

Exhibit 13-C
Section 74.1204
Contour Protection to
WRWM

This comprehensive exhibit has been prepared to demonstrate that the proposed W228CX modification will not cause prohibited interference to WRWM, Channel 230B1, Lawrence, IN. The WRWM FCC F(50,50) protected contour at the W228CX application site is 71.0 dBu. Therefore the W228CX F(50,10) interfering contour with respect to WRWM is the 111.0 dBu contour. Using the FCC's FM propagation curves program (see attached), the 111.0 dBu contour was calculated to extend 28 meters from the antenna. The antenna is located 280 meters above ground. Therefore, the 111.0 dBu interfering contour reach the ground.

It is believed that the proposed modification to W228CX will not cause prohibited interference to WRWM as no interference reaches the ground. Therefore it is believed the proposed W228CX modification is in compliance with Section 74.1204 contour protection with respect to WRWM.

Select Contour Type:	<div>F(50,50) Service Contour -- FM and NTSC (analog) TV F(50,10) Interfering Contour F(50,90) Digital TV Service Contour</div>
Select Channel Range: (not TV Virtual Channel)	<div>FM Radio or TV Transmit Channels 2-6 TV Transmit Channels 7-13 TV Transmit Channels 14-69</div>
Find This:	<div>Field Strength, given a Distance (in km) Distance, Given a Field Strength (in dBu) FM ERP, given Distance and Field Strength [F(50,50) Service Contour]</div>
<div>.002</div> ERP (kW)	<div></div> Distance (km)
<div>291</div> HAAT (meters)	<div>111</div> Field (dBu)
<div>Find Result</div> <div>Clear Form</div>	
Results:	
<div>Calculated Distance = 0.028 km Free Space equation used to compute distance.</div>	

This function uses the FCC's CURVES program to make calculations of the F(50,50) FM and NTSC (analog) TV service curves, the F(50,10) interfering signal curves, and the F(50,90) digital TV service curves. Printable copies of these propagation curves are available at [FM and TV Propagation Curves Graphs \(/media/radio/fm-and-tv-propagation-curves-graphs\)](https://www.fcc.gov/media/radio/fm-and-tv-propagation-curves-graphs).