

## **Compliance with WIOA (FM) CP Special Conditions & TPO Calculations**

The CP of WIOA (FM) specifies as part of the Special Conditions that: "BEFORE PROGRAM TESTS COMMENCE, sufficient measurements shall be made to establish that the operation authorized in this construction permit is in compliance with the spurious emissions requirements of 47 C.F.R. Sections 73.317(b) through 73.317(d). All measurements must be made with all stations simultaneously utilizing the shared antenna. These measurements shall be submitted to the Commission along with the Application for license."

The included Figure 1 and Figure 2, taken with both WQBS-FM and WIOA (FM) operating simultaneously at full power from their common antenna, without modulation, demonstrate that the operation of WIOA (FM) is compliant with Sections 73.317(b) through 73.317(d) of the FCC Rules.

Emissions appearing on a frequency removed from the carrier by more than 600 kHz, that is, above 100.5 MHz, or below 99.3 MHz must be attenuated at least 80 dB below the level of the unmodulated carrier of WIOA. As shown in Figure 2, emissions above the required 80 dB below carrier level correspond to emissions from stations WPRM (FM), 99.1 MHz or emissions from station WXYX (FM), 100.7 MHz.

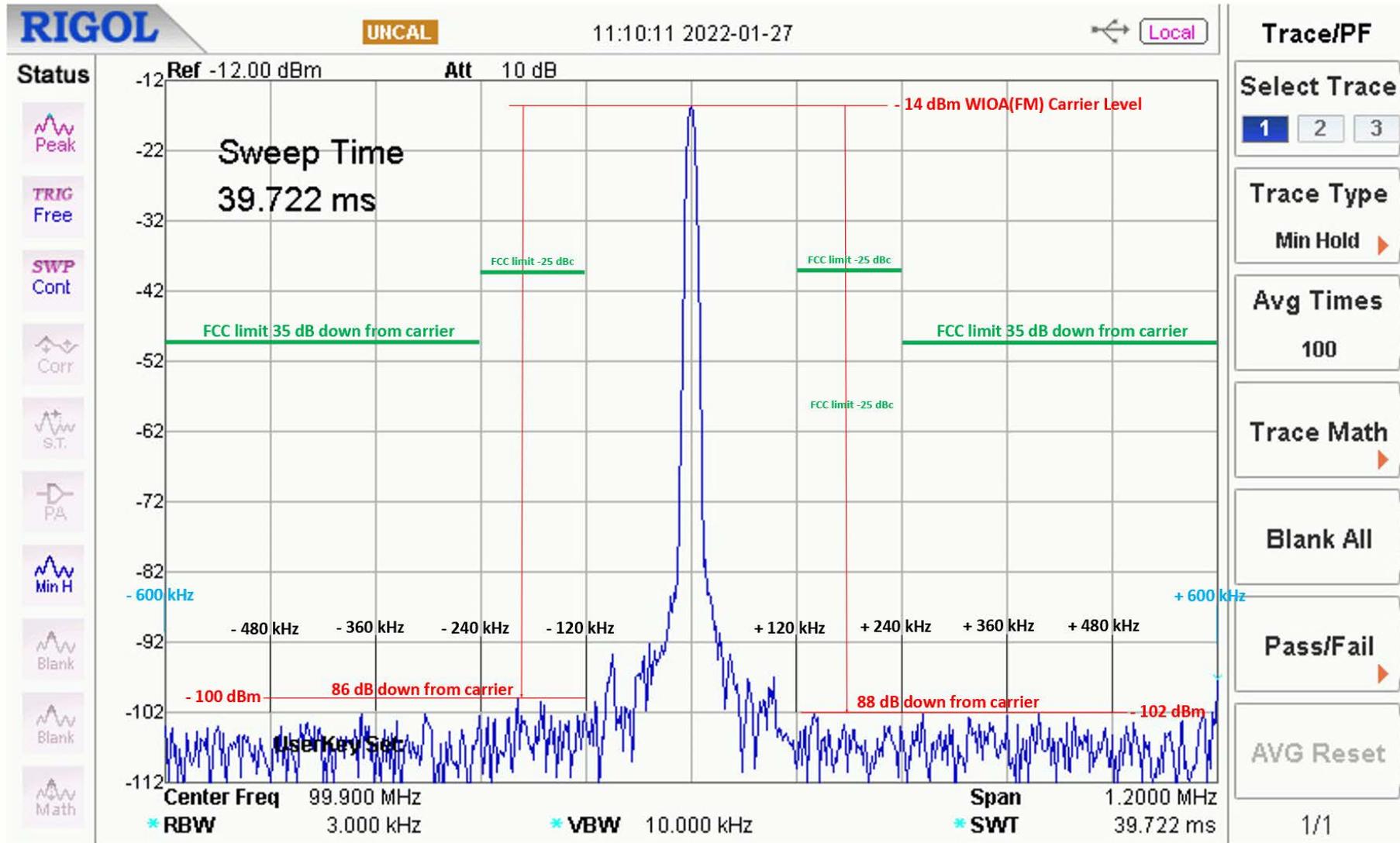
### **WIOA TPO Calculation**

WIOA ERP: 37 Kw  
Antenna Gain: 4.18 X  
Antenna Input Power: 8.85 kW  
Line Efficiency: 87.3%  
Line Input Power: 10.14 kW  
Combiner Efficiency: 95.5%  
TPO: 10.6 kW

### **WQBS-FM TPO Calculation**

WQBS-FM ERP: 36 kW  
Antenna Gain: 4.0 X  
Antenna Input Power: 9.0 kW  
Line Efficiency: 87.3%  
Line Input Power: 10.31 kW  
Combiner Efficiency: 95.5%  
TPO: 10.8 kW

Figure 1 – 1.2 MHz Spam



WIOA (FM) 99.9 MHZ

Figure 2 – 1.8 MHz Span

