

*FCC PART 15, SUBPART C
TEST REPORT*

for

FM TRANSMITTER
Model Number: RMTFMTX001
FCC ID: RMTFMTX001

Prepared for

VENTURA TECHNOLOGIES
460 HOUCK STREET
CAMARILLO, CA 93010

Prepared by: _____

JOEY J. MADLANGBAYAN

Approved by: _____

RUBY A. HALL

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DATE: NOVEMBER 14, 2003

	REPORT BODY	APPENDICES					TOTAL
		A	B	C	D	E	
PAGES	16	2	2	2	13	13	48

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GENERAL REPORT SUMMARY

This electromagnetic emission report is generated by Compatible Electronics Inc., which is an independent testing and consulting firm. The test report is based on testing performed by Compatible Electronics personnel according to the measurement procedures described in the test specifications given below and in the "Test Procedures" section of this report.

The measurement data and conclusions appearing herein relate only to the sample tested and this report may not be reproduced in any form except in full, without the written permission of Compatible Electronics.

This report must not be used to claim product endorsement by NVLAP, NIST or any other agency of the U.S. Government.

Device Tested: FM Transmitter
Model Number: RMTFMTX001
SN: 2030001

Product Description: This is an FM Transmitter with digital Voice Recorder for continuous announcement.

Modifications: The EUT was not modified during the testing.

Manufacturer: Ventura Technologies
460 Houck Street
Camarillo, CA 93010

Test Date: November 11, 2003

Test Specifications: EMI requirements
FCC CFR Title 47, Part 15 Subpart C
Test Procedure: ANSI C63.4: 2001.

Test Deviations: The test procedure was not deviated from during the testing.

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Conducted RF Emissions, 150 kHz - 30 MHz.	Complies with the limits of FCC CFR Title 47, Part 15 Subpart C 15.207 and 15.239.
2	Radiated RF Emissions, 10 kHz – 1069.9 MHz.	Complies with the limits of FCC CFR Title 47, Part 15 Subpart C 15.205, 15.209 and 15.239 and the requirements of 15.31(e).

1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the FM Transmitter Model Number: RMTFMTX001. The EMI measurements were performed according to the measurement procedure described in ANSI C63.4: 2001. The tests were performed in order to determine whether the electromagnetic emissions from the equipment under test, referred to as EUT hereafter, are within the specification limits defined in FCC CFR Title 47, Subpart C 15.205, 15.207, 15.209 and 15.239.

2. ADMINISTRATIVE DATA

2.1 Location of Testing

The EMI tests described herein were performed at the test facility of Compatible Electronics, 2337 Troutdale Drive, Agoura, California 91301.

2.2 Traceability Statement

The calibration certificates of all test equipment used during the test are on file at the location of the test. The calibration is traceable to the National Institute of Standards and Technology (NIST).

2.3 Cognizant Personnel

Ventura Technologies

Michael Toft Engineer

Compatible Electronics Inc.

Andre D. Khan	Test Technician
Joey J. Madlangbayan	Test Engineer
Ruby A. Hall	Lab Manager

2.4 Date Test Sample was Received

The test sample was received on November 11, 2003.

2.5 Disposition of the Test Sample

The test sample was returned to Ventura Technologies.

2.6 Abbreviations and Acronyms

The following abbreviations and acronyms may be used in this document.

RF	Radio Frequency
EMI	Electromagnetic Interference
EUT	Equipment Under Test
P/N	Part Number
S/N	Serial Number
HP	Hewlett Packard
ITE	Information Technology Equipment
CML	Corrected Meter Limit
LISN	Line Impedance Stabilization Network

3. APPLICABLE DOCUMENTS

The following documents are referenced or used in the preparation of this EMI Test Report.

SPEC	TITLE
FCC CFR Title 47, Part 15 Subpart C.	FCC Rules – Intentional Radiators.
CISPR 16 1993	Specification for radio disturbance and immunity measuring apparatus and methods.
ANSI C63.4 2001	Methods of measurement of radio-noise emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz.

4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration - EMI

The EUT was set-up in a tabletop configuration. The EUT was continuously transmitting throughout the test. The EUT transmitting antenna is a fixed element; which connects directly to the PCB board.

The highest emissions were found when the EUT was running in the above configuration. The cables were moved to maximize the emissions. The final radiated and conducted data was taken in this mode of operation. All initial investigations were performed with the spectrum analyzer in manual mode scanning the frequency range continuously. The cables were bundled and routed as shown in the photographs in Appendix D.

4.1.1 Photograph of Test Configuration - EMI



4.1.2 Cable Construction and Termination

The EUT does not have any external cables.

5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT**5.1 EUT and Accessory List**

#	EQUIPMENT TYPE	MANUFACTURER	MODEL	SERIAL NUMBER
1	FM TRANSMITTER (EUT)	VENTURA TECHNOLOGIES	PN: RMTFMTX001	2030001 FCC ID: RMTFMTX001
	AC ADAPTER (EUT)	CUI INC.	DV-1250	DPD 1200500-P5

5.2 EMI Test Equipment

EQUIPMENT TYPE	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. DUE DATE
Spectrum Analyzer	Hewlett Packard	8566B	2729A04566	Jan. 27, 2003	Jan. 27, 2004
Quasi-Peak Adapter	Hewlett Packard	85650A	2521A00682	Jan. 27, 2003	Jan. 27, 2004
Preamplifier	Com Power	CPPA-102	01249	Feb. 10, 2003	Feb. 10, 2004
LISN	Com Power	LI-215	12037	Oct. 16, 2003	Oct. 16, 2004
LISN (Accessory)	Com Power	LI-115	02030	Oct. 16, 2003	Oct. 16, 2004
Transient Limiter	Com Power	HZ560	3549	Jan. 24, 2003	Jan. 24, 2004
Loop Antenna	Com Power	AL-130	17067	Mar. 06, 2003	Mar. 06, 2004
Biconical Antenna	Com Power	AB-100	01535	Mar. 10, 2003	Mar. 10, 2004
Log Periodic Antenna	Com Power	AL-100	01116	Jan. 23, 2003	Jan. 23, 2004
Horn Antenna	A. R. A.	DRG 118/A	1015	Nov. 18, 2002	Nov. 18, 2005
Microwave Amplifier	Com Power	PA-122	181915	Mar. 20, 2003	Mar. 20, 2004
Antenna Mast	Com Power	AM-400	N/A	N/A	N/A
Turntable	Com Power	TT-106A	N/A	N/A	N/A
Computer	Hewlett Packard	Pavilion 4530	US91912022	N/A	N/A
Printer	Hewlett Packard	C6427B	MY066160TW	N/A	N/A
(Software) Conducted Emissions Program	Compatible Electronics	SR21	N/A	N/A	N/A
(Software) Radiated Emissions Data Capture Program	Compatible Electronics	Version 3.1	N/A	N/A	N/A

6. TEST SITE DESCRIPTION

6.1 Test Facility Description

Please refer to section 2.1 and 7.1.2 of this report for EMI test location.

