



Report No.: 101123 rev.02 US
FCC ID: RJE-169202-00
Client: Monster, LLC

023



NVLAP LAB CODE: 200413-0

June 22, 2006

Test Record

Product Verification
According to FCC Part 15 Subparts C

for

Monster, LLC
MODEL: RJE-169202-00

**This report contains confidential information. The owner of this report may make duplicates of it,
provided all pages are copied.**

JMR COMPLIANCE ENGINEERING
20400 PLUMMER STREET
CHATSWORTH, CA 90311
PHONE: 818-993-4801 ext. 147
e-mail: mikec@jmr.com

TABLE OF CONTENTS

Revision history	3
Introduction – Test Plan	3
1.0 Certification of Test Record	4
2.0 General Information	5
2.1 Client Information	5
2.2 Administrative Data	5
3.0 Description of Equipment Under Test (EUT)	6
3.1 Brief Description of the EUT	6
3.2 Test Run	6
3.3 Block-Diagram of the Test Setup	7
3.4 Support Equipment	7
3.5 Cabling Configuration	7
3.6 Photographs of the EUT	8
3.7 EUT Modifications	17
3.8 Photographs of EUT Modifications	17
4.0 Test equipment used	18
5.0 Field Strength of Fundamental and Emissions within permitted band	19
5.1. Channel 88.1 MHz	20
5.2. Channel 98.1 MHz	28
5.3. Channel 107.9 MHz	36
5.4 Photographs of Test Set-Up	45
6.0 Radiated Emissions.	46
6.1. Channel 88.1 MHz	47
6.2. Channel 98.1 MHz	50
6.3. Channel 107.9 MHz	53
6.4 Photographs of Test Set-Up	56
7.0 Occupied channel bandwidth	57
7.1. Channel 88.1 MHz	58
7.2. Channel 98.1 MHz	59
7.3. Channel 107.9 MHz	60
7.4 Photographs of Test Set-Up	61
Appendix A:	63

Revision History

Revision	Date	Description of Changes	Author
0.1	22 June, 2006	Initial document	S. Sohn
0.2	10 July 2006	Corrected page 6 3.1 Brief Description of the EUT	M.Chechelnik

Introduction – Test Plan

This report describes the results of all measurements made on portable FM transmitter which falls under the class of intentional radiator by the FCC Part 15 Subpart C Rules and Regulations.

This EUT is designated:

**Wireless Audio FM Transmitter for
personal use.**

Model :

RJE-169202-00

Description of tests	Reference FCC prt.15	Comments
Radiated Emissions	15.209	Test and limit specified in FCC prt.15, Clause 15.209
Field Strength of Fundamental and Emissions within permitted band	15.239	Limit specified in FCC prt.15, Clause 15.239 Limit:0.25 mV/m @ 3m ;w/average detector
Emission bandwidth; Occupied channel bandwidth	15.239	Limit specified in FCC prt.15, Clause 15.239 Limit:200 kHz

1.0 CERTIFICATION OF TEST DATA

Verification statement.

The data, data evaluation and equipment configuration represented herein are a true and accurate representation of the test sample (EUT), and characteristics and measurements obtained as of the dates and the times of the test under the conditions specified and to the methods of FCC Part 15, Subpart C “Intentional Radiators” and Part 2 “Frequency Allocations and radio Treaty Matters; General Rules and regulations”

The test results provided with this report, indicate that the equipment tested:
WIRELESS AUDIO FM TRANSMITTER FOR PERSONAL USE.

MODEL : 169202-00 is compliant with the following Rules and Regulations

- A. 47 Code of Federal Regulations, Part 15 Subpart C
- B. 47 Code of Federal Regulations, Part 2
- C. ANSI C63.4: 2003

Tests performed by:



Sandra Sohn
EMC Test Engineer

Report prepared by:



Sandra Sohn
EMC Test Engineer

Test Record Approved By:



Mike Chechelnik
Director of EMC Lab

2.0 GENERAL INFORMATION

2.1 Client Information

Company Name: Monster, LLC
Contact: Claude Nelson
Company Address: 7251 West Lake Mead Blvd. Suite 342
Las Vegas, NV 89128
Phone: (877) 800-8989

2.2 Administrative Data

Device tested: Audio FM Transmitter For Personal Use
Model: RJE-169202-00
Equipment category: Intentional Radiators
Accessories: N/A
Expository Statement: This device is intended for vehicular use.
Purpose of test: Compliance to FCC Rules and Regulations, Part 15, Subpart C
Date of test: 06/19/06 - 06/22/06
Place of the test: JMR Electronics, Inc.
Compliance Engineering Laboratory
20400 Plummer Street
Chatsworth, CA 91311
Phone: (818) 993-4801

3.0 Description of Equipment Under Test (EUT)

3.1 Brief Description of the EUT

The EUT is a portable FM Transmitter which is designed to connect to a personal MP3 player and allow reception of the transmitted signal using a standard FM radio. Whenever the operating frequency is changed by user, frequency changes upwards or downwards in fixed 200 kHz steps.

Pressing switch will increment the frequency to the next channel.

There is no ON/OFF switch for this product. Circuit goes ON when product is plugged to automobile cigarette lighter outlet. Power consumption of FM transmitter IC is 20ma typical at 5v.

Wires connecting to MP3 player are used as the antenna. Alteration of antenna by user is not possible.

The EUT was configured on a table top. device and was tested with standard MP3 player connected. The modulation frequency was provided by external Test Oscillator HP 651B.

Operating frequencies :	88.1-107.9 MHz.
Clock frequencies :	7.6 MHz
Power Supply :	External 12V DC battery.

3.2 Test Run

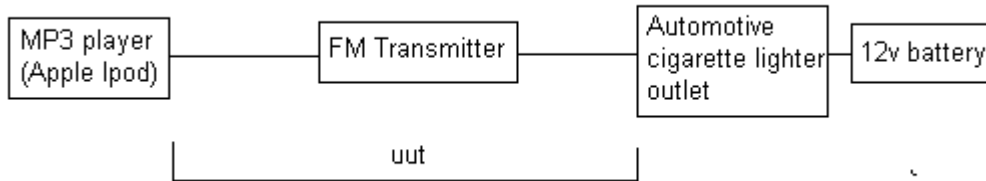
- 1) The EUT was connected through Stubby cigarette lighter connector to the 12VDC battery.
Apple Ipod, as a standard MP3 player, was connected to the appropriate input/output of the EUT;
- 2) For tests required modulation of EUT fundamental frequency, Test Oscillator HP 651B had been connected directly via clip leads to the input connector of the EUT

For test purposes the following three channels were selected for measurements :

88.1 MHz	98.1 MHz	107.9 MHz
----------	----------	-----------

Each channel had generated its frequency continuously for the duration of the testing. The above mentioned set-up allowed the article to perform sufficiently for the test purposes and required time.

3.3 Block Diagram of the Test Setup



3.4 Support Equipment List:

No	Equipment	Model	S/N (last 6)	Notes
1	HP Test Oscillator	651B	1230A08435	
2	MP3 player	A1112	5F507SL9RS9	Apple Ipod
3	Standard 12VDC battery	N/A	N/A	

3.5 Cabling Configuration

Power Cords:

Unit	HP 651B Test Oscillator
MFG	Standard
Shielded	No
Length	2 m

I / O Cables External:

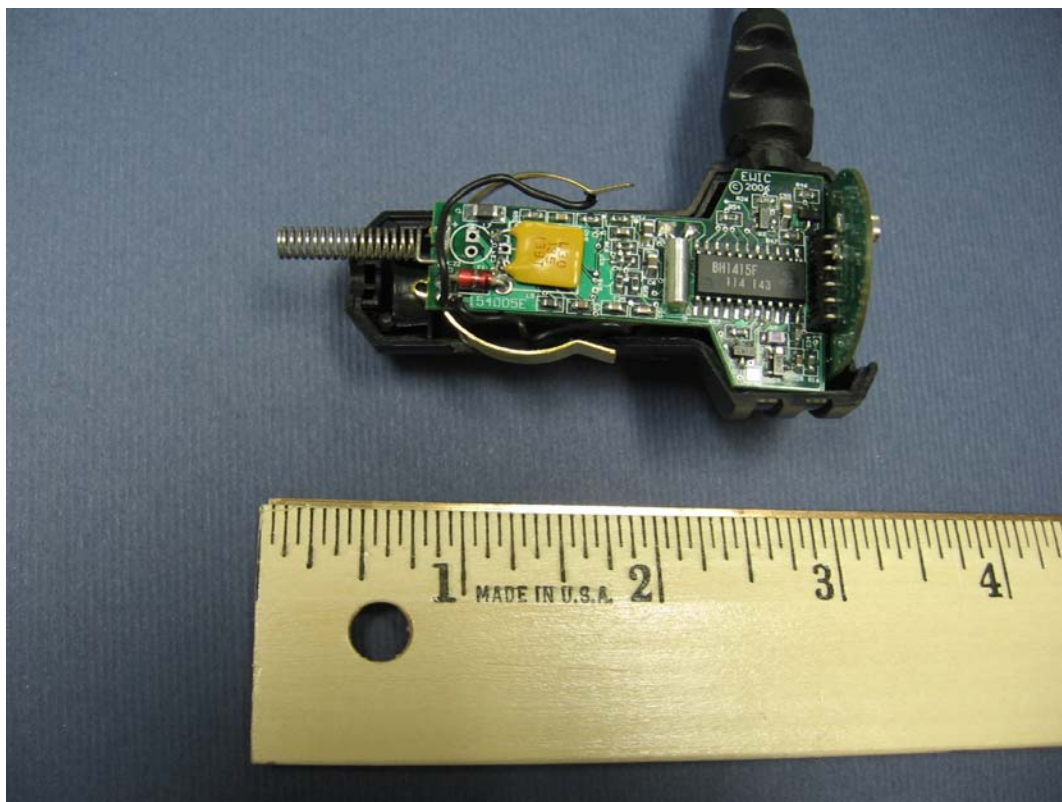
Connection	AUX In of the EUT to Out, 50 Ohm of the HP 651B
Cable	Generic 50 Ohm RF cable
Shielded?	Yes
Connector	BNC, Jack

Length 0.3 m

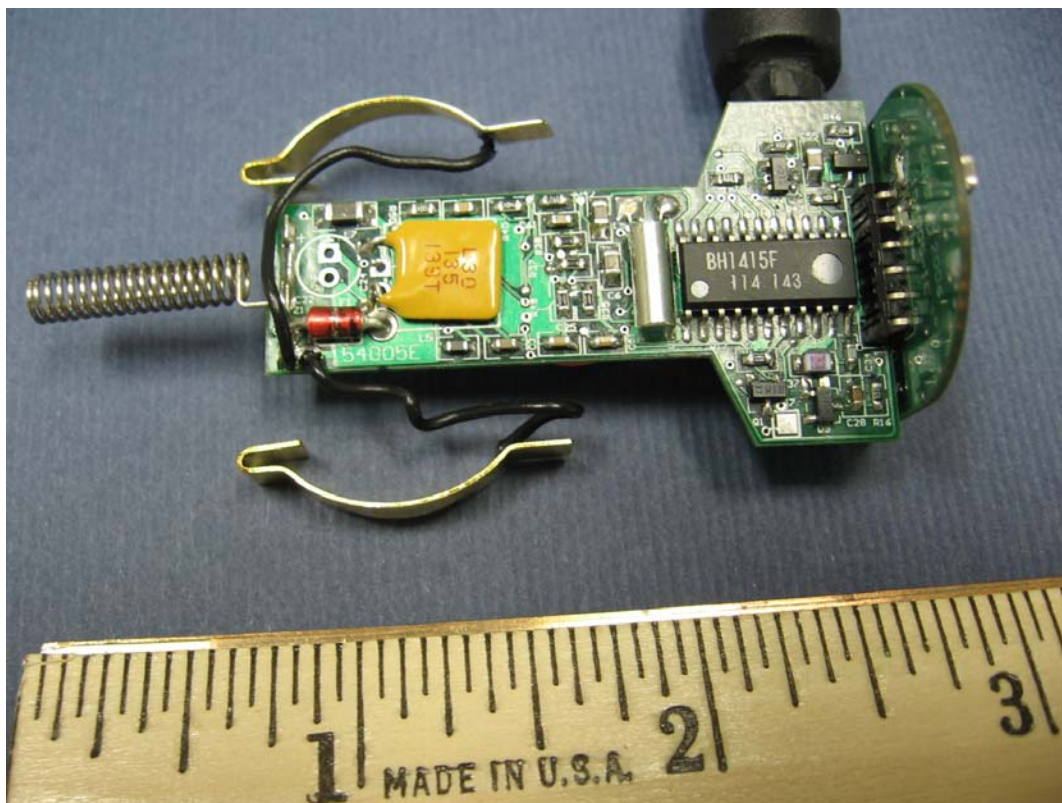
3.6 Photos of the EUT



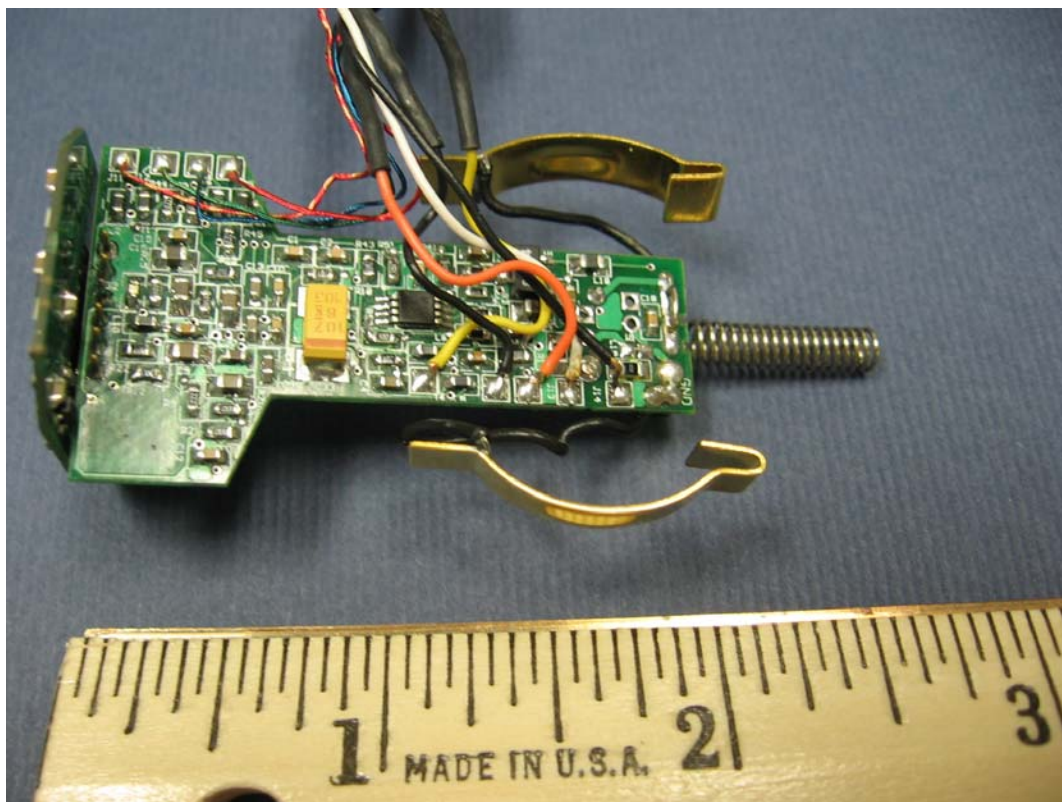
**EUT: AUDIO FM TRANSMITTER.
MODEL : RJE-169202-00**



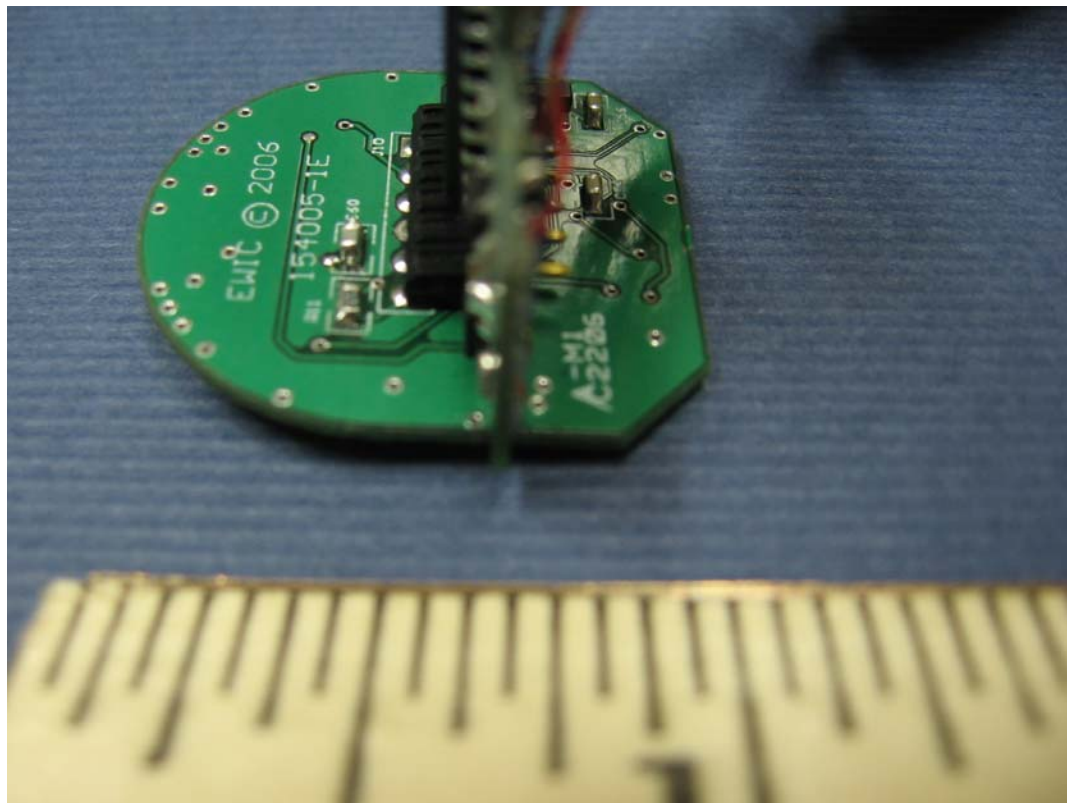
EUT: AUDIO FM TRANSMITTER.
MODEL : RJE-169202-00
FM Modulator
Open enclosure



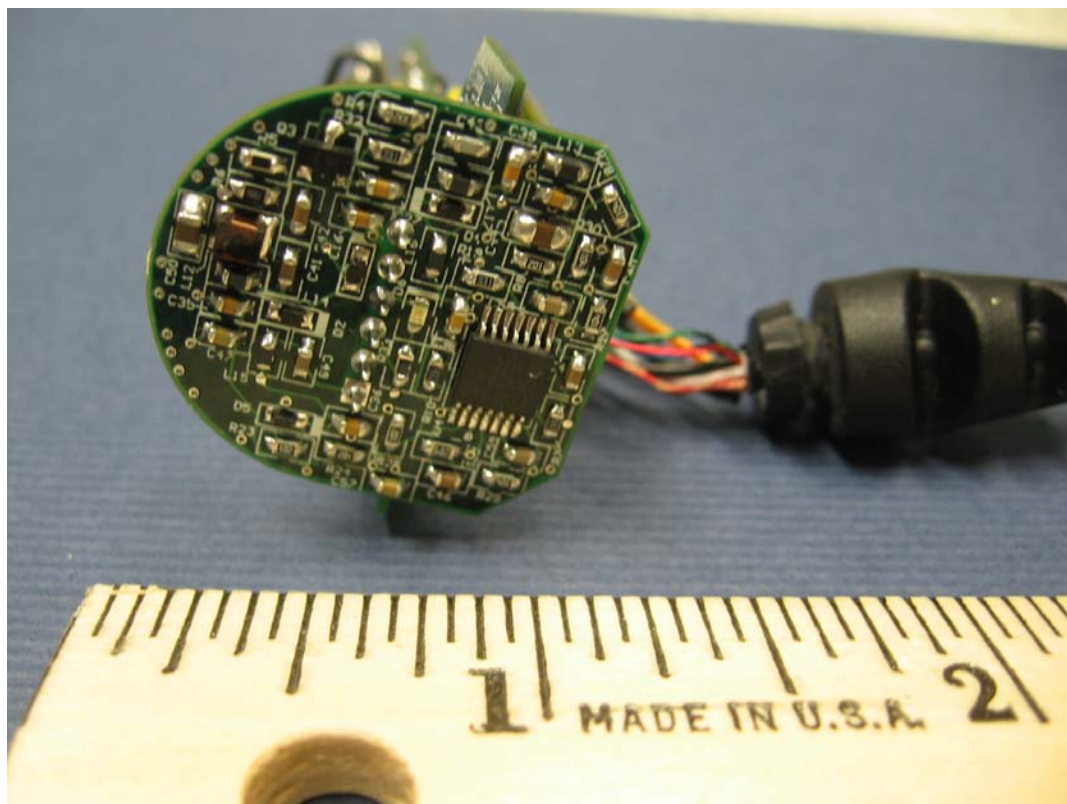
EUT: AUDIO FM TRANSMITTER.
MODEL : RJE-169202-00
FM Modulator
PCB components side



