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NVLAP LAB CODE: 200413-0

July 27, 2006

Test Record

Product Verification
According to FCC Part 15 Subparts C Sections 15.207, 15.209, 15.225 and RSS-210, RSS-GEN

for

SecuraKey, Division of Soundcraft, Inc.
MODEL: ET8-FF-II-H-C-OOVV

TABLE OF CONTENTS

Revision History

Revision	Date	Description of Changes	Author
0.1	July 27,2006	Initial document	S.Sohn

Introduction – Test Plan

This report describes the results of all measurements made on Vicinity RFID Reader which falls under the class of intentional radiator, Low Power Unlicensed Transmitter, by the FCC Part 15 Subpart C Rules and Regulations.

This EUT is designated: **e*Tag Quasar Reader**

Model : **ET8-FF-II-H-C-OOVV**

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 ET8-FF-II-H-C-OOVV met the FCC Part 15 Subpart C Low Power Unlicensed Transmitter limits and RSS-210 (Issue 6) 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" and RSS-210 (Issue 6)

The test results provided with this report, indicate that the equipment tested:
e*Tag Quasar Reader. MODEL: **ET8-FF-II-H-C-OOVV** is compliant with the following Rules and Regulations

A. 47 CFR, Subpart 15.225(a)(b)(c) Field Strength of Emissions within band
B. 47 CFR, Subpart 15.225(d) Field Strength of Emissions outside the band
C. 47CFR, Subpart 15.225(e) Frequency tolerance of the carrier
D. 47 CFR, Subpart 15.207 Line Conducted Emissions
E. 47 CFR, Subpart 15.203 Antenna Requirements

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Report Approved By:

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Director of EMC Lab

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E-mail:emc@jmr.com

2.0 GENERAL INFORMATION

2.1 Client Information

Company Name:	Secura Key, division of Soundcraft ,Inc.
Contact:	Randy Watkins
Company Address:	20301 Nordhoff Street Chatsworth, CA 91311
Phone:	818-882-0020

2.2 Administrative Data

Device tested:	e*Tag Quasar, Vicinity RFID Reader
Model:	ET8-FF-II-H-C-OOVV
Equipment category:	Intentional Radiators, Low Power Unlicensed Transmitter
Accessories:	N/A
Purpose of test:	Compliance to FCC Rules and Regulations, Part 15, Subpart C
Date of test:	07/18/06 – 07/25/06
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 ET8-FF-II-H-C-OOVV is Vicinity RFID reader/writer which is used for a wide variety of Automatic Identification and Data Collection applications. Compliant with ISO 15693 standards.

Operating Frequencies: 13.56 MHz

Number of Channel: 1

Type of Modulation: PPM

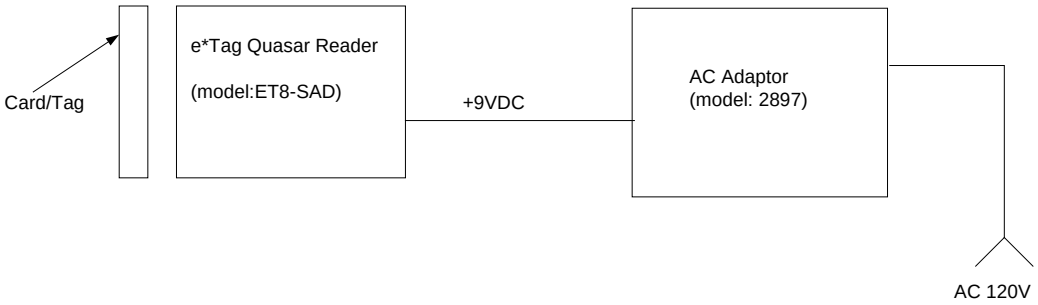
Modulation depth: 100%

Antenna: Two turn 50 Ohm integral antenna made of printed circuit board traces (part of the device's PCB).

3.2 Test Run

The EUT exercise program was designed to 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:

Equipment	AC Adaptor, Secura Key
Model No.	2897

3.5 Cabling Configuration

Power Cords:

Unit	AC Adaptor
MFG	Generic
Shielded	No
Length	1.8 m

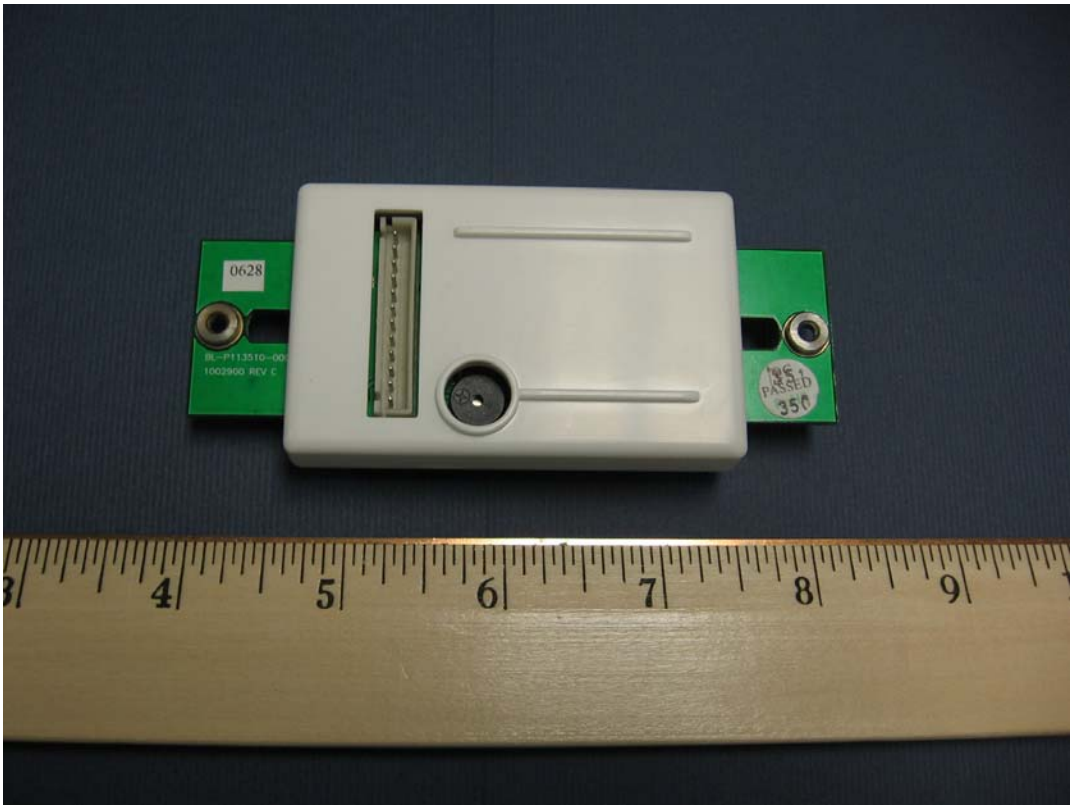
I / O Cables External:

