



Report No.: 050936 rev.01 US
FCC ID: MS3S2G0508
Client: Ever Win International Corp.

023



NVLAP LAB CODE: 200413-0

October 24, 2005

Test Record

Product Verification
According to FCC Part 15 Subparts C

for

Ever Win International Corp.
MODEL: S2G0508

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Revision History

Revision	Date	Description of Changes	Author
0.1	24 Oct. 2005	Initial document	S. Sohn
		:	

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 :

S2G0508

The EUT was tested in full compliance with the FCC Regulations using the methods of FCC Part 15 Subpart C “Intentional Radiators”; ANSI C63.4: 2003 and Part 2 “Frequency Allocations and Radio Treaty Matters; General Rules and Regulations”. The results of the testing indicate that the product met the Part 15 C limits and requirements.

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 : S2G0508 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

Report approved by:

Leon Kogan
Technical Director,

2.0 GENERAL INFORMATION

2.1 Client Information

Company Name: Ever Win International Corp.
Contact: Alex Samson
Company Address: 17579 Railroad Street
City of Industry, CA 91748
Phone: (626) 810-8218

2.2 Administrative Data

Device tested: Audio FM Modulator for personal use
Model: S2G0508
Equipment category: Intentional Radiators
Accessories: N/A
Purpose of test: Compliance to FCC Rules and Regulations, Part 15, Subpart C
Date of test: 10/06/05 & 10/07/05
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 or cell phone and allow reception of the transmitted signal using a standard FM radio. There are six (6) available channels. 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, 88.3, 88.5, 88.7, 88.9, 89.1, 89.389.5 MHz.

Clock frequencies : 7.6 MHz

Power Supply : External 12VDC battery.

3.2 Test Run

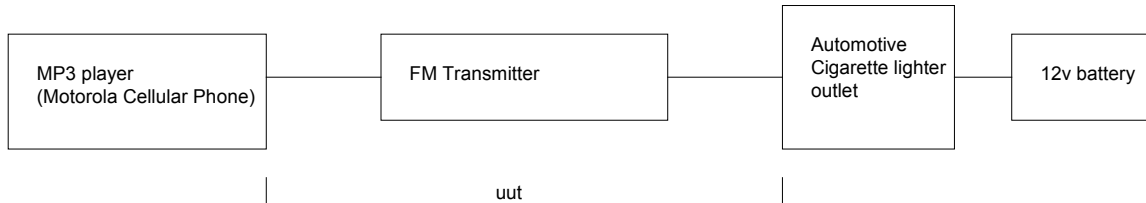
- 1) The EUT was connected through Stubby cigarette lighter connector to the 12VDC battery
Motorola Cellular phone, as a standard MP3 player, was connected to the appropriate input/output of the EUT;
- 2) For tests required modulation of EUT fundamental frequency, Test Oscillator HP 651B had been connected 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 88.7 MHz 89.5 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	Motorola Cellular phone
2	MP3 player	A1112	5F507SL9RS9	
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



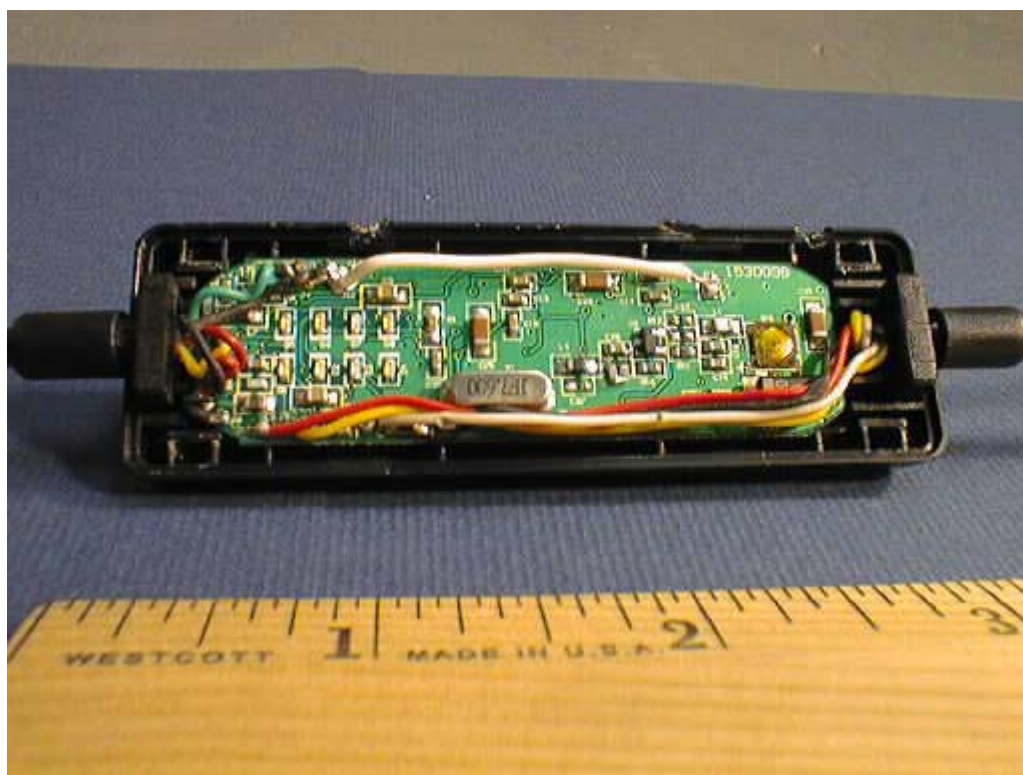
**EUT: AUDIO FM TRANSMITTER.
MODEL : S2G0508**



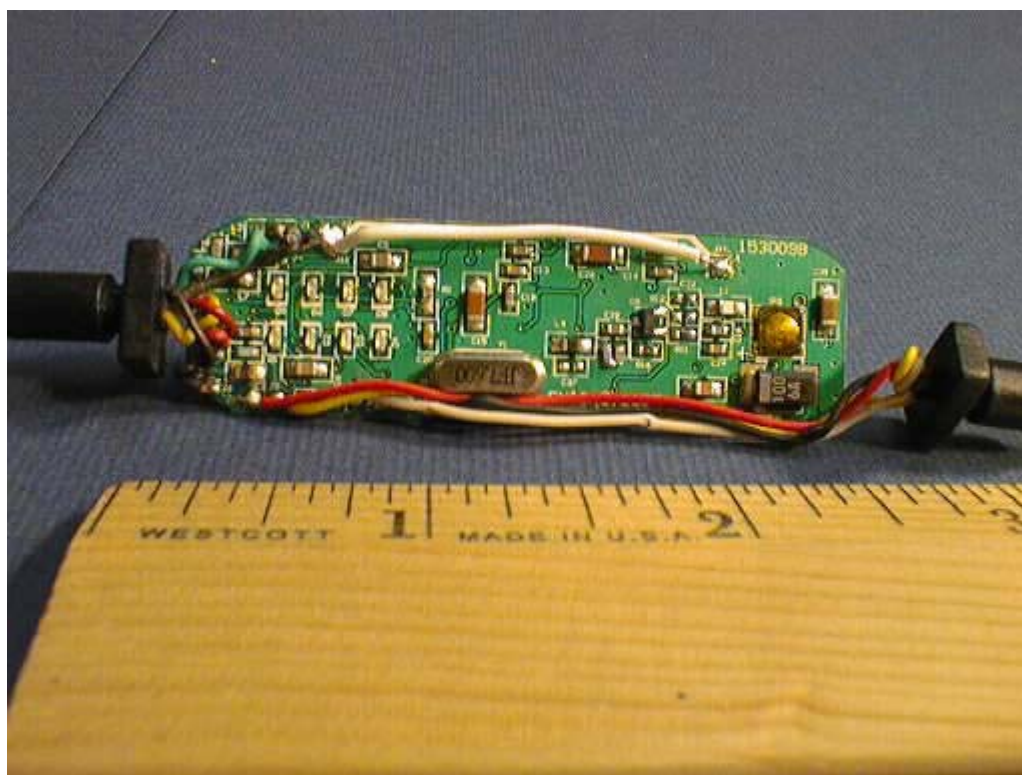
EUT: AUDIO FM TRANSMITTER.
MODEL : S2G0508
FM Modulator
Top View



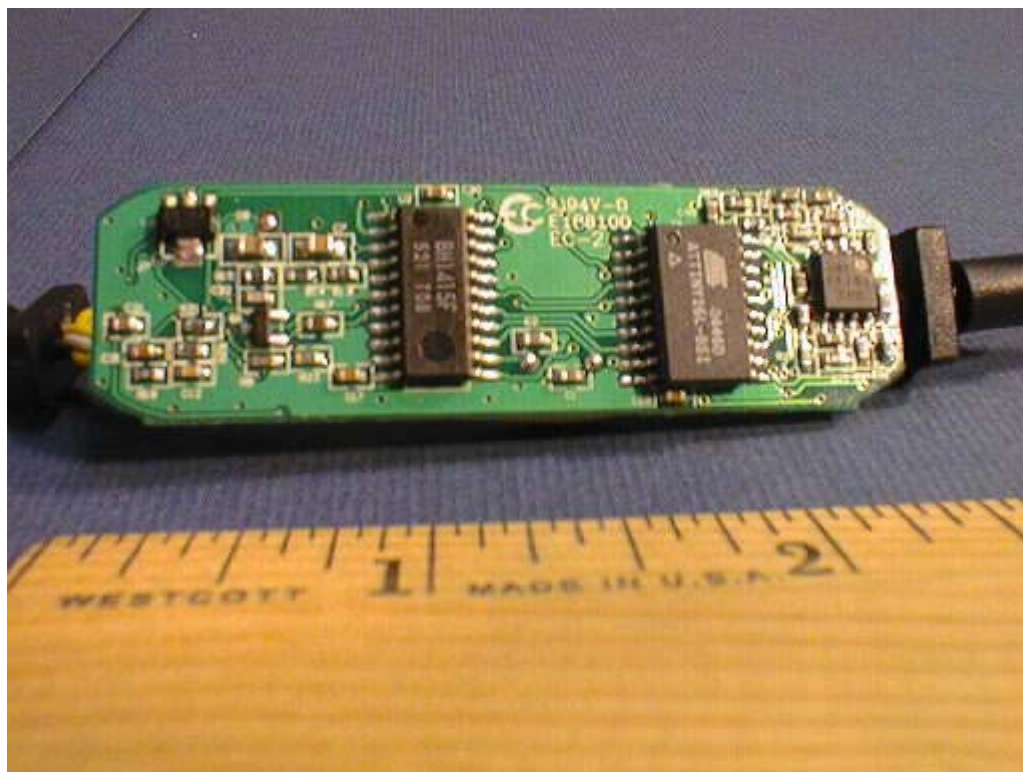
EUT: AUDIO FM TRANSMITTER.
MODEL : S2G0508
FM Modulator
Bottom View