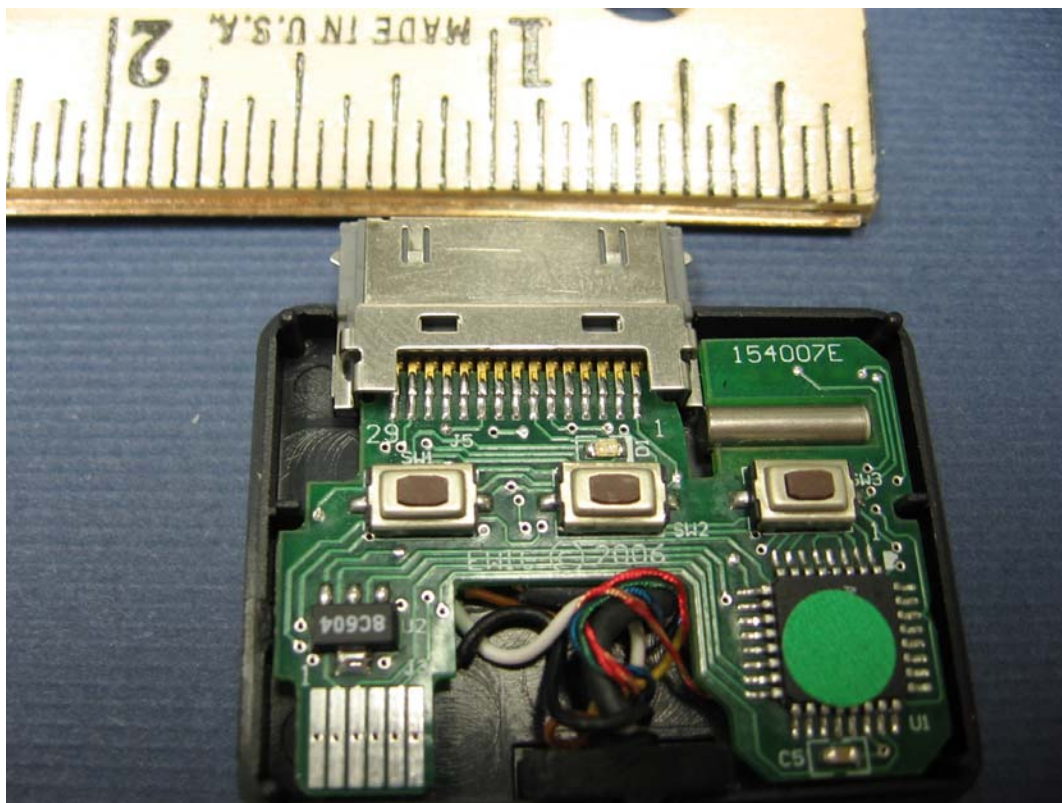
EUT: AUDIO FM TRANSMITTER.
MODEL : RJE-169202-00
FM Modulator
PCB solder side



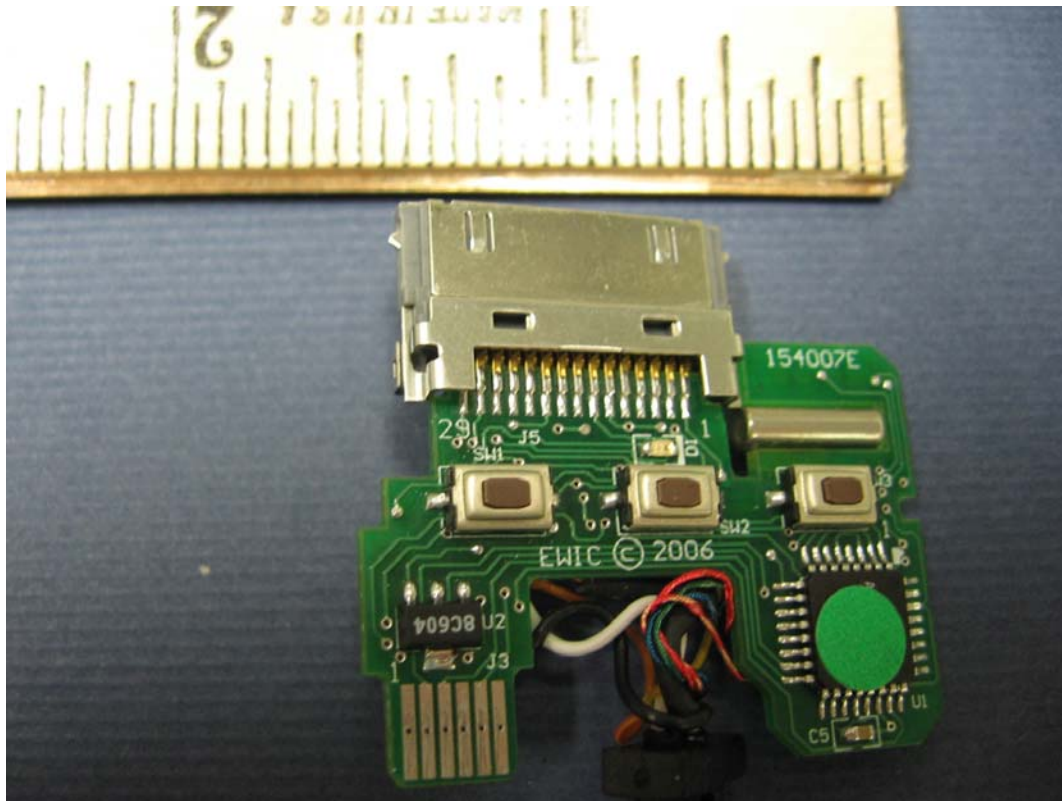
**EUT: AUDIO FM TRANSMITTER.
MODEL : RJE-169202-00
FM Modulator
PCB components side**



EUT: AUDIO FM TRANSMITTER.
MODEL : RJE-169202-00FM Modulator
PCB solder side



EUT: AUDIO FM TRANSMITTER.
MODEL : RJE-169202-00
FM Modulator connector
Open covers

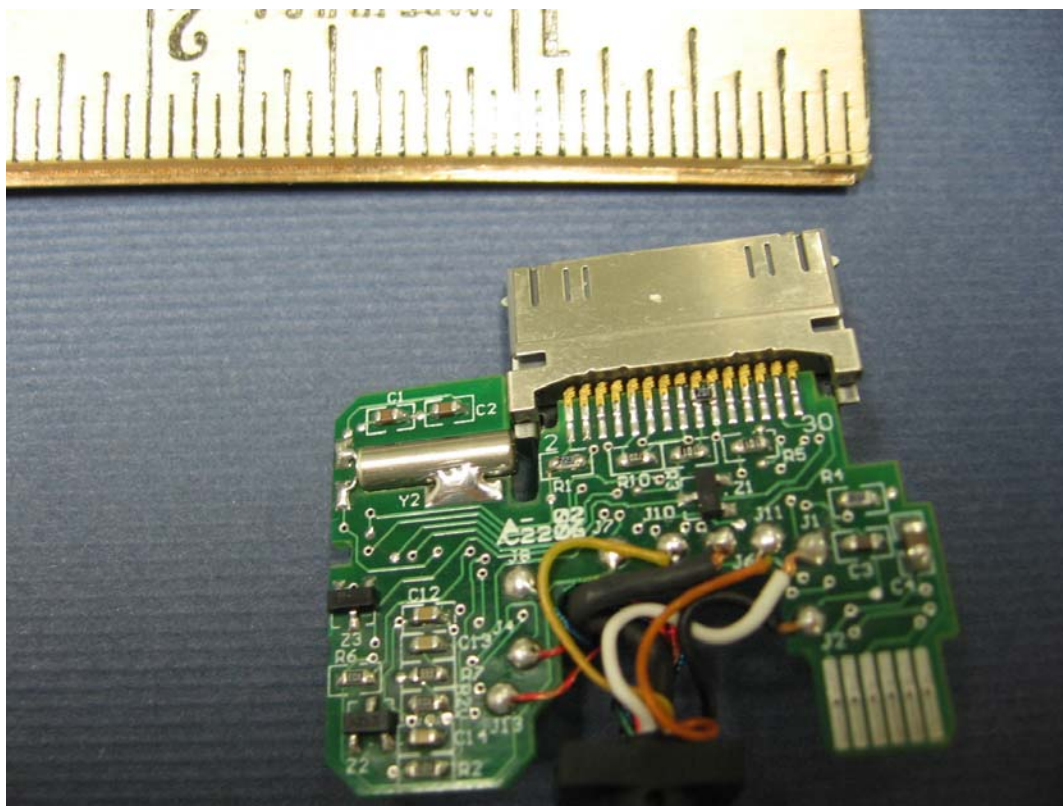


EUT: AUDIO FM TRANSMITTER.

MODEL : RJE-169202-00

FM Modulator connector

PCB components side view



EUT: AUDIO FM TRANSMITTER.
MODEL : RJE-169202-00
FM Modulator connector
PCB solder side view



**EUT: AUDIO FM TRANSMITTER.
MODEL: RJE-169202-00**

ANTENNA

3.7 EUT Modifications

N/A

3.8 Photographs of EUT Modifications

N/A

4.0 Test equipment used

Device	Model No.	Serial No.	Last Cal.	Next Cal
Cable 1	8214	CBL-006	06/21/06	06/21/07
Analyzer	HP85462A	3325A00120	04/11/06	04/11/07
Cable 2	8268	CBL-002	06/21/06	06/21/07
Preselector	HP85460A	3330A00117	04/11/06	04/11/07
Qpeak Adapter	HP85462 Internal	Internal	04/11/06	04/11/07
Pre-Amplifier	None			
Tower 1	EMCO 1050	9310-1786	N/A	N/A
Turntable 1	EMCO 1060	9409-1753	N/A	N/A
Bilog Antenna	CBL6112B	2604	08/08/05	08/08/06
DRG Horn Antenna	SAS-200/571	175	10/18/05	10/18/06
Log-Periodic Antenna	CBL6111	11167	11/01/05	11/01/06
Cable1	RG-214/U	CBL-001	06/21/06	06/21/07
Shielded Semi-Anechoic Chamber	RANTEC	N/A	N/A	N/A
Digital Oscilloscope	DL1520	26WZ0171	12/16/05	12/16/06
Temperature and Humidity Recorder	Dickson TH8-24C	5097755	09/18/05	09/18/06

5.0 Field Strength of Fundamental and Emissions within permitted band.

Test Requirements: FCC Part 15 : Subclause 15.239
Test Method: ANSI C63.4: 2003

Limit : The maximum Field Strength authorized within 200 kHz
is 250 uV/m @ 3m

Mode of operation: with and without modulation.

The test facility consists of a shielded semi-anechoic chamber with attached shielded control room. The semi-anechoic chamber is approximately 18 feet wide by 28 feet long by 19 feet high. A hybrid absorber combines high performance anechoic polyurethane foam with a ferrite tile base to achieve high levels of absorption and power dissipation capability.

The EUT had been placed at the 0.8 m height on the non-conducting table. Transmitter had been turned ON without modulation and worked at the frequencies of the selected channels.

All data was obtained via a HP 85876A EMI measurement software package using an HP 85462A Receiver which is compliant to CISPR 16. The EUT was configured in various geometric patterns to find the geometric configuration and EUT attitude that produced the largest RF power.

After determination of the maximum emissions configuration the distance of the EUT to the scanning antenna was set to 3 meters.

At each of three selected channels 88.1 MHz, 98.1MHz, and 107.9 MHz
Field Strength of Emissions had been measured.

Measurements expanded uncertainty equals 3.7 dB with 95% confidence level.

Field Level (dBuV)=Measured Value(dBuV) +Antenna Factor(dB)+Cable Loss (dB)

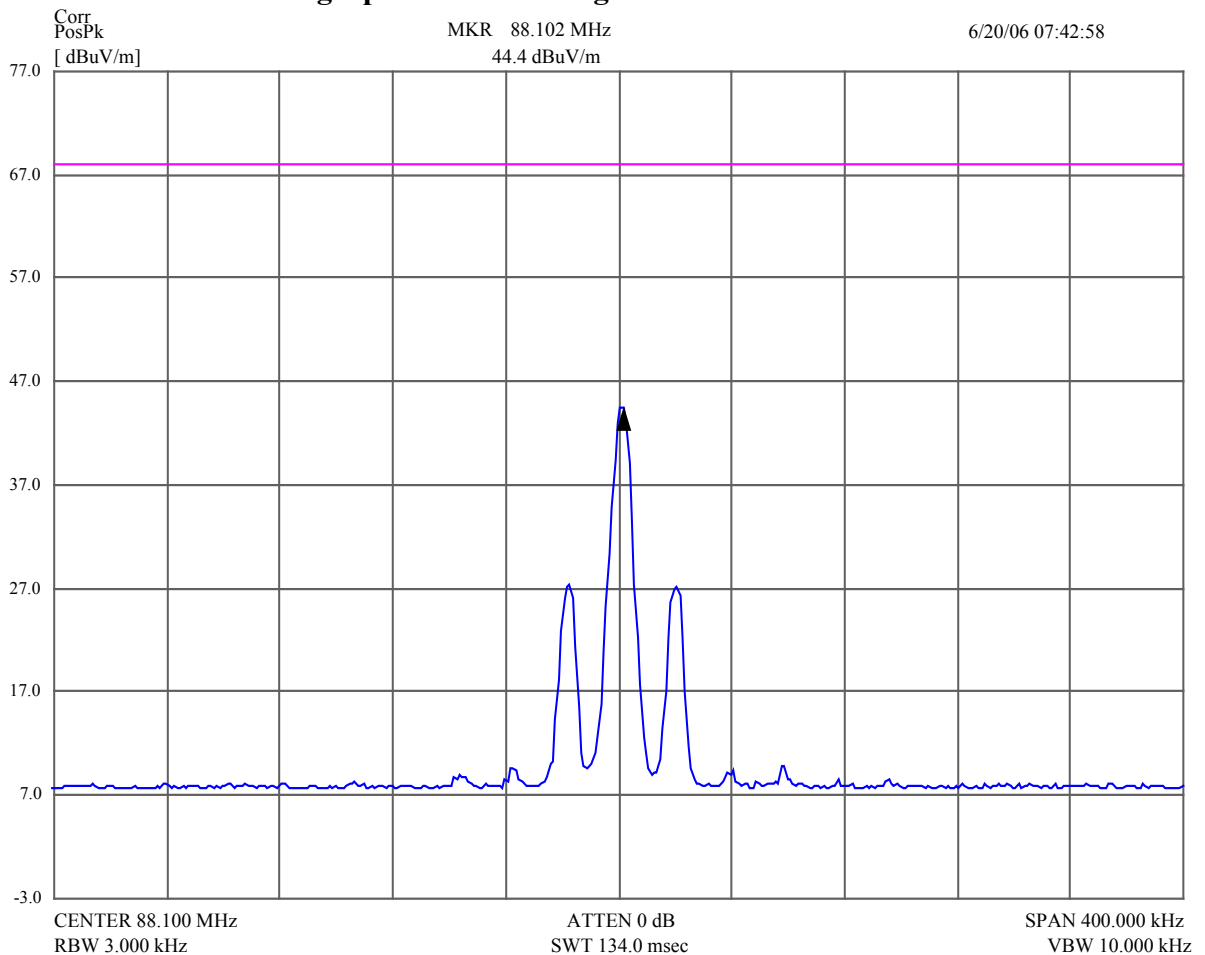
5.1. Channel 88.1 MHz

5.1.1 no modulation

Peak value data

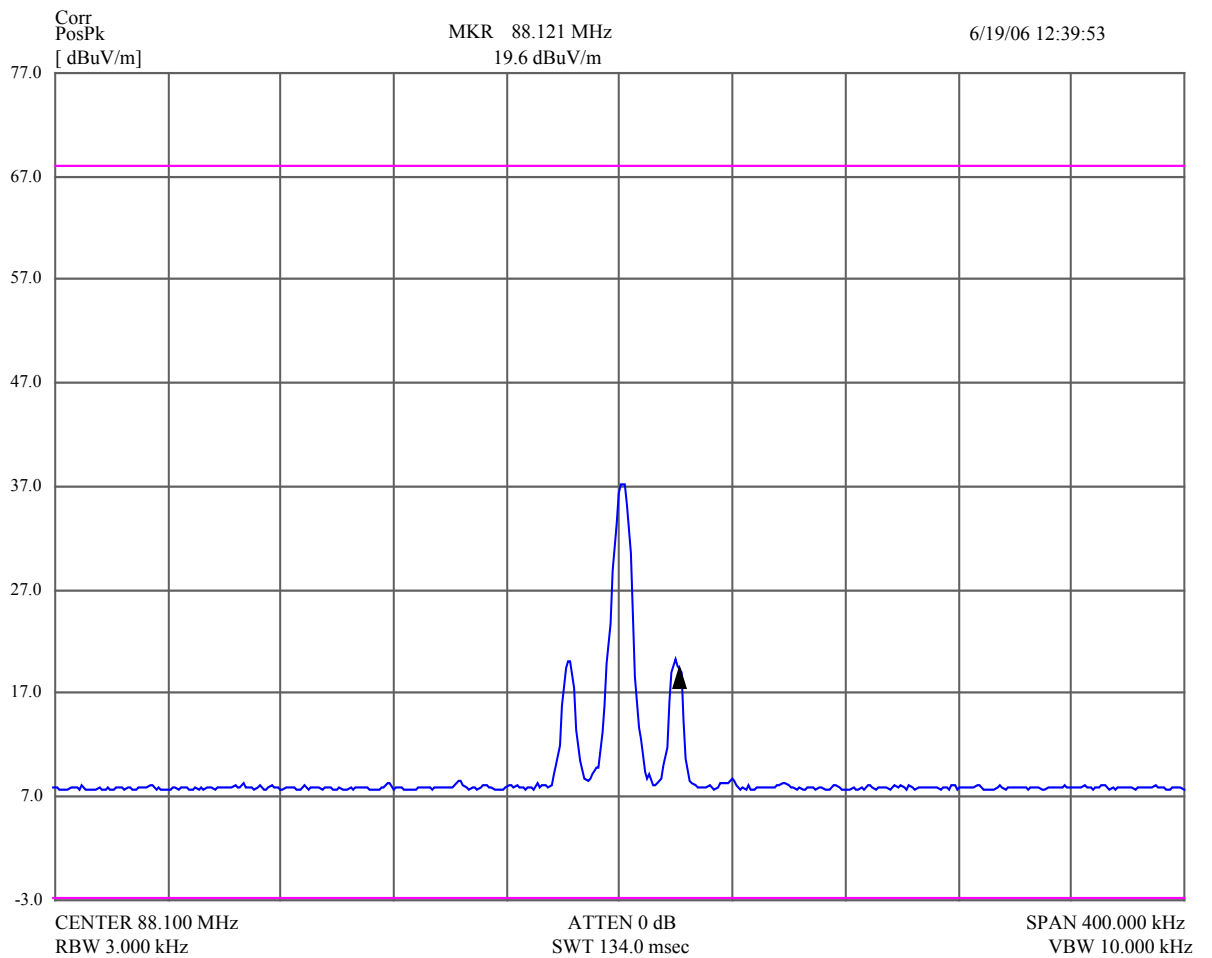
Frequency MHz	Peak dBuV/m	Peak Lmt dBuV/m	DelLim-Pk dB	Pol	Hgt cm	Angle deg	Status
88.082000	27.15	68.00	-40.85	Horz	213	352	PASS
88.102000	44.41	68.00	-23.59	Horz	213	352	PASS
88.121000	27.02	68.00	-40.98	Horz	213	352	PASS

Receiver graph of Field Strength of Emissions at 3 m



Frequency MHz	Peak dBuV/m	Peak Lmt dBuV/m	DelLim-Pk dB	Pol	Hgt cm	Angle deg	Status
88.082000	19.95	68.00	-48.05	Vert	299	275	PASS
88.102000	37.09	68.00	-30.91	Vert	299	275	PASS
88.121000	19.64	68.00	-48.36	Vert	299	275	PASS

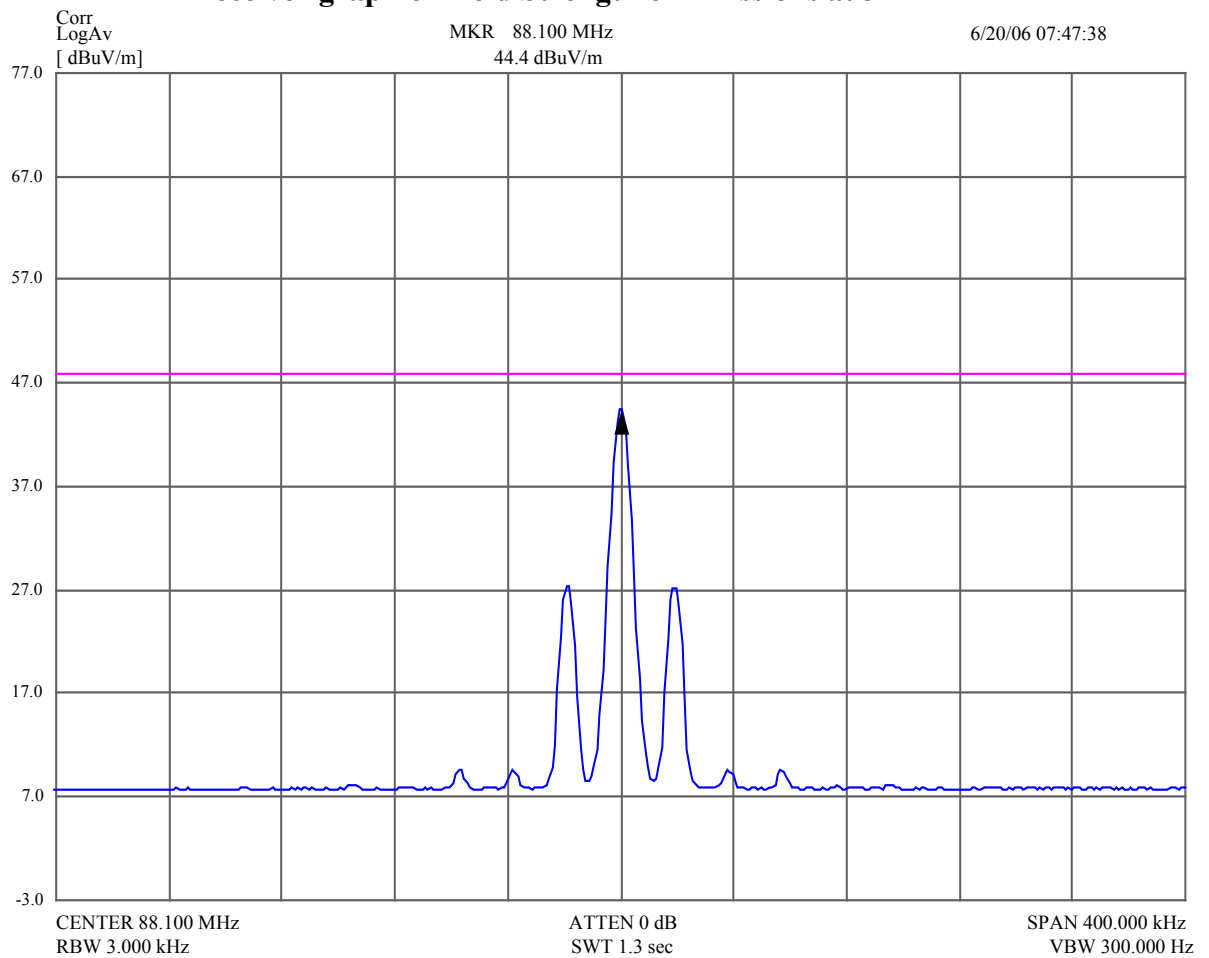
Receiver graph of Field Strength of Emissions at 3 m