6.2 EUT Mounting, Bonding and Grounding

The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 0.8 meters above the ground plane.

The EUT was not grounded.

7. TEST PROCEDURES

The following sections describe the test methods and the specifications for the tests. Test results are also included in this section.

7.1 RF Emissions

7.1.1 Conducted Emissions Test

The Spectrum Analyzer was used as a measuring meter along with the quasi-peak adapter. The data was collected with the Spectrum Analyzer in the peak detect mode with the "Max Hold" feature activated. The quasi-peak was used only where indicated in the data sheets. A 10 dB attenuation pad was used for the protection of the Spectrum Analyzer input stage, and the Spectrum Analyzer offset was adjusted accordingly to read the actual data measured. The LISN output was read by the Spectrum Analyzer. The output of the second LISN was terminated by a 50 ohm termination. The effective measurement bandwidth used for the conducted emissions test was 9 kHz.

Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The EUT was powered through the LISN, which was bonded to the ground plane. The LISN power was filtered and the filter was bonded to the ground plane. The EUT was set up with the minimum distances from any conductive surfaces as specified in ANSI C63.4: 2001. The excess power cord was wrapped in a figure eight pattern to form a bundle not exceeding 0.4 meters in length.

The initial test data was taken in manual mode while scanning the frequency ranges of 150 kHz to 1.6 MHz, 1.6 MHz to 5 MHz and 5 MHz to 30 MHz. The conducted emissions from the EUT were maximized for operating mode as well as cable placement. Once a predominant frequency (within 12 dB of the limit) was found, it was more closely examined with the spectrum analyzer span adjusted to 1 MHz.

The final data was collected under program control by the computer in several overlapping sweeps by running the spectrum analyzer at a minimum scan rate of 10 seconds per octave. The final test data is located in Appendix E.

7.1.2 Radiated Emissions Test

The spectrum analyzer was used as a measuring meter along with a quasi-peak adapter. A Preamplifier was used to increase the sensitivity of the instrument. The Spectrum Analyzer was used in the peak detect mode with the "Max Hold" feature activated. In this mode, the spectrum analyzer records the highest measured reading over all the sweeps. This final reading is then recorded into the a Computer data recording program, which takes into account the cable loss, amplifier gain and antenna factors, so that a true reading is compared to the true limit. The quasi-peak was used only for those readings, which are marked accordingly on the data sheets. The effective measurement bandwidth used for the radiated emissions test was according to the frequency measured (200 Hz for 10kHz-150kHz, 9 kHz for 0.150kHz-30MHz, 120 kHz for 30-1000MHz and 1 MHz for 1000MHz and above).

Broadband loop, biconical, log periodic and horn antennas were used as transducers during the measurement. The loop antenna was used from 10 kHz to 30 MHz, the biconical antenna was used from 30 MHz to 300 MHz, the log periodic antenna was used from 300 MHz to 1000 MHz and the horn antenna was used from 1000 MHz to 1069 MHz. The frequency spans were wide (30 MHz to 88 MHz, 88 MHz to 216 MHz, 216 to 300 MHz, 300 MHz to 1 GHz and 1 GHz to 1.069 GHz) during preliminary investigations. The final data was taken with a frequency span of 1 MHz. Furthermore, the frequency span was reduced during the preliminary investigations as deemed necessary.

The open field test site of Compatible Electronics, Inc. was used for radiated emission testing. This test site is set up according to ANSI C63.4: 2001. Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The turntable supporting the EUT is remote controlled using a motor. The turntable permits EUT rotation of 360 degrees in order to maximize emissions. Also, the antenna mast allows height variation of the antenna from 1 meter to 4 meters. Data was collected in the worst case (highest emission) configuration of the EUT. At each reading, the EUT was rotated 360 degrees and the antenna height was varied from 1 to 4 meters (for E field radiated field strength).

The presence of ambient signals was verified by turning the EUT off. In case an ambient signal was detected, the measurement bandwidth was reduced temporarily and verification was made that an additional adjacent peak did not exist. This ensures that the ambient signal does not hide any emissions from the EUT. The EUT was tested at a test distance of 3 meters to obtain final test data. The final test data is located in Appendix E.

7.1.3 RF Emissions Test Results

The fundamental and up to the 10th harmonic emissions are within the specifications.

VENTURA TECHNOLOGIES
FM Transmitter

RADIATED EMISSIONS – SPURIOUS

The Frequency Band from 10kHz to 1.069 GHz was specifically scanned. No spurious emissions were found. Please see data in Appendix E.

RF Energy from the EUT at 3 meters ($\mu\text{V/m}$) is below the limits in the following ranges listed below.

0.090-0.110	<70	16.69475-16.69525	<70
0.495-0.505	<70	16.80425-16.80475	<70
2.1735-2.1905	<70	25.5-25.67	<70
4.125-4.128	<70	37.5-38.25	<100
4.17725-4.17775	<70	73-74.6	<100
4.20725-4.20775	<70	74.8-75.2	<100
6.215-6.218	<70	108-121.94	<100
6.26775-6.26825	<70	123-138	<150
6.31175-6.31225	<70	149.9-150.05	<150
8.291-8.294	<70	156.52-156.52	<150
8.362-8.366	<70	162.01-167.17	<150
8.37625-8.38675	<70	167.72-173.2	<150
8.41425-8.41475	<70	240-285	<200
12.29-12.293	<70	322-335.4	<200
12.51975-12.52025	<70	399.9-410	<200
12.57675-12.57725	<70	608-614	<200
13.36-13.41	<70	960-1240	<500
16.42-16.423	<70		

RADIATED EMISSION – BAND EDGE

The emission from the lowest and highest channel of the EUT lies within the bandwidth of 88-108MHz. See Appendix E for the plots.

8. CONCLUSIONS

The FM Transmitter Model Number: RMTFMTX001 meets all of the requirements of the FCC CFR, Title 47, Part 15 Subpart A, Section 15.31(e), Subpart C 15.205, 15.207, 15.209 and 15.239.

