

## **NRSC Compliance Measurement WLMA 1050 Khz – Alexander City, AL**

**Date:** February 13, 2019

**Time:** 15:13 CST

**Location:** Aproximately .2 Km from the WLMA Tower

**Weather:** Cloudy, 48 Degrees

**Equipment Used:** Agilent E4402B Spectrum Analyzer  
Potomac Instruments FIM 41  
Chris Scott Loop Antenna

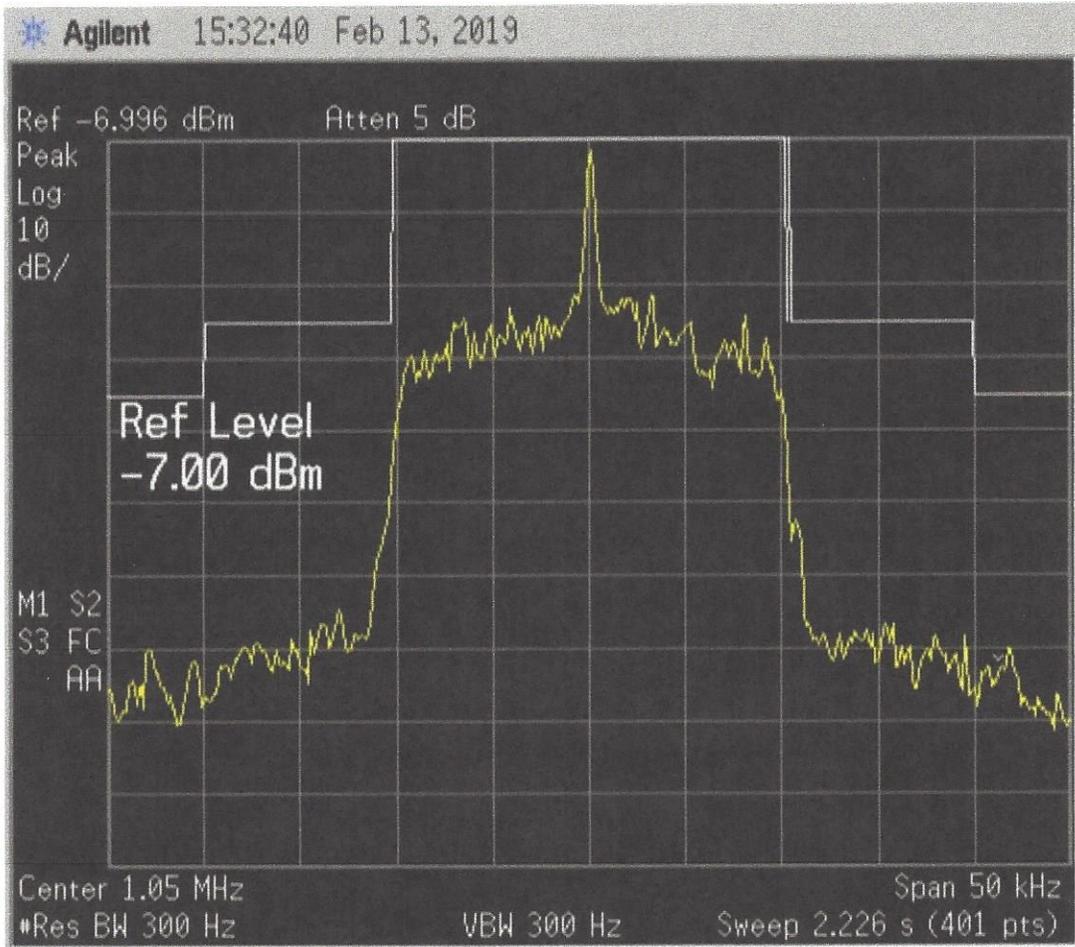
### **Method Used to Obtain Measurements**

A location approximately .2 Km from the WLMA tower was secured and the Chris Scott loop antenna was oriented to obtain the maximum signal. The Agilent Spectrum Analyzer was adjusted to display a 5 Khz per division plot with a resolution bandwidth of 300 Hz. The analyzer was put in the peak hold mode and allowed to operate for approximately 15 minutes. The result of this sweep is attached to this report.

This sweep indicates that WLMA is in compliance for emissions to 25 Khz from carrier.