N/A

3.6 Photos of the EUT

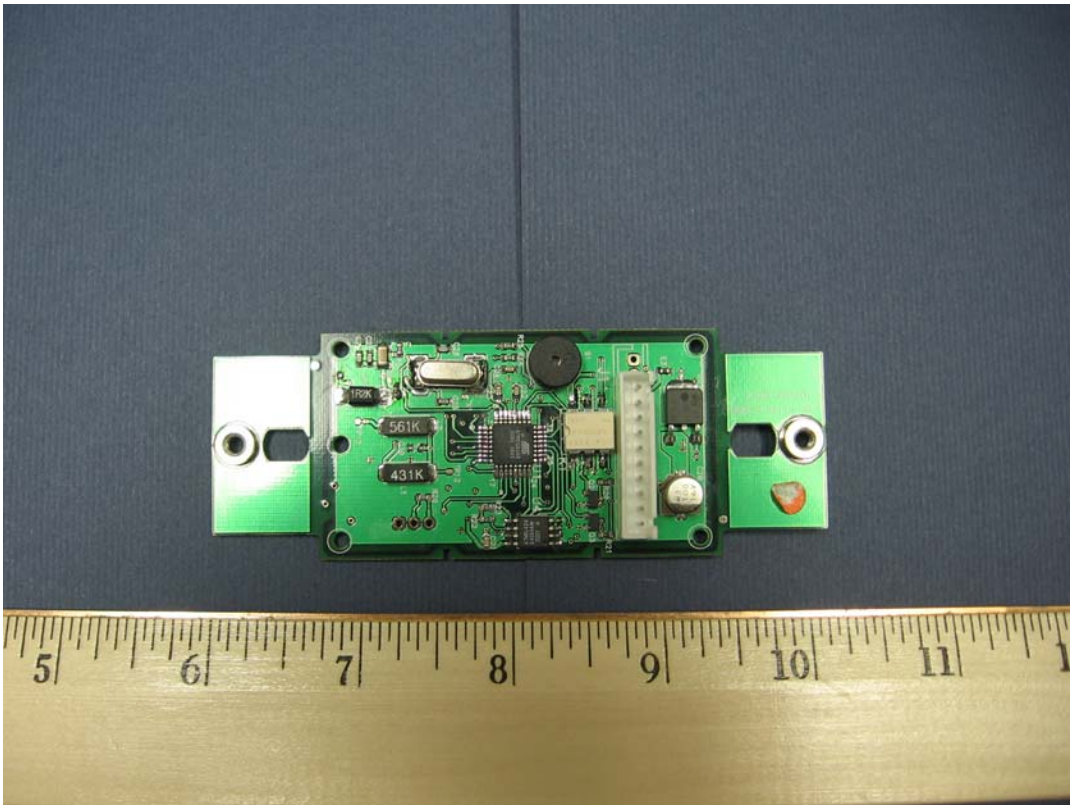
EUT: e*Tag Quasar.
MODEL : ET8-FF-II-H-C-OOVV

Top Side



EUT: e*Tag Quasar.
MODEL : ET8-FF-II-H-C-OOVV

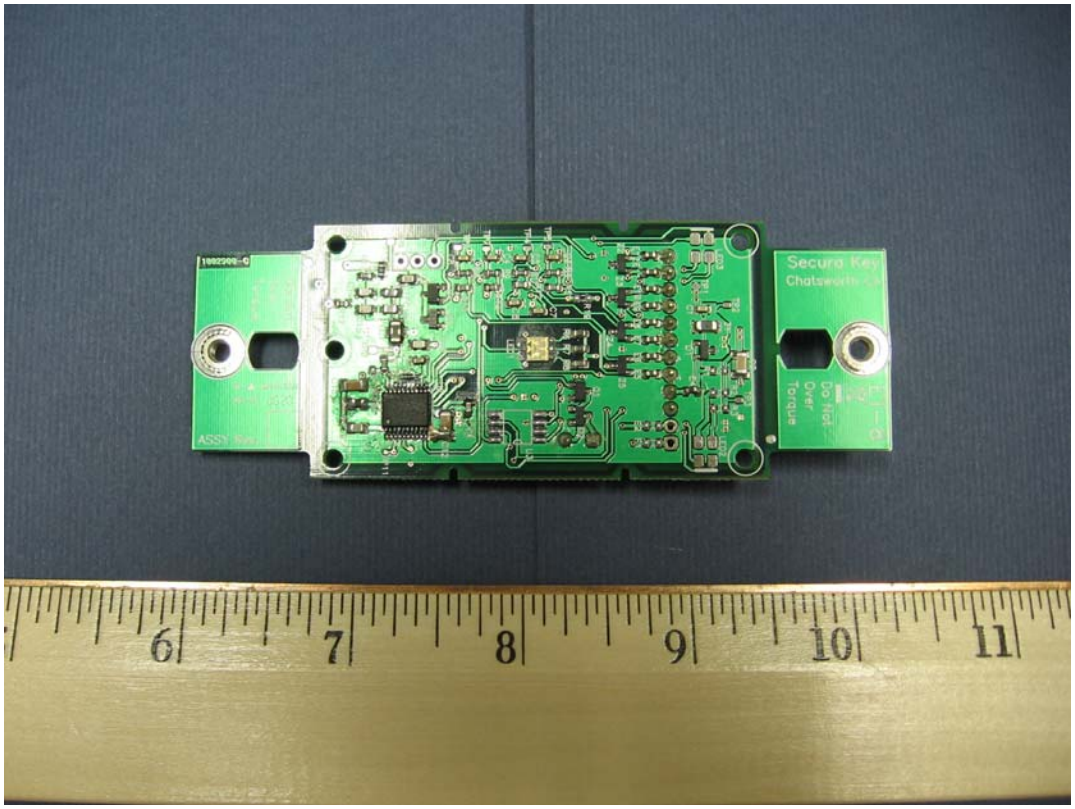
Bottom side



EUT: e*Tag Quasar.

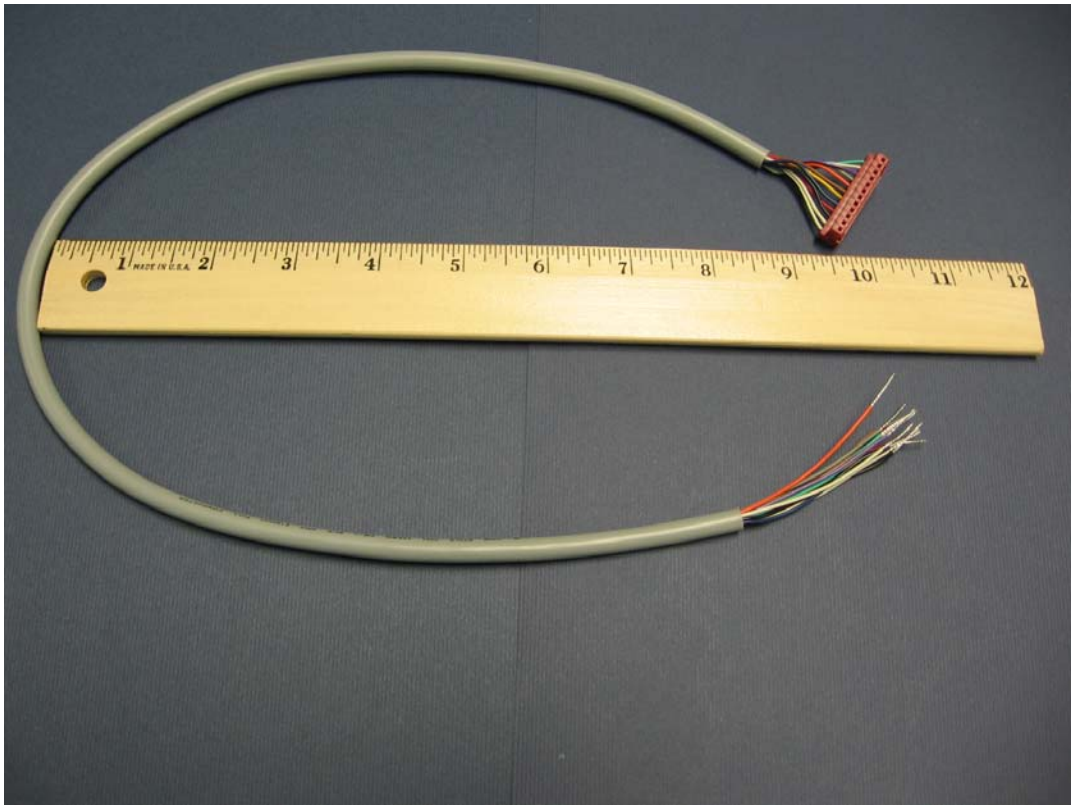
MODEL : ET8-FF-II-H-C-OOVV

(PCB Bottom side)