APPENDIX A

LABORATORY ACCREDITATIONS

LABORATORY ACCREDITATIONS

Compatible Electronics has the following agency Accreditations:

National Voluntary Laboratory Accreditation Program - Lab Code: 200063-0

Voluntary Control Council for Interference - Registration Numbers: R-826, C-862, R-653 and C-669

Bureau of Standards and Metrology Inspection - Reference Number: SL2-IN-E-1031

Compatible Electronics is recognized or on file with the following agencies:

Federal Communications Commission

Industry Canada

Radio-Frequency Technologies (Competent Body)

Conformity Assessment Body for the EMC directive under the US/EU MRA appointed by NIST.

APPENDIX B

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

There were no modifications made to the EUT during the test.

APPENDIX C

ADDITIONAL MODELS COVERED UNDER THIS REPORT

ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

FM Transmitter
Model Number: RMTFMTX001
S/N: 2030001

There were no additional models covered under this report.

APPENDIX D

DIAGRAMS, CHARTS AND PHOTOS

FIGURE 1: CONDUCTED EMISSIONS TEST SETUP

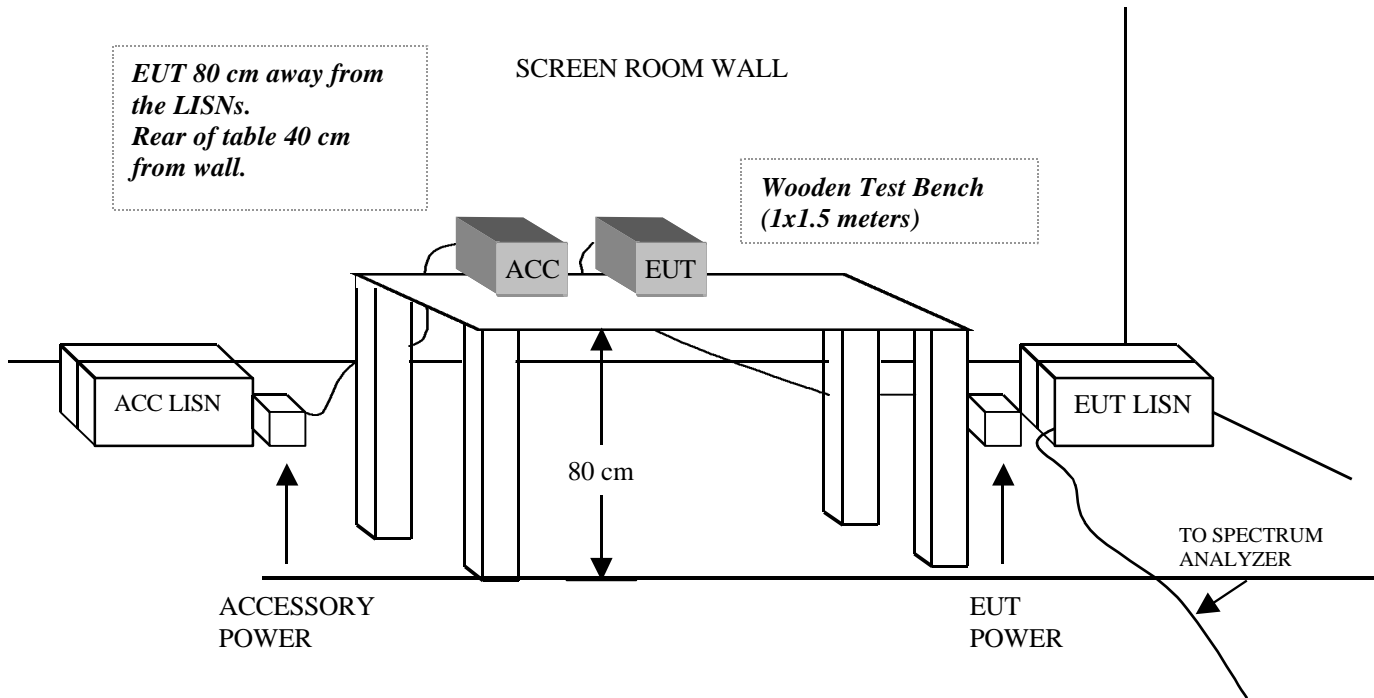
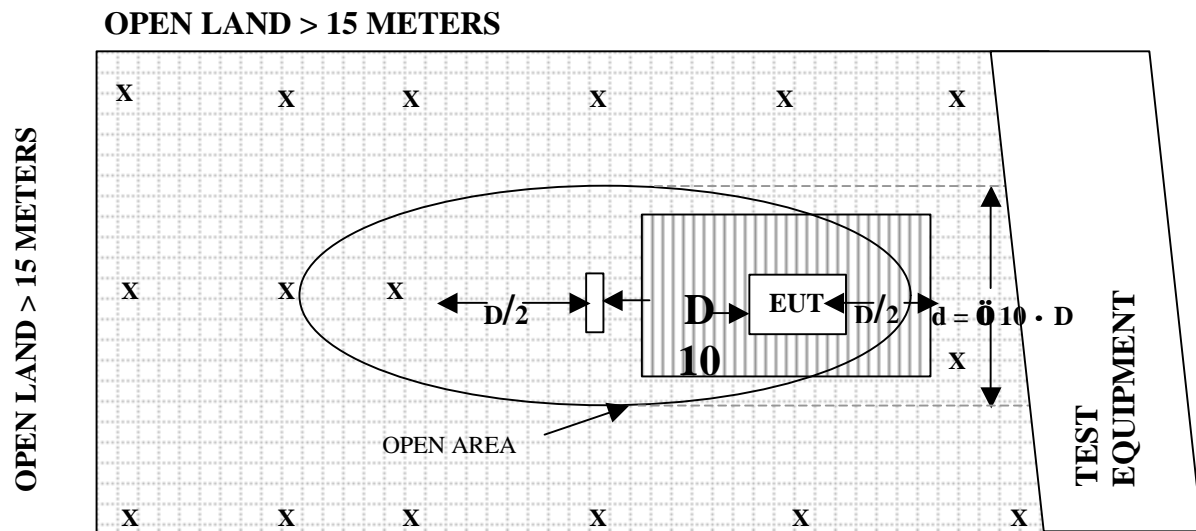
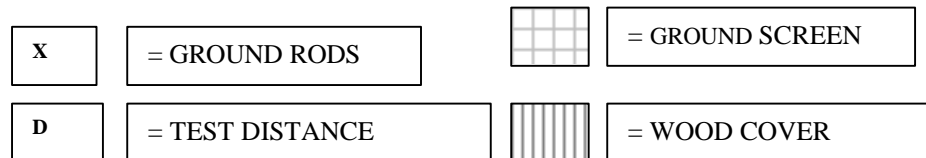


