

Spurious Emission Test

K217FM 91.3

Norfolk, NE

87 watts

K209EV 89.7

Hadar, NE

87 watts

June 15, 2011

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FM Spurious Emission Test

Introduction

This document demonstrates compliance with the FCC Rules and Regulation Part 73.317. This rule section requires compliance of Broadcast Transmission Specifications as stipulated under Special Operating conditions or restrictions on Construction Permit. According to this stipulation, a station must show that it meets this specification by measurement.

Test Procedure

On June 15, 2011 an FM transmission system emission test was performed on K209EV 89.7 Mhz Hadar, NE and K217FM, 91.3 Mhz, Norfolk, NE. The station was tested in full power (87 watts ERP). In order to minimize interference from other stations, the test was completed at the transmitter site using an isolated T connector at the output of the combiner attached directly to input of the spectrum analyzer. The controls on the spectrum analyzer were set according to the requirements of Part 73.317. Exhibits B through G are the test results.

Test Results and Conclusions

Stations met all requirements as set forth in FCC Rules and Regulations Part 73.317. A copy of Part 73.317(b –d) is attached to this document as Exhibit A. Further tests not required by this rule were completed on the higher harmonics of stations. The second harmonic attenuation meets all FCC requirements and all higher harmonics are attenuated well within all FCC requirements.

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Exhibit A

FEDERAL COMMUNICATIONS COMMISSION RULES – Part 73

Sections 73.317(b) through 73.317(d)

(b) Any emission appearing on a frequency removed from the carrier by between 120 kHz and 240 kHz inclusive must be attenuated at least 25 dB below the level of the unmodulated carrier. Compliance with this requirement will be deemed to show the occupied bandwidth to be 240 kHz or less.

(c) Any emission appearing on a frequency removed from the carrier by more than 240 kHz and up to and including 600 kHz must be attenuated at least 35 dB below the level of the unmodulated carrier.

(d) Any emission appearing on a frequency removed from the carrier by more than 600 kHz must be attenuated at least $43 + 10 \log_{10}(\text{Power, in watts})$ dB below the level of the unmodulated carrier, or 80 dB, whichever is the lesser attenuation.

(e) Preemphasis shall not be greater than the impedance-frequency characteristics of a series inductance resistance network having a time constant of 75 microseconds.

[51 FR 17028, May 8, 1986]