Average value data

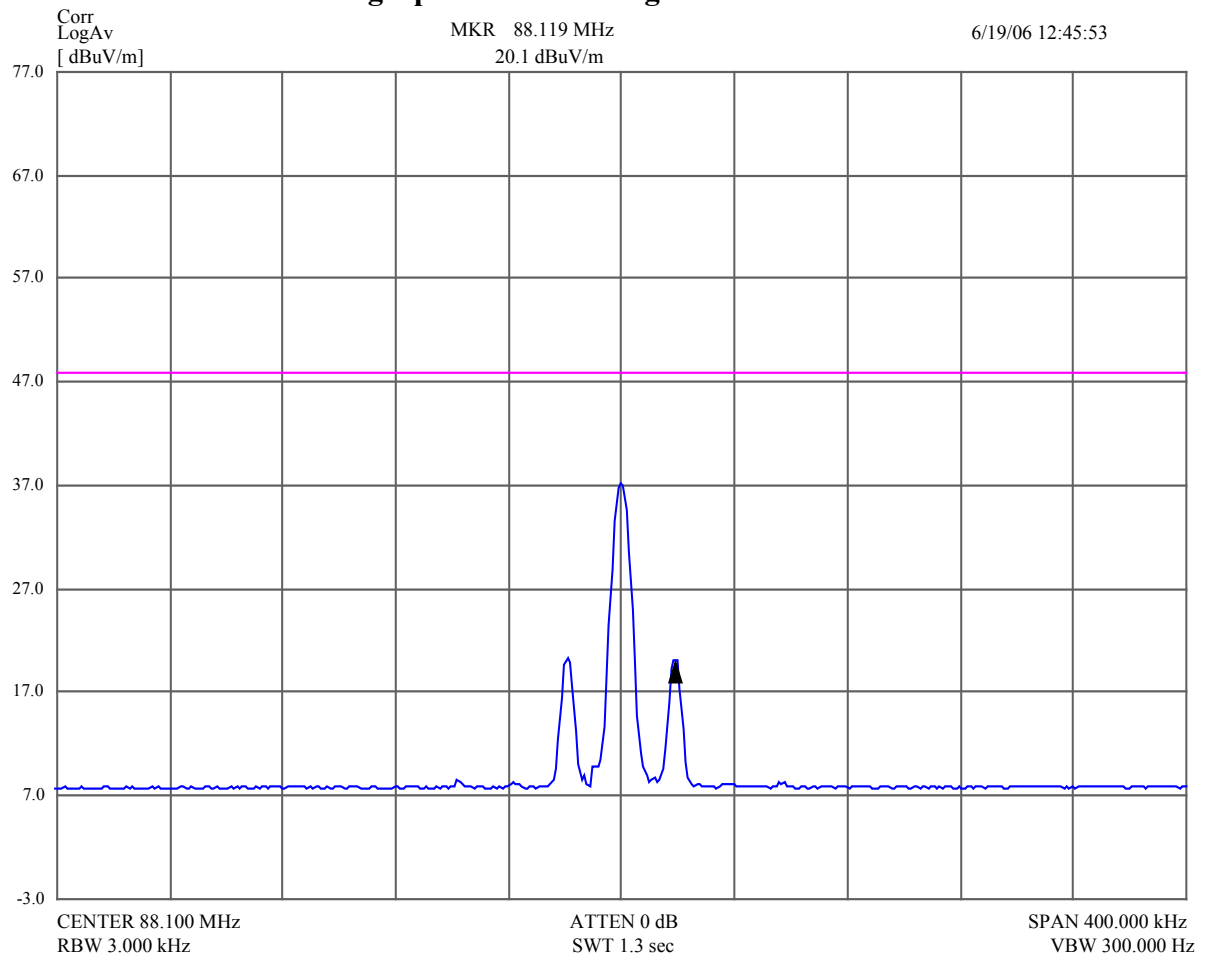
Frequency MHz	Avg dBuV/m	Avg Lmt dBuV/m	DelLim-Avg dB	Pol	Hgt cm	Angle deg	Status
88.081000	27.32	48.00	-20.68	Horz	213	352	PASS
88.100000	44.37	48.00	-3.63	Horz	213	352	PASS
88.119000	27.10	48.00	-20.90	Horz	213	352	PASS

Receiver graph of Field Strength of Emissions at 3 m



Frequency MHz	Avg dBuV/m	Avg Lmt dBuV/m	DelLim-Avg dB	Pol	Hgt cm	Angle deg	Status
88.081000	20.15	48.00	-27.85	Vert	299	275	PASS
88.100000	37.20	48.00	-10.80	Vert	299	275	PASS
88.119000	20.08	48.00	-27.92	Vert	299	275	PASS

Receiver graph of Field Strength of Emissions at 3 m

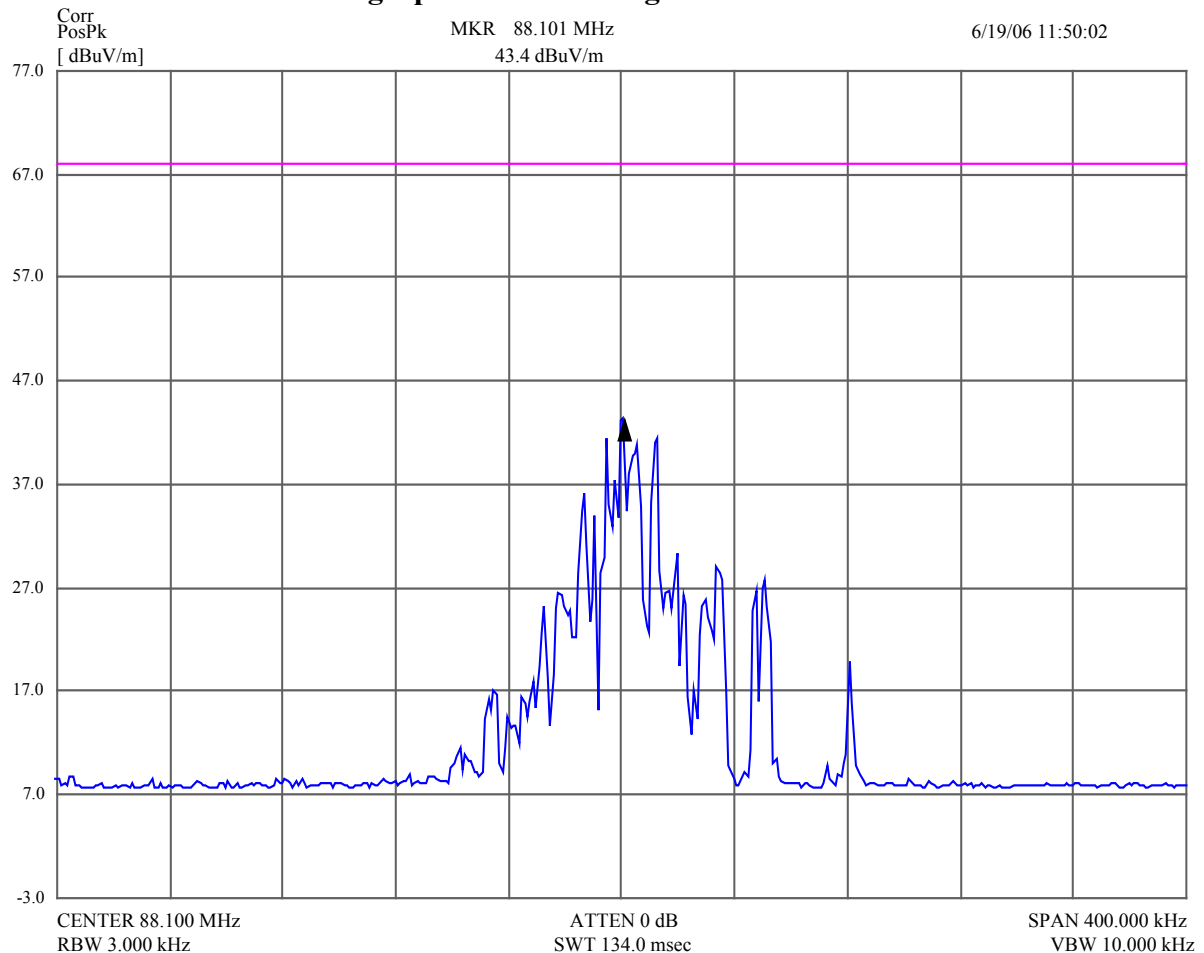


5.1.2 with modulation

Peak value data

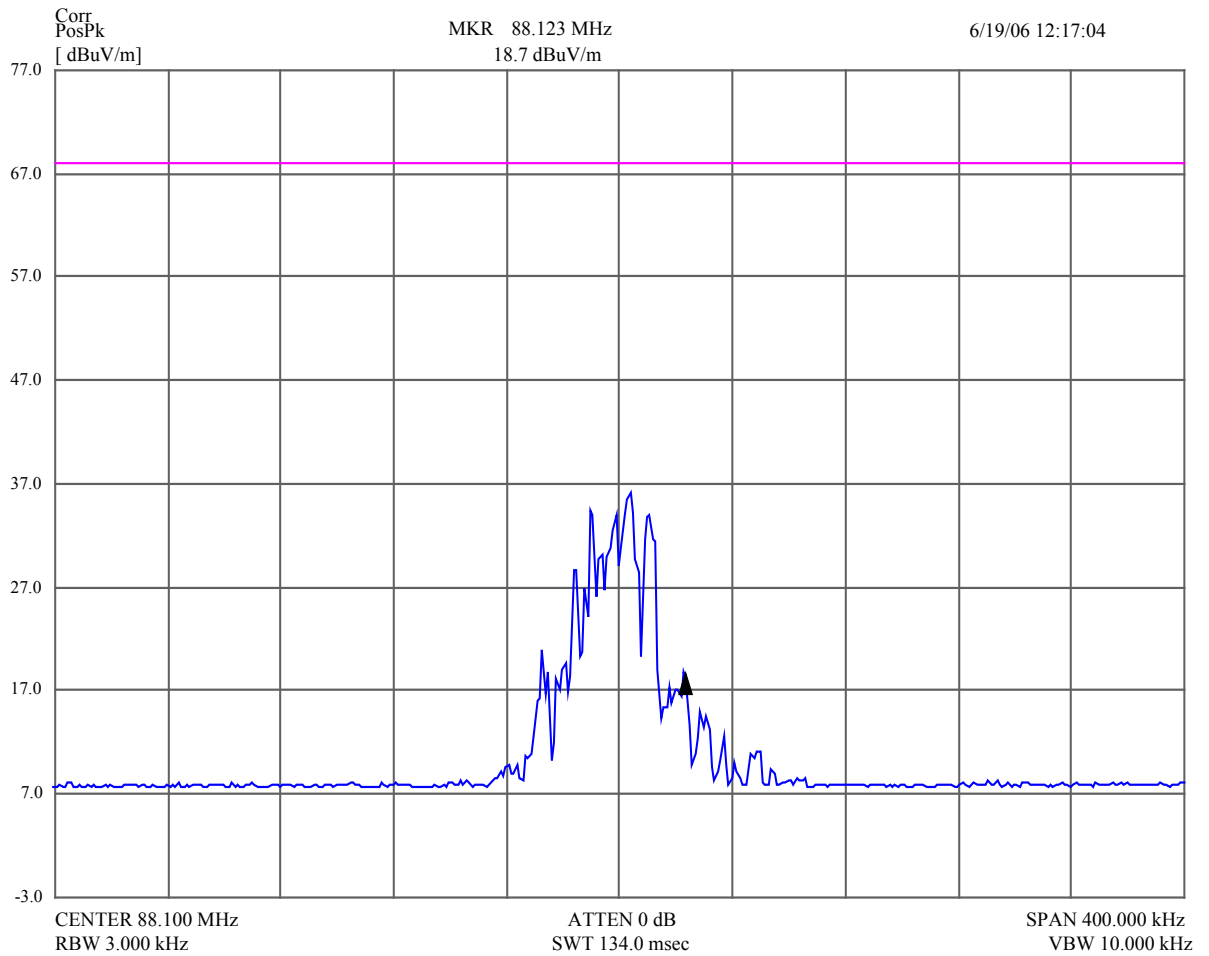
Frequency MHz	Peak dBuV/m	Peak Lmt dBuV/m	DelLim-Pk dB	Pol	Hgt cm	Angle deg	Status
88.087000	36.06	68.00	-31.94	Horz	213	352	PASS
88.101000	43.40	68.00	-24.60	Horz	213	352	PASS
88.112000	40.90	68.00	-27.10	Horz	213	352	PASS
88.134000	28.99	68.00	-39.01	Horz	213	352	PASS
88.150000	26.88	68.00	-41.12	Horz	213	352	PASS

Receiver graph of Field Strength of Emissions at 3 m



Frequency MHz	Peak dBuV/m	Peak Lmt dBuV/m	DelLim-Pk dB	Pol	Hgt cm	Angle deg	Status
88.084000	28.47	68.00	-39.53	Vert	299	275	PASS
88.090000	34.36	68.00	-33.64	Vert	299	275	PASS
88.104000	36.04	68.00	-31.96	Vert	299	275	PASS
88.123000	18.74	68.00	-49.26	Vert	299	275	PASS

Receiver graph of Field Strength of Emissions at 3 m



CENTER 88.100 MHz
RBW 3.000 kHz

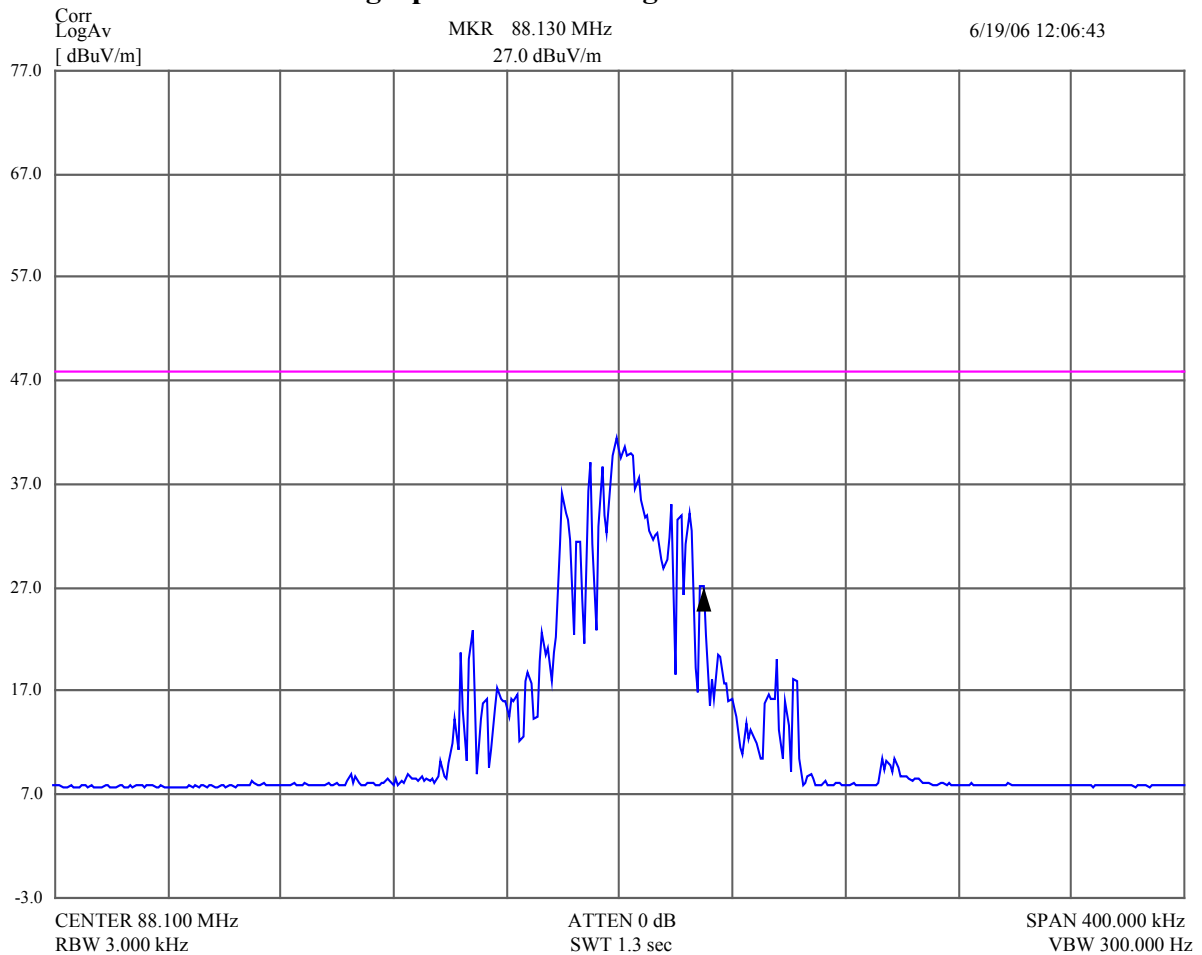
ATTEN 0 dB
SWT 134.0 msec

SPAN 400.000 kHz
VBW 10.000 kHz

Average value data

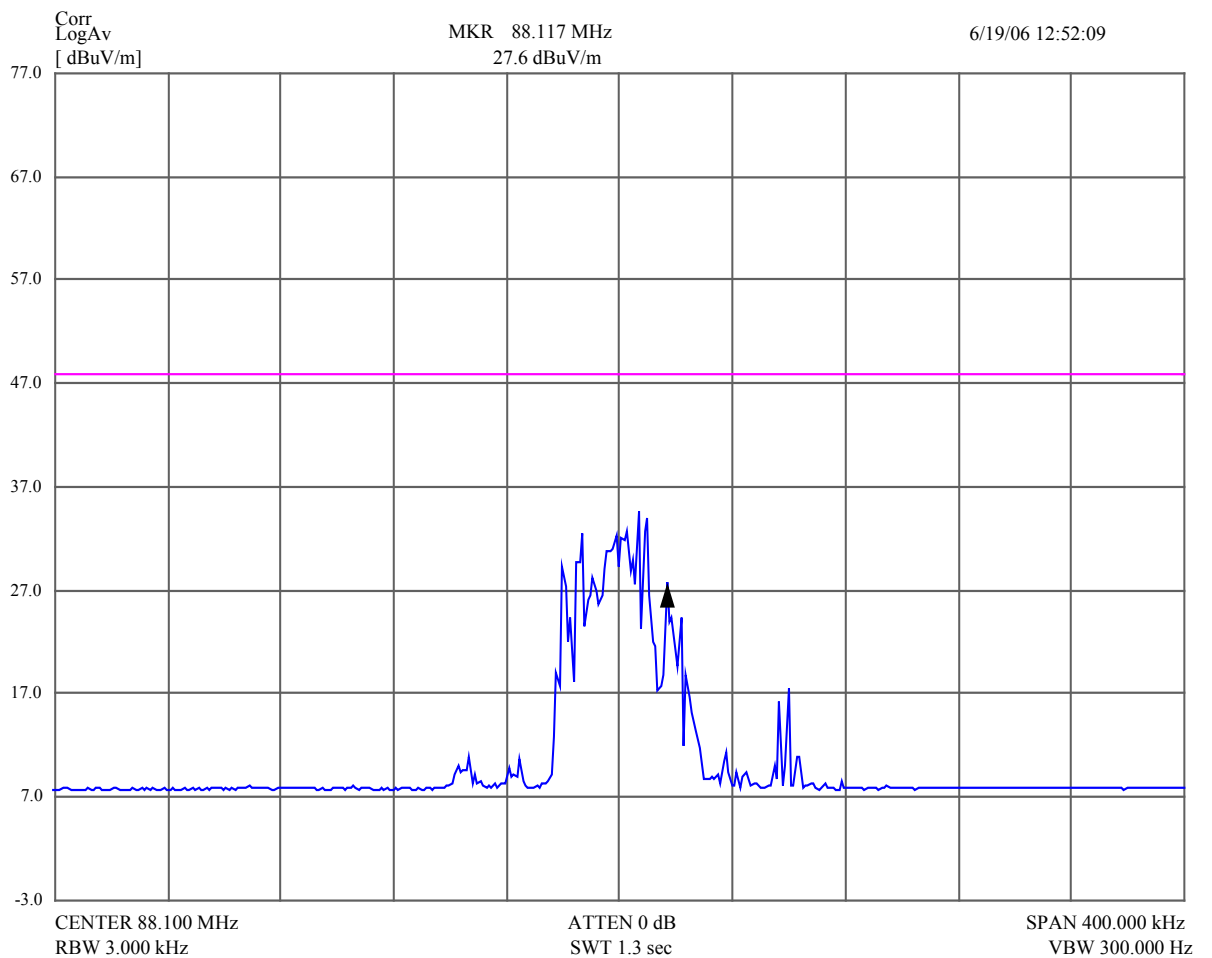
Frequency MHz	Avg dBuV/m	Avg Lmt dBuV/m	DelLim-Avg dB	Pol	Hgt cm	Angle deg	Status
88.080000	36.04	48.00	-11.96	Horz	213	352	PASS
88.090000	39.00	48.00	-9.00	Horz	213	352	PASS
88.099000	41.35	48.00	-6.65	Horz	213	352	PASS
88.119000	34.94	48.00	-13.06	Horz	213	352	PASS
88.130000	27.04	48.00	-20.96	Horz	213	352	PASS