EUT: AUDIO FM TRANSMITTER.
MODEL : S2G0508
FM Modulator
Open enclosure



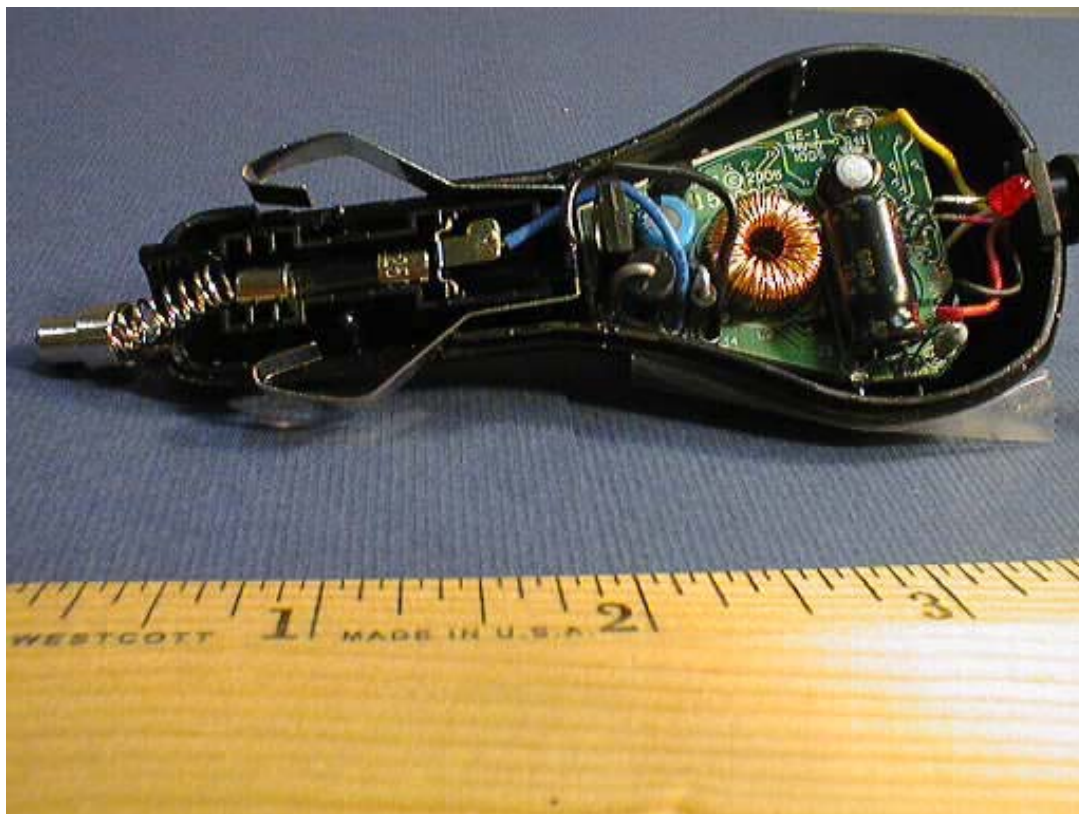
EUT: AUDIO FM TRANSMITTER.
MODEL : S2G0508
FM Modulator
PCB components side



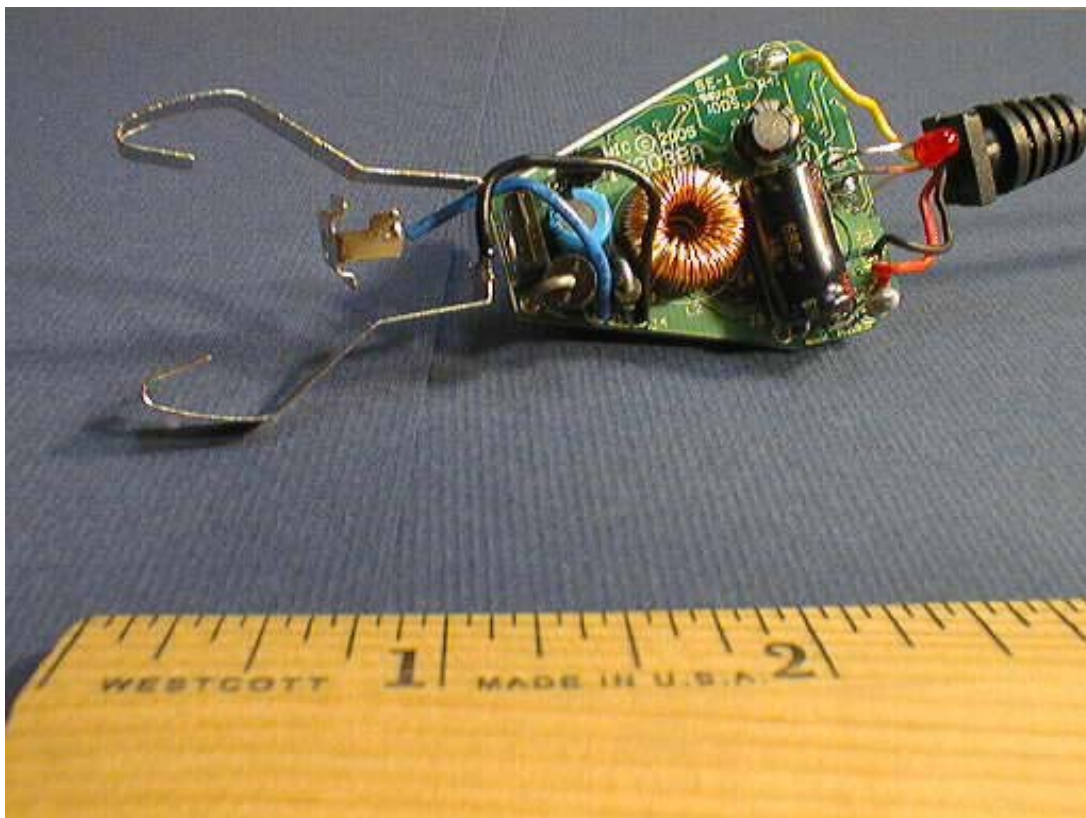
EUT: AUDIO FM TRANSMITTER.
MODEL : S2G0508
FM Modulator
PCB solder side



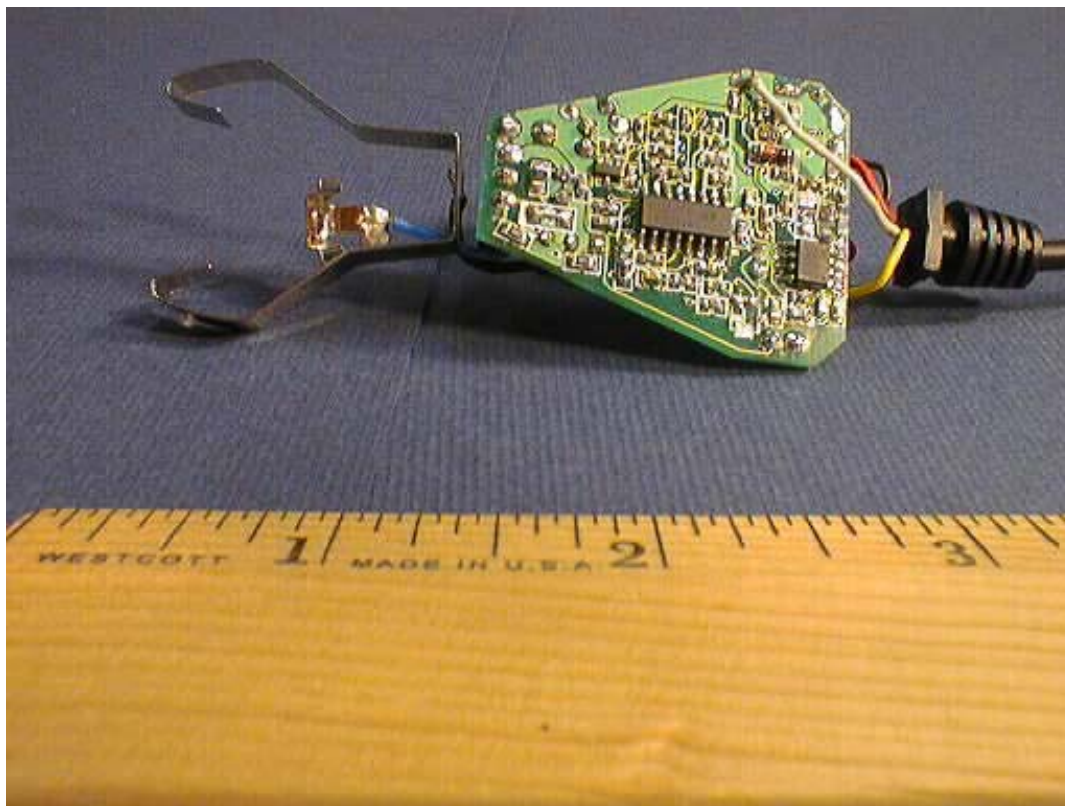
EUT: AUDIO FM TRANSMITTER.
MODEL : S2G0508
Monster Stubby Cigarette Lighter connector



EUT: AUDIO FM TRANSMITTER.
MODEL : S2G0508
Monster Stubby Cigarette Lighter connector
Open covers



EUT: AUDIO FM TRANSMITTER.
MODEL : S2G0508
Monster Stubby Cigarette Lighter connector
PCB components side



EUT: AUDIO FM TRANSMITTER.
MODEL : S2G0508
Monster Stubby Cigarette Lighter connector
PCB solder side



**EUT: AUDIO FM TRANSMITTER.
MODEL : S2G0508**

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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	06/21/05	06/21/06
Analyzer	HP85462A	3325A00120	04/11/05	04/11/06
Cable 2	8268	CBL-002	06/21/05	06/21/06
Preselector	HP85460A	3330A00117	04/11/05	04/11/06
Qpeak Adapter	HP85462 Internal	Internal	04/11/05	04/11/06
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	11/01/04	11/01/05
Cable1	RG-214/U	CBL-001	06/21/05	06/21/06
Shielded Semi-Anechoic Chamber	RANTEC	N/A	N/A	N/A
Digital Oscilloscope	DL1520	26WZ0171	12/16/04	12/16/05
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.

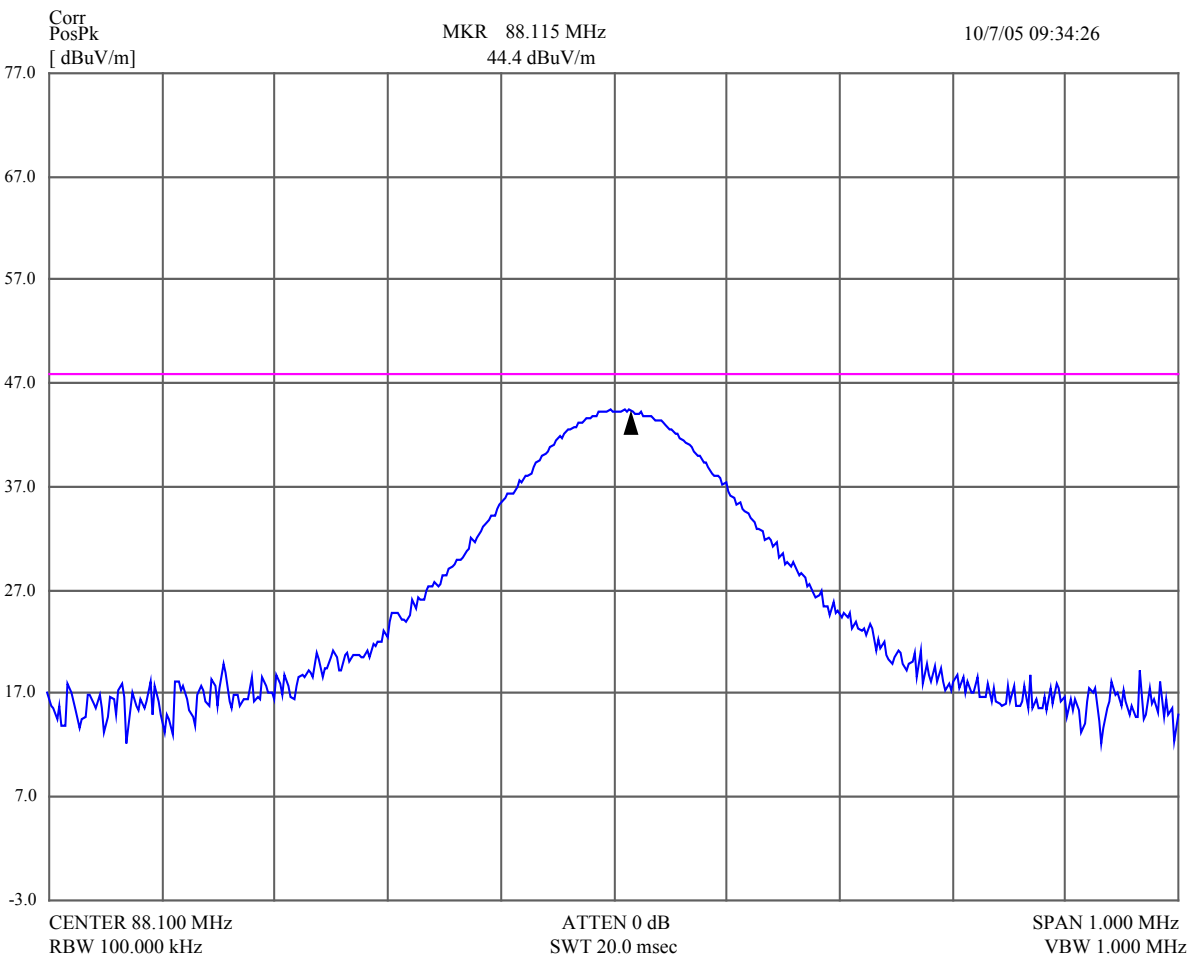
At each of three selected channels 88.1 MHz, 88.7MHz, and 89.5 MHz Field Strength of Emissions had been measured.