EUT: e*Tag Quasar.
MODEL : ET8-FF-II-H-C-OOVV

RFID Reader (PCB Top side)



EUT: e*Tag Quasar.
MODEL : ET8-FF-II-H-C-OOVV

Cable

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	02/19/06	02/19/07
Analyzer	HP85462A	3325A00120	04/11/06	04/11/07
Cable 2	8268	CBL-002	02/19/06	02/19/07
Preselector	HP85460A	3330A00117	04/11/06	04/11/07
Qpeak Adapter	HP85462 Internal	Internal	04/11/06	04/11/07
Pre-Amplifier	None			
LISN	3825/2 LISN	9406-2232	01/21/06	01/21/07
Tower 1	EMCO 1050	9310-1786	N/A	N/A
Turntable 1	EMCO 1060	9409-1753	N/A	N/A
Bilog Antenna	CBL6112B	2604	09/03/05	09/03/06
Shielded Semi-Anechoic Chamber	RANTEC	N/A	03/16/06	03/16/07
Temperature and Humidity Recorder	Dickson TH8-24C	5097755	09/16/05	09/16/06
Loop Antenna	EMCO 6502	3426	08/10/05	08/10/06
Analyzer	HP8590A	2618A01059	11/05/05	11/05/06
Switch 1	N/A	N/A	N/A	N/A
Attenuator 1	33-10-34	BA9146	02/19/06	02/19/07
Amplifier	HP 8447F	3113A05772	03/11/06	03/11/07
Temp. chamber	Industrial oven & equipment IndoCo	5966B	N/A	N/A
Thermocouple Monitor	SR600	34202	12/16/05	12/16/06
Voltmeter	Fluke 83	65530501	01/13/06	01/13/07

5.0 Radiated and Conducted Emissions

5.1 Test Specifications

Test Requirements: **FCC Part 15 : Subclause 15.207, 15.209**
RSS-210 Issue 6: 2.6
RSS-Gen Issue 1: 3.3 & 7.2.2

Specification:	ANSI C63.4: 2003
Title:	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.
Specification:	FCC 47 CFR, Part 15, Subpart B, Class B: 2002
Title:	Code of Federal Regulations, Telecommunication
Specification:	JMR Work Procedure W090-5205
Title:	Conducted Emission Test
Specification:	JMR Work Procedure W090-5206
Title:	Radiated Emission Test

5.1.1 Test Requirements.

The EUT must meet Performance Criterion : Class B.

5.2 Radiated Emissions Test

5.2.1 Procedure of Radiated Emissions Test

The EMC radiated 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 test site is designed according to the ANSI 63.4 -2000 requirements and the anechoic treatment of the chamber is sufficient to achieve the requirements of CISPR 22 and ANSI C63.4. The test site description along with the site attenuation data has been filed with the FCC and a letter of compliance with the requirements of Section

2.948 of the FCC Rules was issued on August 20,1998 by the FCC.
The EUT was tested in compliance with Section 11 of the ANSI C63.4 standard. All data was obtained via the HP 85876A EMI measurement software package using the HP 85462A Receiver.

After determination of the maximum emissions configuration the distance of the EUT to the scanning antenna was set to 3 meters.
Radiated emissions were then monitored from the EUT over a frequency range of 30 MHz to 2000 MHz in horizontal polarization with the scanning antenna repeatedly moving from 1 to 4 meters in elevation while the turntable rotated through a 360 degree arc. This procedure was then repeated in vertical polarization to confirm the strongest signals and polarization orientation. This part of the test sequence the spectrum check is done in a manual mode.
After it is determined by the results of the spectrum check scan that the article is compliant the EUT is then measured in completely automatic mode using a Hewlett Packard 8546A EMI Receiver (9 kHz - 6.5 GHz) and HP 85876A EMI Measurement Software test system.
The HP Software, after scanning the EUT in Peak mode, automatically selects the strongest signal from the EUT and then Quasi-Peaks and Averages those strong signals to determine EUT compliance to the standards.
The measurement values are data reduced and then presented as both graphical results of the spectrum check and tabulated QP and Averages of the strongest signals in this report.

5.3 Conducted Emissions Test

5.3.1 Procedures of Conducted Emission Test

Conducted emission test is done in the "Peak Detector" mode for Line 1, which is high line to ground over a frequency range of 0.45 MHz to 30 MHz. Then the RFI emissions are measured from Line 2, or neutral to ground over the same frequency range.. When Peak amplitudes are found to be above the limits, or within 10 dB of the limits, a Quasi-Peak Detector Mode and Average Detector Mode for the line or lines with excessive RFI is then performed.

For AC power line conducted tests, the following option may be exercised if the EUT Peak Mode emissions exceed the average limit when performing the tests. If the level of the emission measured using instrumentation with Quasi-Peak detection is 6 dB, or more, higher than the level of the same emission measured with instrumentation having an Average Detector with a 9 kHz minimum bandwidth, that emission is considered to be broadband and the level obtained with the Quasi-Peak detector may be reduced by 13 dB for comparison to the limit.

The EUT is configured as a system with peripherals connected, so that at least one interface port of each type is connected to one external peripheral when tested for conducted emissions according to ANSI C63.4.

The test data was obtained using a Hewlett Packard 8546A EMI Receiver (9 kHz - 6.5 GHz) and HP 85876A EMI Measurement Software.

The conducted test for table-top configurations is performed on a 1.0 X 2.5 X 0.8 meter non-metallic test table which is set up inside a shielded test room, measuring 12 feet by 10 feet by 9 feet tall. The separation between the EUT and screen room wall is 0.4 m, according to ANSI C63.4.

The EUT is powered through an appropriate Line Impedance Stabilization Network (LISN), bonded to the ground plane as described in CISPR 16.
The power input cables to the LISN and the RFI measurement system are arranged so that they will not influence the measurement results. To ensure that RFI from the auxiliary instrumentation or support equipment does not influence the test readings, the LISN power is isolated from other power by RFI filters. Excess power cord is folded back and forth to form a non-inductive bundle.

5.4 Test Results

5.4.1 Radiated Emissions Test Results

Measurements expanded uncertainty equals 3.26 dB with 95% confidence level.