Receiver graph of Field Strength of Emissions at 3 m



Frequency MHz	Avg dBuV/m	Avg Lmt dBuV/m	DelLim-Avg dB	Pol	Hgt cm	Angle deg	Status
88.080000	29.27	48.00	-18.73	Vert	299	275	PASS
88.091000	28.17	48.00	-19.83	Vert	299	275	PASS
88.099000	32.24	48.00	-15.76	Vert	299	275	PASS
88.107000	34.45	48.00	-13.55	Vert	299	275	PASS

Receiver graph of Field Strength of Emissions at 3 m



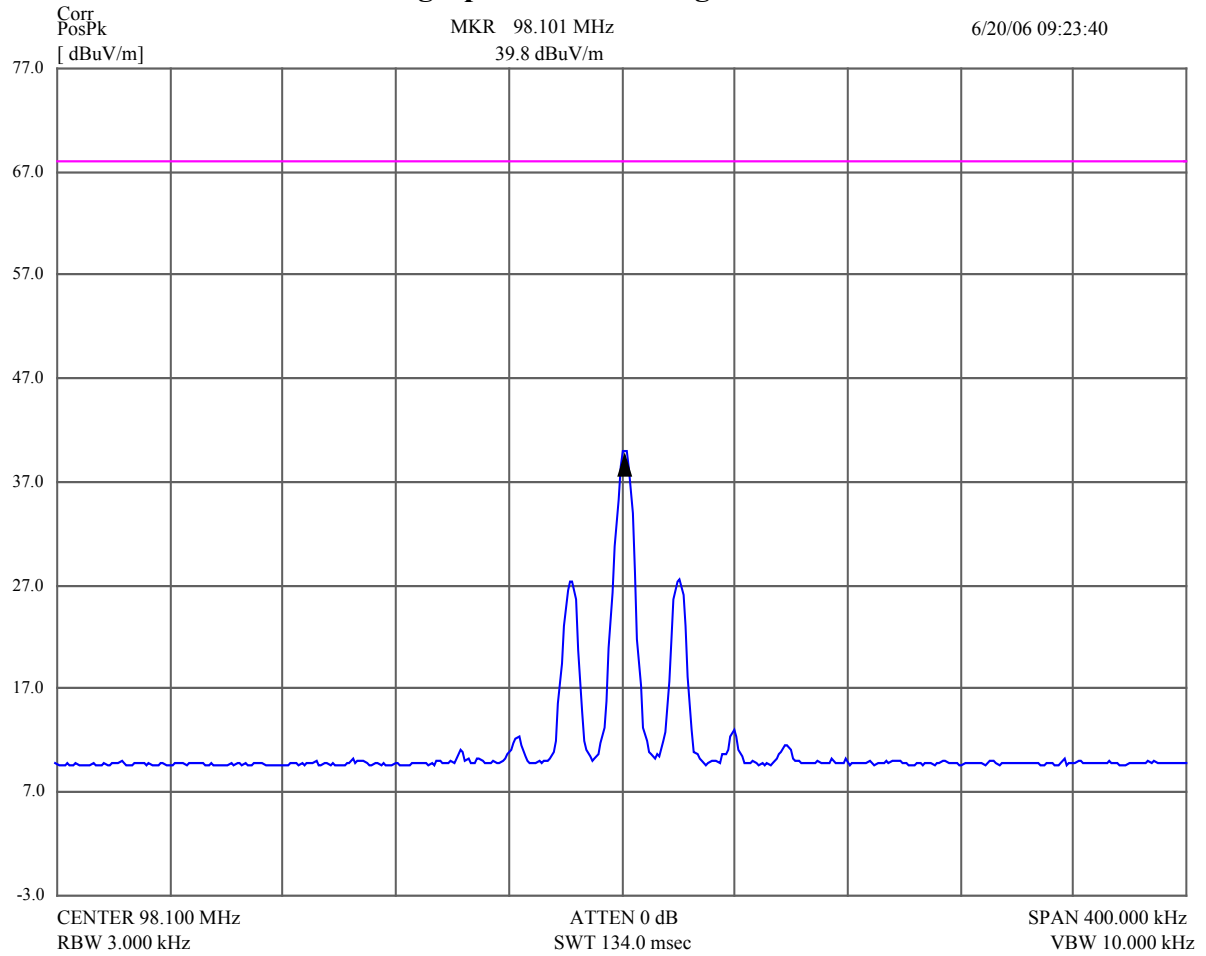
5.2. Channel 98.1 MHz

5.2.1 no modulation

Peak value data

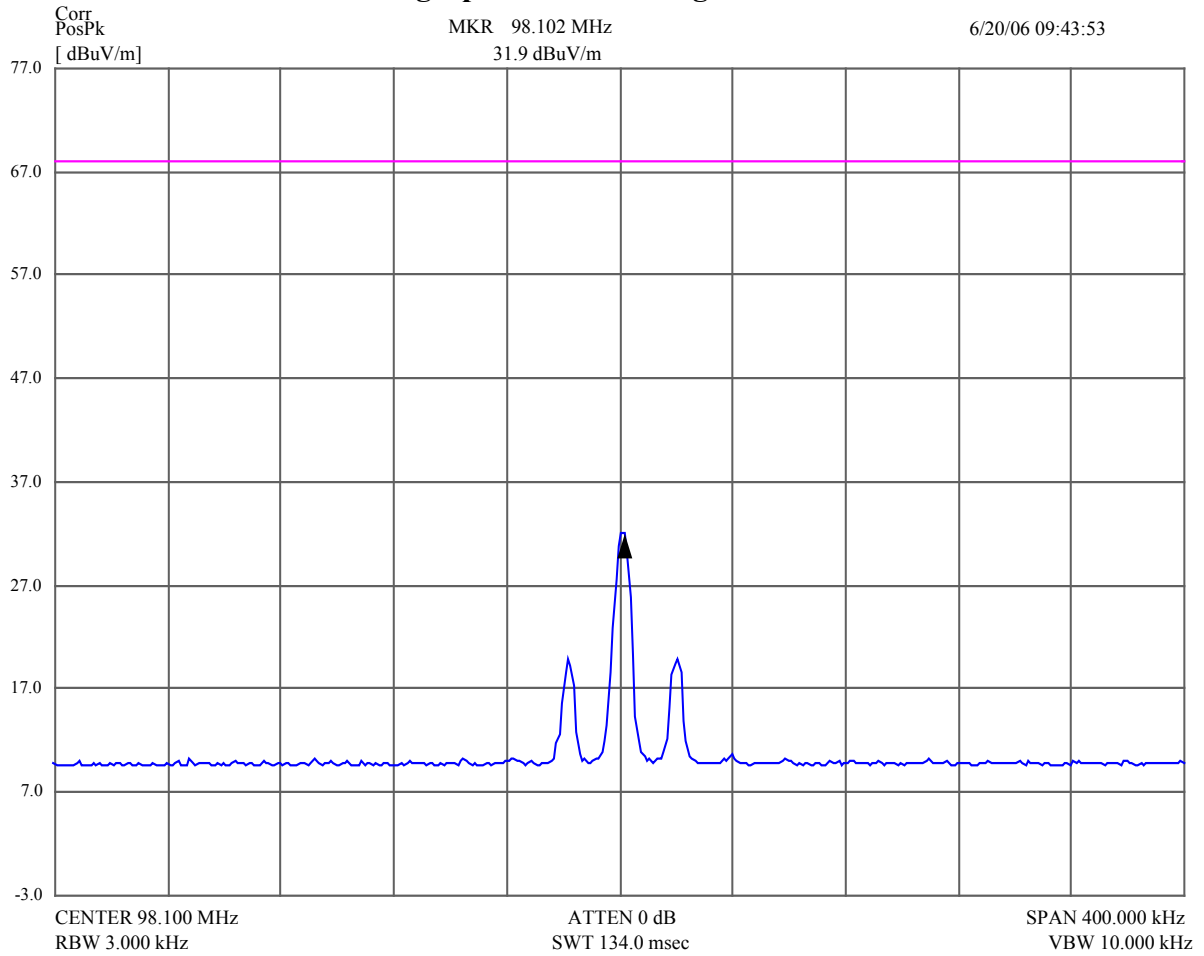
Frequency MHz	Peak dBuV/m	Peak Lmt dBuV/m	DelLim-Pk dB	Pol	Hgt cm	Angle deg	Status
98.082000	27.30	68.00	-40.70	Horz	266	352	PASS
98.102000	39.79	68.00	-28.21	Horz	266	352	PASS
98.120000	27.34	68.00	-40.66	Horz	266	352	PASS

Receiver graph of Field Strength of Emission at 3 m



Frequency MHz	Peak dBuV/m	Peak Lmt dBuV/m	DelLim-Pk dB	Pol	Hgt cm	Angle deg	Status
98.081000	19.50	68.00	-48.50	Vert	361	281	PASS
98.100000	31.94	68.00	-36.06	Vert	361	281	PASS
98.119000	19.30	68.00	-48.70	Vert	361	281	PASS

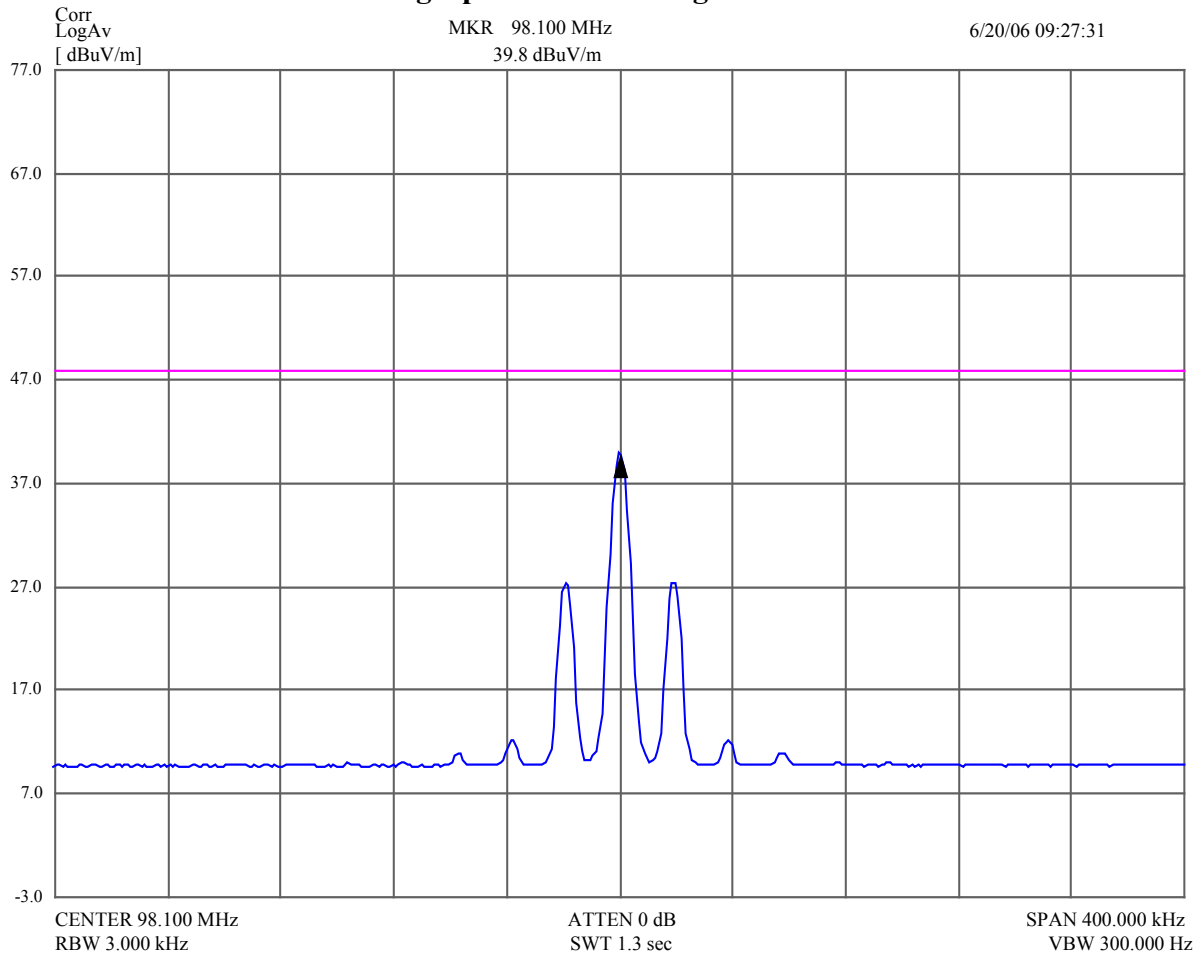
Receiver graph of Field Strength of Emission at 3 m



Average value data

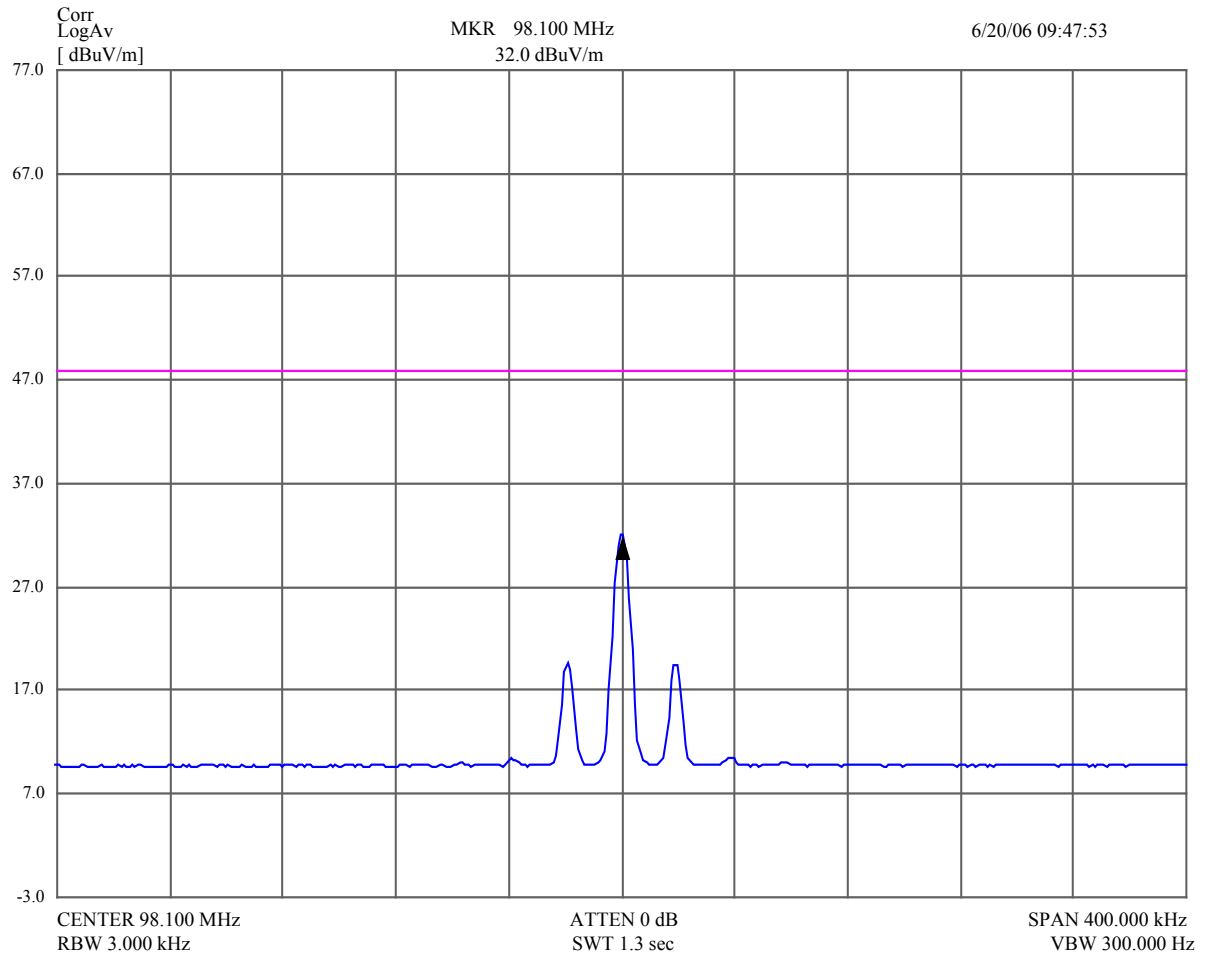
Frequency MHz	Avg dBuV/m	Avg Lmt dBuV/m	DelLim-Avg dB	Pol	Hgt cm	Angle deg	Status
98.081000	27.26	48.00	-20.74	Horz	266	352	PASS
98.100000	39.79	48.00	-8.21	Horz	266	352	PASS
98.119000	27.29	48.00	-20.71	Horz	266	352	PASS

Receiver graph of Field Strength of Emission at 3 m



Frequency MHz	Avg dBuV/m	Avg Lmt dBuV/m	DelLim-Avg dB	Pol	Hgt cm	Angle deg	Status
98.081000	19.50	48.00	-28.50	Vert	361	281	PASS
98.100000	31.96	48.00	-16.04	Vert	361	281	PASS
98.120000	19.40	48.00	-28.60	Vert	361	281	PASS

Receiver graph of Field Strength of Emission at 3 m



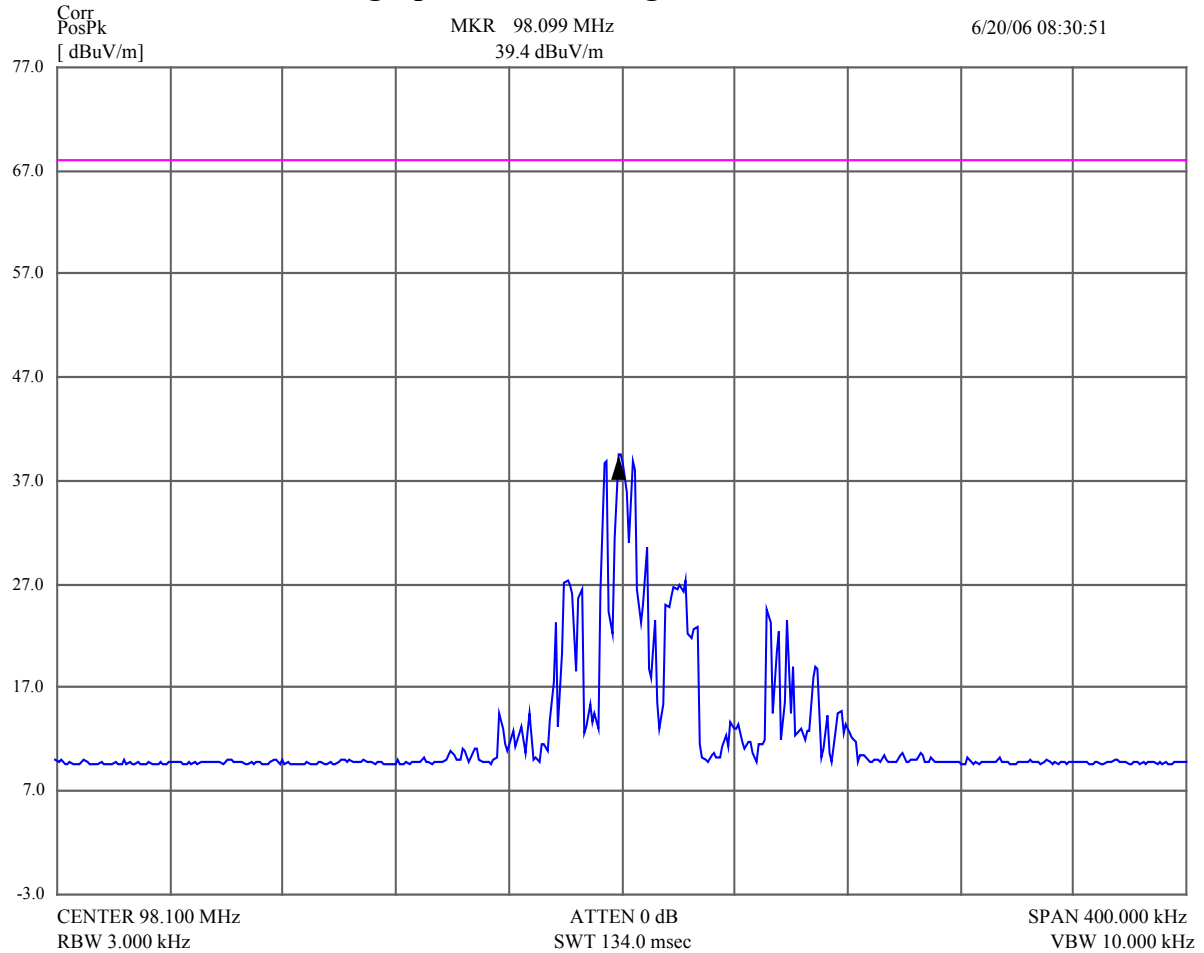
5.2.2 with modulation

Peak value data

Frequency MHz	Peak dBuV/m	Peak Lmt dBuV/m	DelLim-Pk dB	Pol	Hgt cm	Angle deg	Status
98.080000	27.07	68.00	-40.93	Horz	230	352	PASS
98.100000	39.45	68.00	-28.55	Horz	230	352	PASS