5.1. Channel 88.1 MHz

5.1.1 no modulation

Peak value data

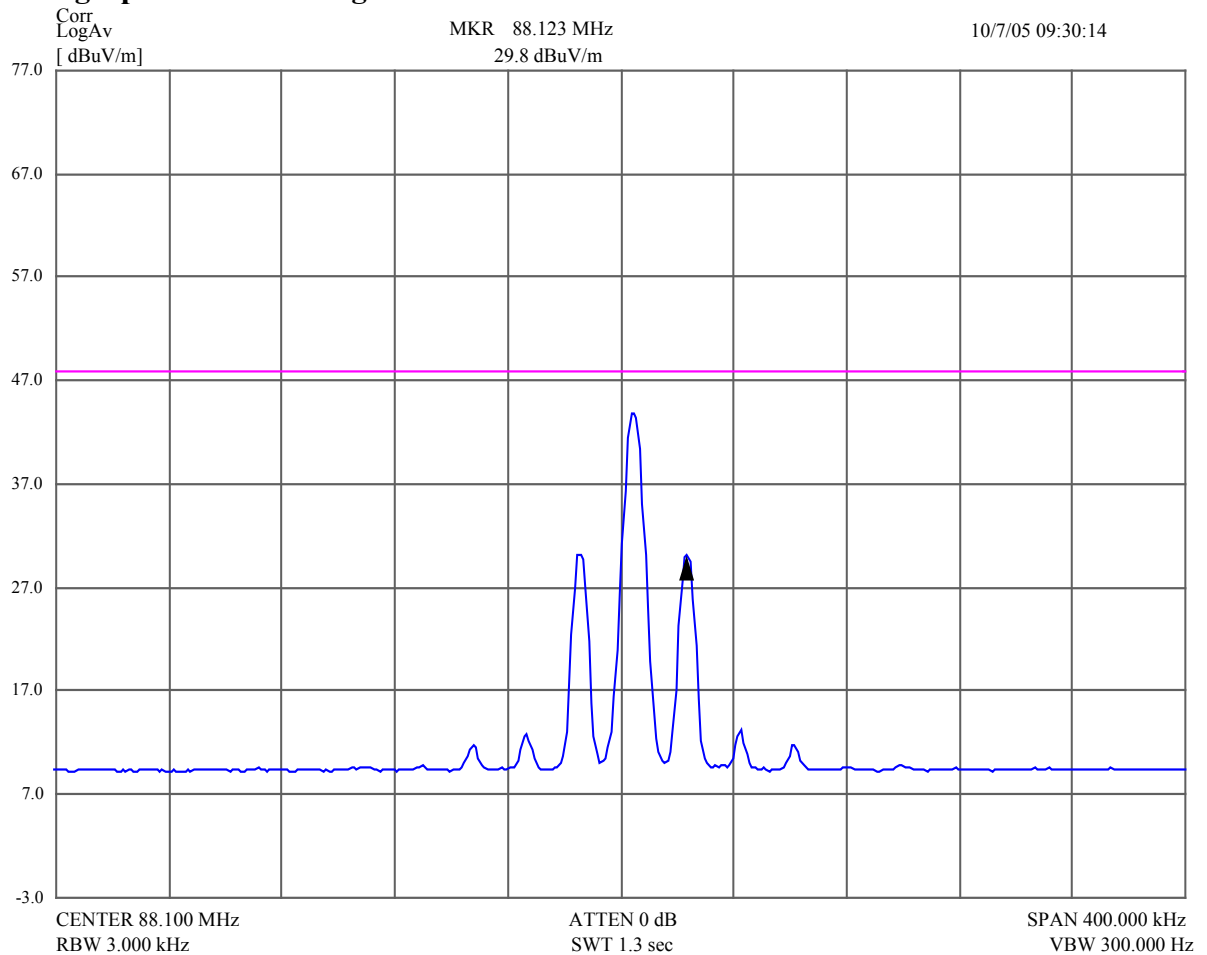
Frequency MHz	PEAK dBuV/m	PEAK Lmt dBuV/m	Dellim-PEAK dB	Pol	Hgt cm	Angle deg	Status
88.115000	44.40	68.00	-23.60	Horz	220	235	PASS



Average value data

Frequency MHz	Avg dBuV/m	Avg Lmt dBuV/m	DelLim-Avg dB	Pol	Hgt cm	Angle deg	Status
88.086000	30.14	48.00	-17.86	Horz	193	17	PASS
88.105000	43.83	48.00	-4.17	Horz	193	17	PASS
88.123000	29.84	48.00	-18.16	Horz	193	17	PASS

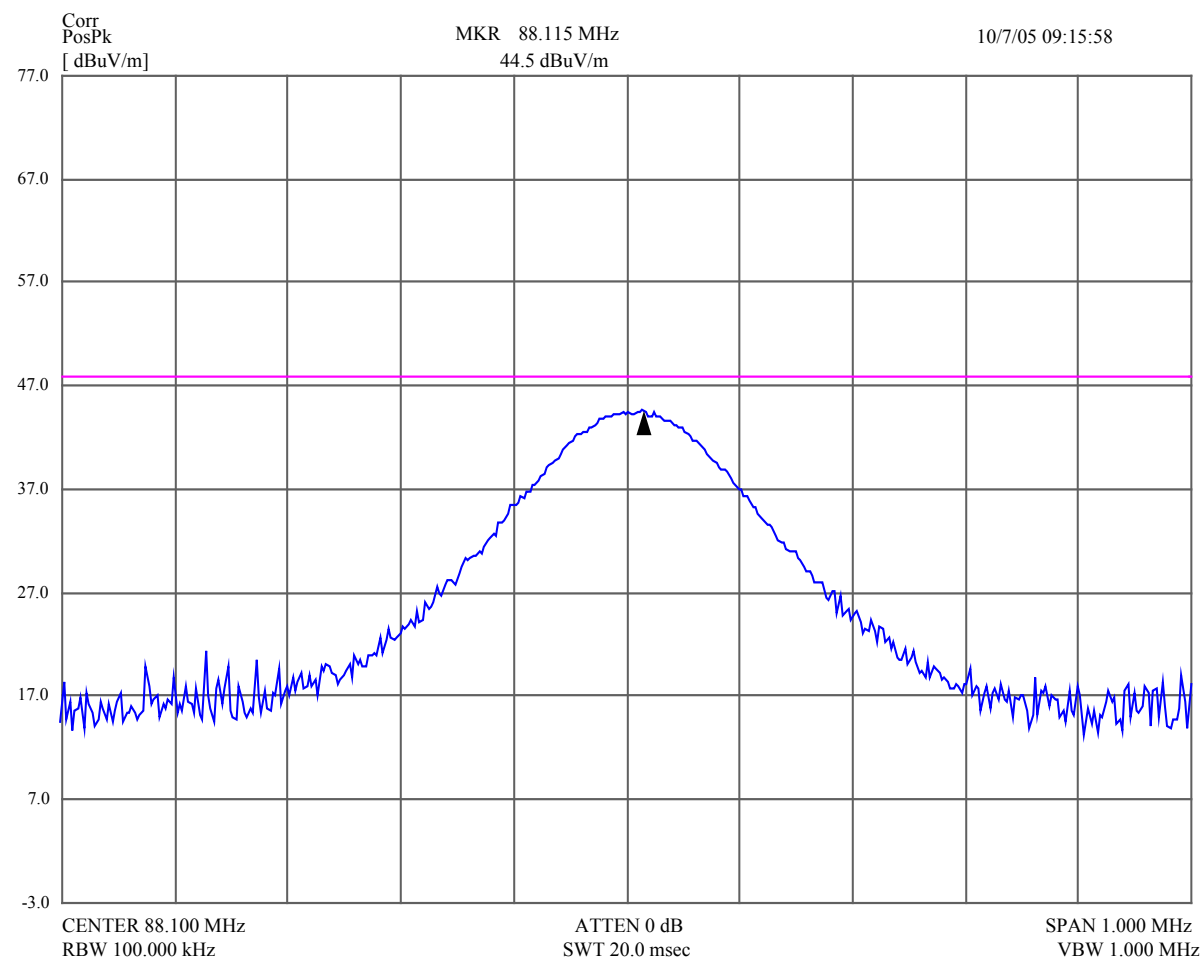
Receiver graph of Field Strength of Emissions at 3 m



5.1.2 with modulation

Peak value data

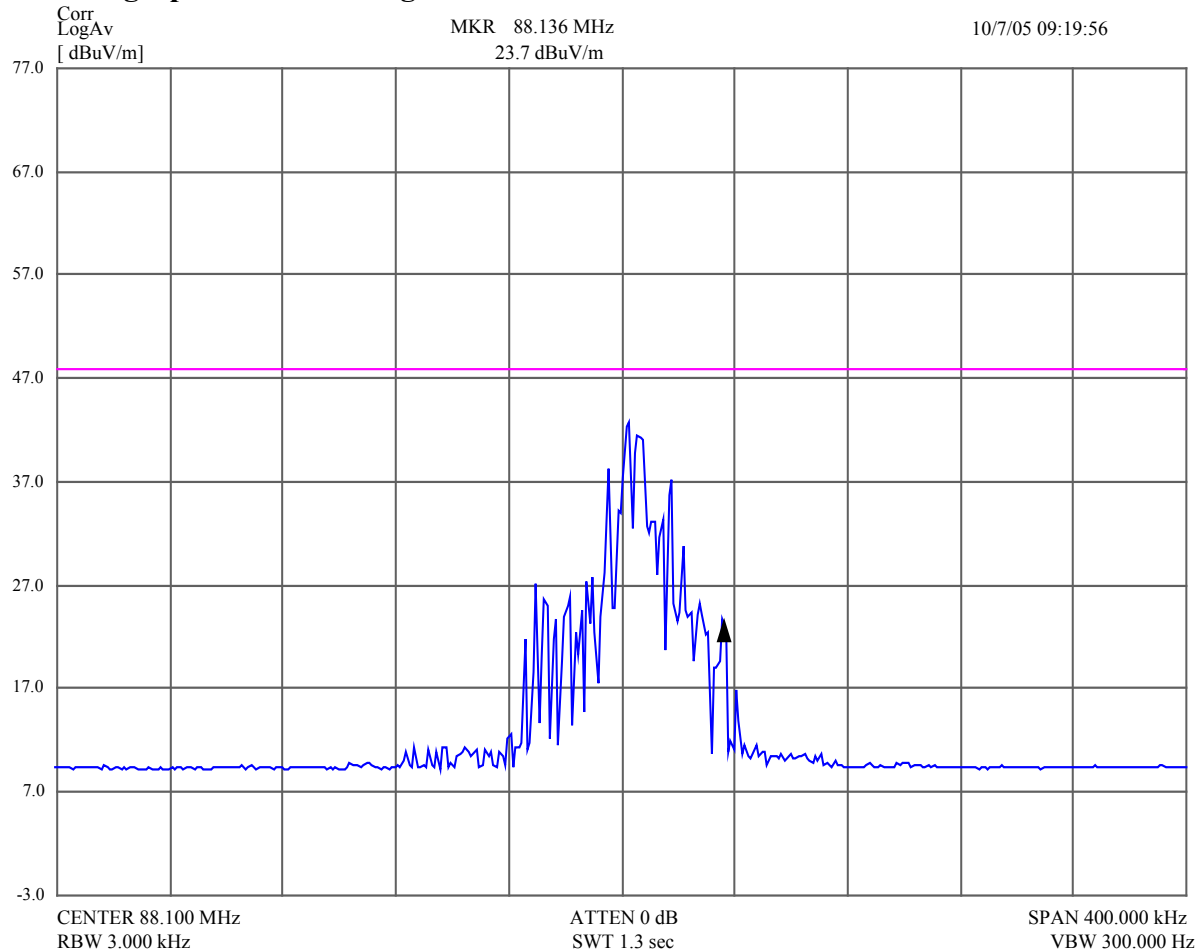
Frequency MHz	PEAK dBuV/m	PEAK Lmt dBuV/m	DelLim-PEAK dB	Pol	Hgt cm	Angle deg	Status
88.115000	44.50	68.00	-23.50	Horz	220	235	PASS