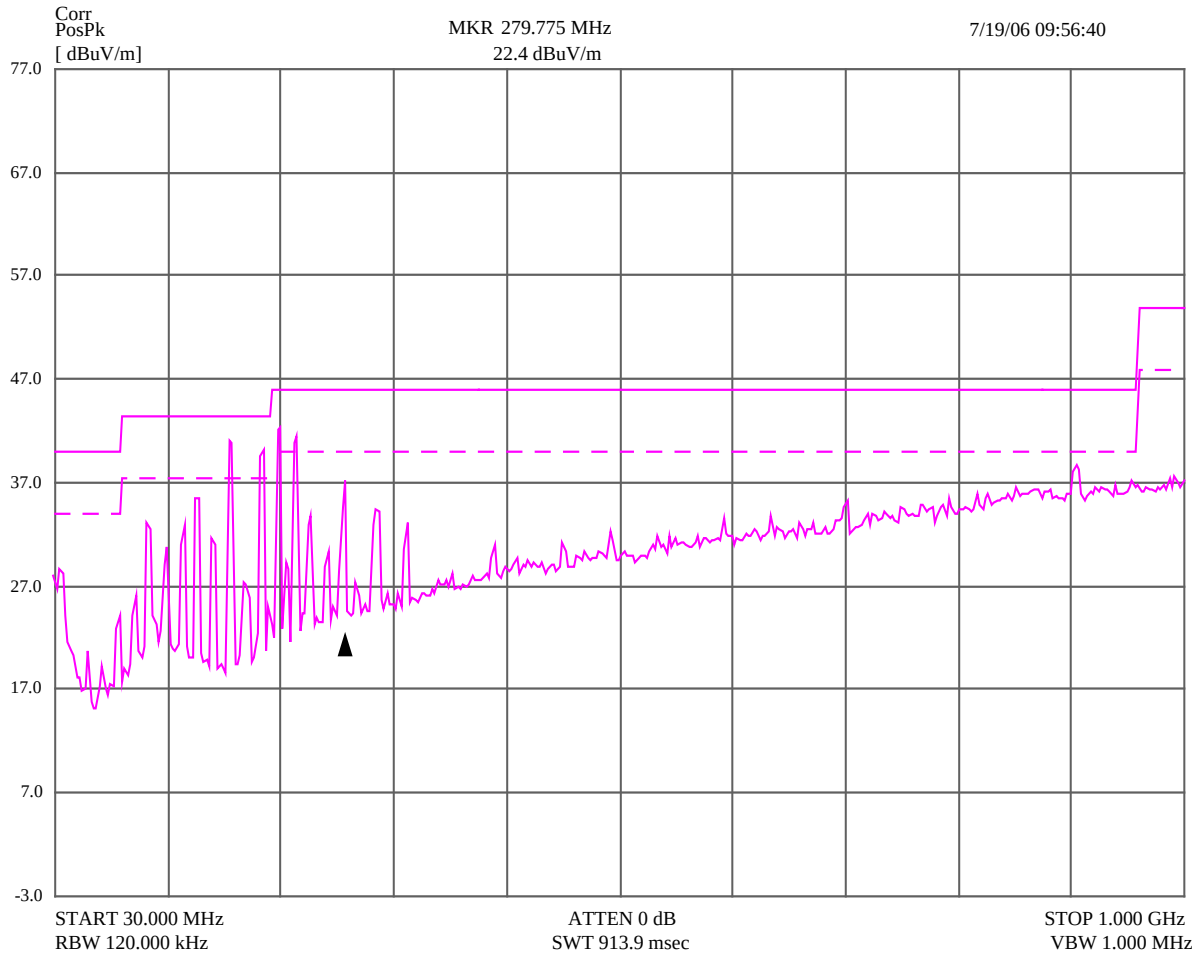
Room Ambient Temperature: 20°C±1°C
Relative Humidity: 31%±5%

Below are the Quasi-Peak and Average readings of the highest value signals observed throughout the 30 MHz to 1000 MHz frequency range.

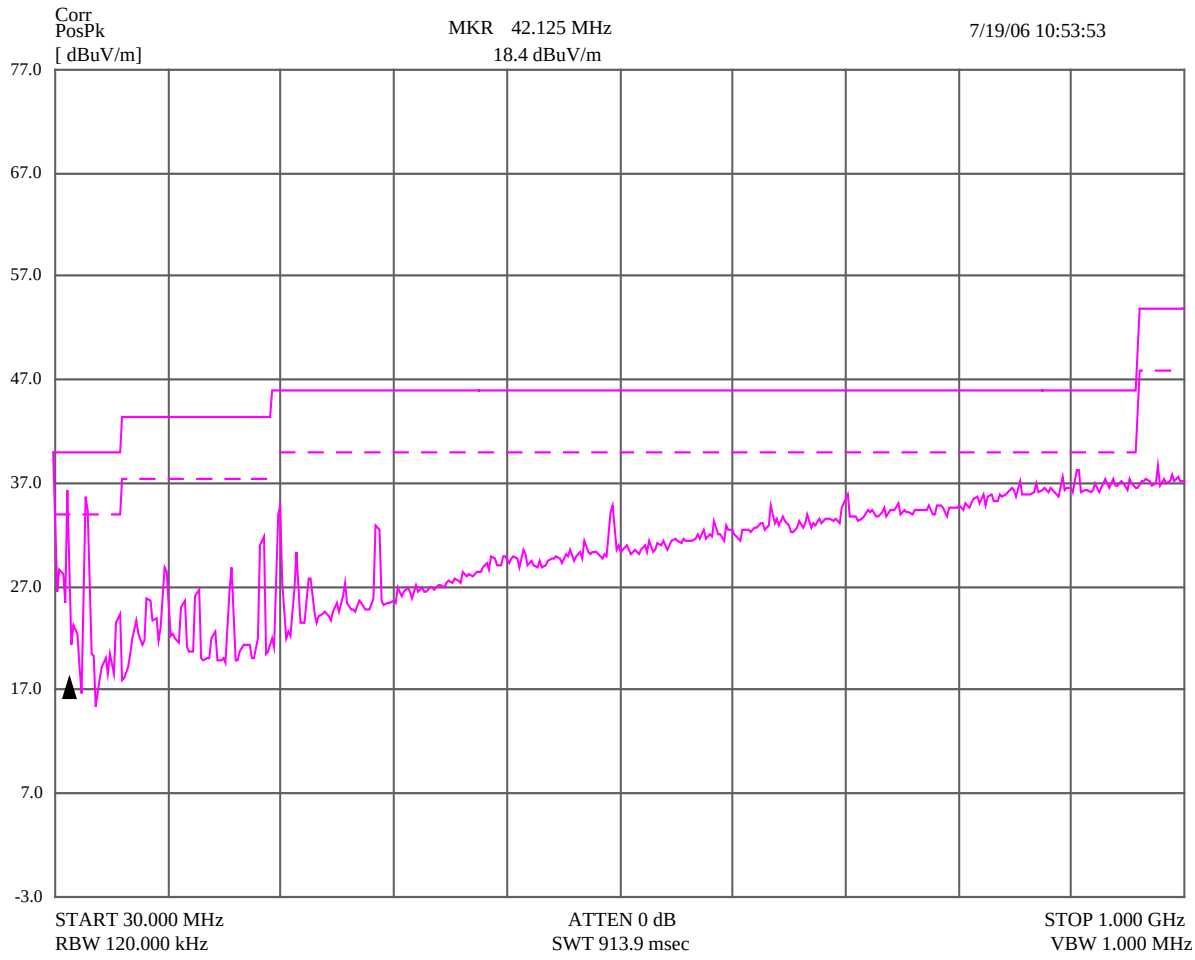
Frequency MHz	QP dBuV/m	QP Lmt dBuV/m	DelLim-QP dB	Pol	Hgt cm	Angle deg	Status
40.681752	33.81	40.00	-6.19	Vert	95	230	PASS
54.242752	33.87	40.00	-6.13	Vert	94	150	PASS
149.167504	32.99	43.50	-10.51	Horz	196	335	PASS
176.288752	39.30	43.50	-4.20	Horz	208	351	PASS
203.395504	29.95	43.50	-13.55	Vert	95	261	PASS
203.410000	36.92	43.50	-6.58	Horz	153	329	PASS
216.970000	41.80	46.00	-4.20	Horz	156	319	PASS
216.995008	30.96	46.00	-15.04	Vert	95	317	PASS
230.528752	39.28	46.00	-6.72	Horz	138	314	PASS
271.213760	33.15	46.00	-12.85	Horz	94	331	PASS
300.696256	26.51	46.00	-19.49	Vert	95	59	PASS

A horizontal and vertical polarization spectrum traces of the magnitude of all the signals throughout the band may be seen below. In this graph the magnitude of the largest signal is plotted for the configuration that produced the largest signal.

