

RF Telecommunication Service, LLC

P.O. Box 1121

Mishawaka, IN 46546

\*\*\* **WRIN-AM** \*\*\*

Rensselaer, Indiana

Main Transmitter

NRSC Measurement Report

Performed: 6/6/18



## NRSC-2 Bandwidth Study

The management and/or engineering staff of radio station WRIN-AM in Rensselaer, Indiana commissioned the following report to be conducted on its Main transmitter as required under Rules and Regulations Section 73.44 of the Federal Communications Commission.

The equipment involved was an Anritsu MS 2712B spectrum analyzer, and a DX-Engineering PRO-1B Loop antenna without the amplifier. A coaxial cable with an impedance of 50 ohms connects the antenna to the analyzer with minimum length of cable.

Measurements were conducted at least one kilometer from the major lobe of the directional pattern (if applicable) and the location was free from obstructions and noise sources. Major lobes were determined from coverage maps on file with the Federal Communications Commission.

A 300 Hz resolution bandwidth was used and a scan of 10 DB/Div was used. In addition, a frequency scan of 50Khz, and 200 Khz is provided. In each case, peak hold was used for at least 10 minutes of normal station programming.

The FCC limits are noted. To comply, the station's trace should fall below the line.



## NRSC-2 Bandwidth Report

The MAIN Transmitter of radio station WRIN-AM was found to be operating within N.R.S.C / F.C.C. and compliance with Section 73.44

A copy of this report should be made part of the station's on-line Public File, and designated Chief Operator should place the original with station Operating Logs. In addition, a PDF copy of this report is available for email as well. Please contact us.

PLEASE NOTE: In order to fully comply with F.C.C. Rule 73.1590, this NRSC-2 report must be conducted no later than 14 months from the date at the top of this report.

I certify that the above measurements were conducted by me, and the data shown on the accompanying exhibits are true and correct to the best of my knowledge, and belief.

A handwritten signature in black ink, appearing to read "Rob Henning", is written over a horizontal line.

Robert D. Henning, CSRE

574-229-6280

June 6, 2018

# Spectrum Analyzer Data

WRIN-FIG-A (6/6/2018 6:02:21 PM)