Average value data

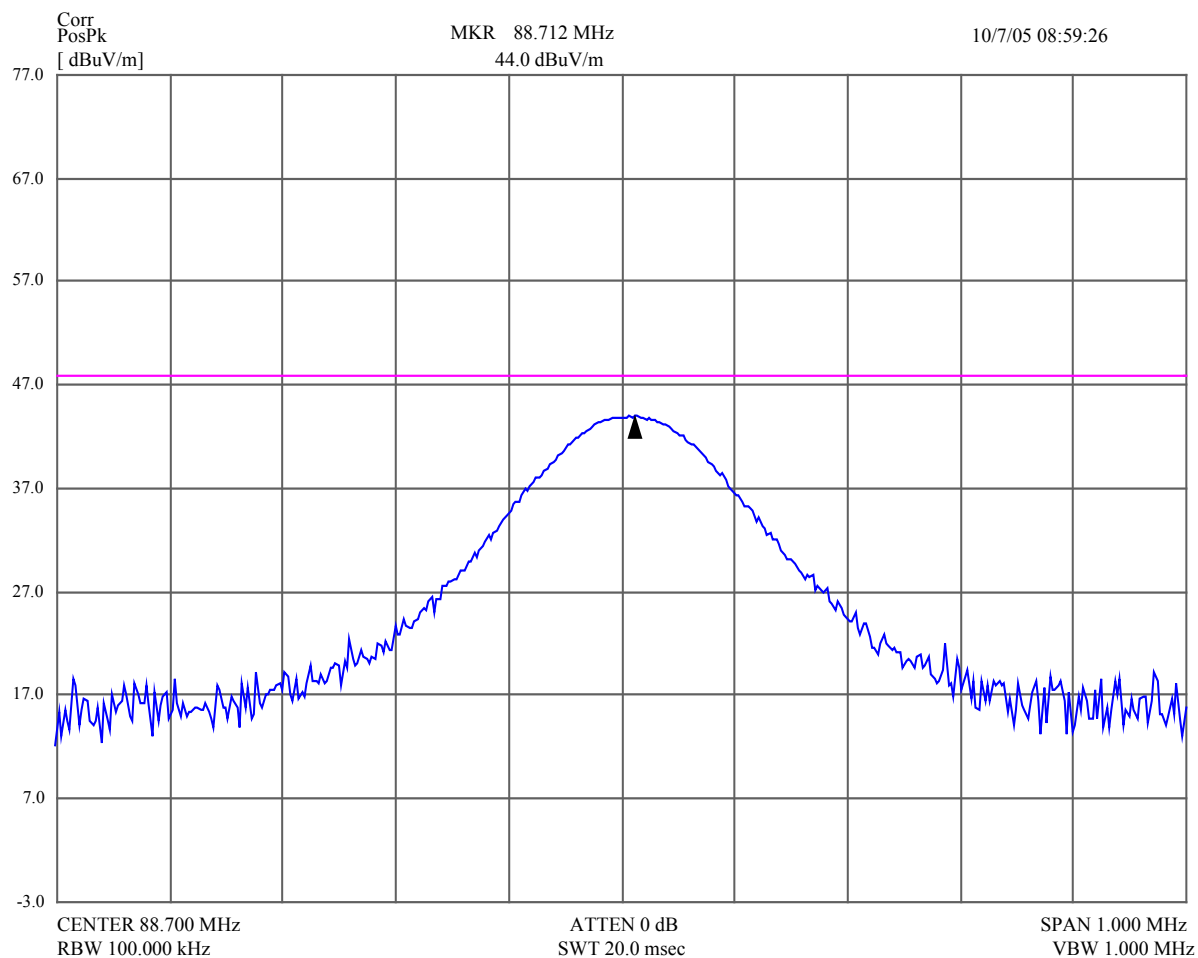
Frequency MHz	Avg dBuV/m	Avg Lmt dBuV/m	Dellim-Avg dB	Pol	Hgt cm	Angle deg	Status
88.073000	25.56	48.00	-22.44	Horz	197	17	PASS
88.081000	24.96	48.00	-23.04	Horz	197	17	PASS
88.090000	27.74	48.00	-20.26	Horz	197	17	PASS
88.103000	42.63	48.00	-5.37	Horz	197	17	PASS
88.118000	37.05	48.00	-10.95	Horz	197	17	PASS
88.128000	25.06	48.00	-22.94	Horz	197	17	PASS
88.136000	23.67	48.00	-24.33	Horz	197	17	PASS

Receiver graph of Field Strength of Emissions at 3 m



5.2.1 no modulation

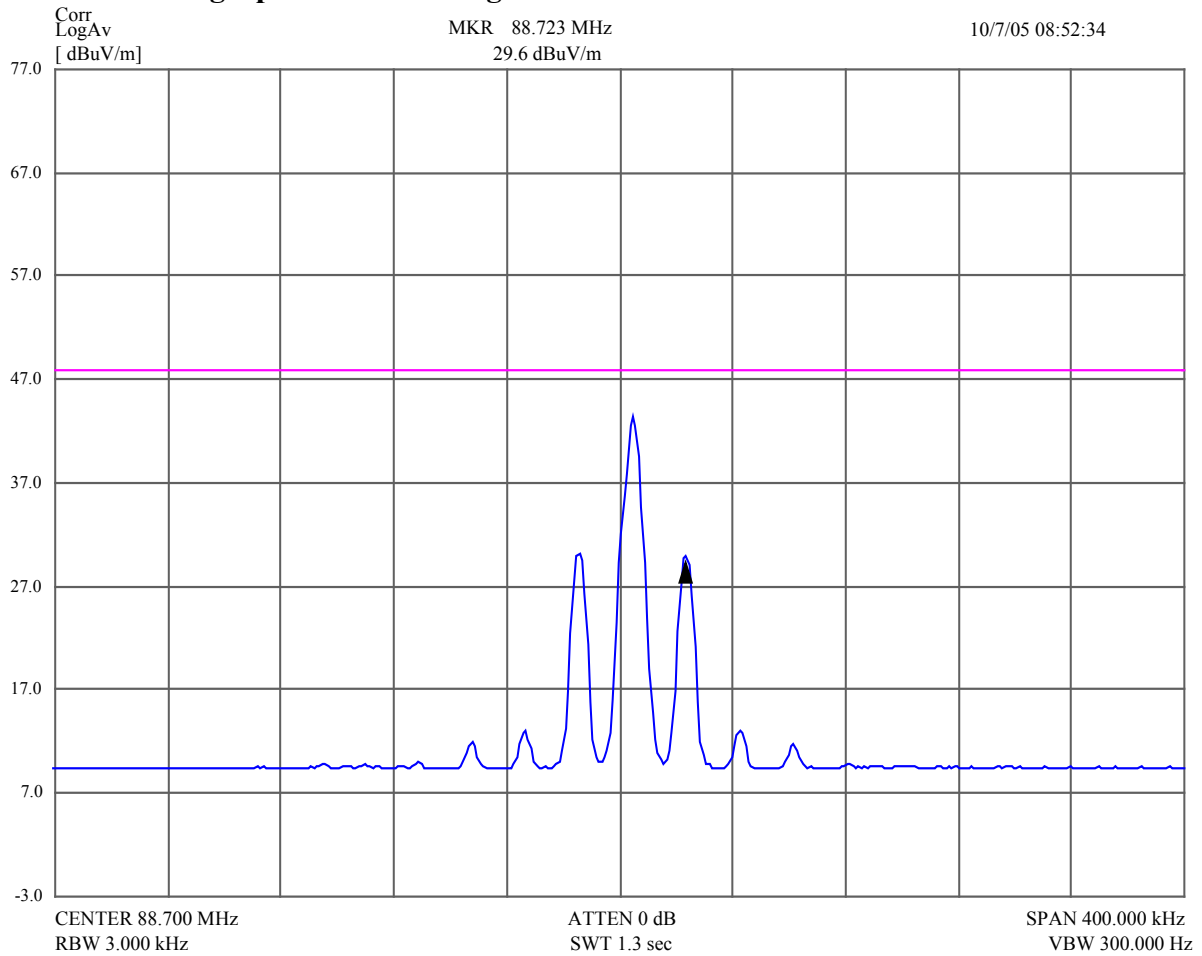
Frequency MHz	PEAK dBuV/m	PEAK Lmt dBuV/m	DelLim-PEAK dB	Pol	Hgt cm	Angle deg	Status
88.712000	44.00	68.00	-24.00	Horz	271	251	PASS



Average value data

Frequency MHz	Avg dBuV/m	Avg Lmt dBuV/m	Dellim-Avg dB	Pol	Hgt cm	Angle deg	Status
88.685000	29.88	48.00	-18.12	Horz	218	20	PASS
88.705000	43.22	48.00	-4.78	Horz	218	20	PASS
88.723000	29.61	48.00	-18.39	Horz	218	20	PASS

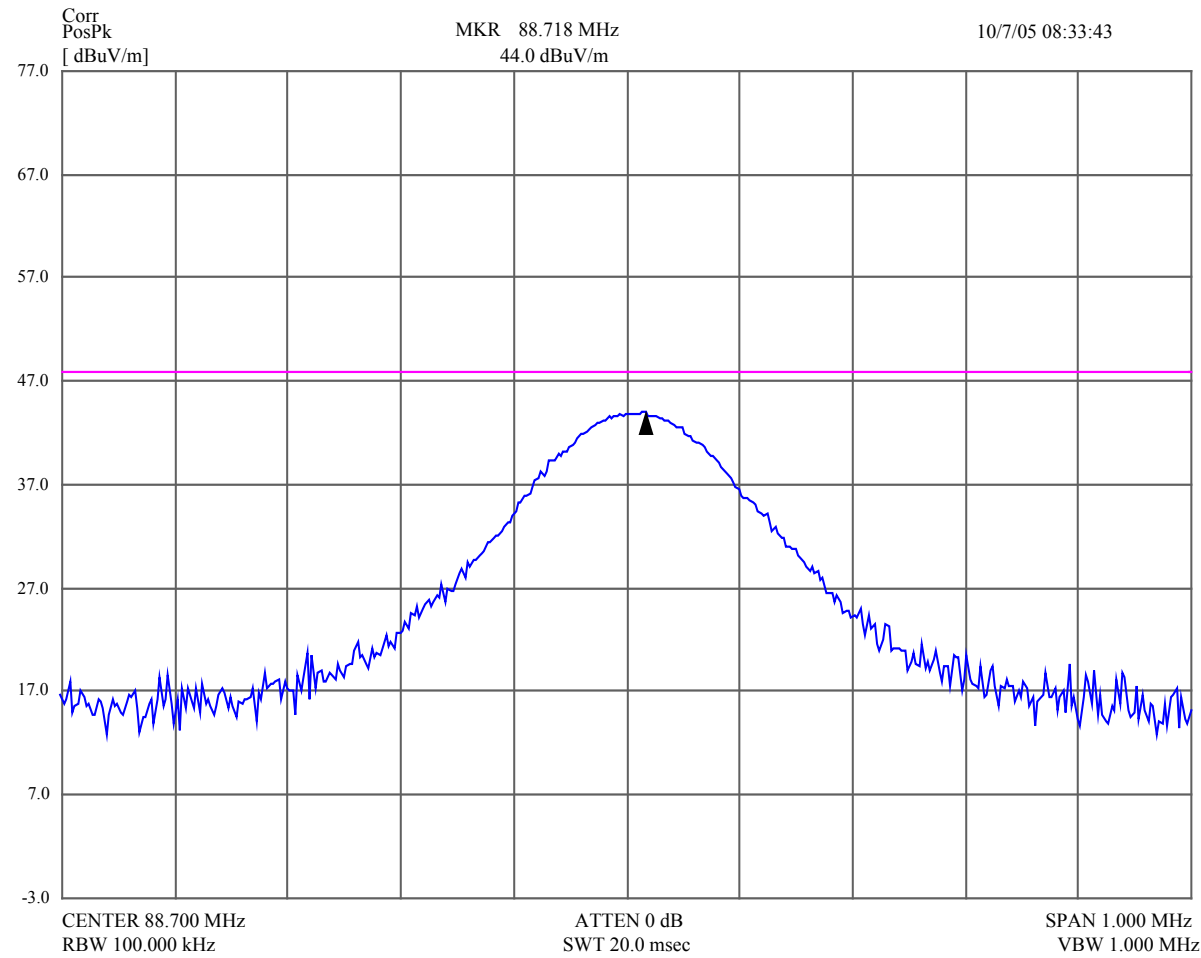
Receiver graph of Field Strength of Emission at 3 m



