

74.1204 Contour overlap

Applicant hereby requests a waiver of section 74.1204 with respect to contour overlap with stations KFMK and KTXK.

This proposal is within the 60-dbu contour of station KFMK 105.9 mhz, Round Rock, Texas. The translator will be co-located with station KFMK, and therefore the ratio of the desired to interfering contour will exceed 40 db at all points.

This proposal is within the 60-dbu contour of station KTXK 104.9 mhz, Sunset Valley, Texas. Calculations show that the KTXK field strength at the translator site is predicted to be 76.16 dbu.

Distance = 12.79 km

Azimuth = 50 degrees

HAAT on 50 degrees = 174 m. (RCAMSL = 395 m. – Ave. Terrain of 221 m. = 174 m.)

ERP = 3.2 kw. (Directional Antenna Field on 50 degrees = 1.0)

The relevant interfering contour to be considered is the 116.20-dbu 50/10 contour.

Free Space Calculation of the 116.20-dbu contour predicts a distance of 94 meters.

Since the antenna is to be mounted 302 meters above ground, no interference will occur (74.1204, d).

The attached map shows that the proposal will meet all other contour overlap requirements of section 74.1204.

Results -- FM and TV Propagation Curves Calculations

Free Space equation used, not curves

Results of Calculation

Distance to Contour = 0.094 km

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For input data from Pages 1 and 2:

ERP entered = 0.075 kW
HAAT entered = 302.00 meters
Field Strength entered = 116.200 dBu
Find the Distance to the Contour, Given a Field Strength
F(50,10) curves for interfering contours
FM and NTSC analog TV Channels 2 through 6

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Contour Analysis

RF Services Inc.
Job: K288FJ 287.fmj
Master Database: 2012_Sep_02.fmd
Lat: N30:19:23 Lon: W097:47:58 NAD-27
Scale: 1:1750000
Channel: 287 Class: D
Status: Licensed, Construction Permit, Application, Addition, Vacant/Reserved
Channels: Co-Channel, 1st Adj
Range: 0 km, Clearance: -0.5km
:
:

.25
.
Date: 2/2/2013 4:45:00 PM
Key:

Protected
Co-Channel
1st Adj

