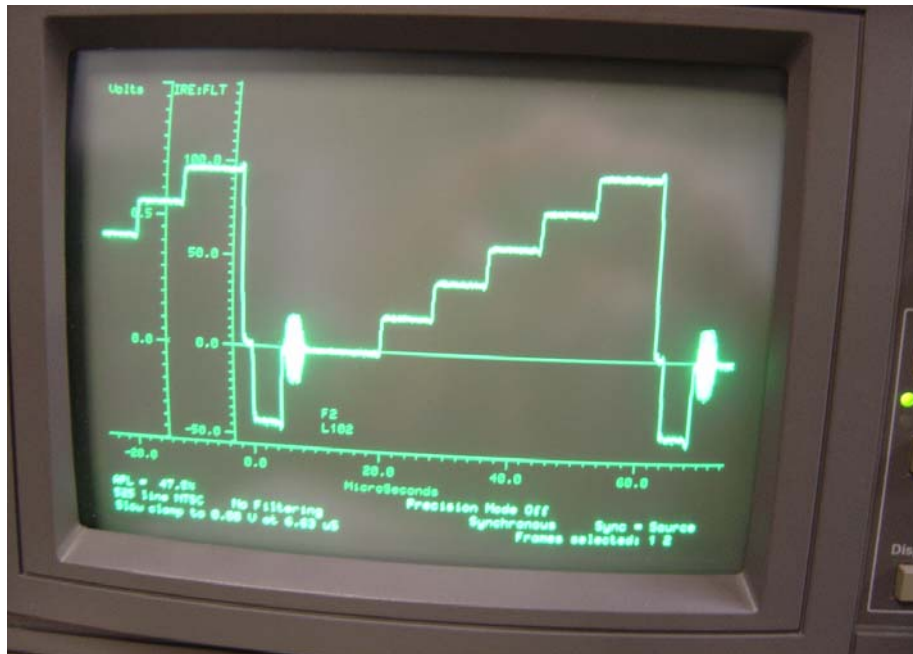
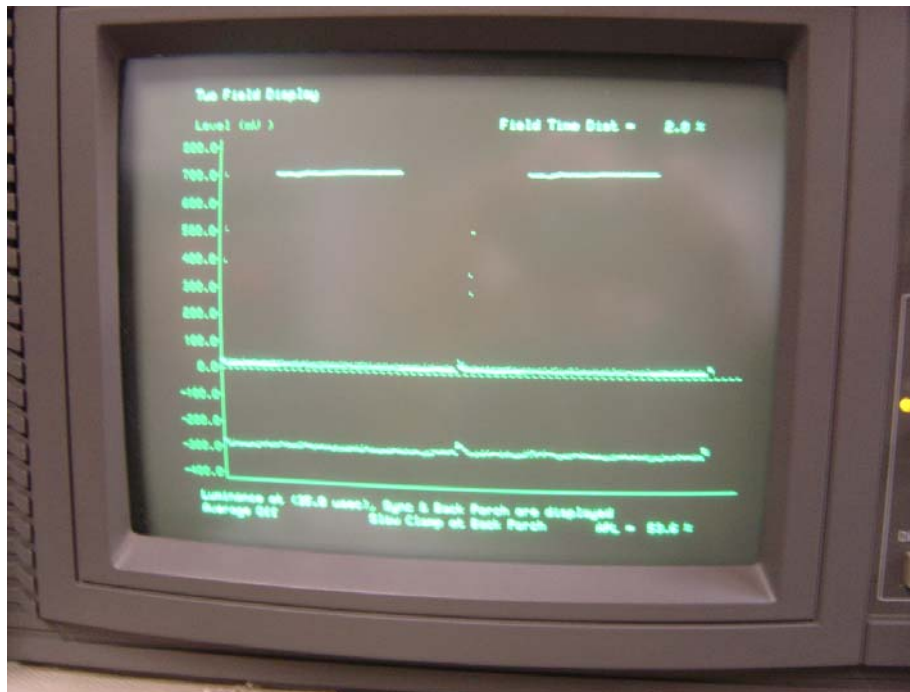


**TWO HORIZONTAL LINES AND TWO FIELDS SHOWING  
CORRECT MODULATION DEPTH FOR REFERENCE WHITE  
AND SYNC LEVELS AT 1.34 KW**

Power Output = 1.34 kwatts



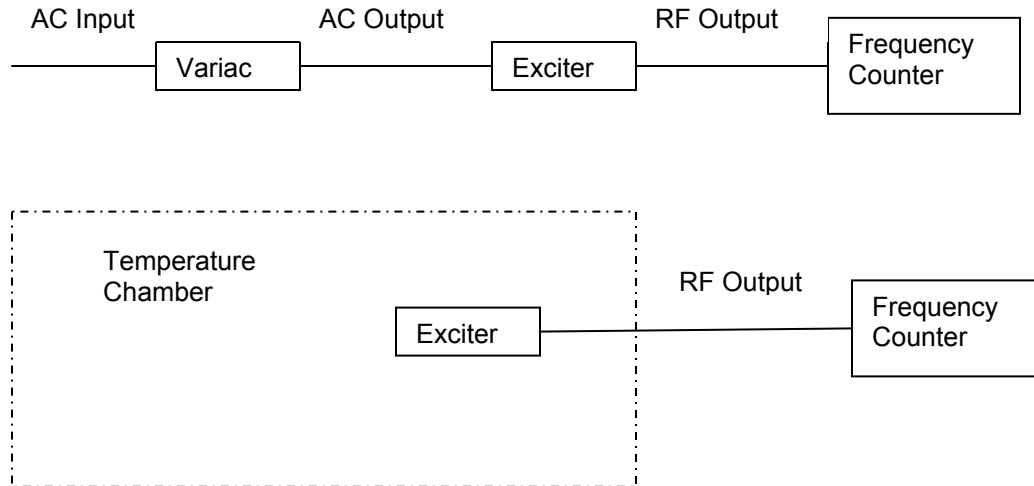
Power Output = 1.34 kwatts



As can be seen from the above photographs there is negligible distortion of the waveforms.