Horizontal:


Corr
PosPk
[dBuV/m]
MKR 279.775 MHz
22.4 dBuV/m
7/19/06 09:56:40
77.0
67.0
57.0
47.0
37.0
27.0
17.0
7.0
-3.0
START 30.000 MHz
RBW 120.000 kHz
ATTEN 0 dB
SWT 913.9 msec
STOP 1.000 GHz
VBW 1.000 MHz

Vertical:


Corr
PosPk
[dBuV/m]
MKR 42.125 MHz
18.4 dBuV/m
7/19/06 10:53:53
77.0
67.0
57.0
47.0
37.0
27.0
17.0
7.0
-3.0
START 30.000 MHz
RBW 120.000 kHz
ATTEN 0 dB
SWT 913.9 msec
STOP 1.000 GHz
VBW 1.000 MHz

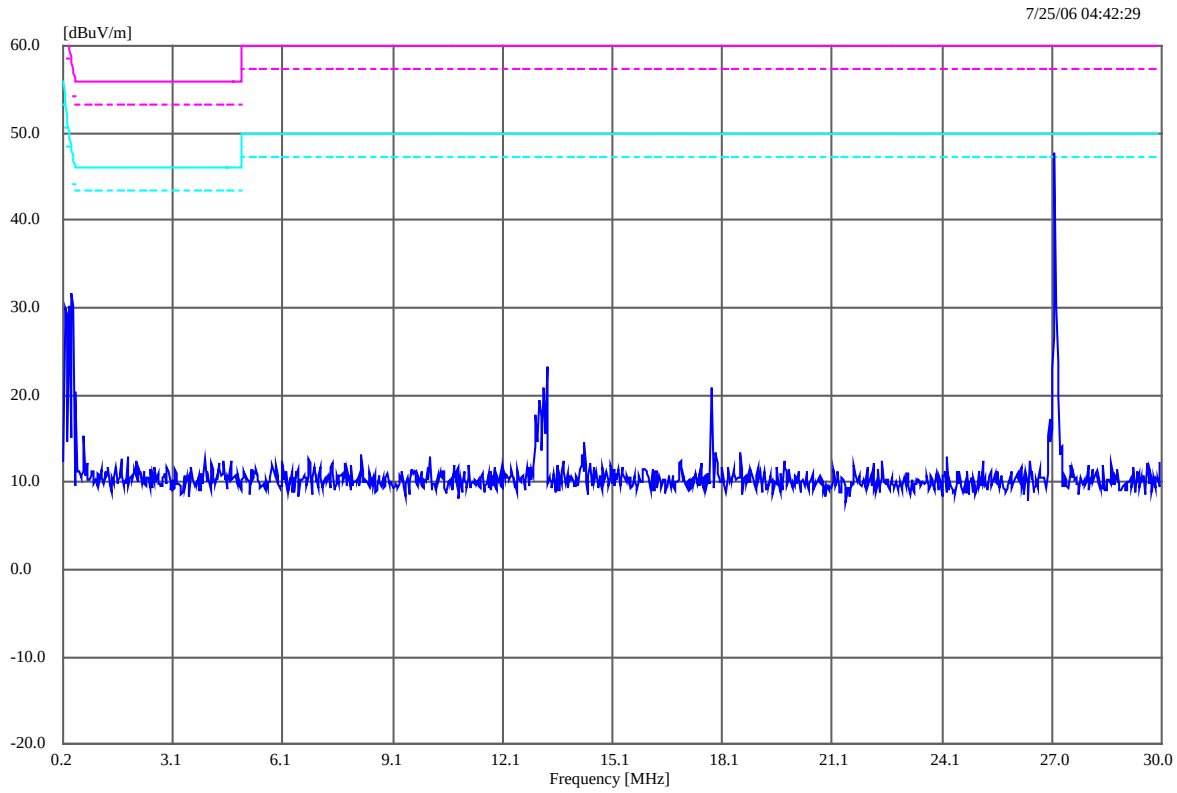
5.4.2 Conducted Emissions Test Results

Measurements expanded uncertainty equals 2.62 dB with 95% confidence level.
Room Ambient Temperature: 20°C±1°C
Relative Humidity: 31%±5%

Line 1

Frequency MHz	Avg dBuV/m	Avg Lmt dBuV/m	DelLim-Avg dB	Status
0.389250	8.84	48.08	-39.24	PASS
13.562250	20.30	50.00	-29.70	PASS
14.131750	8.78	50.00	-41.22	PASS
17.774750	17.59	50.00	-32.41	PASS
27.121750	16.29	50.00	-33.71	PASS