FIGURE 2: PLOT MAP AND LAYOUT OF RADIATED SITE



OPEN LAND > 15 METERS



COM-POWER AL-130
ACTIVE LOOP ANTENNA

S/N: 17067

CALIBRATION DATE: MARCH 6, 2003

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
0.009	11.9	1	10.8
0.01	11.8	2	11.5
0.02	10.7	3	11.0
0.03	12.4	4	10.9
0.04	12.1	5	11.6
0.05	10.5	6	11.5
0.06	10.9	7	11.4
0.07	10.6	8	11.2
0.08	10.2	9	11.6
0.09	10.1	10	11.0
0.1	10.0	12	10.2
0.2	7.8	14	10.3
0.3	10.1	15	10.3
0.4	10.1	16	10.3
0.5	10.3	18	10.4
0.6	10.4	20	10.3
0.7	10.5	25	10.0
0.8	10.5	30	8.4
0.9	10.5		

COM-POWER AB-100

BICONICAL ANTENNA

S/N: 1535

CALIBRATION DATE: MARCH 10, 2003

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	12.8	120	9.6
35	11.6	125	10.0
40	11.5	140	11.9
45	11.7	150	12.1
50	12.2	160	13.4
55	10.9	175	13.6
60	10.2	180	13.6
65	7.9	200	14.8
70	9.7	225	15.1
80	8.1	250	16.7
90	9.0	275	17.6
100	9.3	300	18.8

COM-POWER AL-100

LOG PERIODIC ANTENNA

S/N: 01116

CALIBRATION DATE: JAN. 23, 2003

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
300	16.0	650	20.2
330	15.1	700	21.5
340	15.4	725	21.9
350	15.6	750	21.3
360	16.4	800	21.0
370	14.1	850	22.5
400	15.1	900	22.9
425	15.1	925	23.1
450	16.7	950	24.2
500	17.0	975	24.3
550	18.7	1000	26.2
600	19.4		

COM-POWER PA-102**PREAMPLIFIER****S/N: 1249****CALIBRATION DATE: FEB. 10, 2003**

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	35.5	300	34.6
40	35.4	350	34.8
50	35.6	400	34.6
60	35.3	450	34.2
70	35.5	500	35.0
80	35.1	550	34.6
90	35.4	600	35.0
100	35.2	650	35.4
125	35.4	700	35.0
150	35.1	750	36.4
175	35.0	800	34.6
200	35.1	850	32.2
225	35.0	900	29.4
250	34.7	950	30.5
275	34.8	1000	30.8

COM-POWER PA-122**PREAMPLIFIER****S/N: 181915****CALIBRATION DATE: MARCH 20, 2003**

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
1000	27.3	7000	29.1
1100	27.3	7500	30.5
1200	27.1	8000	29.7
1300	27.1	8500	29.2
1400	27.6	9000	28.8
1500	27.3	9500	25.9
1600	28.0	10000	30.0
1700	28.7	11000	29.5
1800	31.2	12000	29.5
1900	31.2	13000	27.6
2000	31.9	14000	29.2
2500	31.3	15000	29.7
3000	31.0	16000	30.2
3500	32.5	17000	23.2
4000	30.7	18000	26.4
4500	31.5		
5000	32.0		
5500	30.7		
6000	30.6		
6500	29.5		

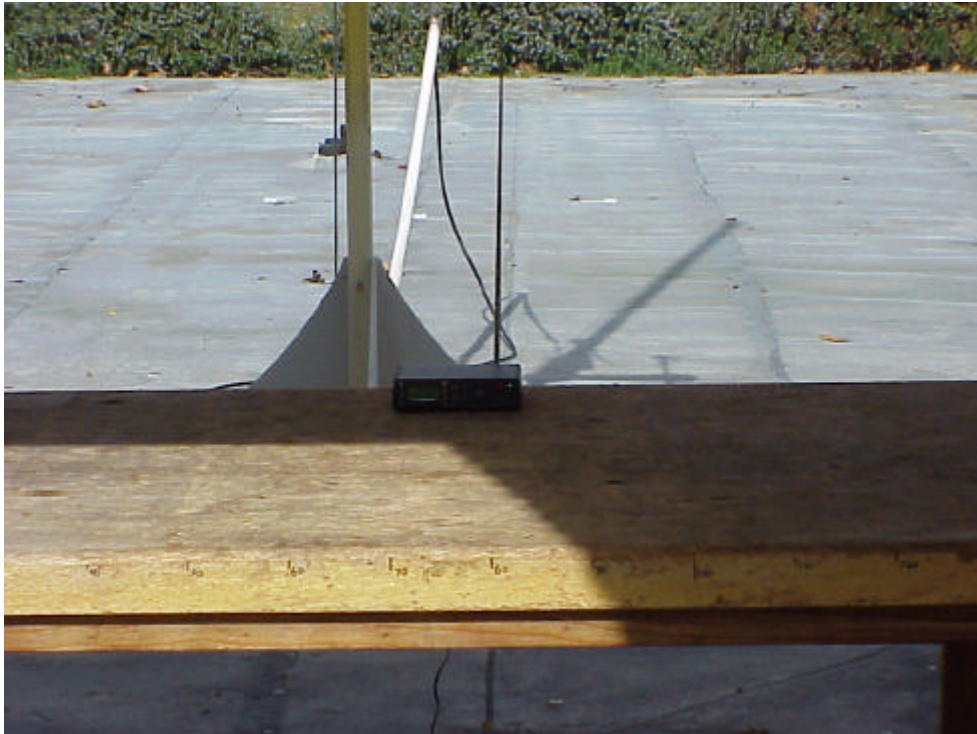
A.R.A DRG-118/A

HORN ANTENNA

S/N: 1015

CALIBRATION DATE: NOVEMBER 18, 2002

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
1000	25.5	10000	39.7
1500	26.7	10500	41.1
2000	30.1	11000	40.6
2500	30.6	11500	41.4
3000	31.5	12000	42.8
3500	32.3	12500	43.7
4000	32.7	13000	41.7
4500	33.0	13500	40.5
5000	35.1	14000	40.7
5500	35.2	14500	41.8
6000	36.4	15000	43.2
6500	36.9	15500	42.5
7000	39.7	16000	42.4
7500	38.8	16500	41.2
8000	37.9	17000	41.7
8500	37.9	17500	43.8
9000	39.9	18000	45.2
9500	39.0		



