

Non-Interference Compliance Study

E-String Wireless

K287BO (Facility ID: 156448)

This exhibit demonstrates compliance with all contour overlap and interference protection requirements and demonstrates full compliance with 47 C.F.R. §74.1204.

Applicant certifies that should any actual interference occur it will promptly cease operation in accordance with 47 C.F.R. §74.1203.

Below is a listing of area stations whose contours are less than 25 km clear of the proposed translator.

Callsign	State	City	Channel	ERP (kW)	Class	Status	Distance (km)	Clr (km)
KZCD	OK	Lawton	231	35	C2	LIC	17.6	-36.9

The only station that is of concern is KZCD. KZCD is a second adjacent Class C2 that requires that a minimum of 40 dB separation exist between its service contour and K287BO's interference contour. The following pages demonstrate that the proposed facility is in compliance with these requirements.

Compliance with 47 C.F.R. §74.1204(d)

All Authorized second and third adjacent stations with which the proposed translator's interference contour overlaps their service contour are listed below. The table lists the minimum signal level of the primary station's service contour that reaches the proposed tower site for K287BO.

Facility ID	Call Sign	Contour at Tower F(50,50)
12791	KZCD	81.9 dBu

Minimum protected contour signal level at K287BO's proposed tower site: **81.9 dBu**

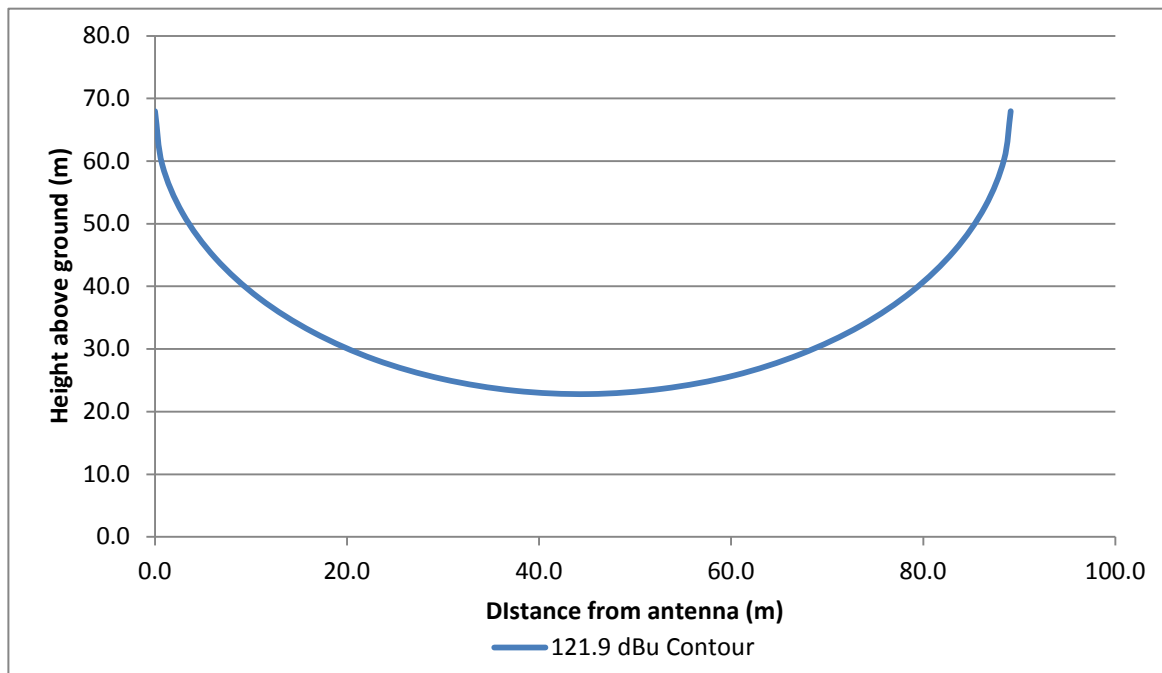
This study will use the minimum contour of 81.9 dBu to represent a worst-case potential interference level. At 40 dB above 81.9 dBu, the translator interference contour is 121.9 dBu. Calculation of distance at this power and signal level requires the use of the free-space calculation due to the distance being less than 1.5 km.