98.109000	30.53	68.00	-37.47	Horz	230	352	PASS
98.123000	27.17	68.00	-40.83	Horz	230	352	PASS

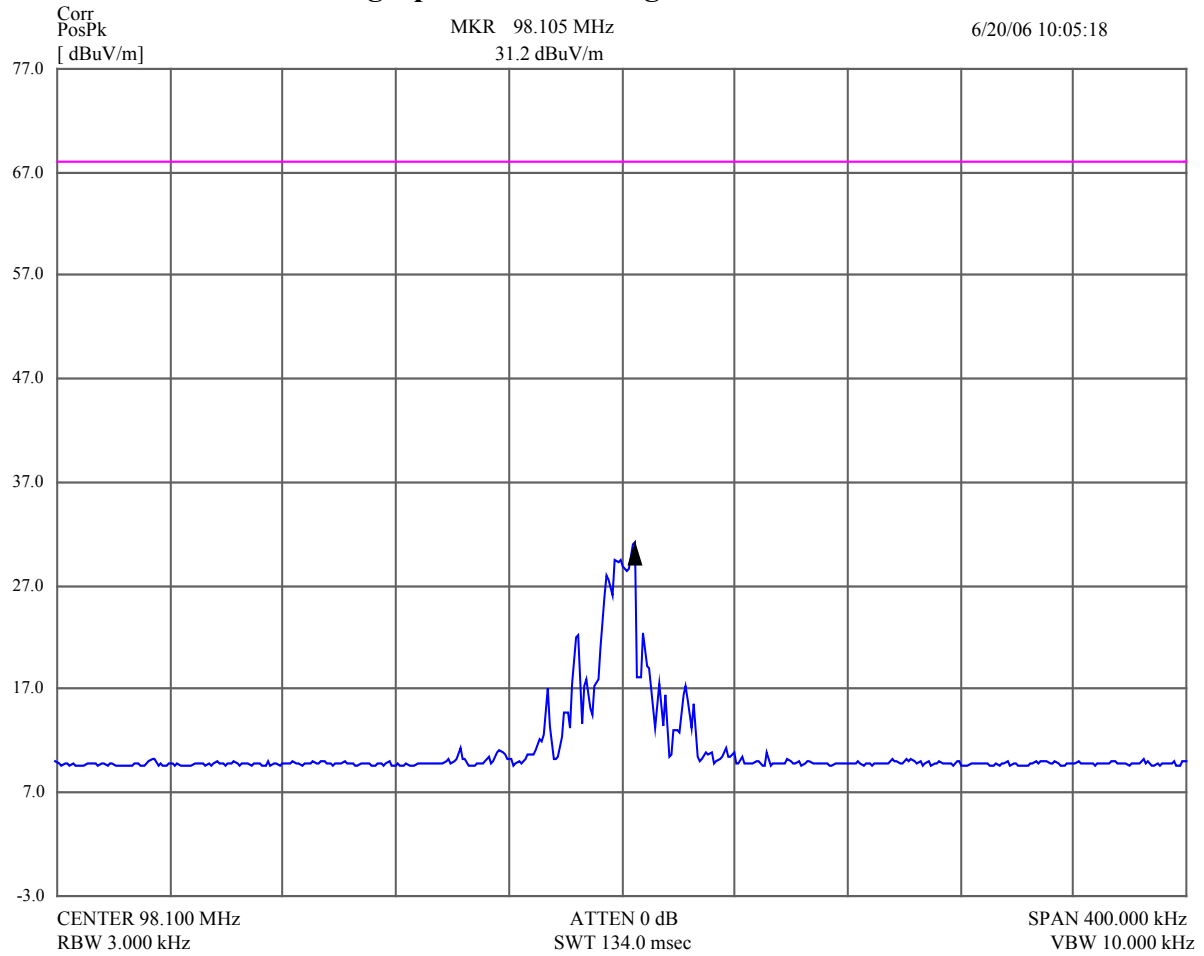
Receiver graph of Field Strength of Emissions at 3 m



Peak value data

Frequency MHz	Peak dBuV/m	Peak Lmt dBuV/m	DelLim-Pk dB	Pol	Hgt cm	Angle deg	Status
98.084000	21.84	68.00	-46.16	Vert	361	281	PASS
98.098000	29.49	68.00	-38.51	Vert	361	281	PASS
98.105000	31.21	68.00	-36.79	Vert	361	281	PASS
98.108000	22.38	68.00	-45.62	Vert	361	281	PASS

Receiver graph of Field Strength of Emissions at 3 m

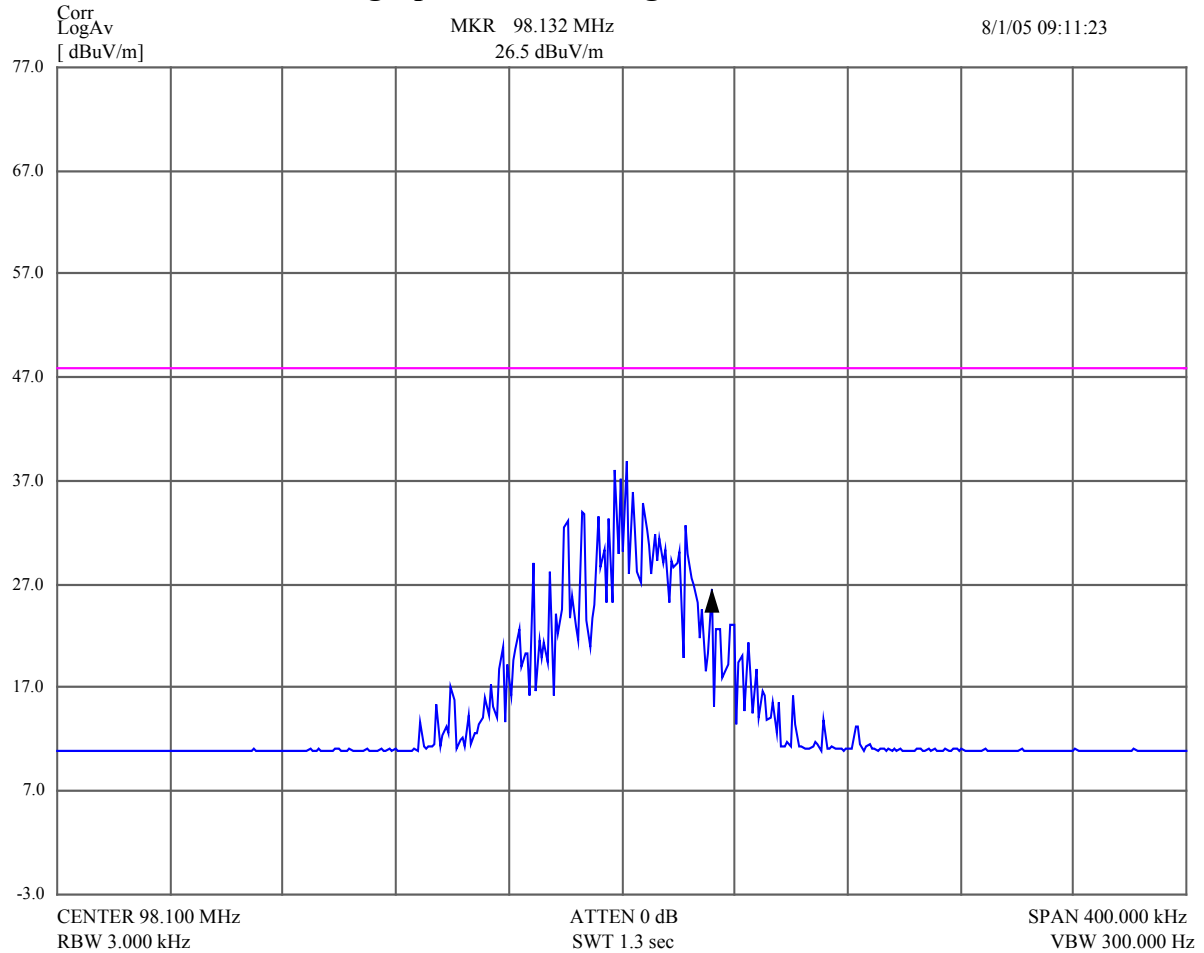


Average value data

Frequency MHz	Avg dBuV/m	Avg Lmt dBuV/m	DelLim-Avg dB	Pol	Hgt cm	Angle deg	Status
98.069000	28.97	48.00	-19.03	Horz	271	251	PASS
98.080000	32.50	48.00	-15.50	Horz	271	251	PASS
98.092000	33.51	48.00	-14.49	Horz	271	251	PASS
98.102000	38.79	48.00	-9.21	Horz	271	251	PASS

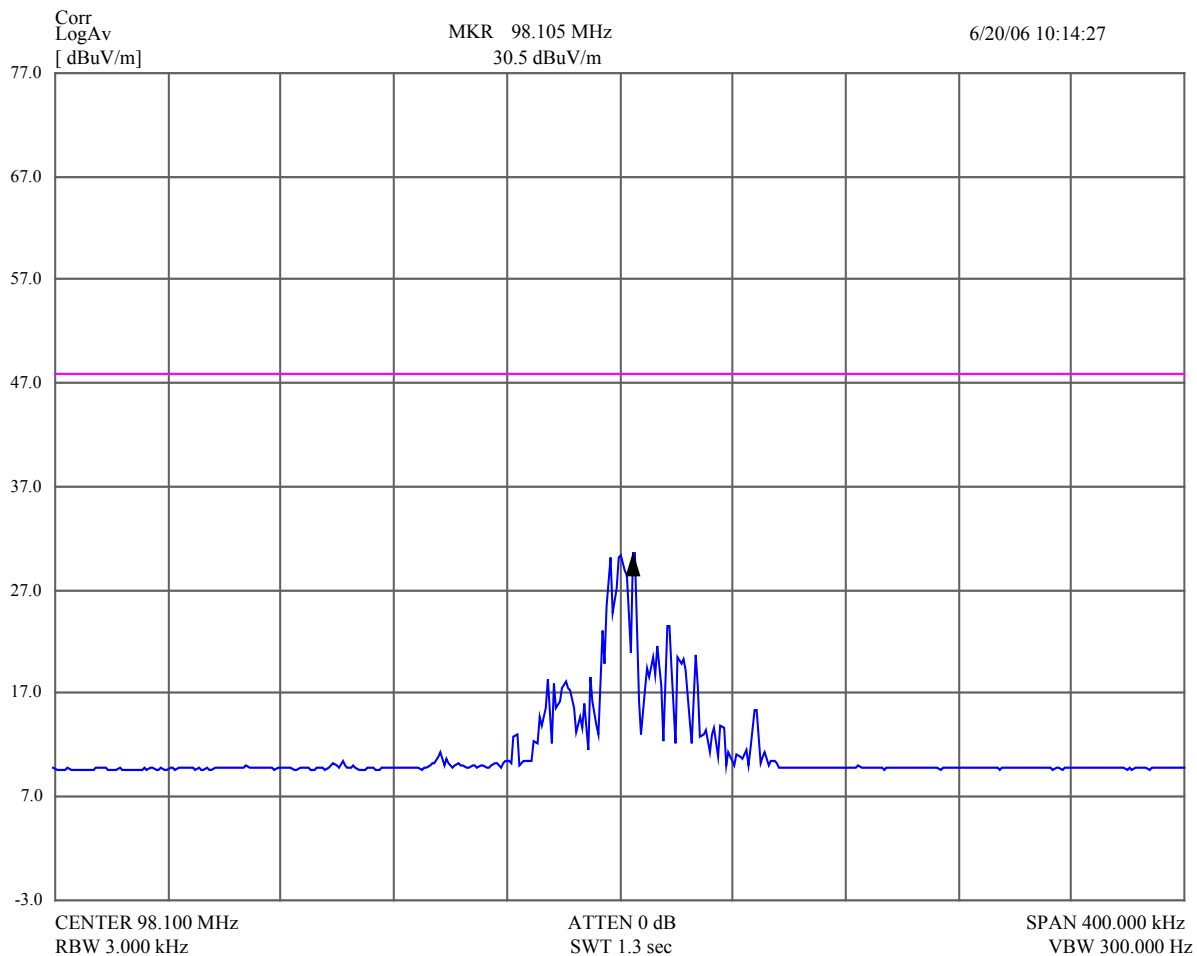
98.123000	32.56	48.00	-15.44	Horz	271	251	PASS
98.132000	26.49	48.00	-21.51	Horz	271	251	PASS

Receiver graph of Field Strength of Emissions at 3 m



Frequency MHz	Avg dBuV/m	Avg Lmt dBuV/m	DelLim-Avg dB	Pol	Hgt cm	Angle deg	Status
98.097000	30.03	48.00	-17.97	Vert	361	281	PASS
98.106000	30.57	48.00	-17.43	Vert	361	281	PASS
98.117000	23.32	48.00	-24.68	Vert	361	281	PASS
98.127000	20.72	48.00	-27.28	Vert	361	281	PASS

Receiver graph of Field Strength of Emissions at 3 m



5.3. Channel 107.9 MHz

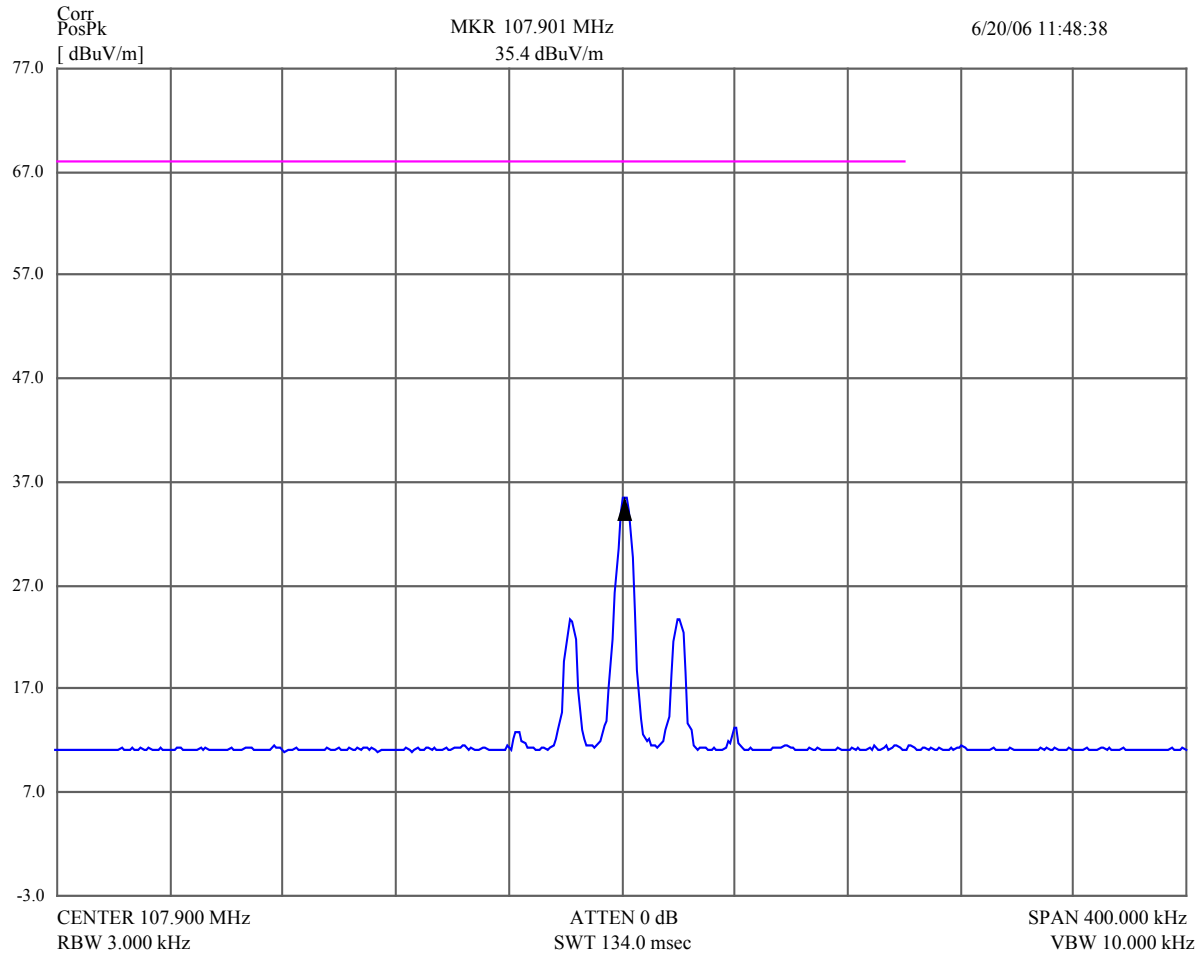
5.3.1 no modulation

Peak value data

Frequency	Peak	Peak Lmt	DelLim-Pk	Pol	Hgt	Angle	Status
MHz	dBuV/m	dBuV/m	dB		cm	deg	

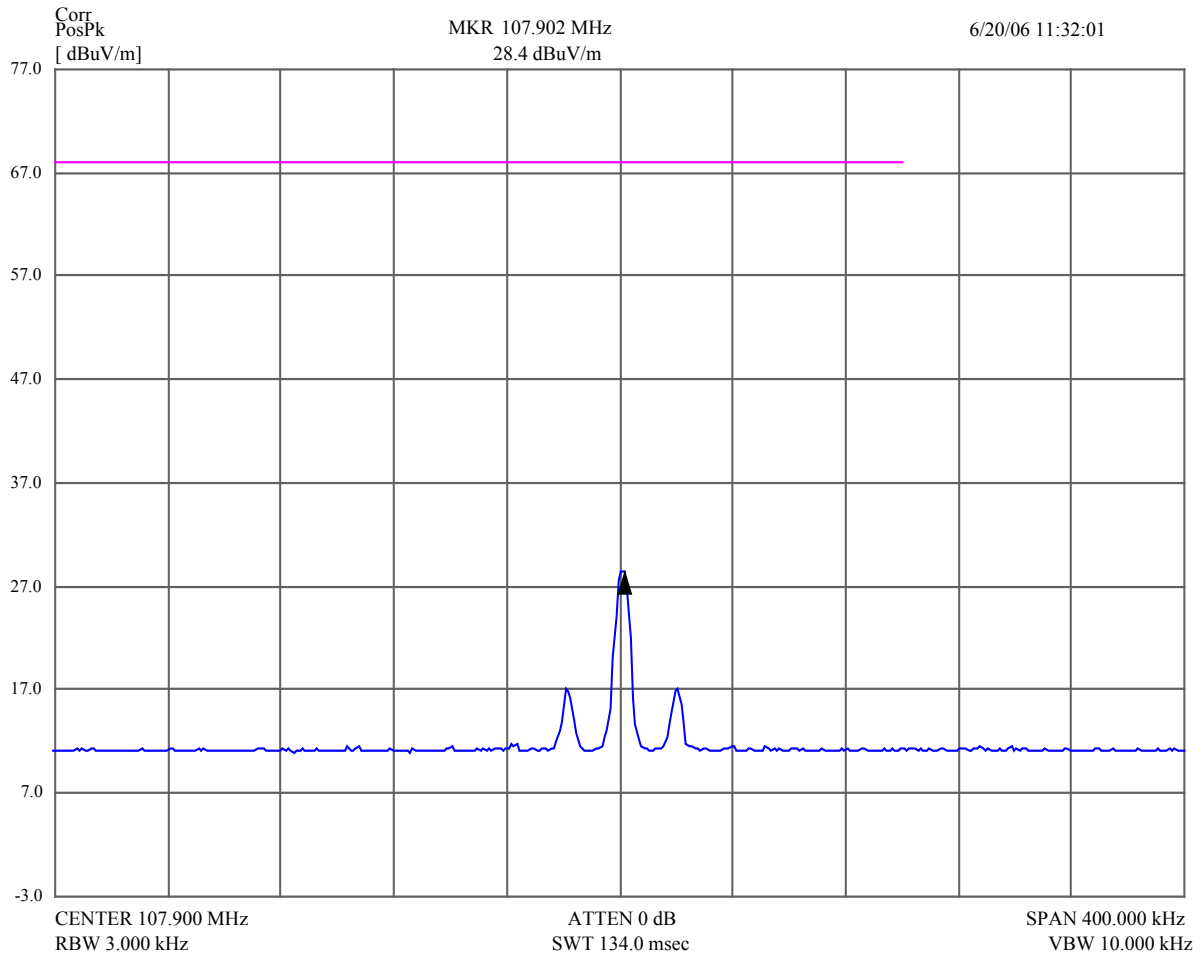
107.883000	23.46	68.00	-44.54	Horz	268	352	PASS
107.902000	35.43	68.00	-32.57	Horz	268	352	PASS
107.920000	23.57	68.00	-44.43	Horz	268	352	PASS