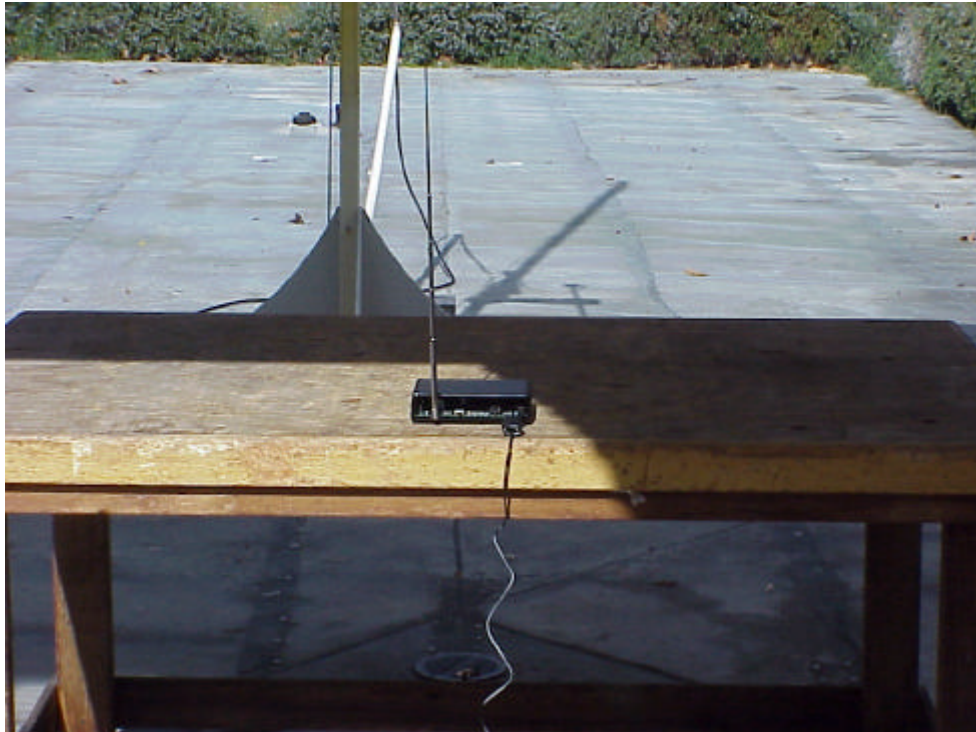
FRONT VIEW

VENTURA TECHNOLOGIES
FM TRANSMITTER

MODEL NUMBER: RMTFMTX001

FCC PART 15 SUBPART C - RADIATED EMISSIONS – 11-11-03

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



REAR VIEW

VENTURA TECHNOLOGIES

FM TRANSMITTER

MODEL NUMBER: RMTFMTX001

FCC PART 15 SUBPART C - RADIATED EMISSIONS – 11-11-03

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



FRONT VIEW

VENTURA TECHNOLOGIES

FM TRANSMITTER

MODEL NUMBER: RMTFMTX001

FCC PART 15 SUBPART C - CONDUCTED EMISSIONS – 11-11-03

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



REAR VIEW

VENTURA TECHNOLOGIES
FM TRANSMITTER

MODEL NUMBER: RMTFMTX001

FCC PART 15 SUBPART C - CONDUCTED EMISSIONS – 11-11-03

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**

APPENDIX E

DATA SHEETS



RADIATED EMISSIONS

COMPANY NAME: Ventura Technologies, Inc DATE: 11-11-03

EUT: FM Transm. Her EUT S/N: 2030001

EUT MODEL: RMIFMTx001 LOCATION: ☐ BREA ☐ SILVERADO ☒ AGOURA

SPECIFICATION: FCC CLASS: B TEST DISTANCE: 3 M LAB: F

ANTENNA: ☒ LOOP ☐ BICONICAL ☐ LOG ☐ HORN POLARIZATION: ☒ VERT ☒ HORIZ

☒ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT ENGINEER: A. Khan

NOTES: Clocks: 4MHz, 7.6MHz

[illegible]

* DELTA = METER READING - CORRECTED LIMIT



Page : 1/1
Date : 11/11/2003
Time : 09:21:02 AM
Lab : F
tance : 3.00 Meters

Test Engineer: A. KHAN

[illegible]



COMPATIBLE ELECTRONICS

Test Location : Compatible Electronics
Customer : Michael Toft
Manufacturer : Ventura Technologies, Inc.
Eut name : FM Transmitter
Model : RMTFMTX001
Serial # : 2030001
Specification : FCC Pt. 15- Class B
Distance correction factor (20 * log(test/spec)) : 0.00
Test Mode : 4 MHz 7.6 MHz

Page : 1/1
Date : 11/11/2003
Time : 11:19:49 AM
Lab : F
Test Distance : 3.00 Meters

Test Engineer: A. KHAN

Pol	Freq MHz	Reading dBuV	Cable loss dB	Antenna factor dB	Amplifier gain dB	Corr'd rdg = R dBuV/m	Limit = L dBuV/m	Delta R-L dB
1V	34.624	46.90	2.25	11.68	35.45	25.38	40.00	-14.62
2V	39.417	50.00	2.38	11.51	35.41	28.49	40.00	-11.51
3V	48.522	50.80	2.57	12.06	35.57	29.86	40.00	-10.14
4V	57.789	51.30	2.92	10.50	35.36	29.36	40.00	-10.64
5V	69.625	54.60	3.00	9.57	35.49	31.68	40.00	-8.32
6V	123.783	36.60	3.48	9.90	35.39	14.60	43.50	-28.90
7V	148.186	46.70	3.97	12.06	35.12	27.61	43.50	-15.89
8H	33.488	45.20	2.21	11.94	35.46	23.90	40.00	-16.10
9H	64.164	46.60	3.00	8.27	35.39	22.48	40.00	-17.52
10H	144.375	42.20	3.90	11.99	35.16	22.92	43.50	-20.58
11H	166.442	44.70	4.00	13.49	35.03	27.16	43.50	-16.34

No Readings found above 166.44 MHz . The EUT was Tested to 1 GHz



11/11/2003 12:24:11

FCC Conducted Emissions
 Ventua Technologies, Inc.
 FM Transmitter
 M/N: RMTFMX001
 LINE 120V
 Lab F Line Due 10-16-04
 TEST ENGINEER : A. KHAN