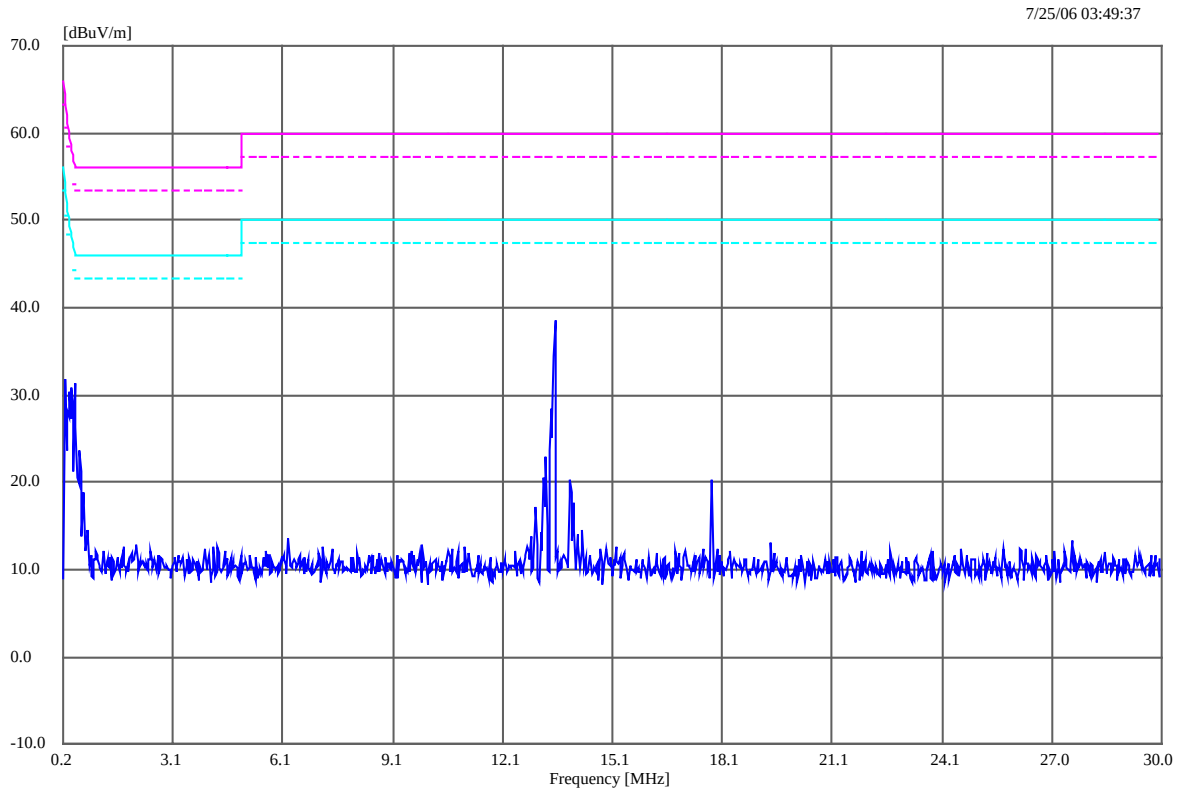
Composite Trace



Line 2

Frequency MHz	Avg dBuV/m	Avg Lmt dBuV/m	DelLim-Avg dB	Status
0.175250	8.77	54.71	-45.94	PASS
0.353750	8.74	48.87	-40.13	PASS
13.110250	8.90	50.00	-41.10	PASS
13.561250	20.58	50.00	-29.42	PASS
13.715000	9.52	50.00	-40.48	PASS
17.774250	11.17	50.00	-38.83	PASS

Composite Trace



6.0 Field Strength of Fundamental and Emissions within permitted band.

Test Requirements: **FCC Part 15 : Subclause 15.225 (a),(b),(c)**
RSS-210 Issue 6: A2.6

Test Method: **ANSI C63.4: 2003**

Limit : (a) The maximum Field Strength authorized within the band 13.553-13.567 MHz is 15,848 uV/m @ 30m

(b) Within the bands 13.410-13.553 MHz and 13.567 – 13.710 MHz, the maximum field strength is 334 uV/m @ 30m

(c) Within the bands 13.110 – 13.410 MHz and 13.710 – 14.010 MHz, the maximum field strength is 106 uV/m @ 30m

Mode of operation: with modulation**.**

Field Strength Calculation:

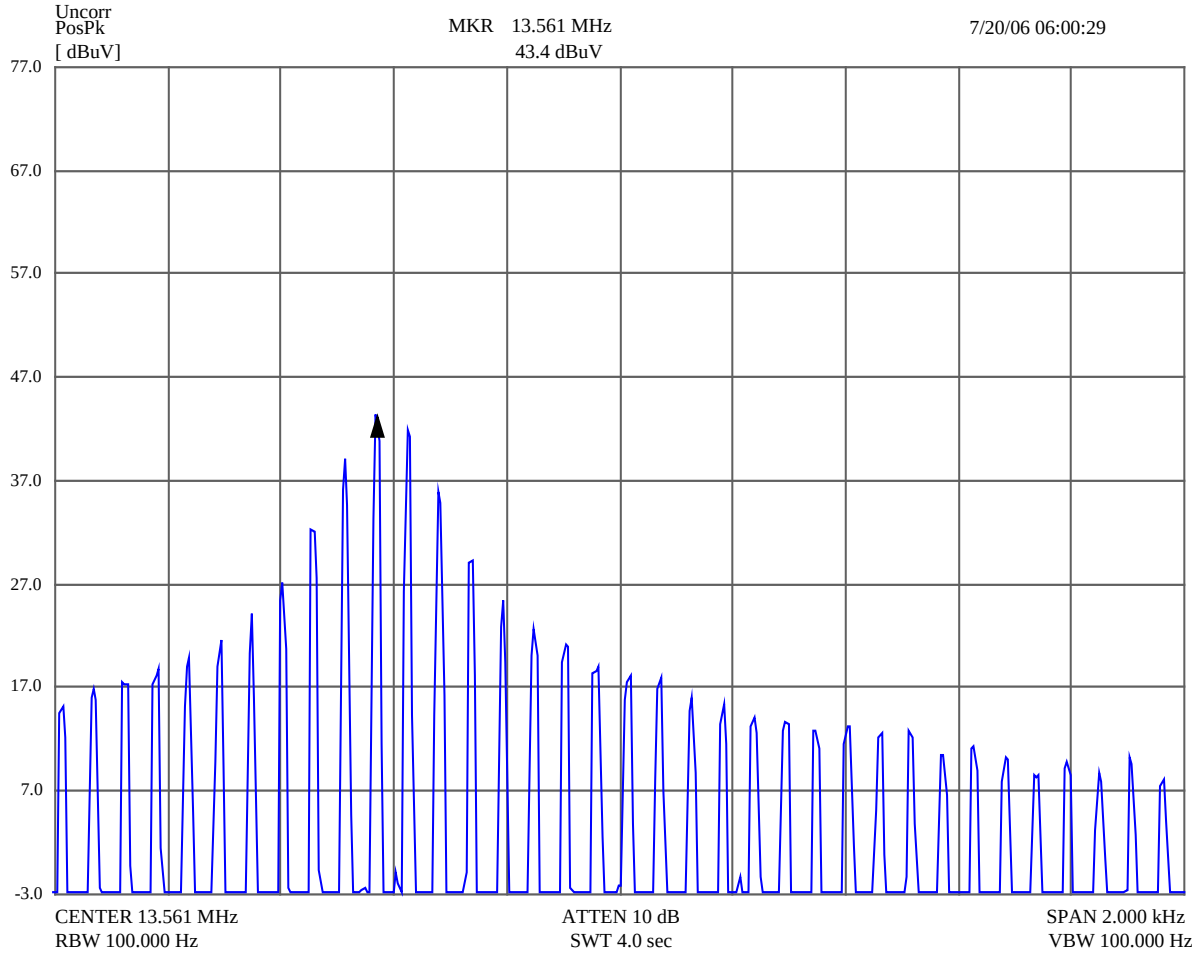
The Field Strength (FS) is calculated by adding the Antenna Factor (AF) and Cable Factor, and subtracting the distance factor from the measured reading. The equation is as follows: FS = measured reading + AF + CF – distance factor.
Test distance corrector factor used in accordance with 15.31, 40dB per decade to correct test data for comparison to the applicable limit.
Test distance for this measurement is 3 meter. The calculation for determining the field strength limit at 3 meter is as follow:
Correction Factor = 40 log (distance 1/ distance 2)
Correction Factor = 40 log (30/3)
Correction Factor = 40 dB

