	0.150	-8.235	0.503	5.1	4.6	4.1
330 Degr.	68.4M	0.095	-10.219	0.400	4.7	4.2	3.8
340 Degr.	73.9M	0.095	-10.219	0.400	4.8	4.4	3.9
350 Degr.	77.2M	0.095	-10.219	0.400	5.0	4.4	4.0
Ant. COR= 169.0M AMSL							

**Channel 6 Protection Study**

Map of KRISTV CH 6 affected protected contours & FM predicted interference area