5.2.2 with modulation

Peak value data

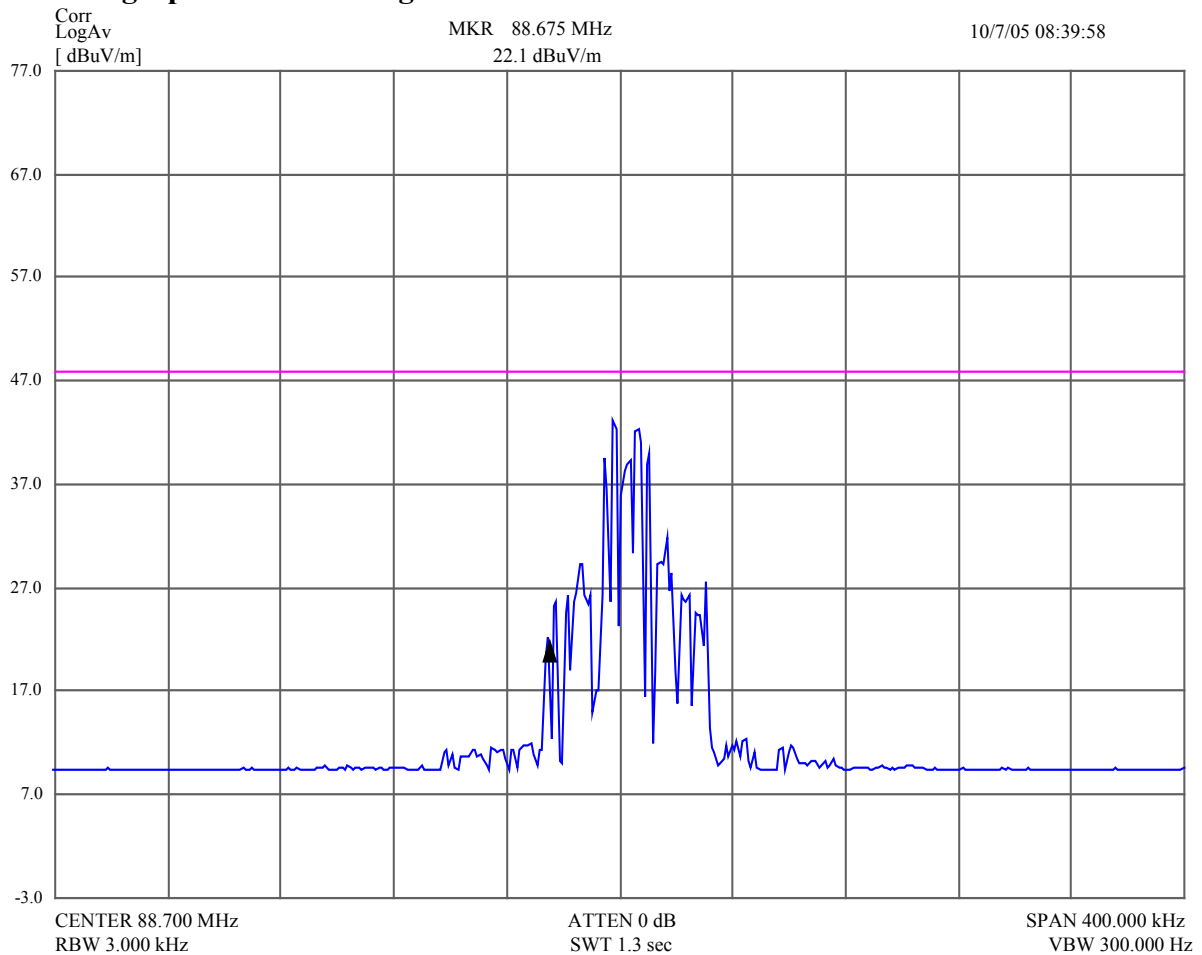
Frequency	PEAK	PEAK Lmt	DelLim-PEAK	Pol	Hgt	Angle	Status
MHz	dBuV/m	dBuV/m	dB		cm	deg	
88.718000	44.00	68.00	-24.00	Horz	271	251	PASS



Average value data

Frequency MHz	Avg dBuV/m	Avg Lmt dBuV/m	DelLim-Avg dB	Pol	Hgt cm	Angle deg	Status
88.677000	25.12	48.00	-22.88	Horz	218	20	PASS
88.686000	29.22	48.00	-18.78	Horz	218	20	PASS
88.698000	43.07	48.00	-4.93	Horz	218	20	PASS
88.707000	42.24	48.00	-5.76	Horz	218	20	PASS
88.717000	31.67	48.00	-16.33	Horz	218	20	PASS
88.731000	27.49	48.00	-20.51	Horz	218	20	PASS

Receiver graph of Field Strength of Emissions at 3 m

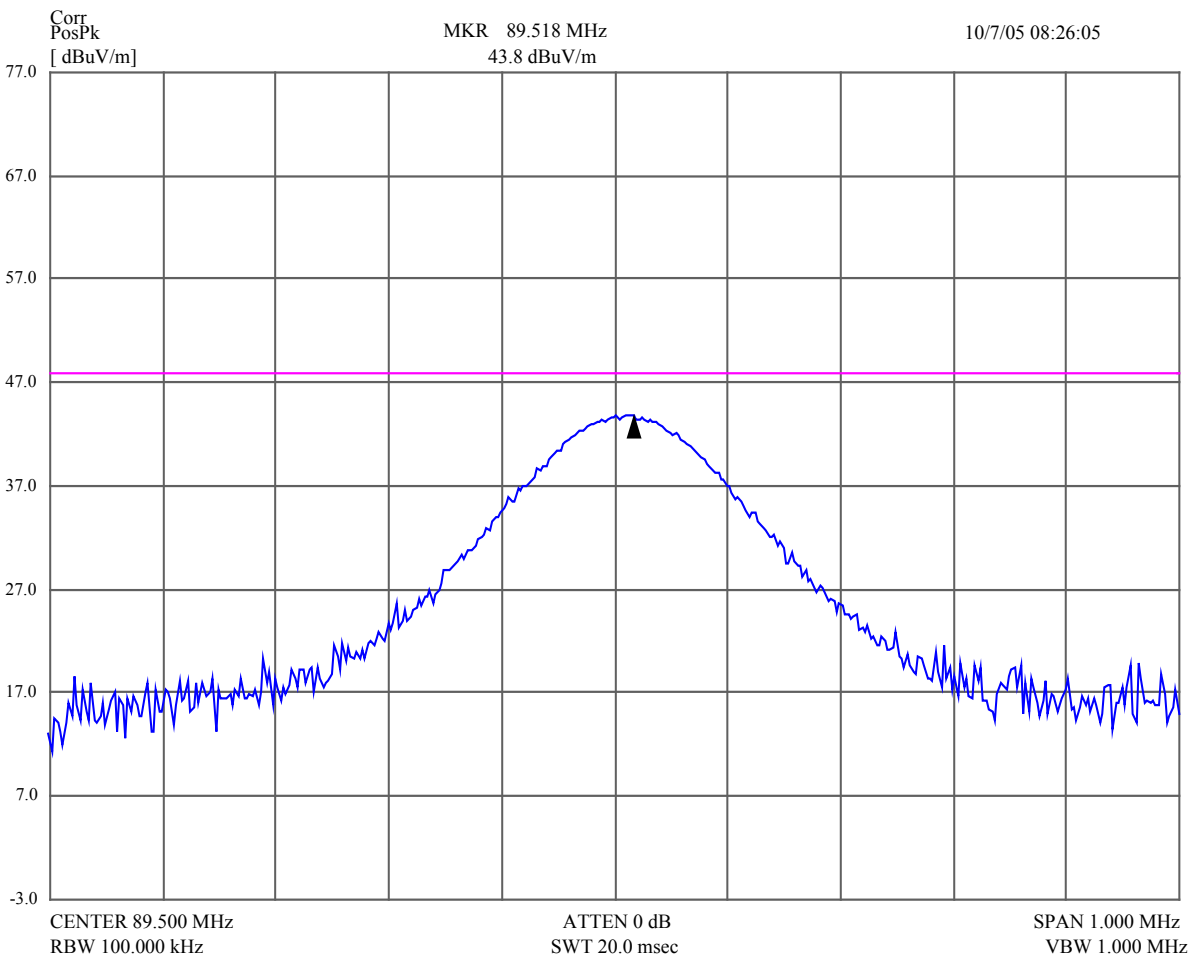


5.3. Channel 89.5 MHz

5.3.1 no modulation

Peak value data

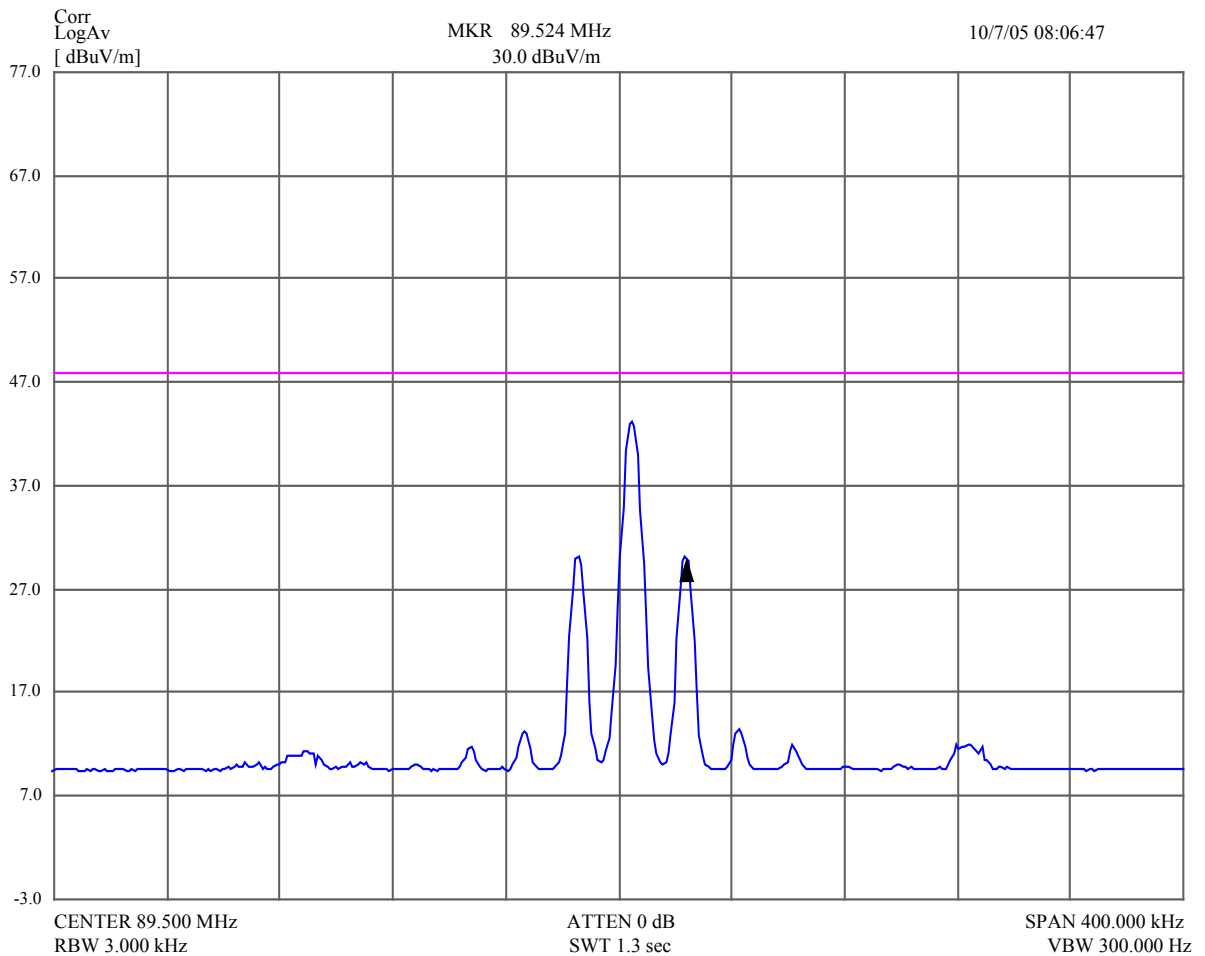
Frequency MHz	PEAK dBuV/m	PEAK Lmt dBuV/m	Dellim-PEAK dB	Pol	Hgt cm	Angle deg	Status
89.518000	43.80	68.00	-24.20	Horz	290	234	PASS