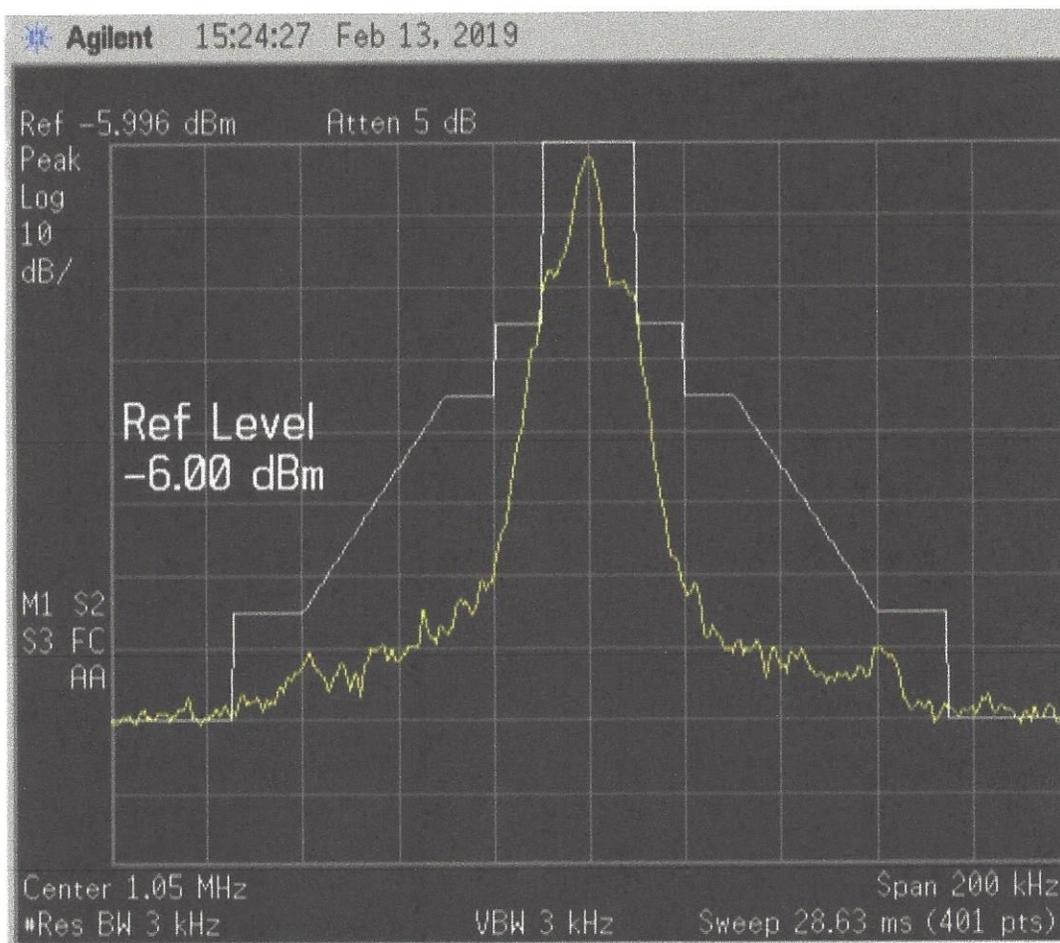
Harmonic check utilizing the FIM-41 approximately 1 mile from the WLMA tower indicated no trace of out of band emissions or harmonics at 2100 Khz, 3150 Khz and 4200 Khz.

**WLMA 1050 Khz Alexander City, AL  
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**Spectrum analysis at the 1Kw power level 10 Khz per division 300 Hz RBW**

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**Spectrum analysis at the 1Kw power level 10 Khz per division 1Khz RBW**

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**Spectrum analysis indicates that WLMA is operating in compliance with  
FCC 73.44**

(a) The emissions of stations in the AM service shall be attenuated in accordance with the requirements specified in paragraph (b) of this section. Emissions shall be measured using a properly operated and suitable sweptfrequency RF spectrum analyzer using a peak hold duration of 10 minutes, no video filtering, and a 300 Hz resolution bandwidth, except that a wider resolution bandwidth may be employed above 11.5 kHz to detect transient emissions. Alternatively, other specialized receivers or monitors with appropriate characteristics may be used to determine compliance with the provisions of this section, provided that any disputes over measurement accuracy are resolved in favor of measurements obtained by using a calibrated spectrum analyzer adjusted as set forth above.

(b) Emissions 10.2 kHz to 20 kHz removed from the carrier must be attenuated at least 25 dB below the unmodulated carrier level, emissions 20 kHz to 30 kHz removed from the carrier must be attenuated at least 35 dB below the unmodulated carrier level, emissions 30 kHz to 60 kHz removed from the carrier must be attenuated at least [5 1 dB/kHz] below the unmodulated carrier level, and emissions between 60 kHz and 75 kHz of the carrier frequency must be attenuated at least 65 dB below the unmodulated carrier level. Emissions removed by more than 75 kHz must be attenuated at least 43 10 Log (Power in watts) or 80 dB below the unmodulated carrier level, whichever is the lesser attenuation, except for transmitters having power less than 158 watts, where the attenuation must be at least 65 dB below carrier level.

**Certification**

This is to certify that these measurements were made personally by me. It is to the best of my knowledge and belief that WLMA is in compliance with FCC 73.44

  
Frank L Giardina CPBE

2/16/19  
Date