Receiver graph of Field Strength of Emissions at 3 m



Receiver graph of Field Strength of Emissions at 3 m

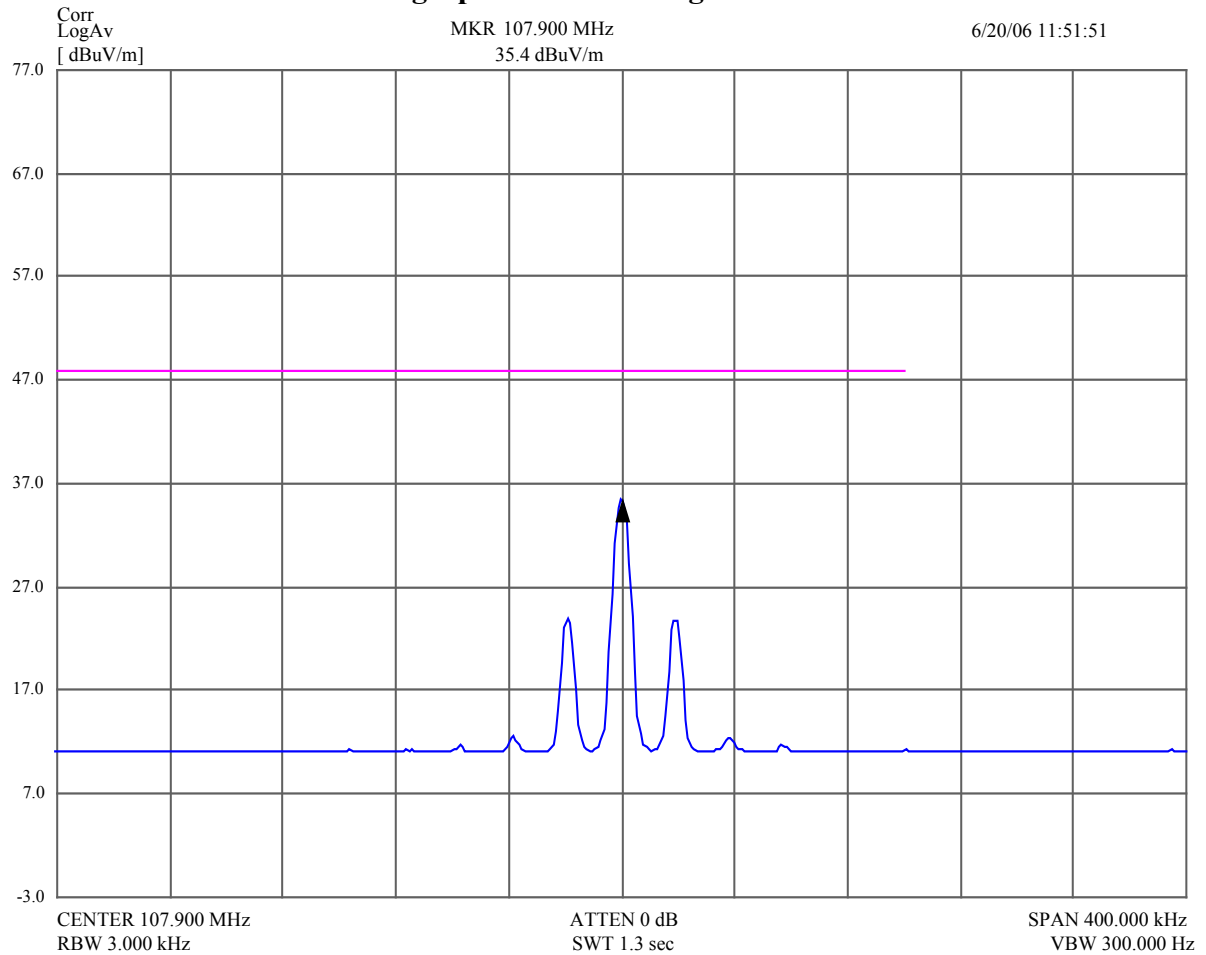
Frequency MHz	Peak dBuV/m	Peak Lmt dBuV/m	DelLim-Pk dB	Pol	Hgt cm	Angle deg	Status
107.881000	16.91	68.00	-51.09	Vert	318	260	PASS
107.902000	28.35	68.00	-39.65	Vert	318	260	PASS
107.920000	16.77	68.00	-51.23	Vert	318	260	PASS



Average value data

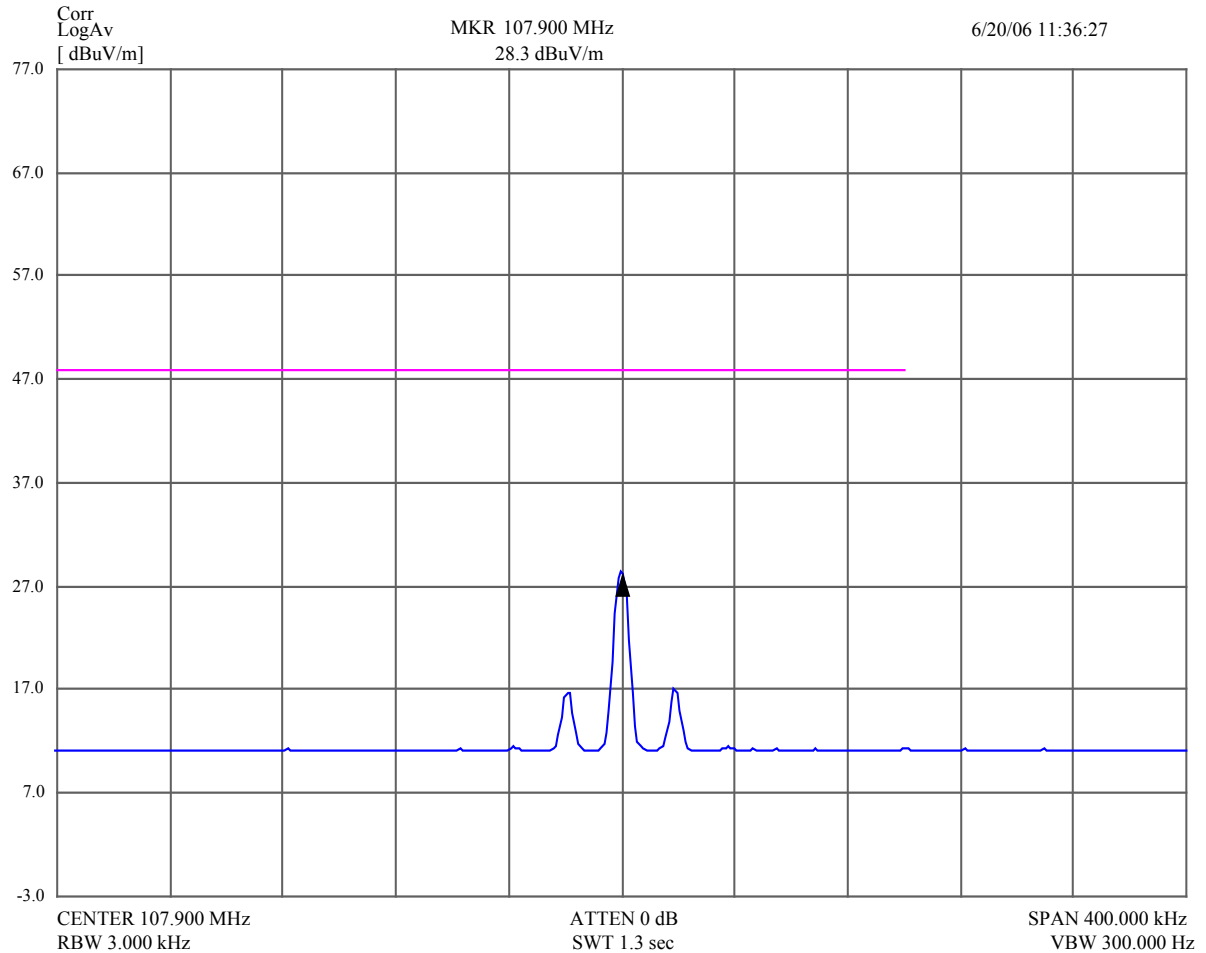
Frequency MHz	Avg dBuV/m	Avg Lmt dBuV/m	DelLim-Avg dB	Pol	Hgt cm	Angle deg	Status
107.881000	23.76	48.00	-24.24	Horz	268	352	PASS
107.900000	35.41	48.00	-12.59	Horz	268	352	PASS
107.920000	23.69	48.00	-24.31	Horz	268	352	PASS

Receiver graph of Field Strength of Emissions at 3 m



Frequency MHz	Avg dBuV/m	Avg Lmt dBuV/m	DelLim-Avg dB	Pol	Hgt cm	Angle deg	Status
107.881000	16.66	48.00	-31.34	Vert	318	260	PASS
107.900000	28.32	48.00	-19.68	Vert	318	260	PASS
107.919000	17.05	48.00	-30.95	Vert	318	260	PASS

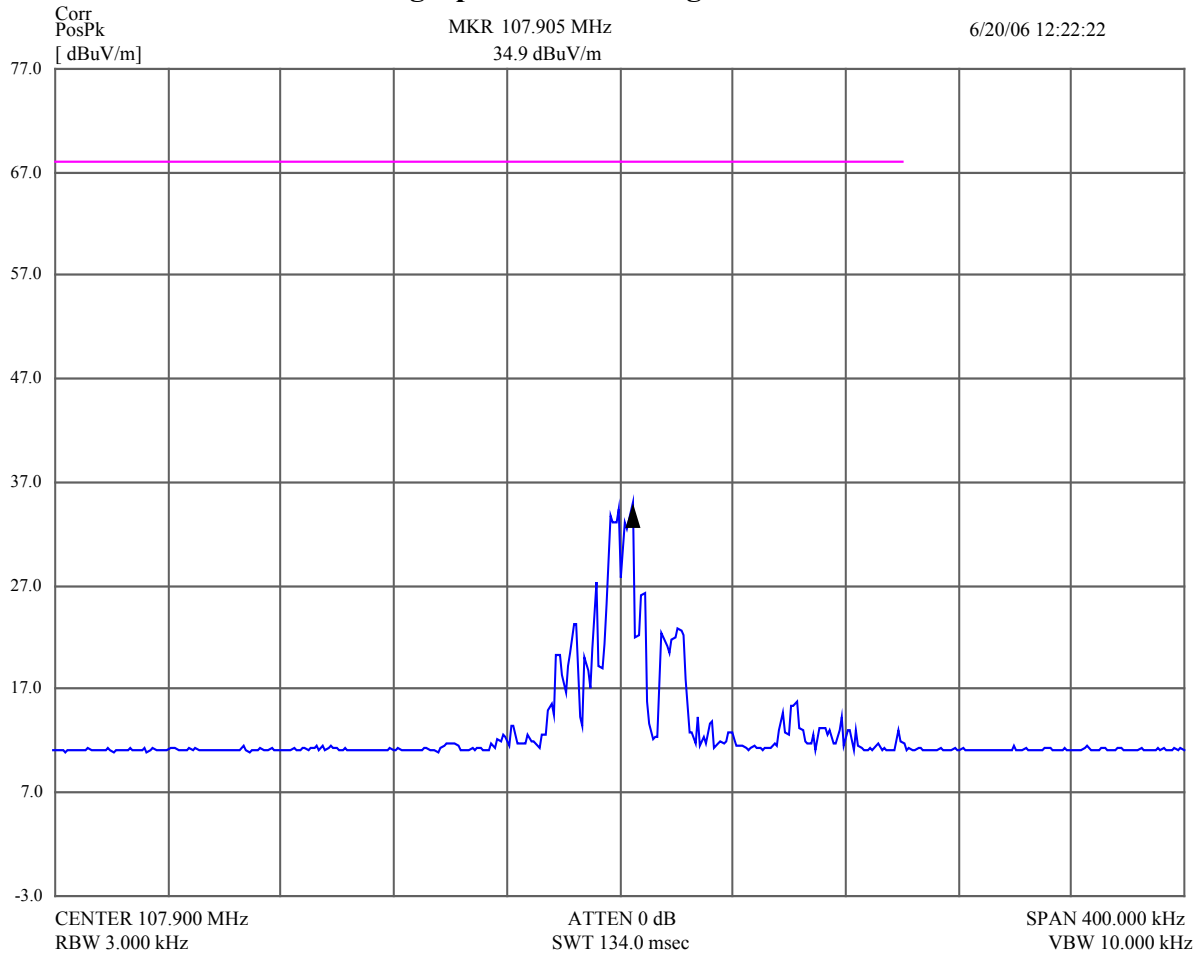
Receiver graph of Field Strength of Emissions at 3 m



5.3.2 with modulation

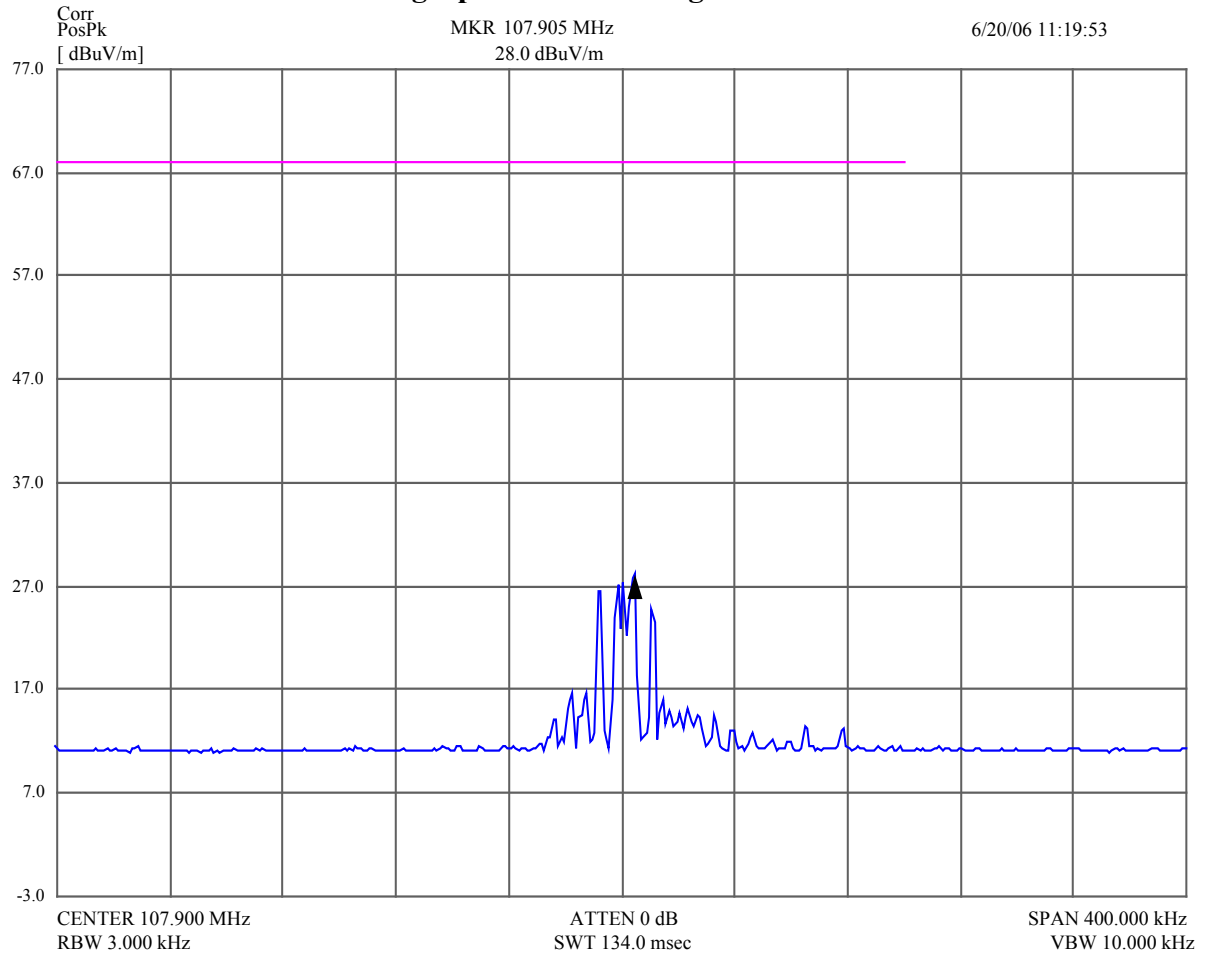
Peak value data							
Frequency MHz	Peak dBuV/m	Peak Lmt dBuV/m	DelLim-Pk dB	Pol	Hgt cm	Angle deg	Status
107.892000	27.20	68.00	-40.80	Horz	268	352	PASS
107.897000	33.67	68.00	-34.33	Horz	268	352	PASS
107.905000	34.94	68.00	-33.06	Horz	268	352	PASS
107.909000	26.11	68.00	-41.89	Horz	268	352	PASS

Receiver graph of Field Strength of Emissions at 3 m



Frequency MHz	Peak dBuV/m	Peak Lmt dBuV/m	DelLim-Pk dB	Pol	Hgt cm	Angle deg	Status
107.883000	16.50	68.00	-51.50	Vert	318	260	PASS
107.892000	26.37	68.00	-41.63	Vert	318	260	PASS
107.905000	28.05	68.00	-39.95	Vert	318	260	PASS
107.912000	23.50	68.00	-44.50	Vert	318	260	PASS

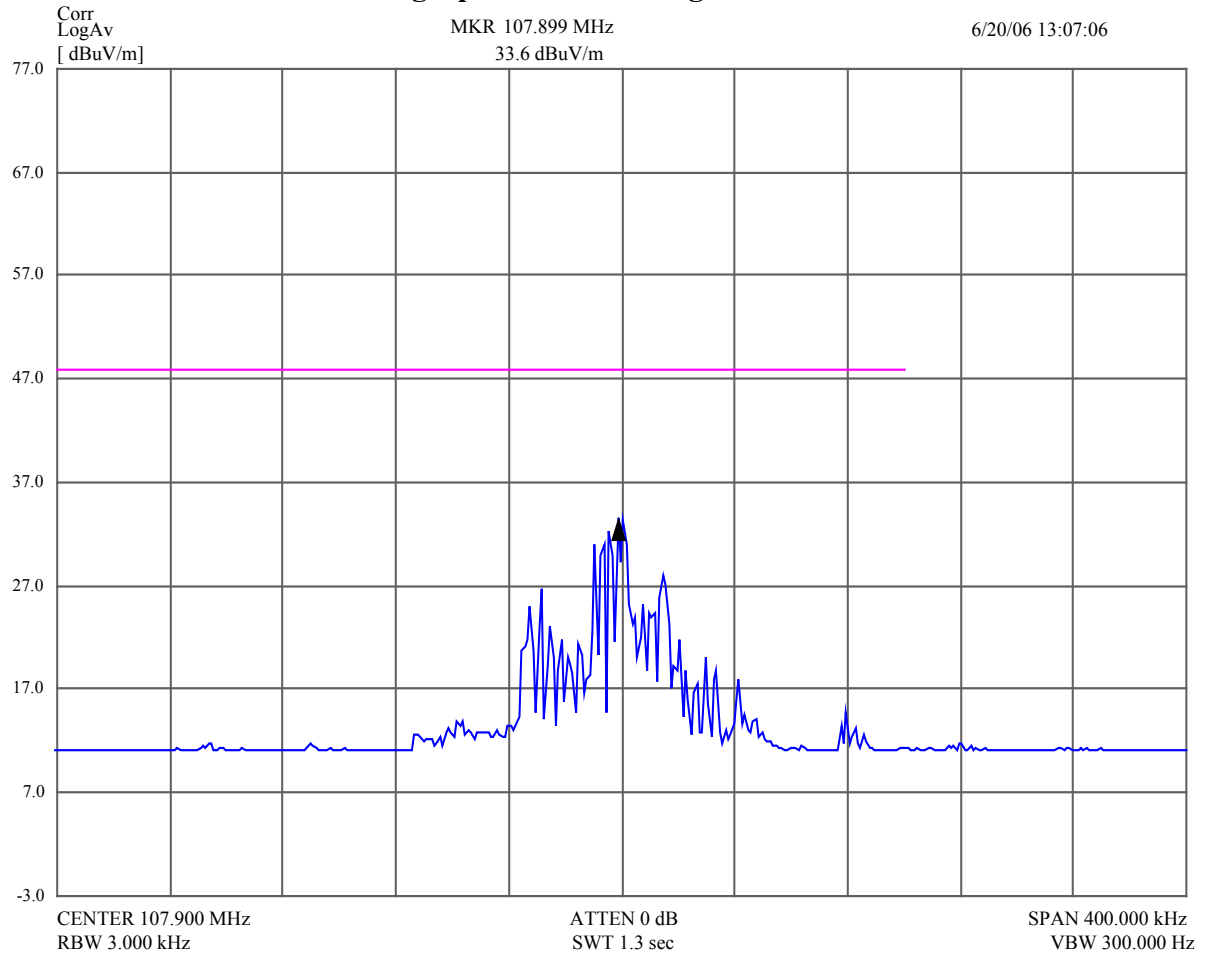
Receiver graph of Field Strength of Emissions at 3 m