10 highest peaks above -50.00 dB of New FCC Class B (Avg) limit line

Peak criteria : 3.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.260	51.16	51.42	-0.26**
2	0.227	51.47	52.57	-1.10**
3	0.538	44.35	46.00	-1.65**
4	0.304	48.45	50.14	-1.69**
5	0.484	43.44	46.27	-2.83
6	0.150	52.74	56.00	-3.26
7	0.775	38.58	46.00	-7.42
8	0.755	38.37	46.00	-7.63
9	1.006	37.72	46.00	-8.28
10	8.461	35.73	50.00	-14.27



**COMPATIBLE
ELECTRONICS**

11/11/2003 12:24:11

FCC Conducted Emissions
Ventua Technologies, Inc.
FM Transmitter
M/N: RMTFMX001
LINE 120V
Lab F Line Due 10-16-04
TEST ENGINEER : A. KHAN

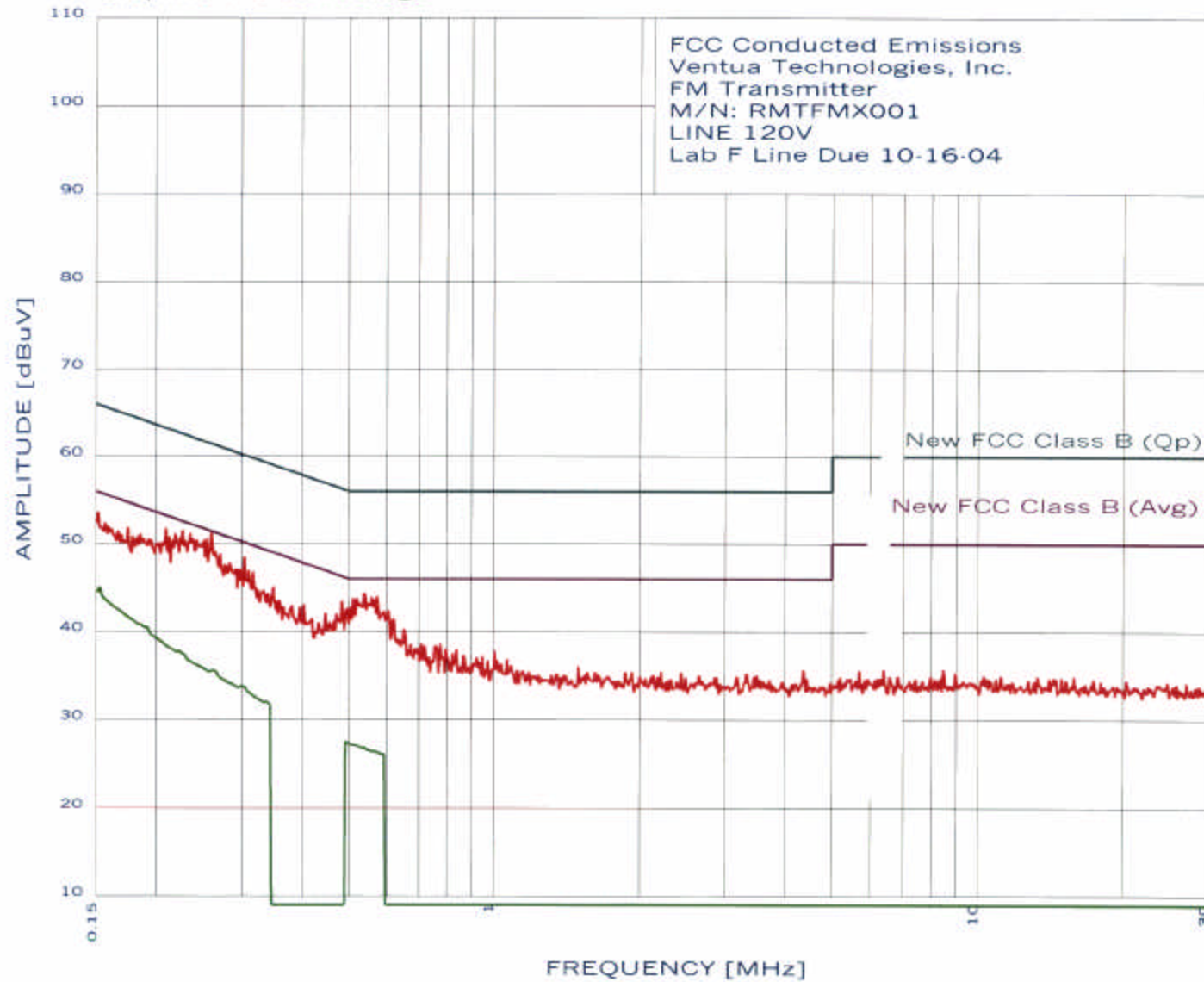
.....
9 highest peaks above -50.00 dB of New FCC Class B (Avg) limit line
Peak criteria : 0.10 dB, Curve : Average

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.152	45.06	55.86	-10.81
2	0.150	44.63	56.00	-11.37
3	0.223	37.78	52.70	-14.92
4	0.262	35.61	51.38	-15.77
5	0.299	33.81	50.28	-16.47
6	0.338	32.08	49.26	-17.19
7	0.492	27.53	46.14	-18.61
8	0.538	26.85	46.00	-19.15
9	0.564	26.46	46.00	-19.54

.....

EMISSION LEVEL [dBuV] PEAK
Graph fc Pe k& Average

11/11/2003 12:24:11





**COMPATIBLE
ELECTRONICS**

11/11/2003 12:33:33

FCC Conducted Emissions
Ventua Technologies, Inc.
FM Transmitter
M/N: RMTFMX001
NEUTRAL 120V
Lab F Neut. Due 10-16-04
TEST ENGINEER : A. KHAN

.....
6 highest peaks above -50.00 dB of New FCC Class B (Avg) limit line

Peak criteria : 3.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.561	44.23	46.00	-1.77**
2	1.006	40.72	46.00	-5.28
3	0.150	49.67	56.00	-6.33
4	1.840	37.79	46.00	-8.21
5	1.560	37.60	46.00	-8.40
6	9.660	35.99	50.00	-14.01

.....