Average value data

Frequency MHz	Avg dBuV/m	Avg Lmt dBuV/m	Dellim-Avg dB	Pol	Hgt cm	Angle deg	Status
89.486000	30.08	48.00	-17.92	Horz	201	18	PASS
89.505000	43.04	48.00	-4.96	Horz	201	18	PASS
89.524000	30.03	48.00	-17.97	Horz	201	18	PASS

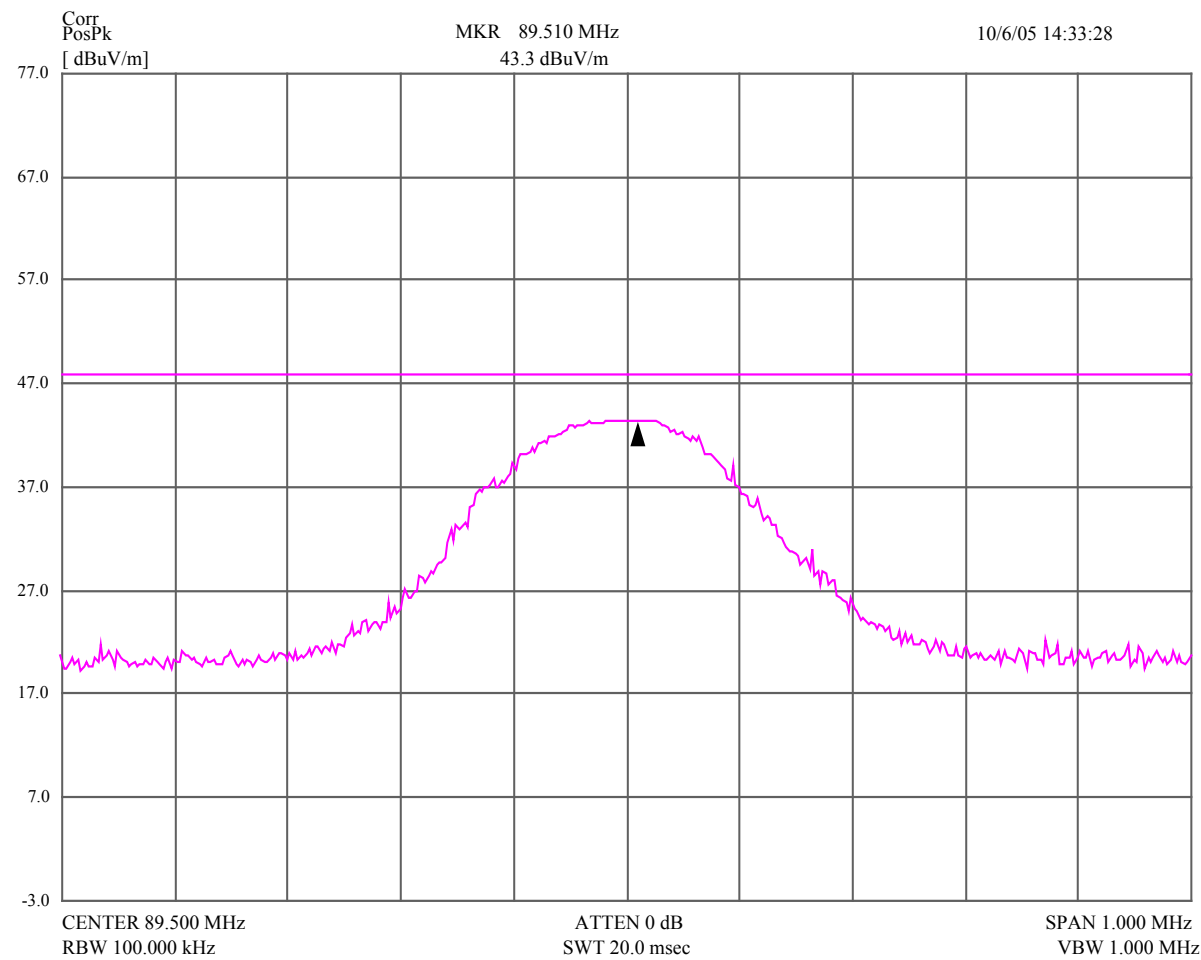
Receiver graph of Field Strength of Emissions at 3 m



5.3.2 with modulation

Peak value data

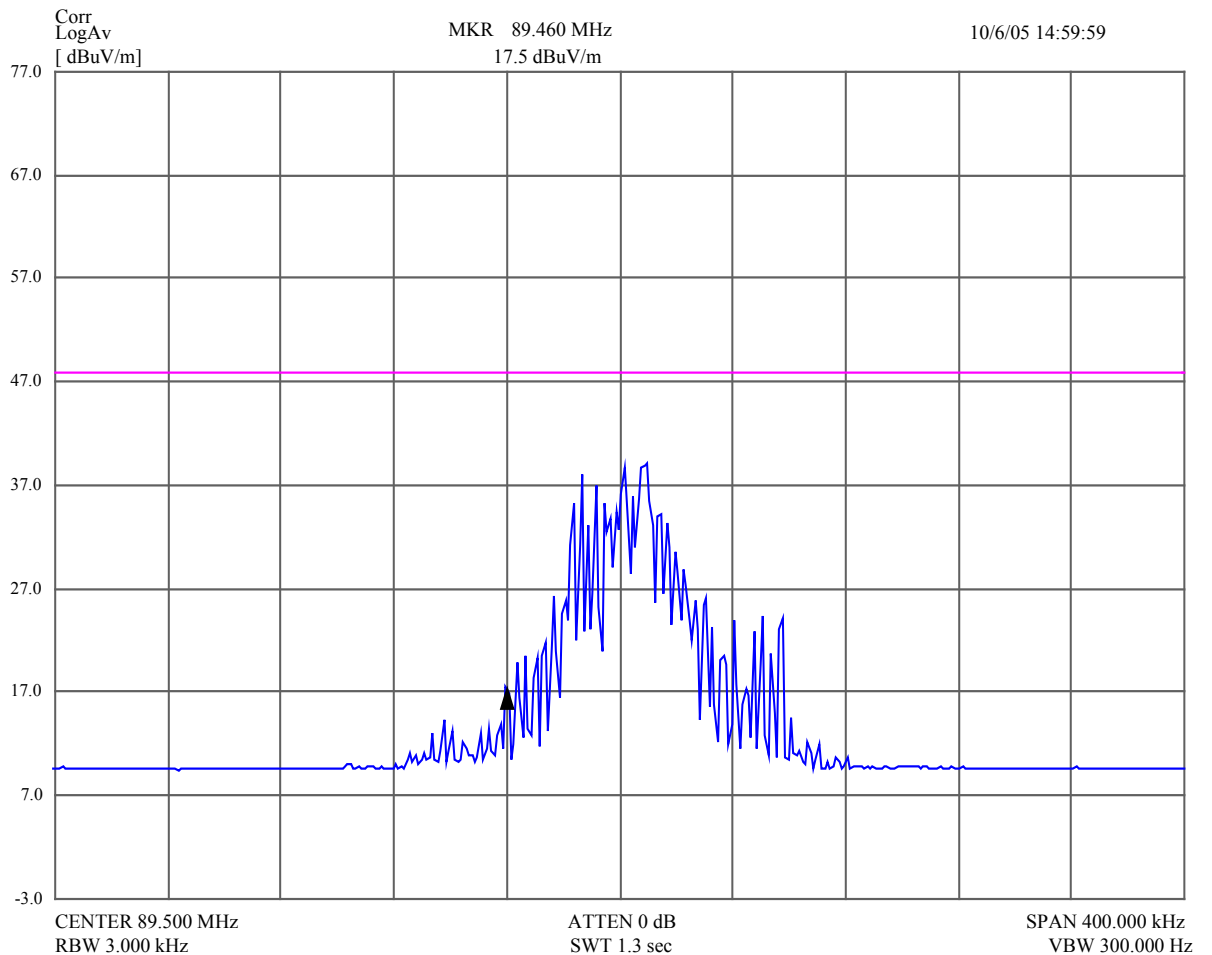
Frequency MHz	PEAK dBuV/m	PEAK Lmt dBuV/m	Dellim-PEAK dB	Pol	Hgt cm	Angle deg	Status
89.510000	43.30	68.00	-24.70	Horz	290	234	PASS



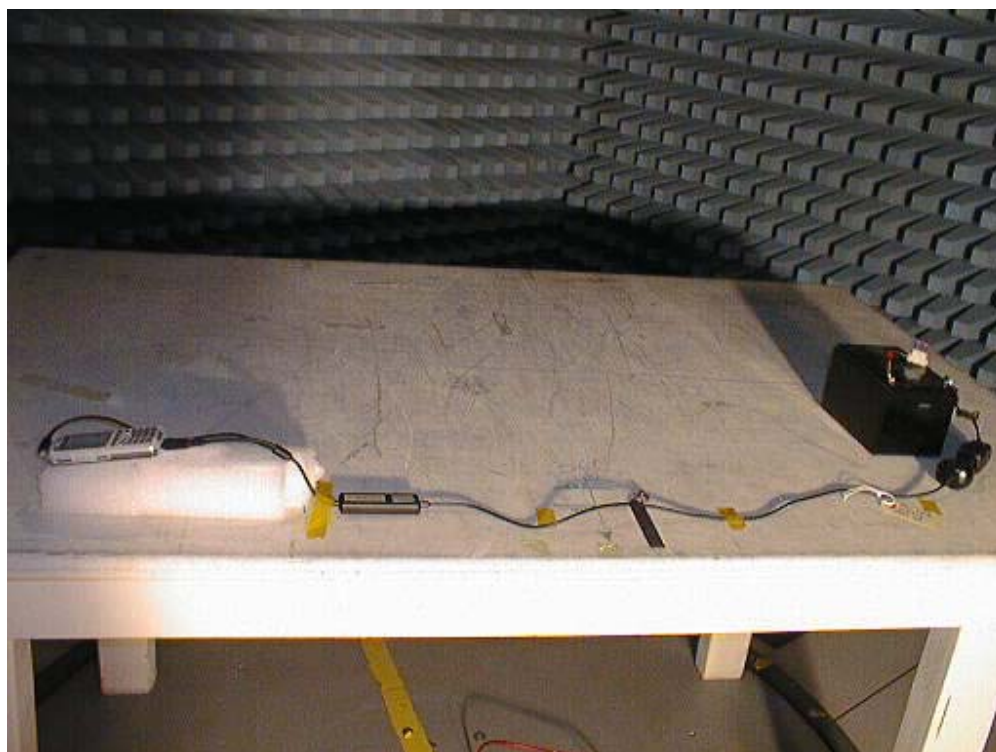
Average value data

Frequency MHz	Avg dBuV/m	Avg Lmt dBuV/m	DelLim-Avg dB	Pol	Hgt cm	Angle deg	Status
89.467000	20.44	48.00	-27.56	Horz	223	18	PASS
89.484000	35.27	48.00	-12.73	Horz	223	18	PASS
89.492000	36.90	48.00	-11.10	Horz	223	18	PASS
89.502000	38.58	48.00	-9.42	Horz	223	18	PASS
89.510000	39.03	48.00	-8.97	Horz	223	18	PASS
89.520000	30.42	48.00	-17.58	Horz	223	18	PASS
89.530000	25.36	48.00	-22.64	Horz	223	18	PASS
89.541000	23.81	48.00	-24.19	Horz	223	18	PASS
89.551000	24.31	48.00	-23.69	Horz	223	18	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.