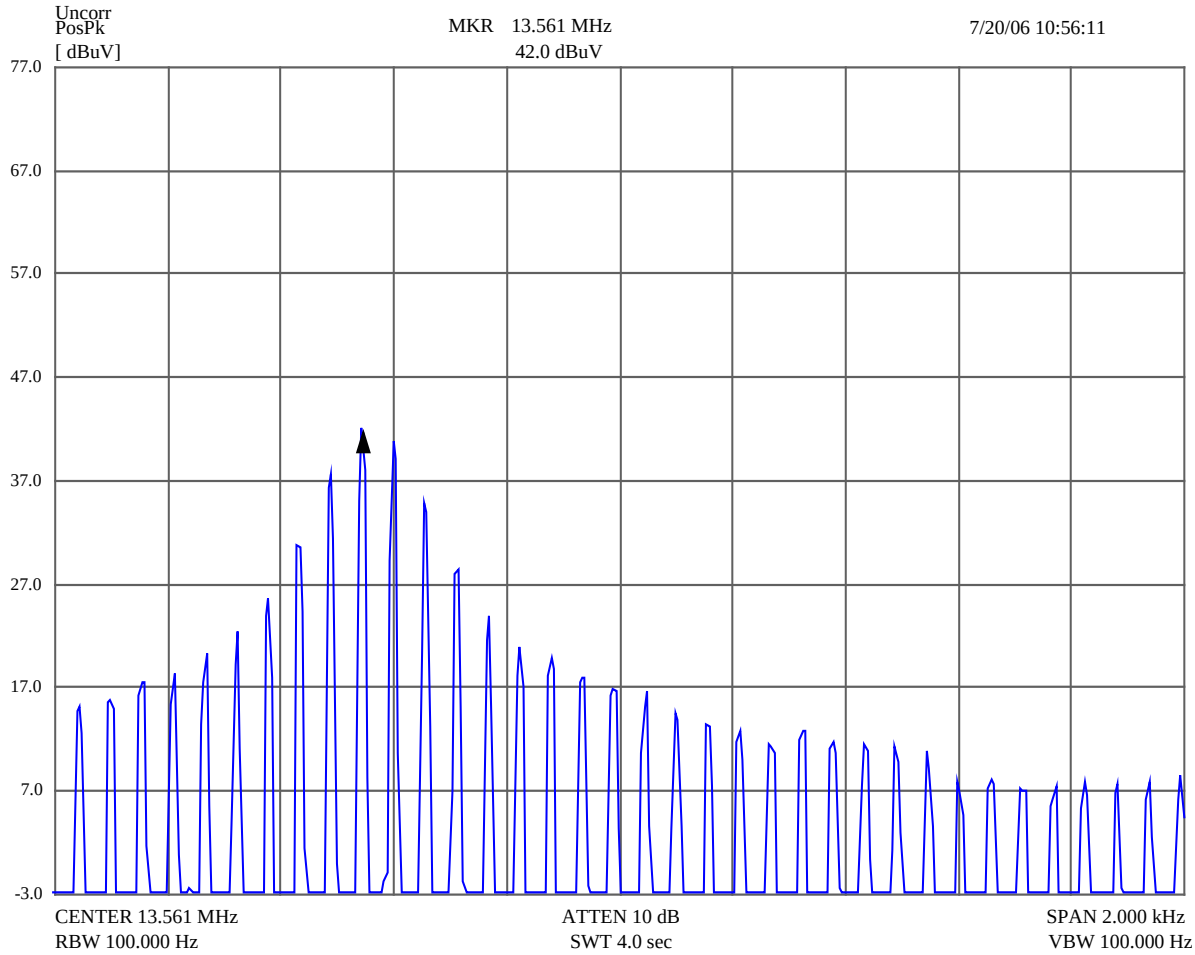
The test facility consists of a shielded semi-anechoic chamber with attached shielded control room. The semi-anechoic chamber is approximately 18 feet wide by 28 feet long by 19 feet high. A hybrid absorber combines high performance anechoic polyurethane foam with a ferrite tile base to achieve high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

6.1. Radiated Emissions at fundamental frequency

Frequency MHz	measured dBuV/m	Ant Fac dB/m	Cabling dB	Corr dB	Corrected dBuV/m	Lmt dBuV/m	Margin dB	Notes
13.561	43.4	10.3	0.61	40	14.31	84.0	-69.69	H
13.561	42.0	10.3	0.61	40	12.91	84.0	-71.69	V