**COMPATIBLE
ELECTRONICS**

11/11/2003 12:33:33

FCC Conducted Emissions
Ventua Technologies, Inc.
FM Transmitter
M/N: RMTFMX001
NEUTRAL 120V
Lab F Neut. Due 10-16-04
TEST ENGINEER : A. KHAN

.....
4 highest peaks above -50.00 dB of New FCC Class B (Avg) limit line

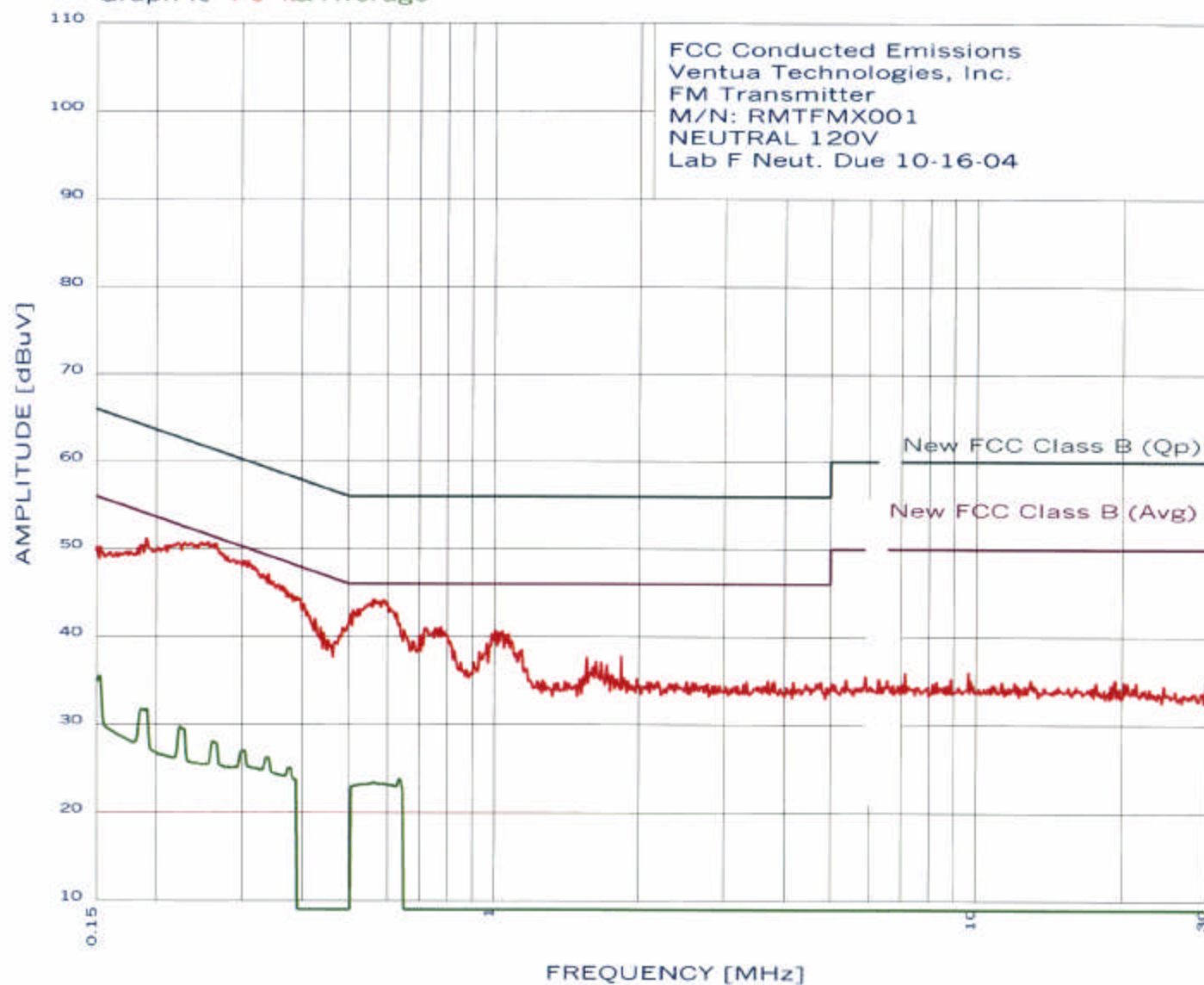
Peak criteria : 3.00 dB, Curve : Average

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.150	34.82	56.00	-21.18
2	0.637	23.81	46.00	-22.19
3	0.190	31.81	54.01	-22.21
4	0.224	29.71	52.65	-22.94

.....