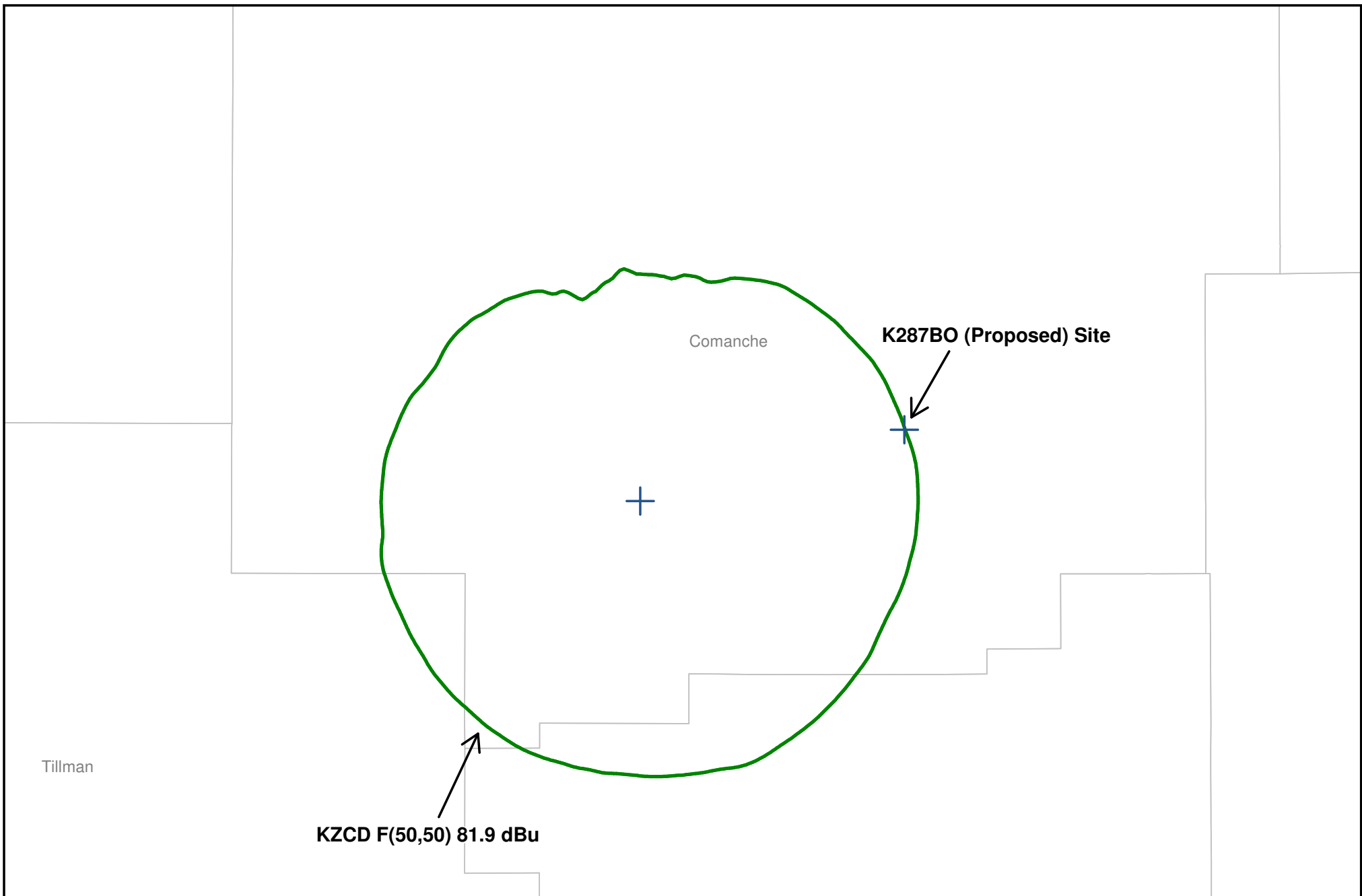
The following table uses the free space formula to calculate the worst-case height above ground level. At 121.9 dBu and 250 watts, the worst-case height is 22.8 meters. Therefore, no interference is predicted to reach the ground.

§74.1204(d) Contour Protection Study K287BO vs. KZCD

Antenna: Shively 6812 - Single Bay ERP (watts): 250
 Protected Contour at tower - F(50,50): 81.9 dBu RC-AGL (m): 68
 Interference Ratio: 40 dB Relative field at Azimuth: 1.000
 Interference Contour - F(50,10): 121.9 dBu ERP (watts) at Azimuth: 250

DEPRESSION ANGLE	RELATIVE FIELD	ERP (WATTS)	dBk	DISTANCE (m)		
				Contour	Horizontal	AGL
0	1.000	250.0	-6.02	89.1	89.1	68.0
5	0.996	248.0	-6.06	88.8	88.4	60.3
10	0.985	242.6	-6.15	87.8	86.4	52.8
15	0.967	233.8	-6.31	86.2	83.2	45.7
20	0.942	221.8	-6.54	84.0	78.9	39.3
25	0.910	207.0	-6.84	81.1	73.5	33.7
30	0.871	189.7	-7.22	77.6	67.2	29.2
35	0.826	170.6	-7.68	73.6	60.3	25.8
40	0.774	149.8	-8.25	69.0	52.8	23.7
45	0.717	128.5	-8.91	63.9	45.2	22.8
50	0.654	106.9	-9.71	58.3	37.5	23.4
55	0.586	85.8	-10.66	52.2	30.0	25.2
60	0.514	66.0	-11.80	45.8	22.9	28.3
65	0.437	47.7	-13.21	38.9	16.5	32.7
70	0.357	31.9	-14.97	31.8	10.9	38.1
75	0.273	18.6	-17.30	24.3	6.3	44.5
80	0.186	8.6	-20.63	16.6	2.9	51.7
85	0.096	2.3	-26.38	8.6	0.7	59.5
90	0.000	0.0	-146.02	0.0	0.0	68.0
				WORST CASE HEIGHT AGL (m)		22.8





Protected Signal Levels at Proposed Tower Site

