

Equipment Performance Measurements
For

WXXX-FM
94.1 MHz
City, St.

FCC ID 12345

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Measurements taken by
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General

These pages document the procedures and results of the measurements required by title 47 section 73.1590, as specified in Title 47, Section 73.317 of the Code of Federal Regulations, to demonstrate compliance with in-band emission requirements, and for harmonic content of a FM Broadcast Station.

Measurement Procedure

A swept frequency RF spectrum analyzer with a resolution of 3 kHz was used for these measurements. The signal was received from a sample port in the transmission line following the low pass filter. A sampling element of known frequency response was used. In-band emissions removed from the carrier by more than 600 kHz, as well as checks for harmonic content were made with a precision communications receiver. During harmonic sweeps and out of band spur measurement a notch filter tuned to the fundamental frequency was inserted in series with the input to prevent false indications. With the exception of the pilot frequency measurement, all measurements were made under normal modulation conditions. The pilot frequency was measured with only the pilot modulation applied over a period of 10 seconds.

Equipment list

Spectrum Analyzer.....	IFR Com 120B
Precision Communications Receiver	IFR Com 120B
Notch Filter	Microwave Filter Co. 6367-3B
Sampling Element.....	Bird Electronics 4274-025

Technical Qualifications

All measurements were made by Alan Alsobrook, who is a Certified Senior Radio Engineer #3338 by the SBE, and also holds FCC General Radio Telephone Operators License PG-6-11216. Mr. Alsobrook has served as a Radio Engineer since 1977.