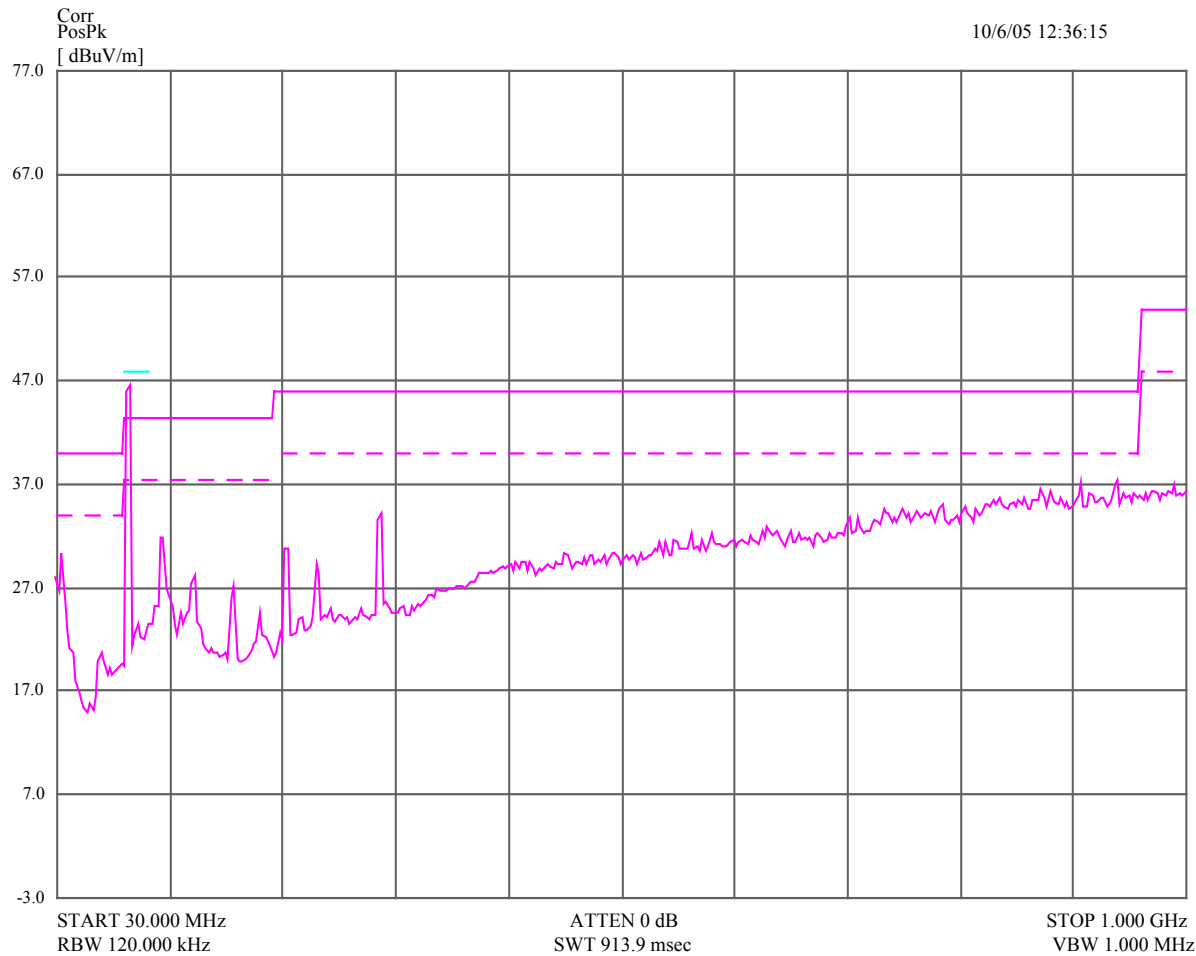
After determination of the maximum emissions configuration the distance of the EUT to the scanning antenna was set to 3 meters.

At each of three selected channels 88.1 MHz, 88.7MHz, and 89.5 MHz Radiated Emissions had been measured.

6.1. Channel 88.1 MHz

Frequency MHz	QP dBuV/m	QP Lmt dBuV/m	DelLim-QP dB	Pol	Hgt cm	Angle deg	Status
33.118000	29.19	40.00	-10.81	Horz	201	302	PASS
116.346248	29.34	43.50	-14.16	Horz	206	304	PASS
221.001744	29.67	46.00	-16.33	Horz	149	133	PASS
300.707488	30.46	46.00	-15.54	Horz	216	133	PASS

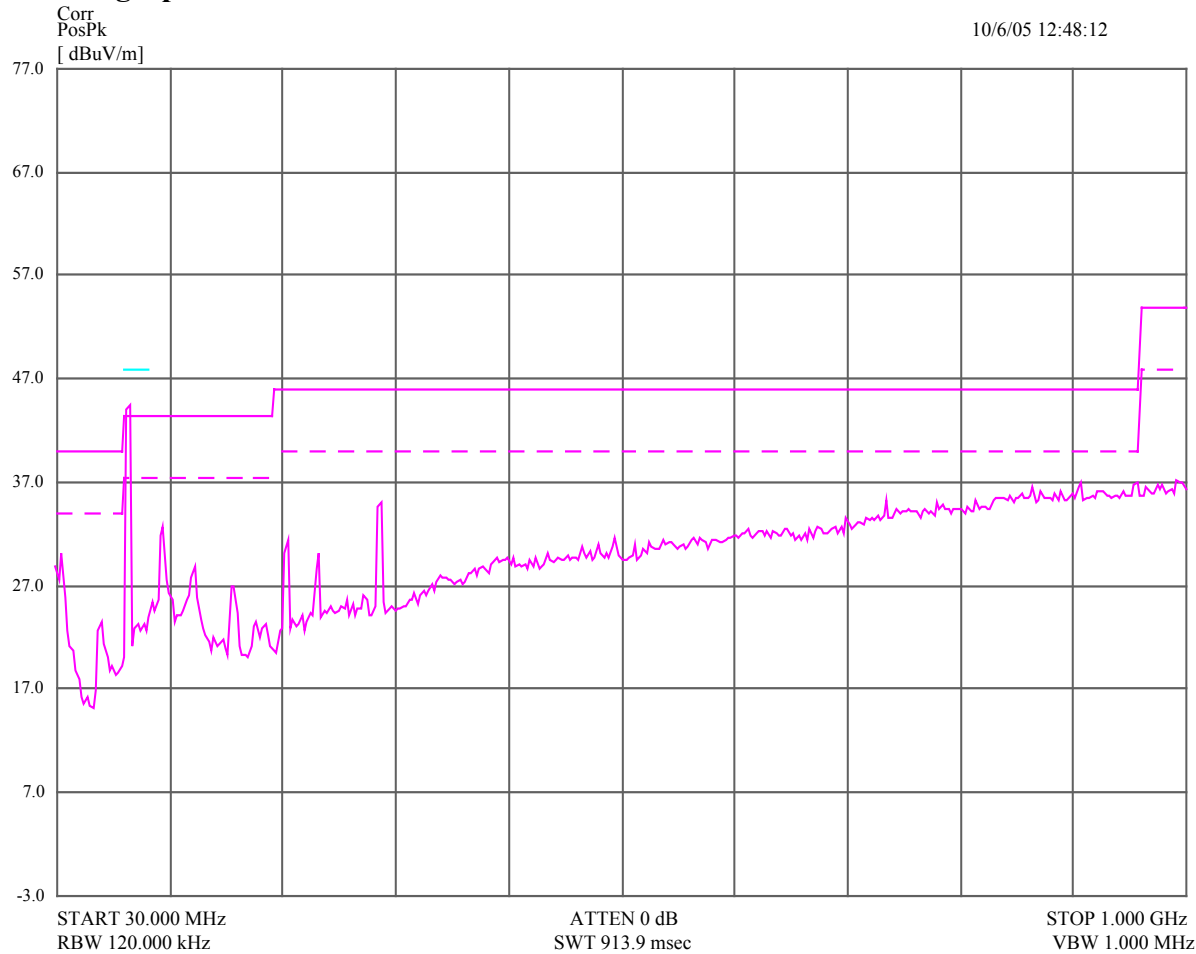
Receiver graph of Radiated Emissions at 3 m



6.2. Channel 88.7 MHz

Frequency MHz	QP dBuV/m	QP Lmt dBuV/m	DelLim-QP dB	Pol	Hgt cm	Angle deg	Status
33.106750	29.34	40.00	-10.66	Horz	230	288	PASS
116.333000	29.94	43.50	-13.56	Horz	140	60	PASS
220.996256	29.53	46.00	-16.47	Horz	149	314	PASS
300.693760	31.65	46.00	-14.35	Horz	216	72	PASS

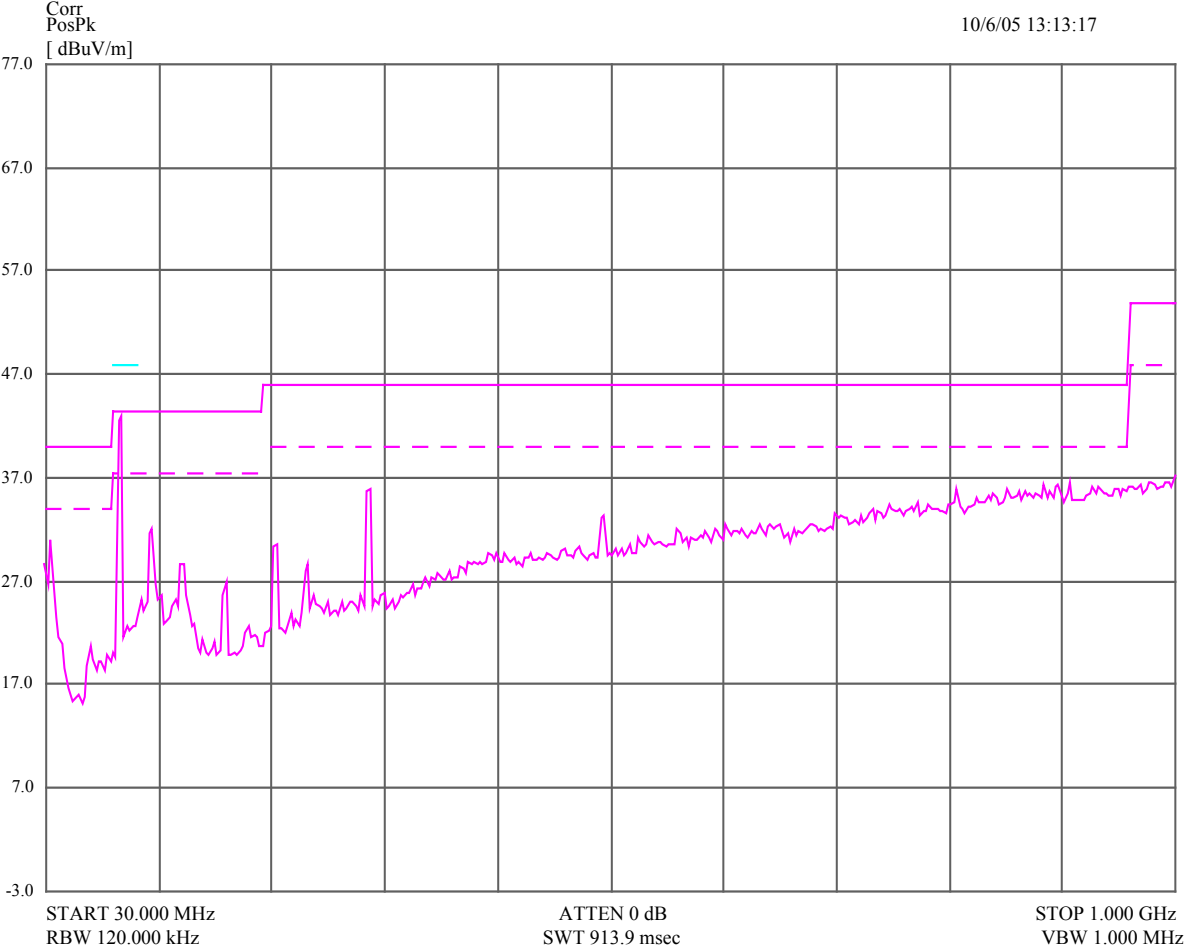
Receiver graph of Radiated Emissions at 3 m



6.3. Channel 89.5 MHz

Frequency MHz	QP dBuV/m	QP Lmt dBuV/m	DelLim-QP dB	Pol	Hgt cm	Angle deg	Status
33.107250	29.59	40.00	-10.41	Horz	166	317	PASS
116.331248	30.05	43.50	-13.45	Horz	166	45	PASS
220.993744	29.49	46.00	-16.51	Horz	162	310	PASS
300.692512	32.17	46.00	-13.83	Horz	162	8	PASS
501.161248	27.94	46.00	-18.06	Horz	95	343	PASS