AP OUT 50 h

FIGURE C

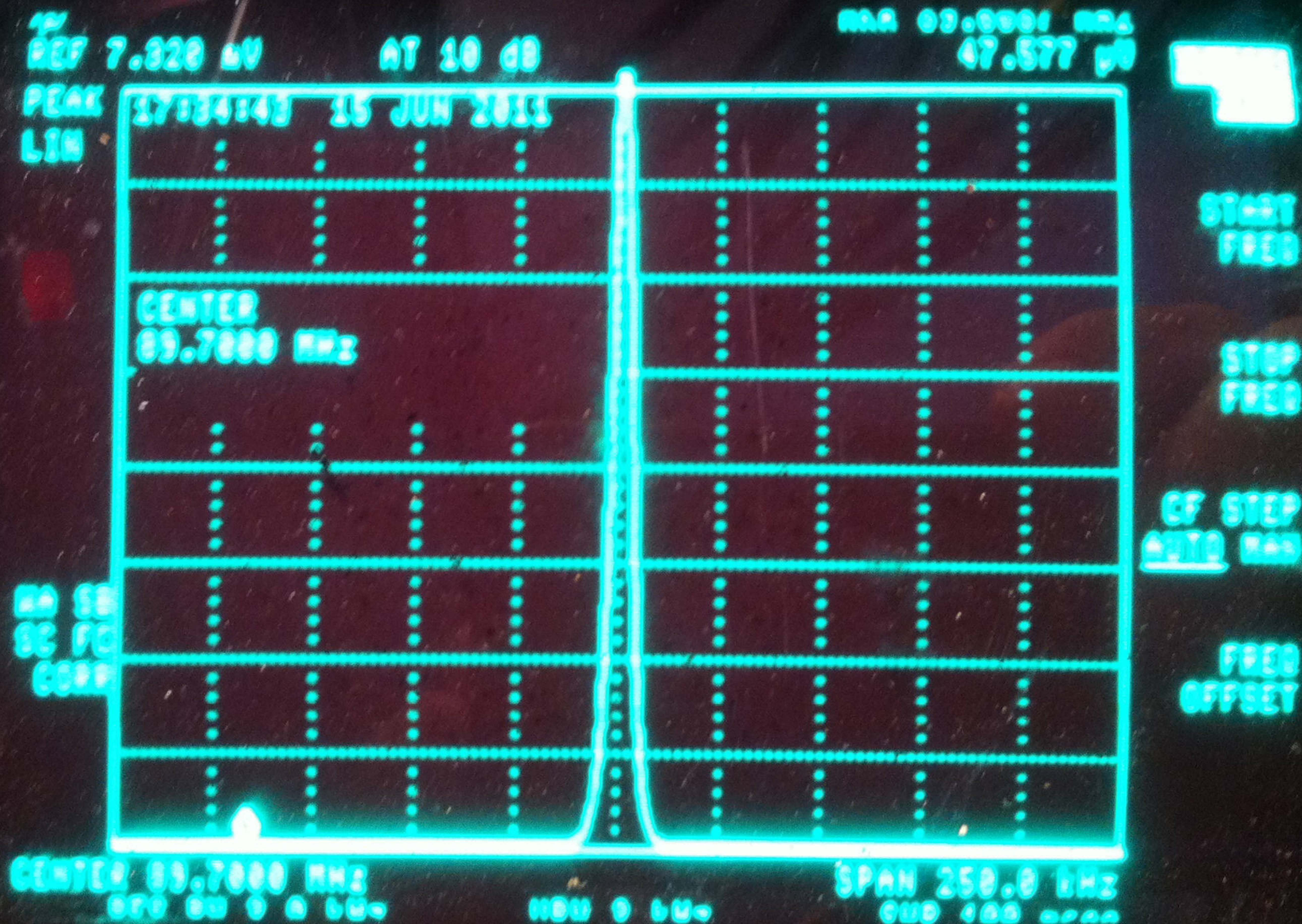


FIGURE D