Alan H Alsobrook

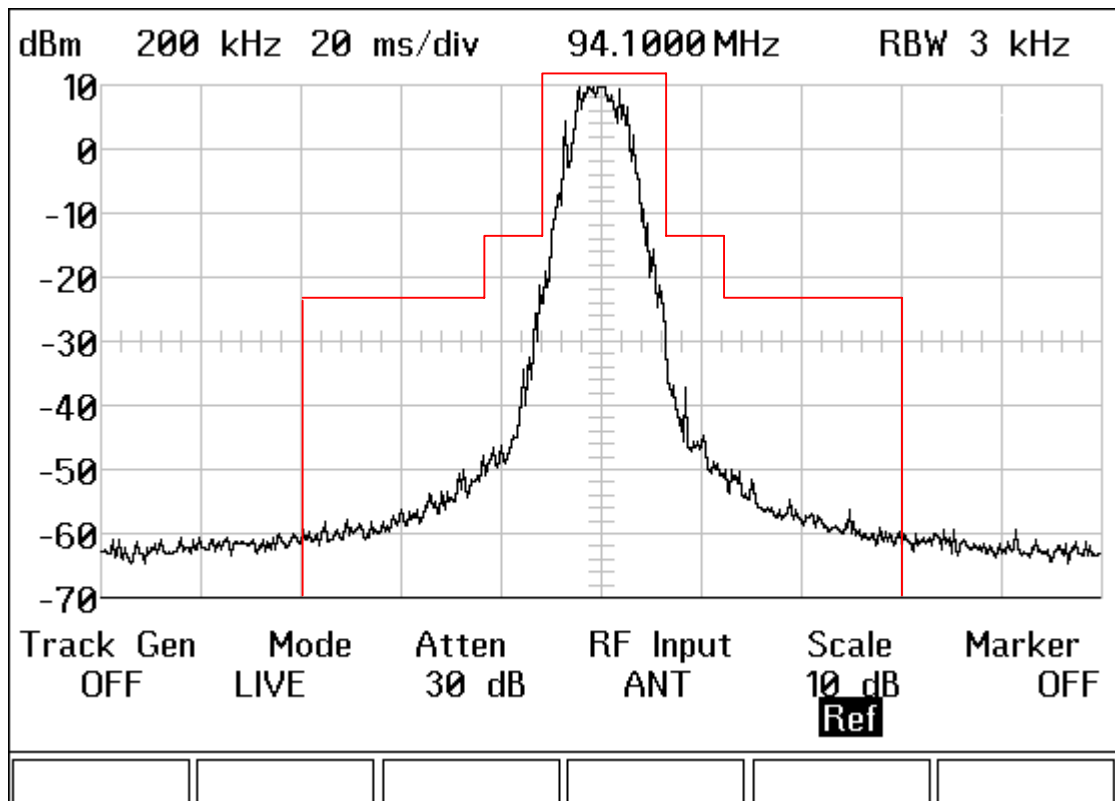
Frequency Measurements

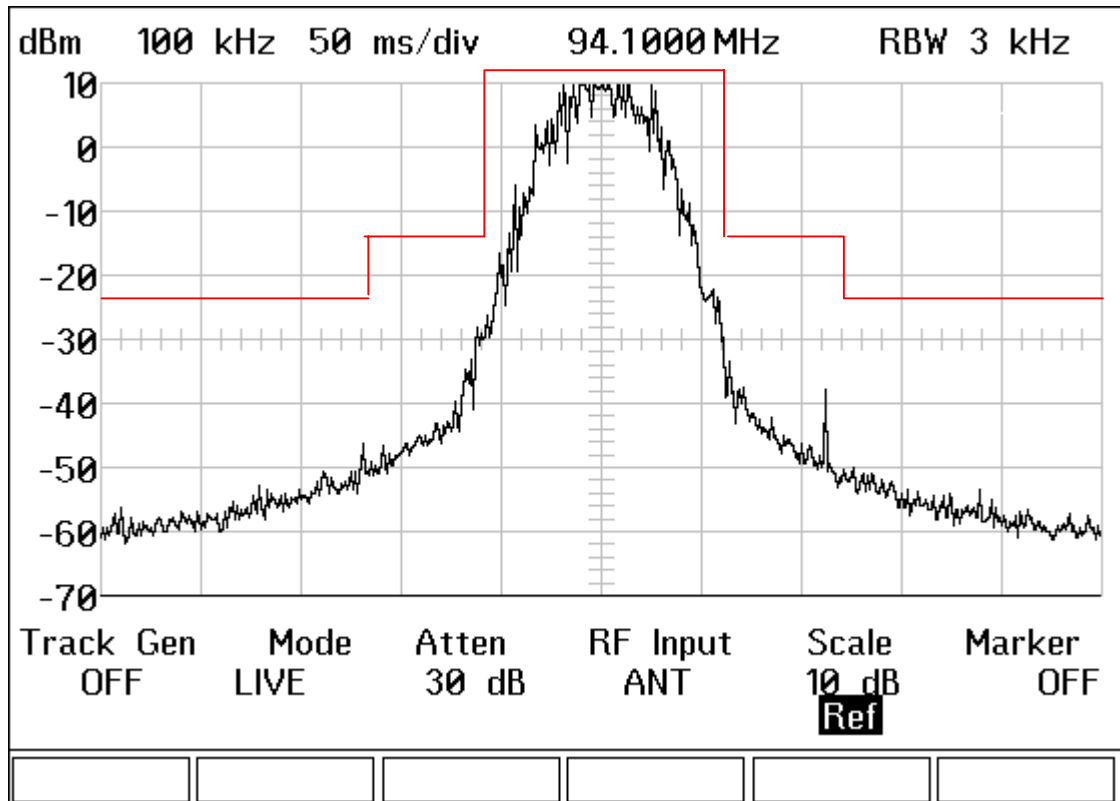
Carrier 94.100000 ± 0 Hz
Pilot Frequency 19,000.0 ± 0.0 Hz

Harmonic & Spurious Measurement

Second Harmonic -83.8db
Third Harmonic -98.3db
Fourth Harmonic -100.7db
Fifth harmonic not detected
Sixth Harmonic not detected
Seventh Harmonic not detected
Eighth harmonic not detected
Ninth Harmonic not detected

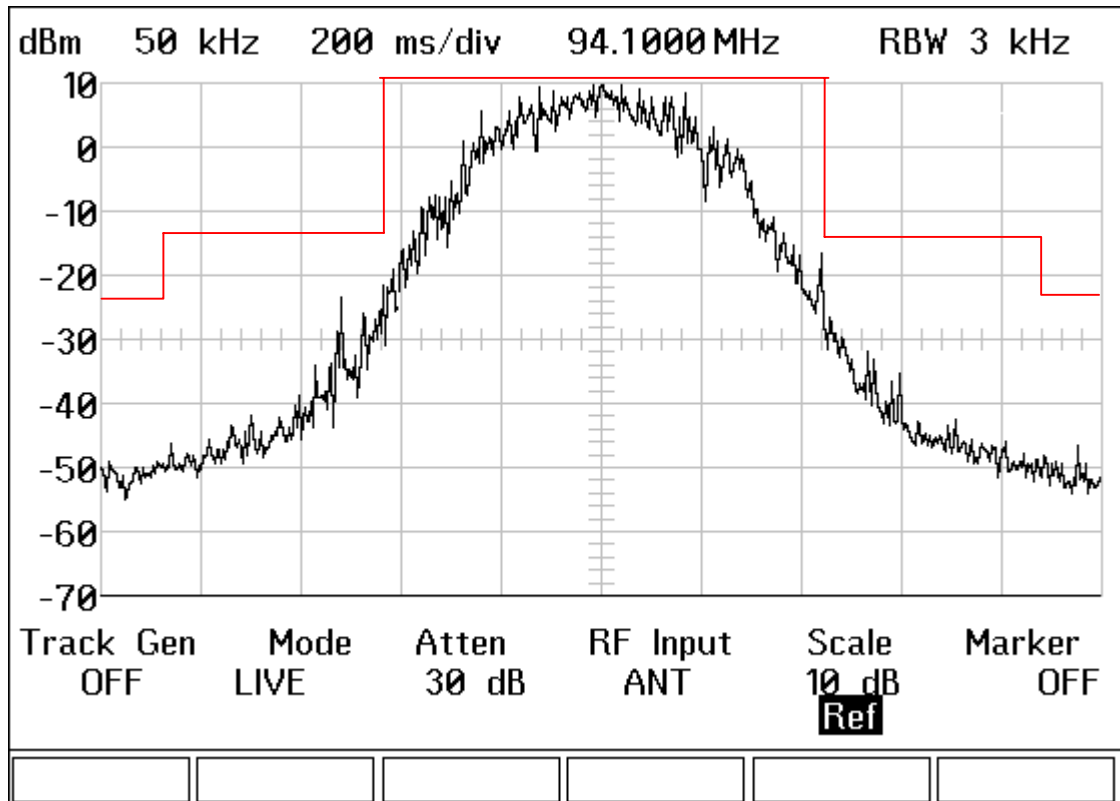
No Spurious transmissions other than the harmonics noted above were noted on a sweep starting at 1 MHz and extending to 1,000 MHz.





73.317 FM transmission system requirements.

Range			Requirement	Measured
120	to	240kHz	-25db	-29db
240	to	600kHz	-35db	-60db
Beyond 75 kHz, The lesser of 80db or $43 + 10 \text{ Log (Power in watts)}$				
600KHz +			-80db	Noise Floor

**Additional Notes:**

These Measurements are made pursuant to 73.1590(a)(1) of the commission's rules for the installation of a new main transmitter. These measurements were taken on the new main transmitter of WXXX-FM located at 3456 International Putt-Putt Parkway. This is a Harris HT-25 Transmitter running at 21KW into a 4 bay 1/2 wave spaced antenna, with an effective radiated power of 25 kW.