Spectrum Analyzer



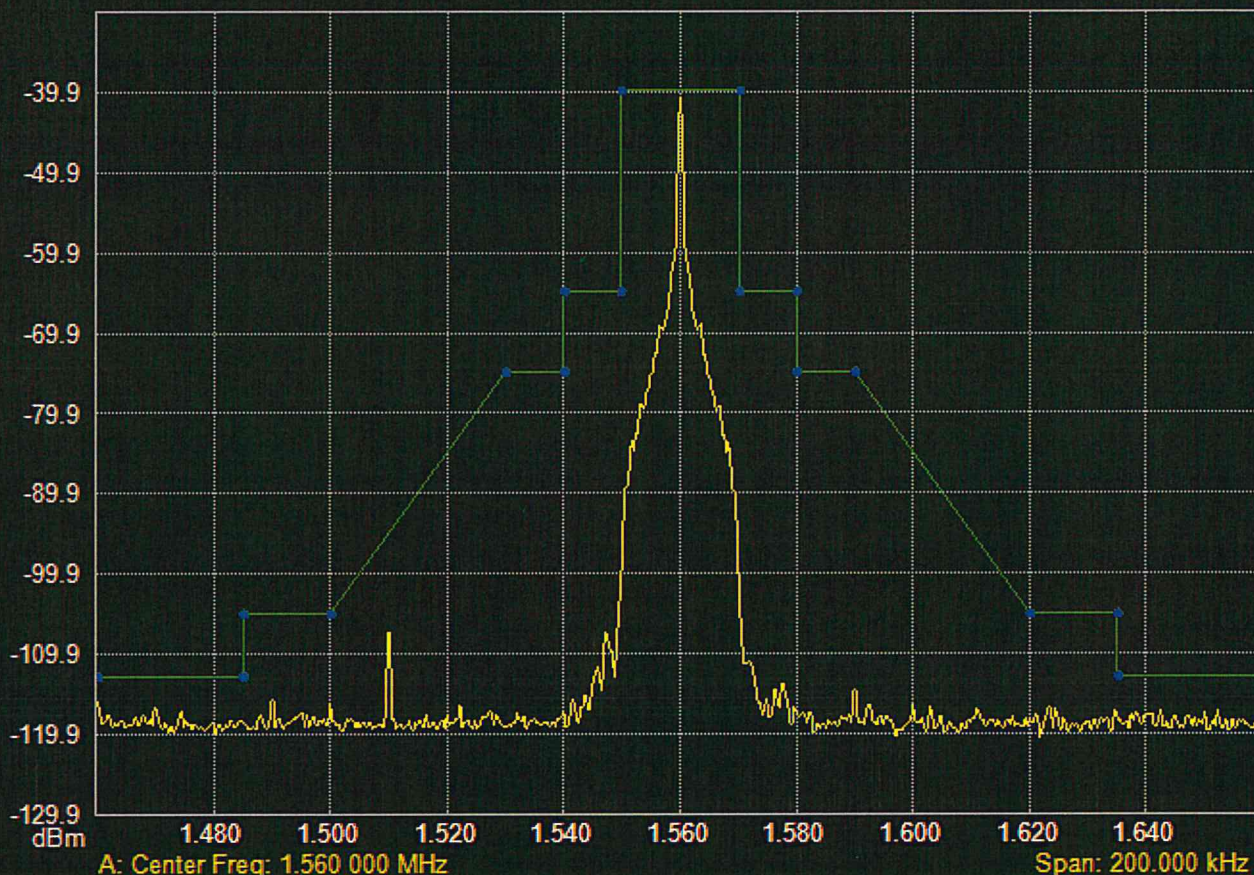
Mkr	Ref	Delta	Ref Freq	Ref Amp	Delta Freq	Delta Amp
1						
2						
3						
4						
5						
6						

<p>Trace A data:          Trace Mode = Max Hold          Preamp = OFF          Min Sweep Time = 0.001 S          Reference Level Offset = 0 dB          Input Attenuation = 0.0 dB          RBW = 300.0 Hz          VBW = 100.0 Hz          Detection = Peak          Center Frequency = 1.560 000 MHz          Start Frequency = 1.535 000 MHz</p>	<p>Stop Frequency = 1.585 000 MHz          Frequency Span = 50.000 000 kHz          Reference Level = -29.824 dBm          Scale = 10.0 dB/div          Serial Number = 717197          Base Ver. = V5.71          App Ver. = V5.73          Model = MS2721B          Options = 9, 19, 44, 65          Date = 6/6/2018 6:02:21 PM          Device Name =</p>
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# Spectrum Analyzer Data

WRIN-FIG-B (6/6/2018 5:48:50 PM)

Spectrum Analyzer



Mkr	Ref	Delta	Ref Freq	Ref Amp	Delta Freq	Delta Amp
1						
2						
3						
4						
5						
6						

<p>Trace A data:                  Trace Mode = Max Hold                  Preamp = OFF                  Min Sweep Time = 0.001 S                  Reference Level Offset = 0 dB                  Input Attenuation = 0.0 dB                  RBW = 300.0 Hz                  VBW = 100.0 Hz                  Detection = Peak                  Center Frequency = 1.560 000 MHz                  Start Frequency = 1.460 000 MHz</p>	<p>Stop Frequency = 1.660 000 MHz                  Frequency Span = 200.000 000 kHz                  Reference Level = -29.924 dBm                  Scale = 10.0 dB/div                  Serial Number = 717197                  Base Ver. = V5.71                  App Ver. = V5.73                  Model = MS2721B                  Options = 9, 19, 44, 65                  Date = 6/6/2018 5:48:50 PM                  Device Name =</p>
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