## FREQUENCY STABILITY MEASUREMENTS

Frequency stability versus temperature and line voltage were measured in a controlled environment. For these tests the exciter RF output was fed to a frequency counter that has better than a 1ppm accuracy. The test equipment configuration is shown below.



The variac was adjusted for nominal voltage and the frequency was recorded. Then the variac was adjusted to 85% and 115% of the nominal voltage and the frequency was recorded at each voltage level. The results are tabulated below.

LINE VOLTAGE (Volts)	Visual Frequency (MHz)	Aural Frequency (MHz)
100 (85%)	537.249909	541.749918
121 (nominal)	537.249910	541.749917
140 (115%)	537.249909	541.749917

For the temperature stability measurements the exciter was placed inside a Tenney temperature chamber equipped with a MicroTenn II temperature controller. The exciter frequency was measured on the frequency counter. The temperature in the chamber was changed to each of the points identified in the table below. The chamber followed a prescribed rate of 10 minutes to change the frequency and then the temperature was allowed to stabilize at the temperature for 10-15 minutes. When the temperature had stabilized, the exciter visual and aural frequencies were recorded, and then the temperature was advanced to the next measurement point. The temperature was cycled cold first and then returned to room temperature and then cycled hot.

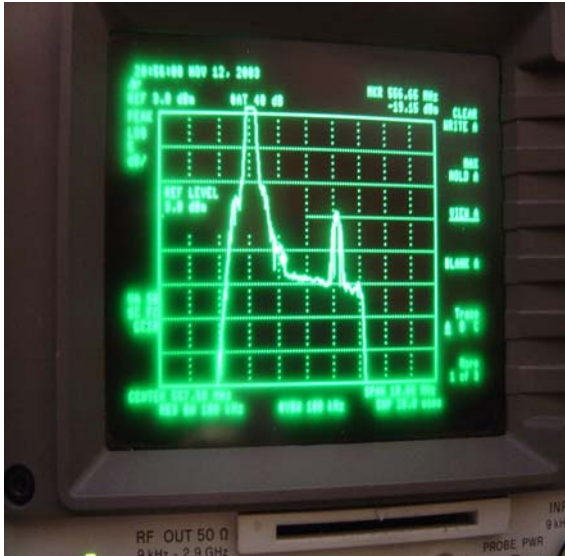
Temperature °C	Time	Visual Frequency (MHz)	Aural Frequency (MHz)
25	9:20 am	651.249920	655.749925
20	9:35 am	651.249915	655.749920
10	10:25 am	651.249918	655.749923
0	10:45 am	651.249917	655.749922
-10	11:10 am	651.249918	655.749921
-20	11:55 am	651.249917	655.749920
-30	12:15 pm	651.249916	655.749920
25	12:40 pm	651.249915	655.749920
30	1:00 pm	651.249920	655.749924
40	1:25 pm	651.249921	655.749926
50	1:50 pm	651.249925	655.749929

The recorded data indicates that the frequency stability requirements of FCC Rule 2.1055 were met.

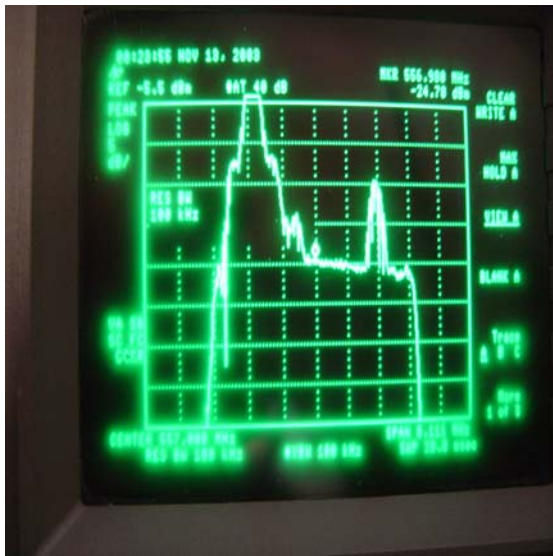
## FREQUENCY RESPONSE MEASUREMENTS

The test equipment configuration of Figure 1 was used with the TSG-90 supplying the video input waveform. For this case, the aural carrier was not energized. A (Sin X)/X input video waveform was used. The output spectrums are displayed on the pictures below. Spectrums for both high power and low power conditions are displayed to confirm that the radiated envelope meets the requirements as outline in Part 74 Rule 750.

POWER OUTPUT =4.70 kwatts



POWER OUTPUT =1.34 kwatts



The scale used for the above pictures is 5 dB per division. The abnormal portion of the output waveform observed in the middle of the passband is the effect of the field rate information. The video field rate sync obscures some of the measurement near the visual carrier but there is still enough of the waveform present to confirm that the radiated spectrum falls within the 4 dB window as specified in FCC Rule 74.750.