EMISSION LEVEL [dBuV] PEAK
Graph fc Pe k& Average

11/11/2003 12:33:33



CHANNEL 1 LOW 89.12MHz

MKR 89.104 MHz

hp REF 100.0 dBμV ATTN 10 dB

66.60 dBμV

10 dB/

MARKER

89.104 MHz

66.60 dBμV

CORR'D

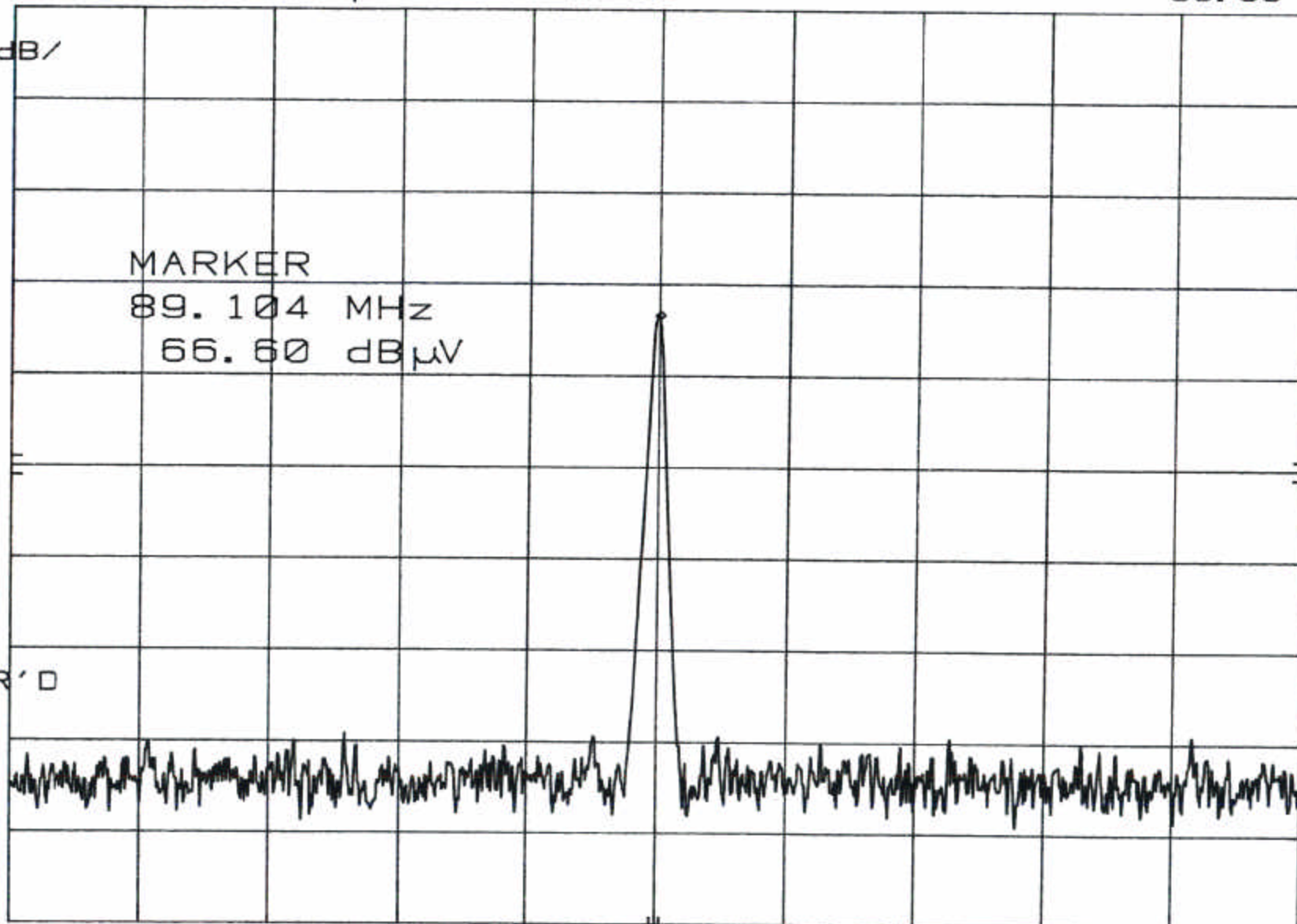
CENTER 89.10 MHz

RES BW 10 kHz

VBW 10 kHz

SPAN 2.00 MHz

SWP 60.0 msec



MEDIUM CHANNEL 99.12MHz

MKR 99.104 MHz

REF 100.0 dB μ V ATTEN 10 dB

65.10 dB μ V

hp

10 dB/

CENTER

99.10 MHz

STEP 800 kHz

CORR'D

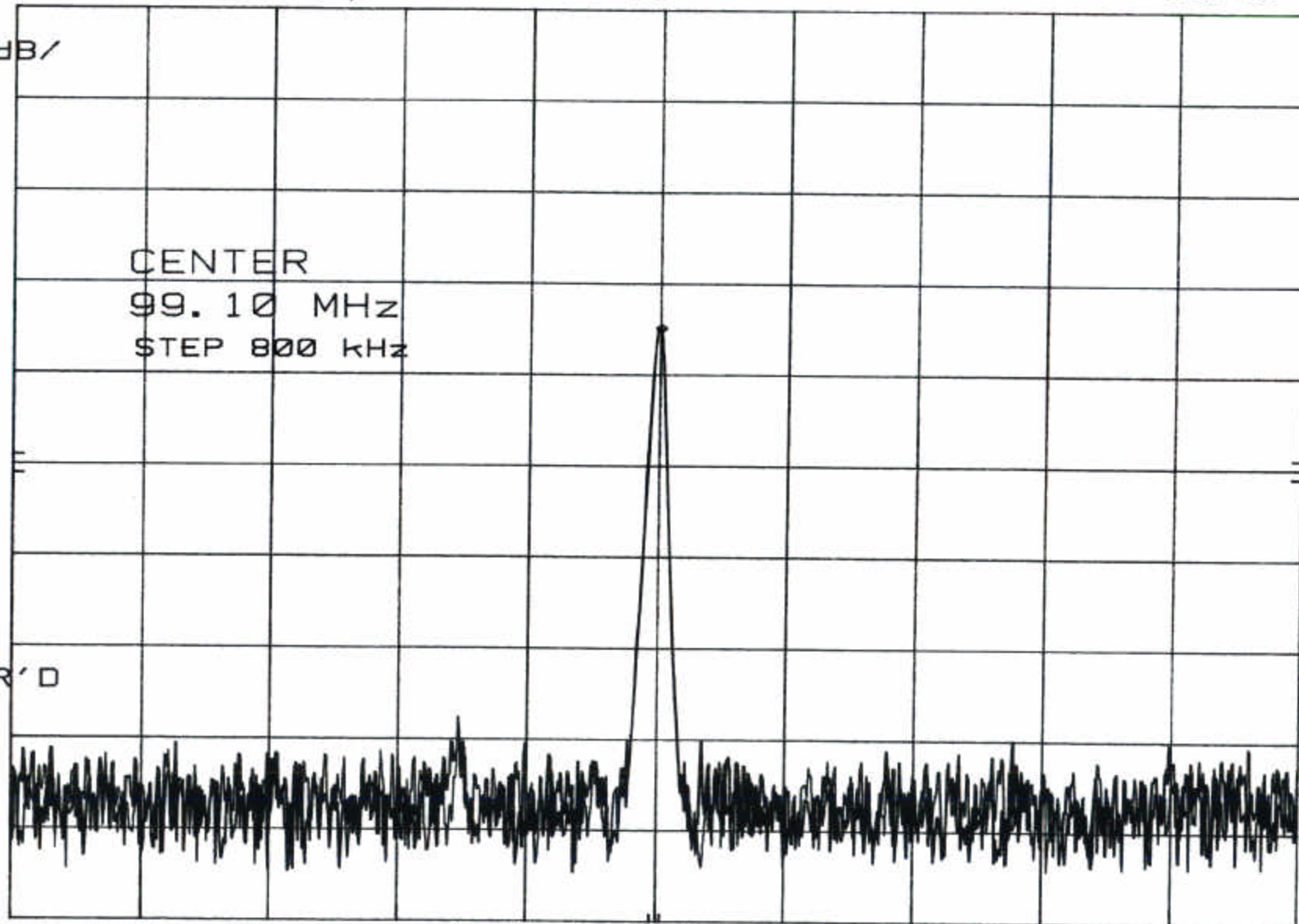
CENTER 99.10 MHz

RES BW 10 kHz

VBW 10 kHz

SPAN 2.00 MHz

SWP 60.0 msec



hp HIGH CHANNEL 106.9MHz
REF 100.0 dBμV ATTN 10 dB

MKR 106.904 MHz
70.20 dBμV

CENTER
106.90 MHz
STEP 800 kHz

10 dB/

CORR'D

CENTER 106.90 MHz

RES BW 10 kHz

VBW 10 kHz

SPAN 2.00 MHz

SWP 60.0 msec