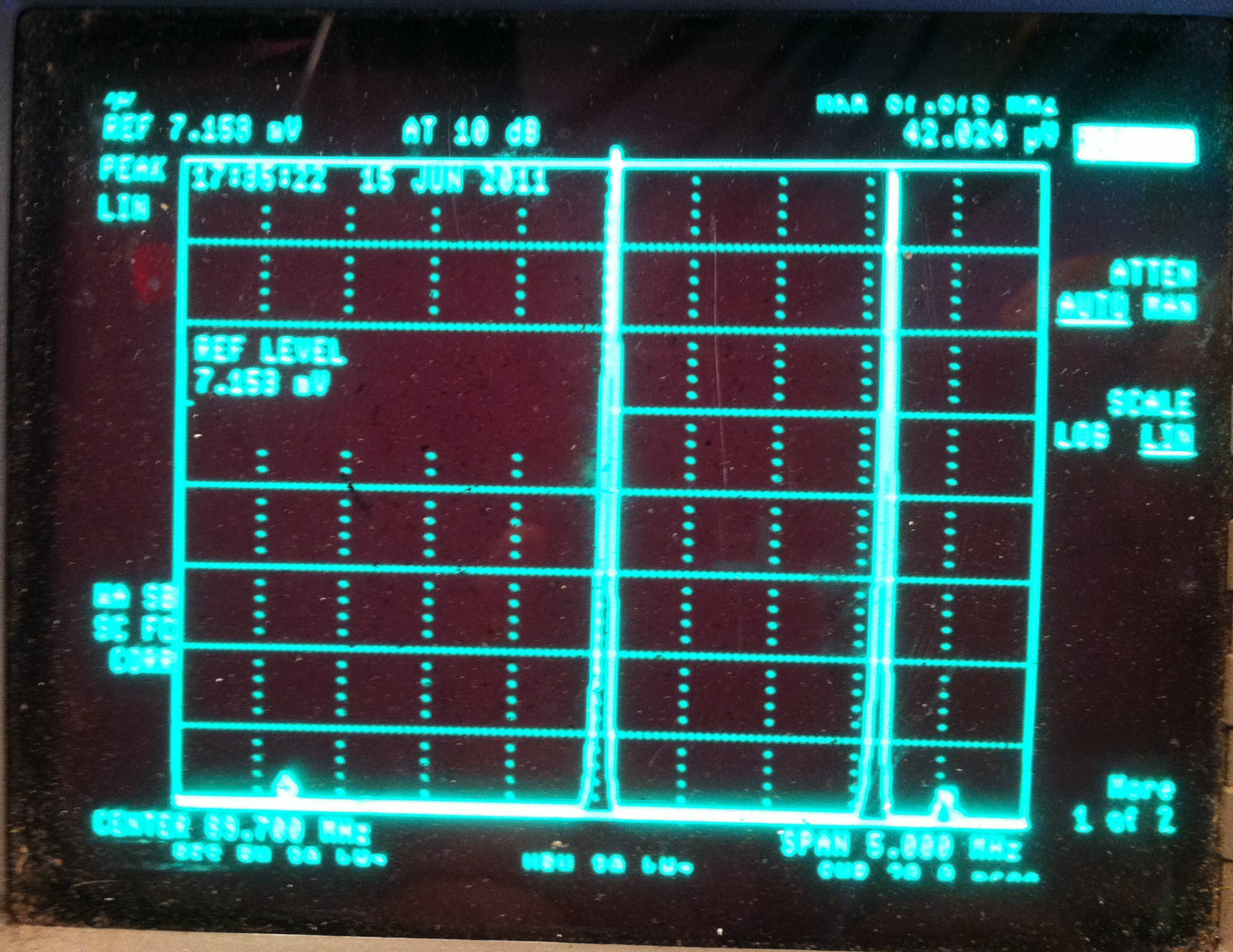
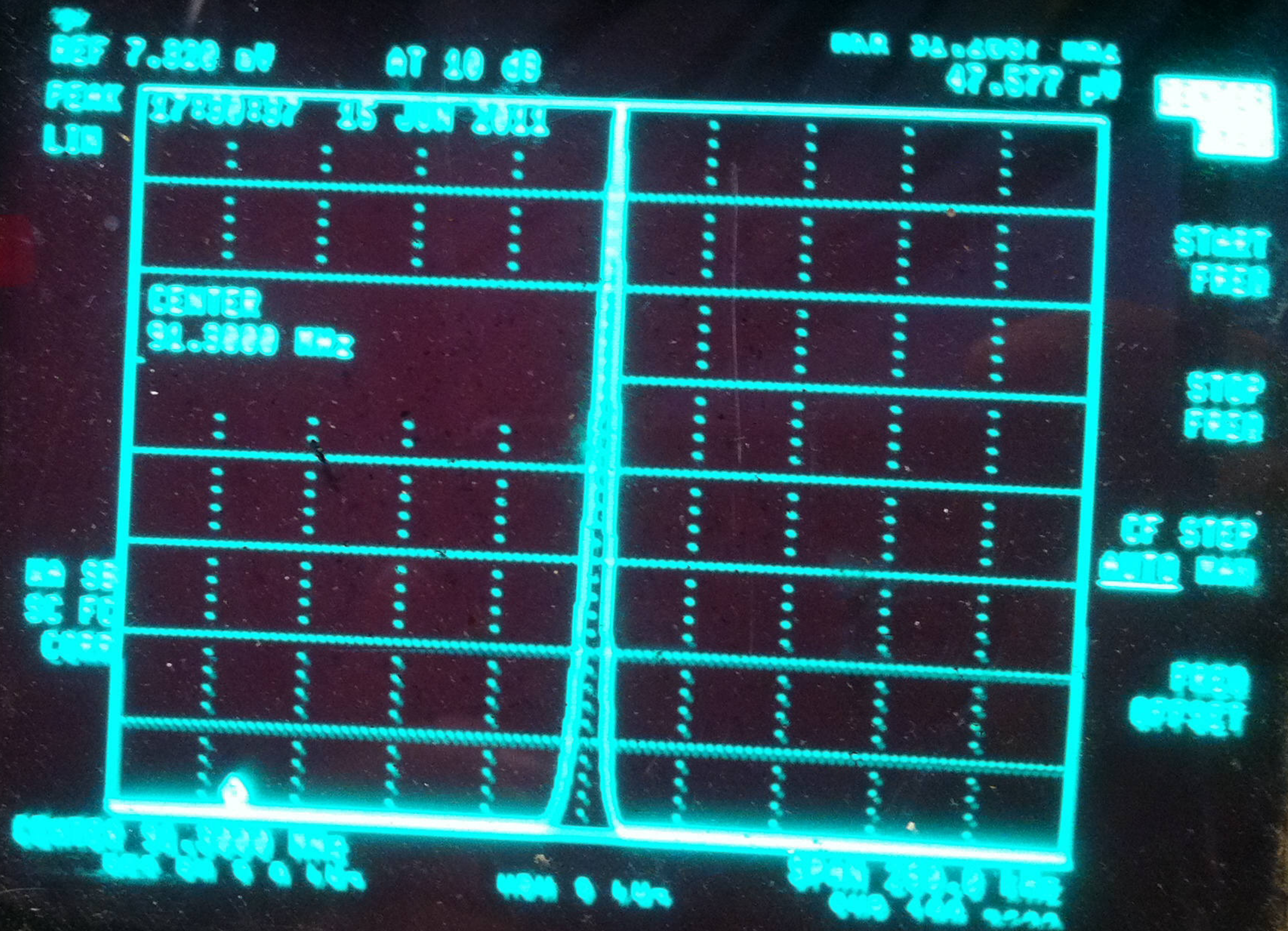
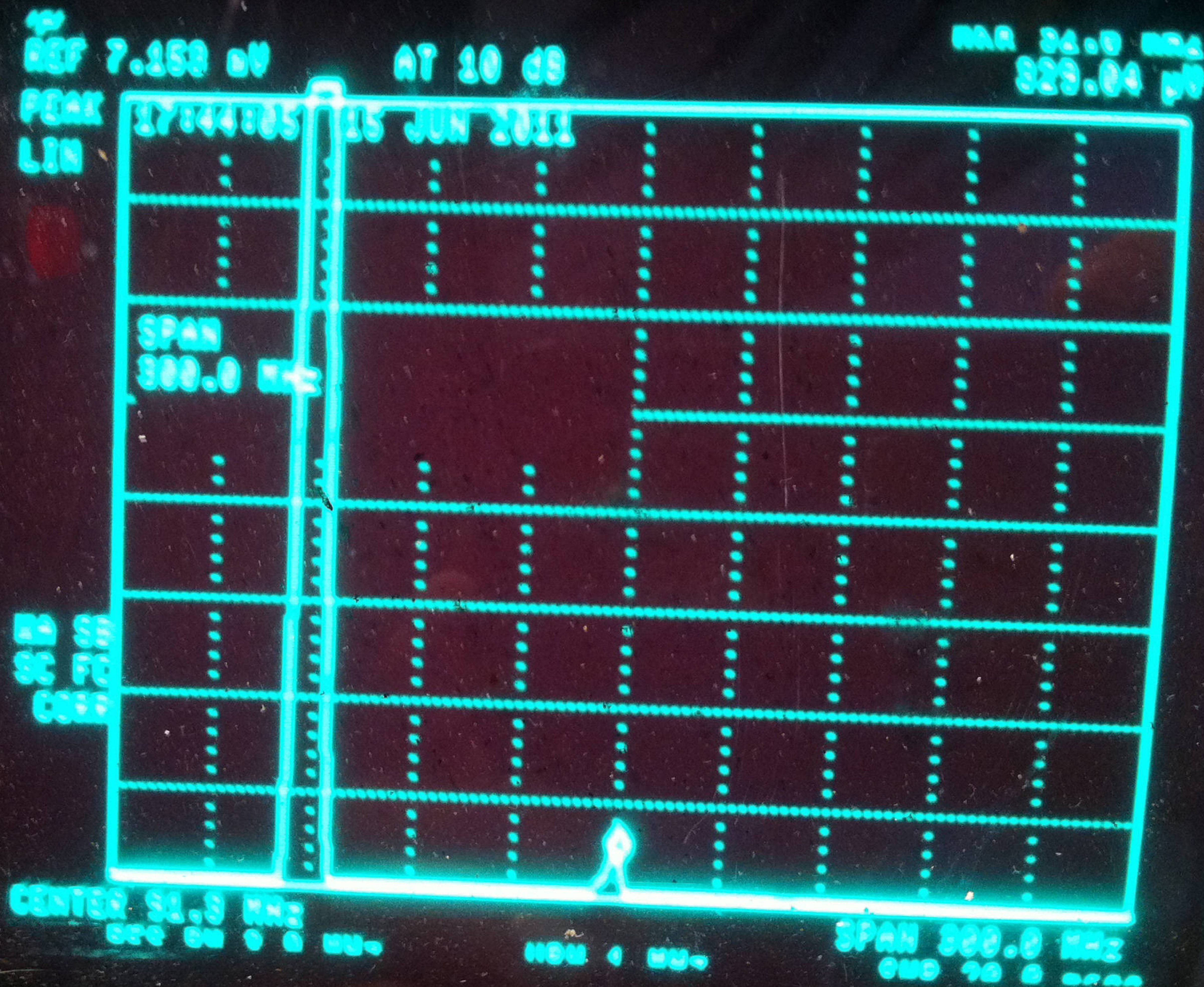


Figure E





SPAN
200

FULL
SPAN

ZERO
SPAN

LAST
SPAN

PEAK
200

FIGURE G

