### **Technical Report**

## WCOG(AM)

Facility ID 74203

# 1320kHz Greensboro, NC 5kW DA2 U

### **Operating Frequency Certification**

Prepared for
Mandel Owens, Chief Engineer
Winston-Salem Broadcasting
28 Dec 2022



This measurement ensures compliance with 47 CFR  $\S73.1545(a)$ , which defines the carrier frequency departure tolerances for AM broadcast facilities. This rule sets the carrier or center frequency departure limit at  $\pm -20$ kHz from the assigned frequency.

WCOG(AM) operates 5kW ND2 U, from a tower site in Greensboro, NC. Measurements were made concurrently with NRSC Emissions Measurements on this station, between 12:00 to 13:00 EDT on 28 Dec 2022. The transmitter was inspected before this measurement to ensure it was operating at full facility.

A Tektronix RSA306 Spectrum Analyzer, connected to the receive loop of a Potomac Instruments PI4100 Field Intensity Meter, SN253 was used to measure the station. The SA's oscillator was locked to a GPSDO via its 10MHz reference input. This arrangement was powered by an external battery and AC inverter. The spectrum analyzer's resolution bandwidth was 1Hz. Two traces were engaged, one with a negative peak-hold mode applied, the other with a positive peak hold applied. 5 minutes were allowed to collect a sample.

#### WCOG(AM)'s carrier frequency was determined to be 1,320.000.0Hz.

By these measurements, WCOG exceeds the requirements set forth in 47 CFR §73.1545(a).

The preceding statements are correct and accurate to the best of my knowledge and belief. All observations described herein were performed by me or under my direct supervision. I am a qualified broadcast technician of some 20 years' experience, retained by Winston-Salem Broadcasting to conduct these measurements as prepare this statement.

Joshua M. Arritt

Owner, Radio Cardinal Communication Service