Receiver graph of Radiated Emissions at 3 m



6.4 Photographs of Test Set-Up



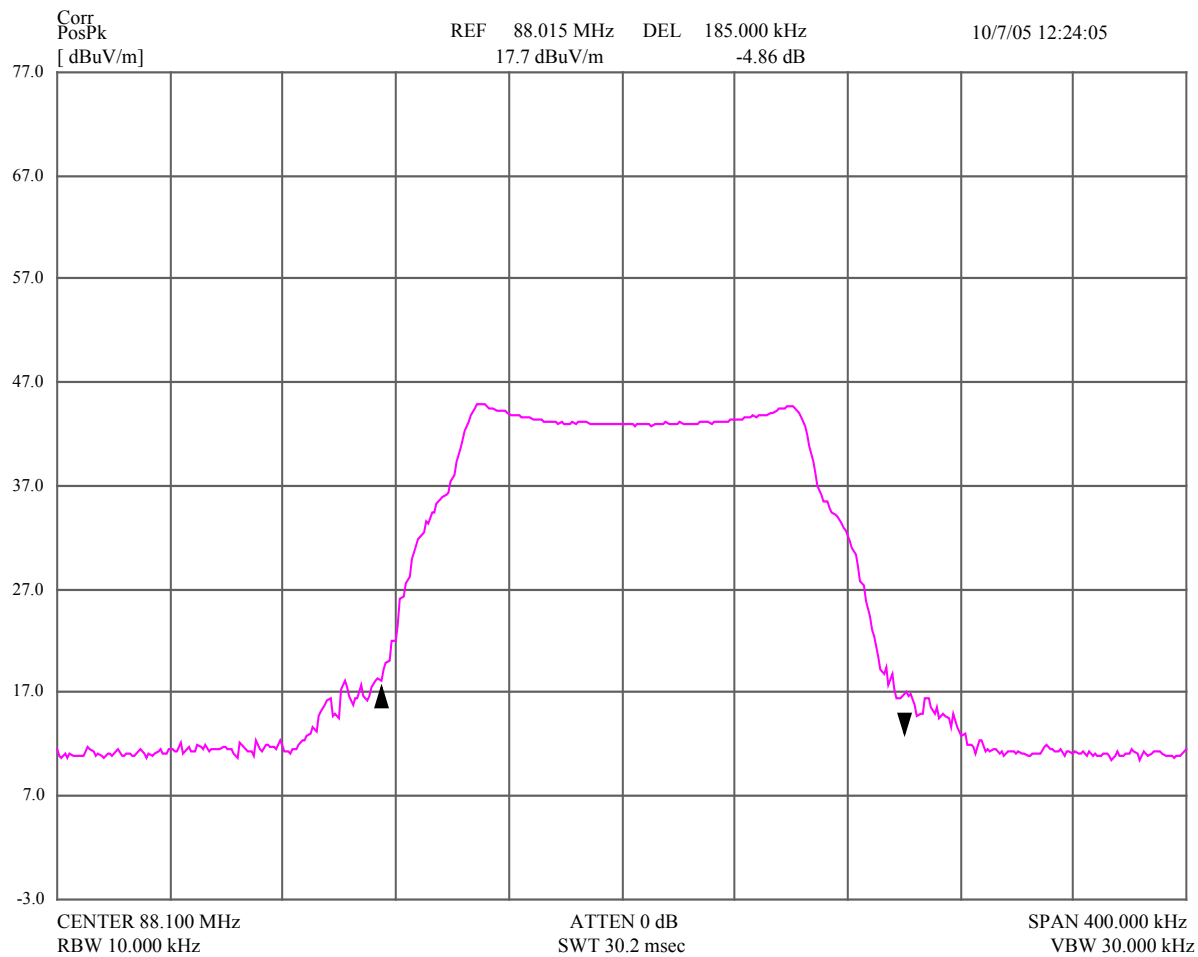
7.0 Occupied channel bandwidth

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.

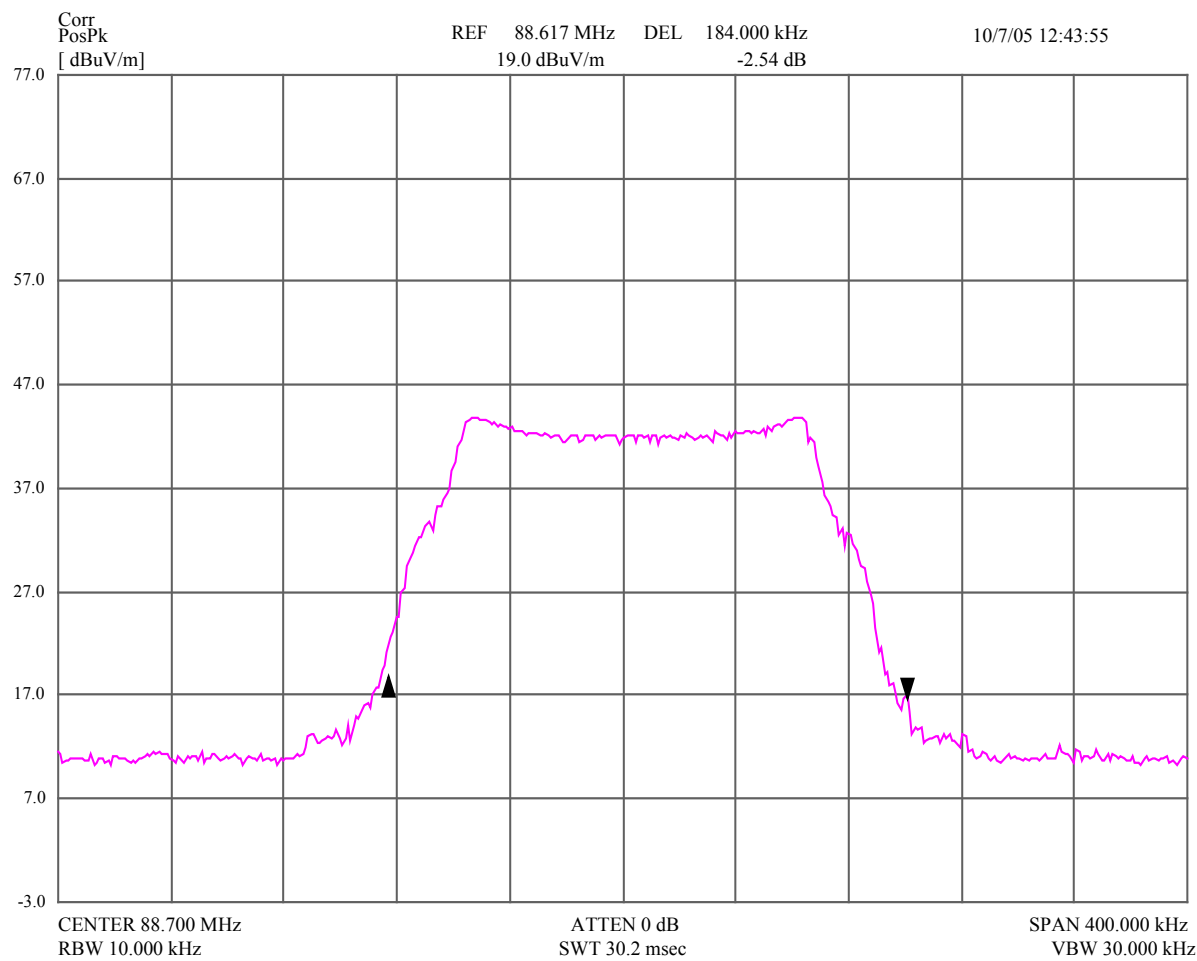
1. The Transmitter was adjusted to work at the selected channels –88.1 MHz, 88.7 MHz and 89.5 MHz. All measurements were conducted by the HP 85462A Spectrum Analyzer;
2. The test Signal generator HP651B was connected to the audio input of the EUT. The fundamental frequency is modulated by 1.00 kHz sinewave with input level equals to the limiting threshold 336mV p-p.
3. The Channel BW was measured at an amplitude level reduced from the reference level by the 26 dB. :

7.1. Channel 88.1 MHz



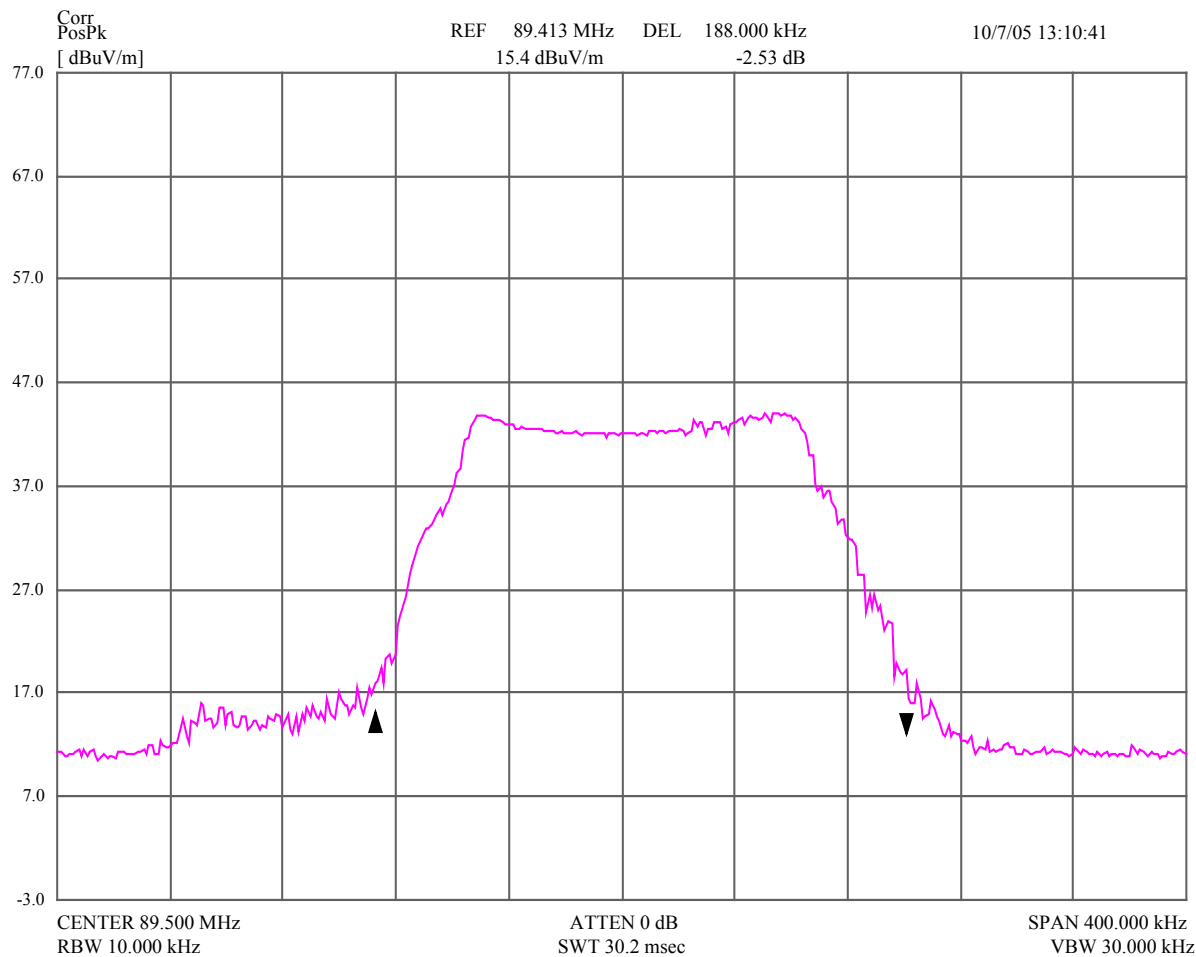
The plot shows the 26 dB bandwidth equals 185 kHz

7.2. Channel 88.7 MHz



The plot shows the 26 dB bandwidth equals 184 kHz

7.3. Channel 89.5 MHz



The plot shows the 26 dB bandwidth equals 188 kHz

7.4 Photographs of Test Set-Up