Average value data

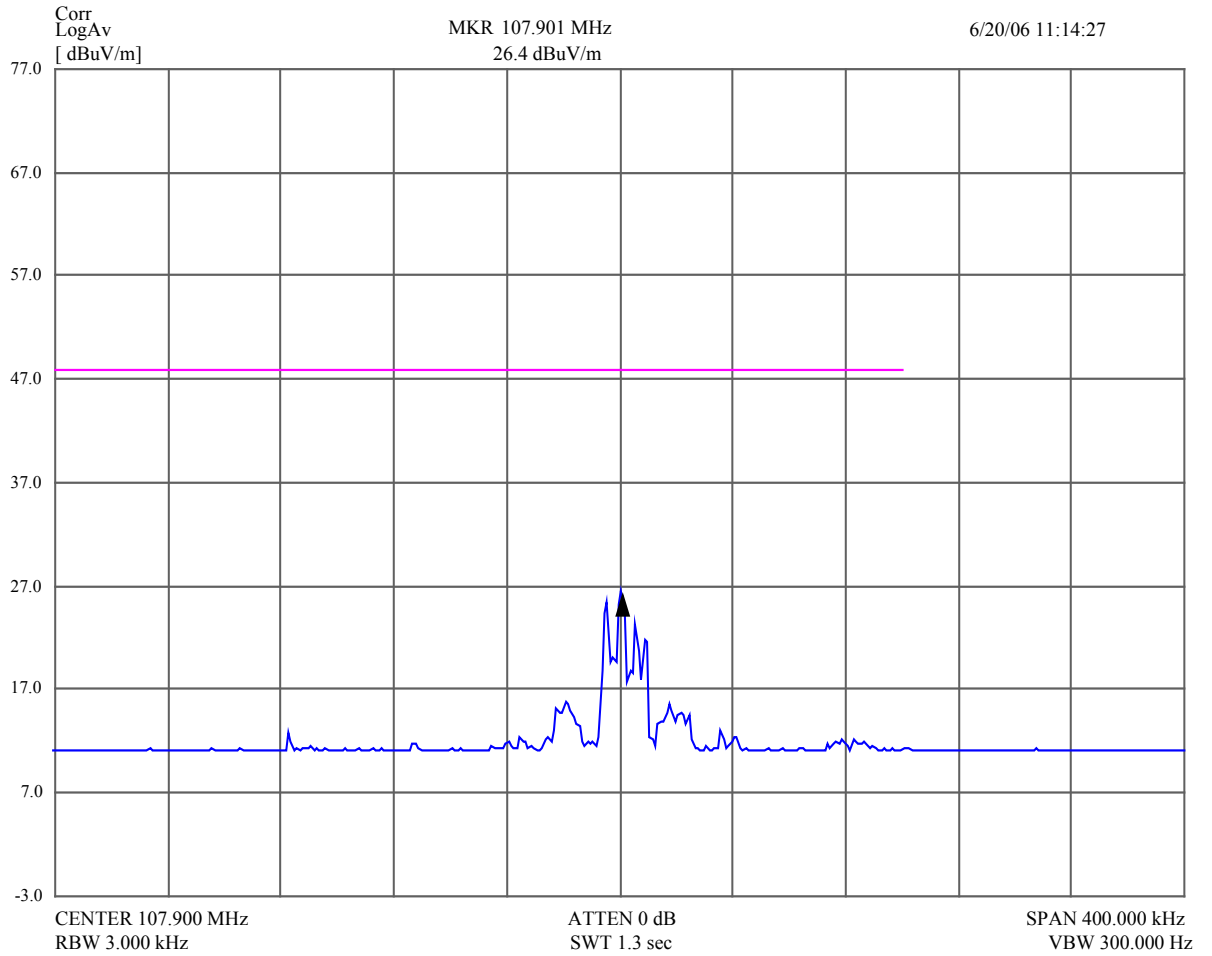
Frequency MHz	Avg dBuV/m	Avg Lmt dBuV/m	Dellim-Avg dB	Pol	Hgt cm	Angle deg	Status
107.872000	26.64	48.00	-21.36	Horz	268	352	PASS
107.891000	30.95	48.00	-17.05	Horz	268	352	PASS
107.899000	33.57	48.00	-14.43	Horz	268	352	PASS
107.915000	28.00	48.00	-20.00	Horz	268	352	PASS

Receiver graph of Field Strength of Emissions at 3 m



Frequency MHz	Avg dBuV/m	Avg Lmt dBuV/m	DelLim-Avg dB	Pol	Hgt cm	Angle deg	Status
107.881000	15.69	48.00	-32.31	Vert	318	260	PASS
107.901000	26.37	48.00	-21.63	Vert	318	260	PASS
107.909000	21.67	48.00	-26.33	Vert	318	260	PASS
107.918000	15.55	48.00	-32.45	Vert	318	260	PASS

Receiver graph of Field Strength of Emissions at 3 m



5.4 Photographs of Test Set-Up



6.0 Radiated Emissions.

Test Requirements: FCC Part 15 : Subclause 15.209
Test Method: ANSI C63.4: 2003
Limit : FCC Part 15 : Subclause 15.209
Mode of operation: normal

The test facility consists of a shielded semi-anechoic chamber with attached shielded control room. The semi-anechoic chamber is approximately 18 feet wide by 28 feet long by 19 feet high. A hybrid absorber combines high performance anechoic polyurethane foam with a ferrite tile base to achieve high levels of absorption and power dissipation capability.

The EUT had been placed at the 0.8 m height on the non-conducting table. Transmitter had been turned ON without modulation and worked at the frequencies of the selected channels.

All data was obtained via a HP 85876A EMI measurement software package using an HP 85462A Receiver which is compliant to CISPR 16. The EUT was configured in various geometric patterns to find the geometric configuration and EUT attitude that produced the largest RF power.

After determination of the maximum emissions configuration the distance of the EUT to the scanning antenna was set to 3 meters.

At each of three selected channels 88.1 MHz, 98.1MHz, and 107.9 MHz radiated emissions had been measured.

Measurements expanded uncertainty equals 3.7 dB with 95% confidence level.

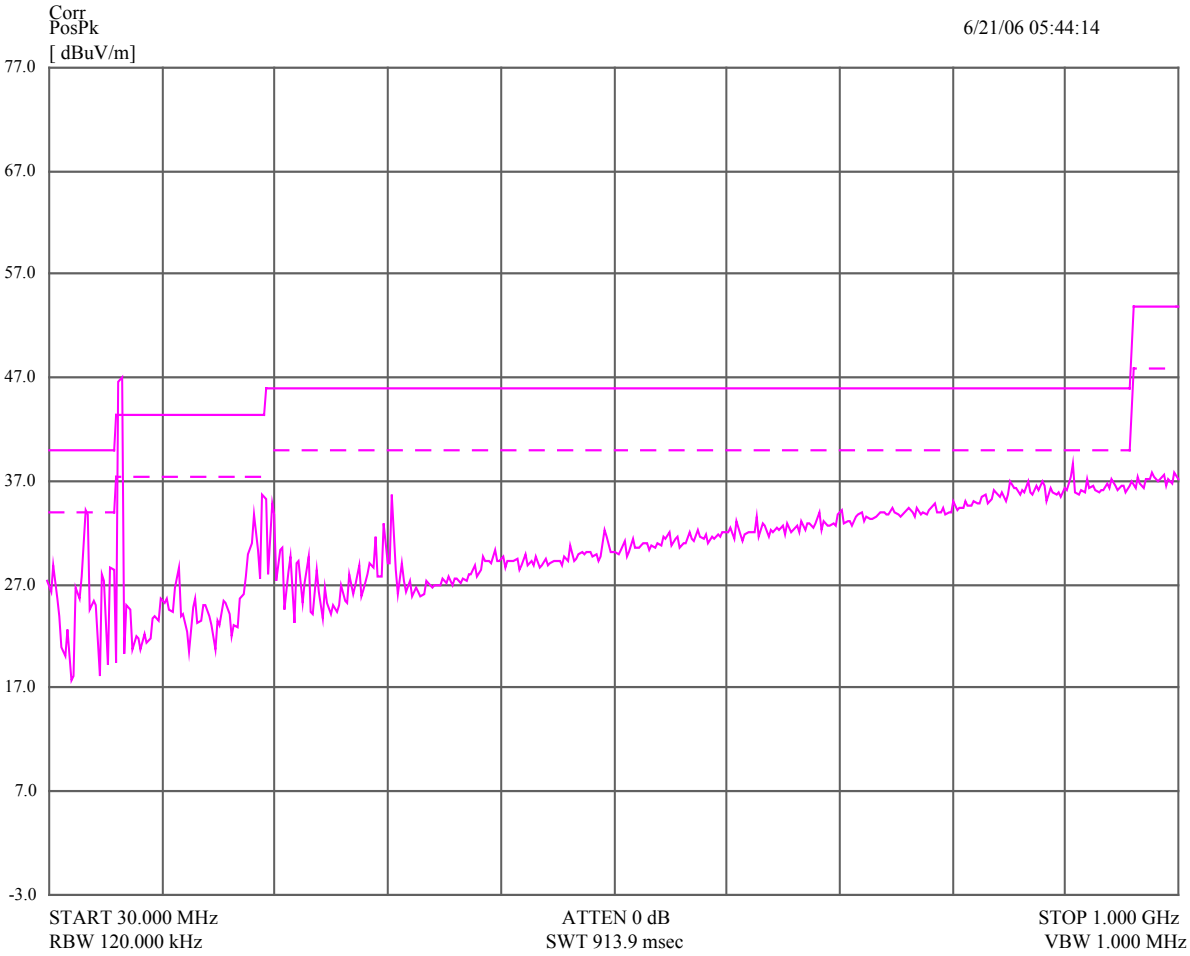
Field Level (dBuV)=Measured Value (dBuV)+Antenna Factor (dB)+Cable Loss (dB)

6.1. Channel 88.1 MHz

Frequency MHz	QP dBuV/m	QP Lmt dBuV/m	DelLim-QP dB	Pol	Hgt cm	Angle deg	Status
51.596248	27.85	40.00	-12.15	Horz	347	8	PASS
58.980500	35.21	40.00	-4.79	Horz	361	8	PASS
58.996752	27.73	40.00	-12.27	Vert	152	91	PASS
202.750000	31.34	43.50	-12.16	Horz	144	322	PASS
210.111744	25.14	43.50	-18.36	Vert	94	282	PASS
210.122496	35.80	43.50	-7.70	Horz	144	321	PASS
217.484992	35.49	46.00	-10.51	Horz	151	138	PASS
313.331264	29.45	46.00	-16.55	Horz	95	312	PASS
319.997504	33.62	46.00	-12.38	Horz	112	313	PASS
639.994496	33.00	46.00	-13.00	Vert	191	300	PASS

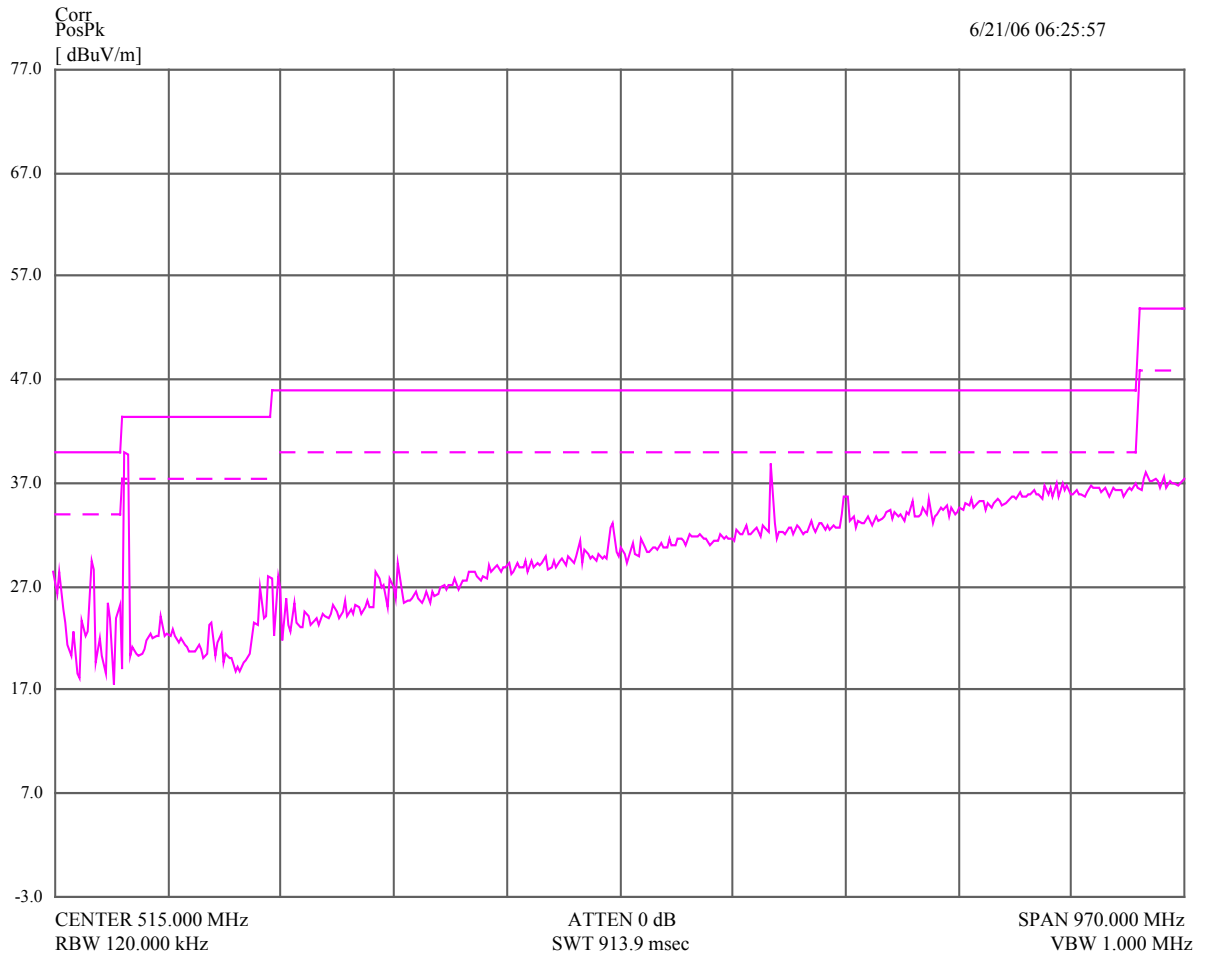
Receiver graph of Radiated Emissions at 3 m

Horizontal



Vertical

6/21/06 06:25:57

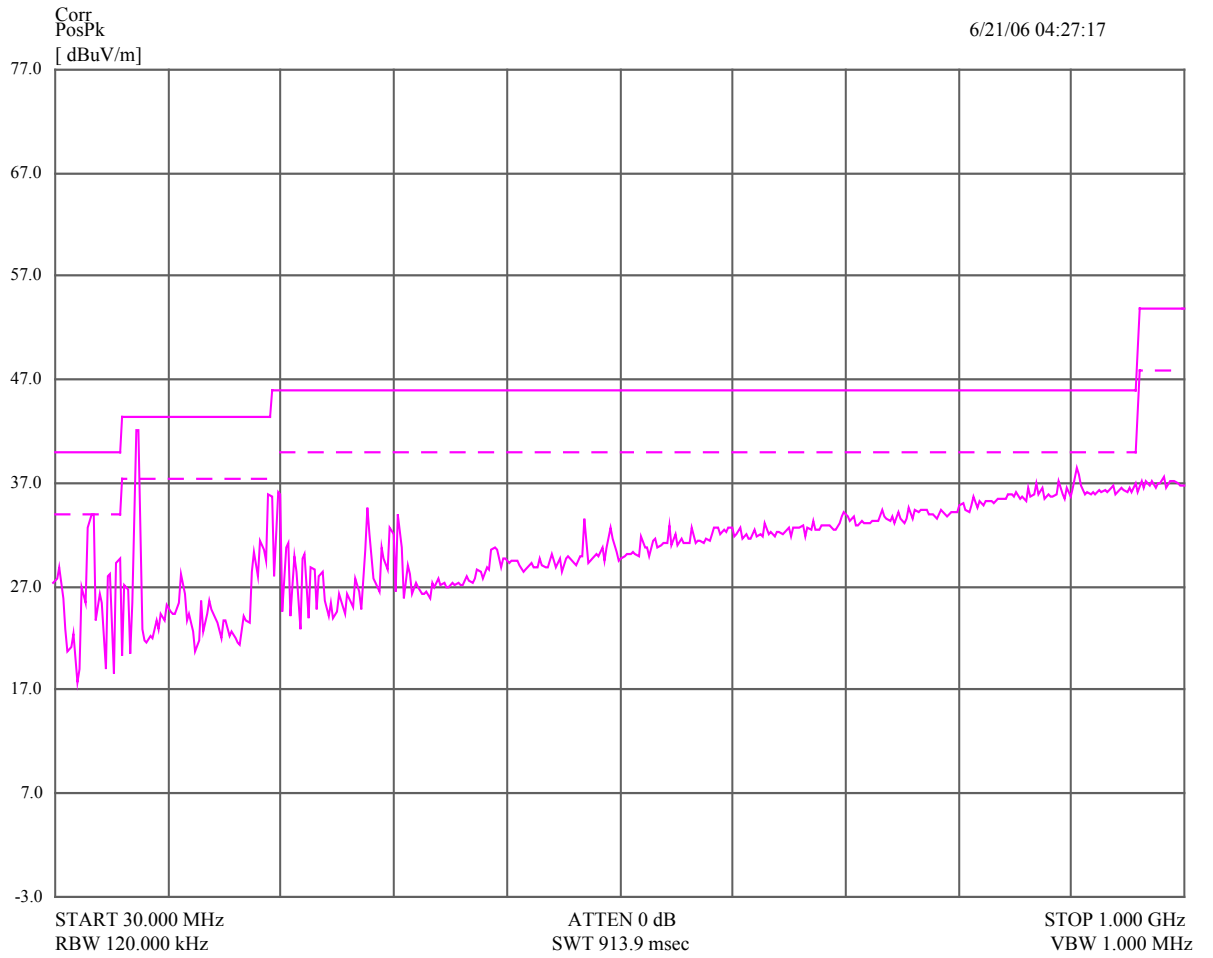


6.2. Channel 98.1 MHz

Frequency MHz	QP dBuV/m	QP Lmt dBuV/m	DelLim-QP dB	Pol	Hgt cm	Angle deg	Status
51.607248	27.99	40.00	-12.01	Horz	361	8	PASS
58.979752	35.23	40.00	-4.77	Horz	361	8	PASS
58.995500	29.45	40.00	-10.55	Vert	247	71	PASS
210.125744	35.82	43.50	-7.68	Horz	161	320	PASS
217.497504	35.47	46.00	-10.53	Horz	140	131	PASS
294.288736	31.88	46.00	-14.12	Horz	106	310	PASS
319.997504	35.38	46.00	-10.62	Horz	111	126	PASS
320.018752	26.58	46.00	-19.42	Vert	95	84	PASS
639.992512	31.51	46.00	-14.49	Vert	240	253	PASS

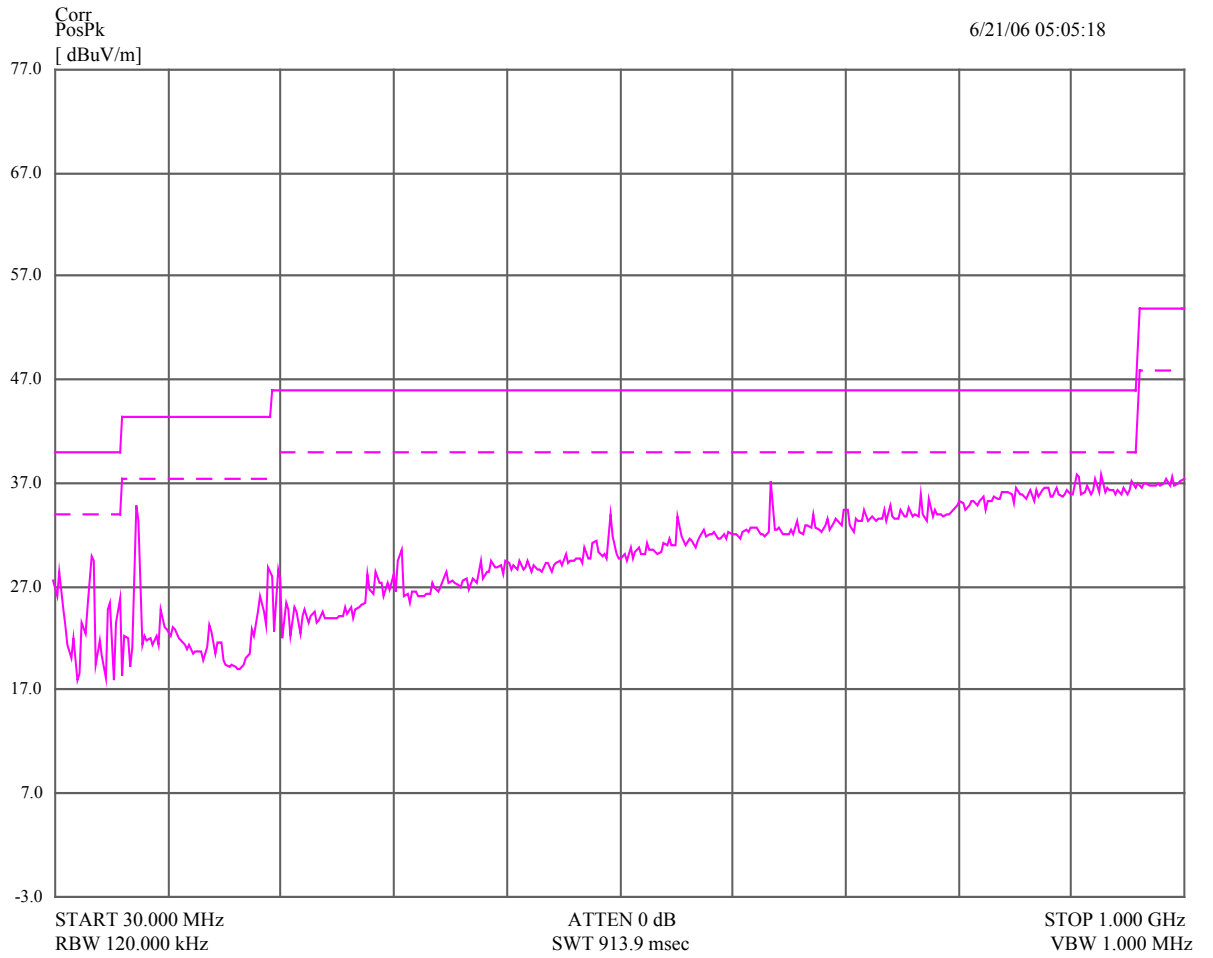
Receiver graph of Radiated Emissions at 3 m

Horizontal



Vertical

6/21/06 05:05:18

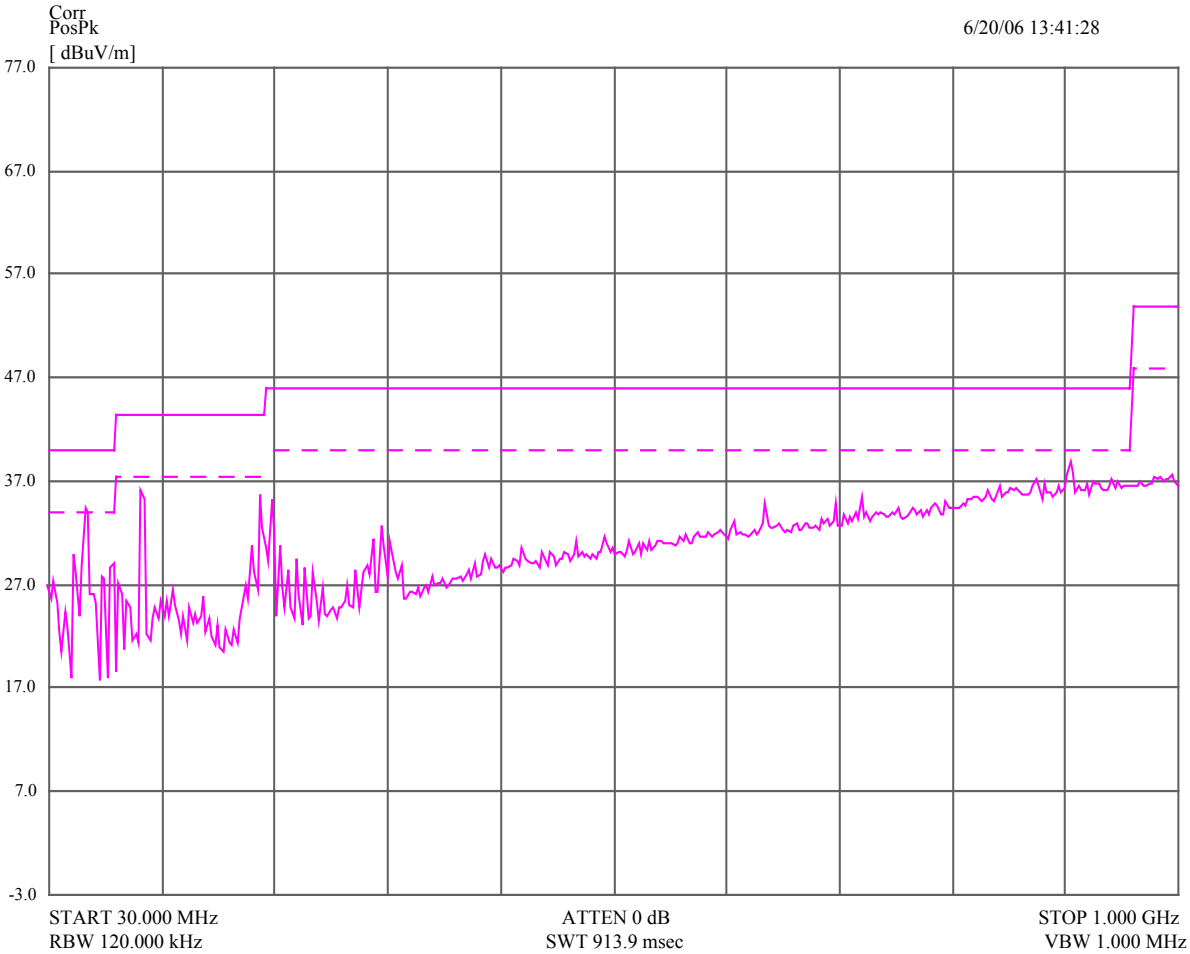


6.3. Channel 107.9 MHz

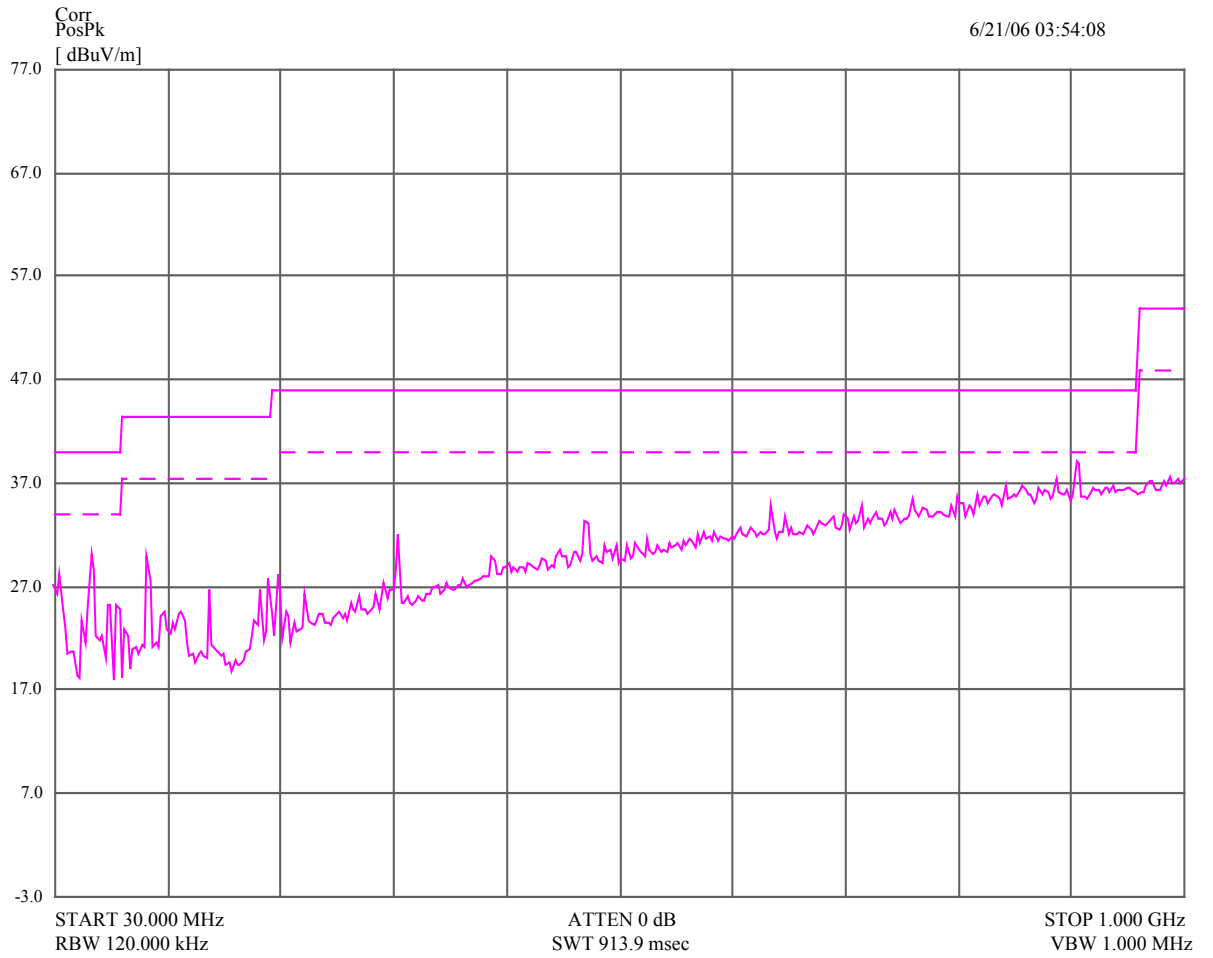
Frequency MHz	QP dBuV/m	QP Lmt dBuV/m	DelLim-QP dB	Pol	Hgt cm	Angle deg	Status
51.595248	27.94	40.00	-12.06	Horz	361	8	PASS
58.968000	35.30	40.00	-4.70	Horz	359	8	PASS
58.982000	29.45	40.00	-10.55	Vert	295	287	PASS
73.713752	25.53	40.00	-14.47	Horz	361	8	PASS
202.737504	31.06	43.50	-12.44	Horz	156	315	PASS
210.111248	35.75	43.50	-7.75	Horz	151	322	PASS
217.483744	35.51	46.00	-10.49	Horz	160	128	PASS
319.994240	39.24	46.00	-6.76	Horz	95	121	PASS
320.009248	30.44	46.00	-15.56	Vert	151	50	PASS

Receiver graph of Radiated Emissions at 3 m

Horizontal



Vertical



6.4 Photographs of Test Set-Up



6.0 Occupied channel bandwidth

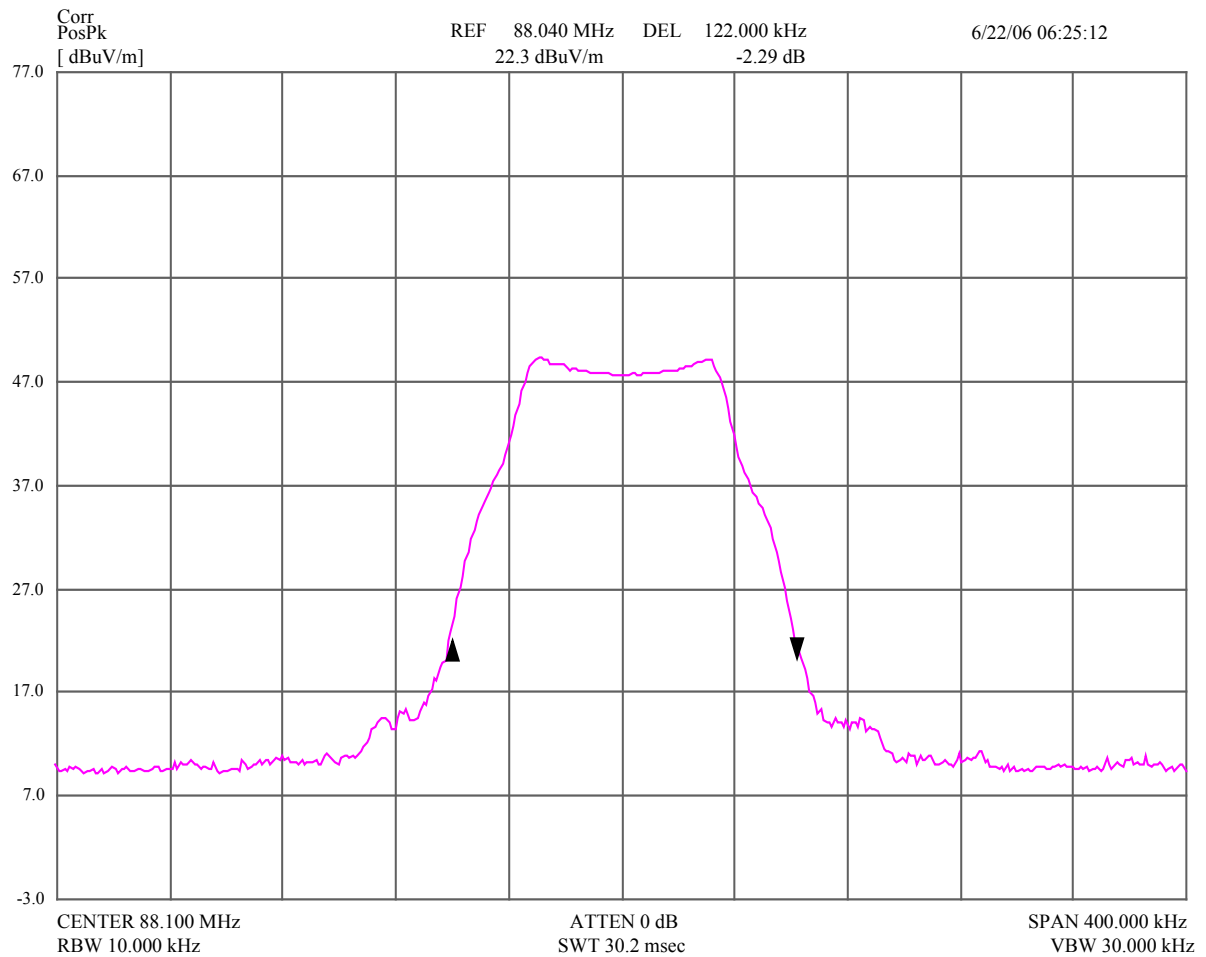
Test Requirements:	FCC Part 15 : Subclause 15.239
Test Method:	ANSI C63.4: 2003
FCC Part 2 :	Subclause 2.1049 © (1)
Limit :	200 kHz

The channel Bandwidth (BW) is defined as the minimum declared bandwidth within which the transmitter's necessary bandwidth can be contained.

1. The Transmitter was adjusted to work at the selected channels –88.1 MHz, 98.1 MHz and 107.9 MHz. All measurements were conducted by the HP 85462A Spectrum Analyzer;
2. The test Signal generator HP651B was connected to the audio input of the EUT. The fundamental frequency is modulated by 1.3 kHz sinewave with input level equals to the limiting threshold 720mV p-p.
3. The Channel BW was measured at an amplitude level reduced from the reference level by the 26 dB. :
4. For the setup, the additional wires were directly connected at the input of EUT and the filters were added before the input of EUT to isolate the external noises from the signal. Please see the detail photo for the setup.

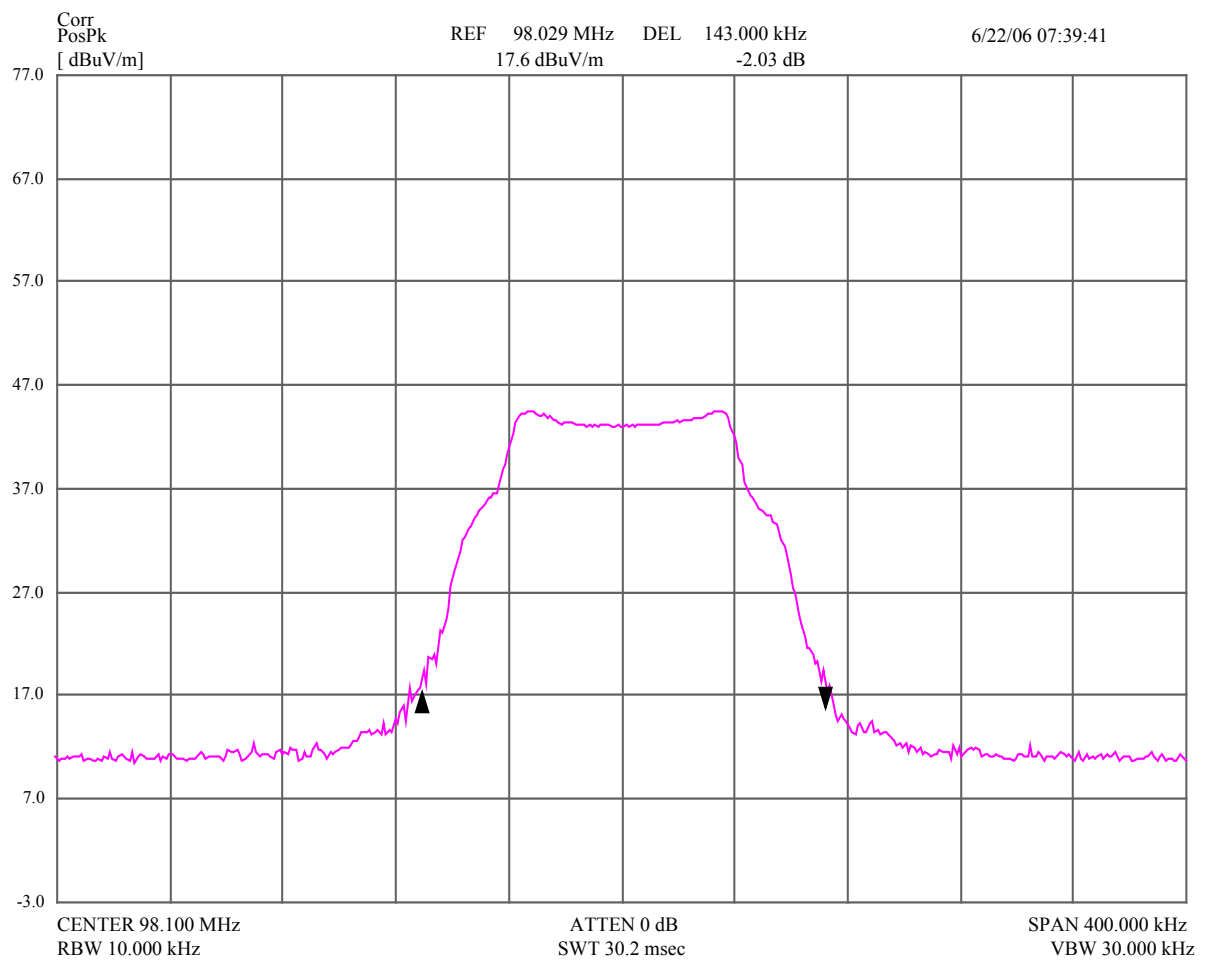
Measurements expanded uncertainty equals 3.7 dB with 95% confidence level.

7.1. Channel 88.1 MHz



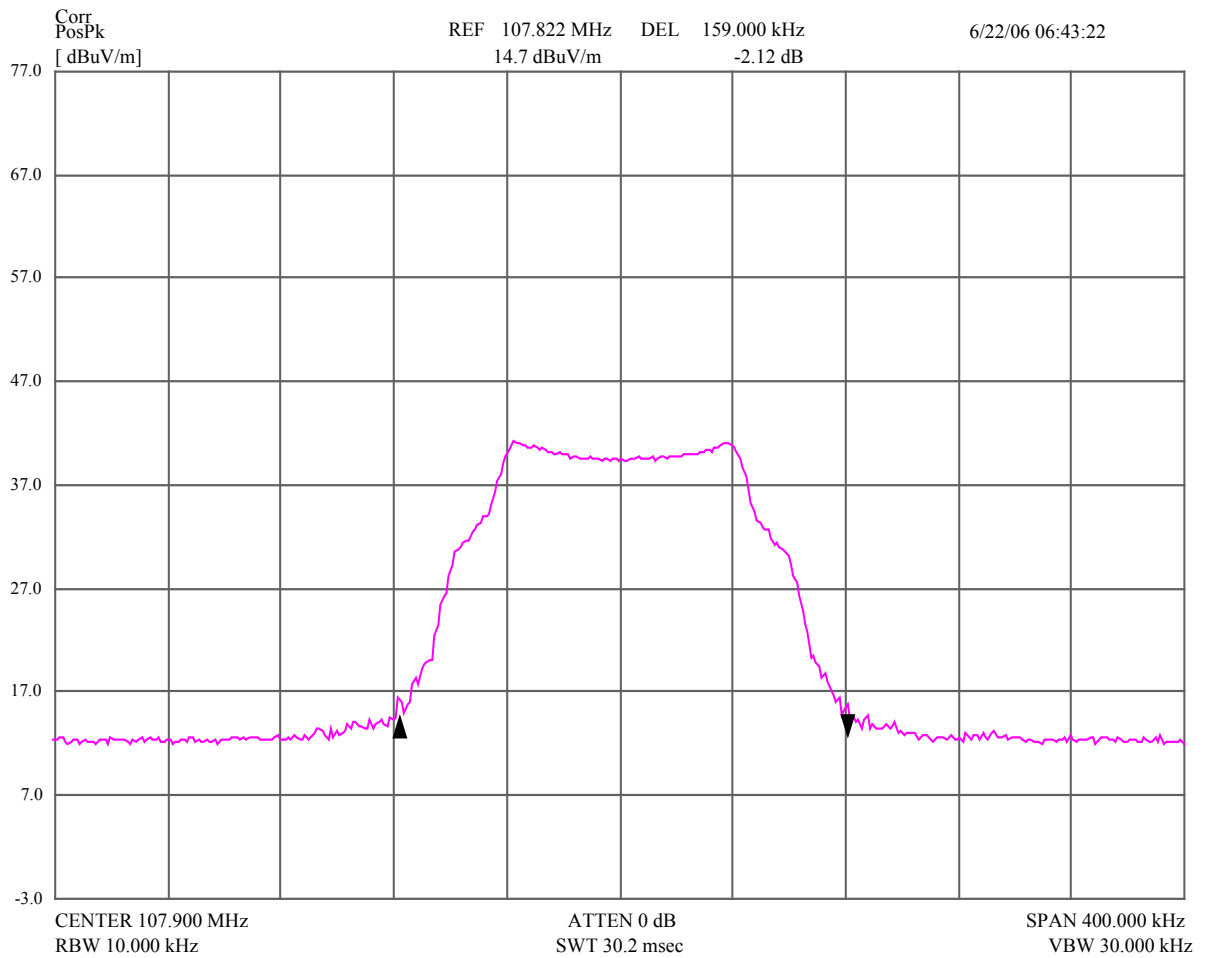
The plot shows the 26 dB bandwidth equals 122 kHz

7.2. Channel 98.1 MHz



The plot shows the 26 dB bandwidth equals 143 kHz

7.3. Channel 107.9 MHz



The plot shows the 26 dB bandwidth equals 159 kHz

7.4 Photographs of Test Set-Up



Appendix A.

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:1999

NVLAP LAB CODE: 200413-0

JMR Compliance Engineering

Chatsworth, CA

*is recognized by the National Voluntary Laboratory Accreditation Program for conformance with criteria set forth in
NIST Handbook 150:2001 and all requirements of ISO/IEC 17025:1999.
Accreditation is granted for specific services, listed on the Scope of Accreditation, for:*

ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS

2006-04-01 through 2007-03-31

Effective dates



A handwritten signature in cursive script, reading "C. D. Larson".

For the National Institute of Standards and Technology