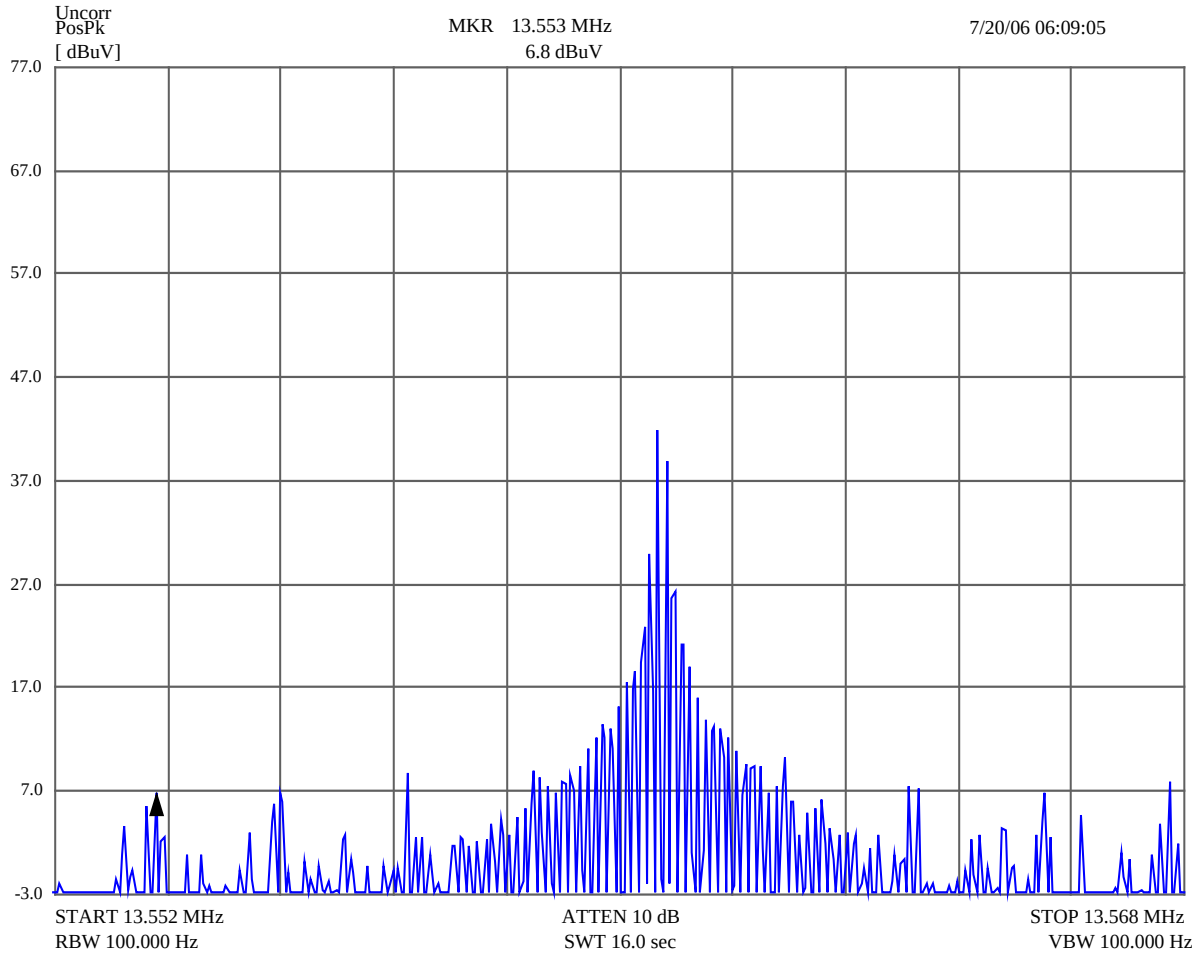


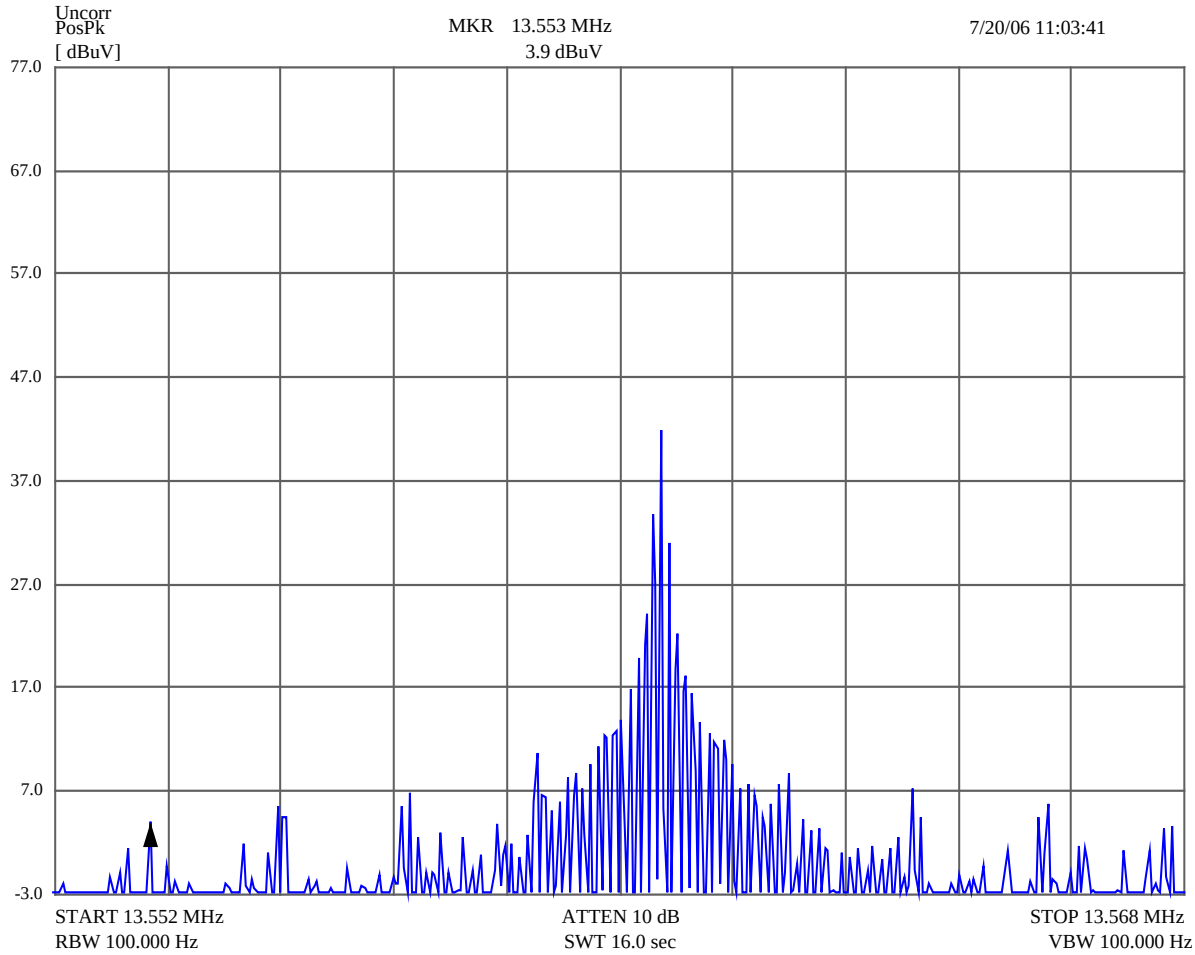


FS was measured with Loop Antenna

6.2 In-band Emissions (13.553 – 13.567 MHz)

Frequency MHz	measured dBuV/m	Ant Fac dB/m	Cabling dB	Corr dB	Corrected dBuV/m	Lmt dBuV/m	Margin dB	Notes
13.553	6.8	10.3	0.61	-40	-22.29	84.0	-106.29	H
13.553	3.9	10.3	0.61	-40	-25.19	84.0	-109.19	V
13.567	4.5	10.3	0.61	-40	-24.59	84.0	-108.59	H
13.567	1.5	10.3	0.61	-40	-27.59	84.0	-111.59	V

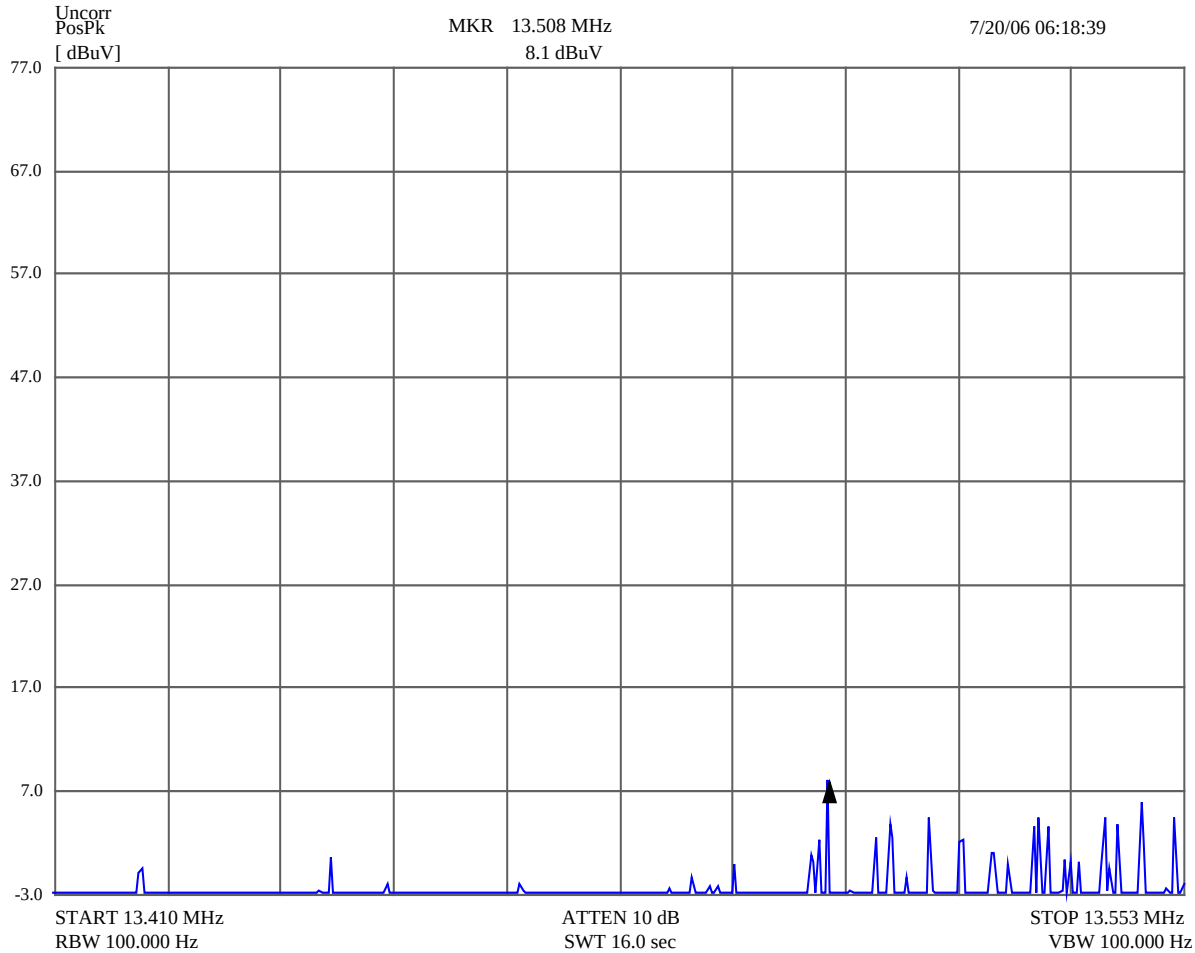


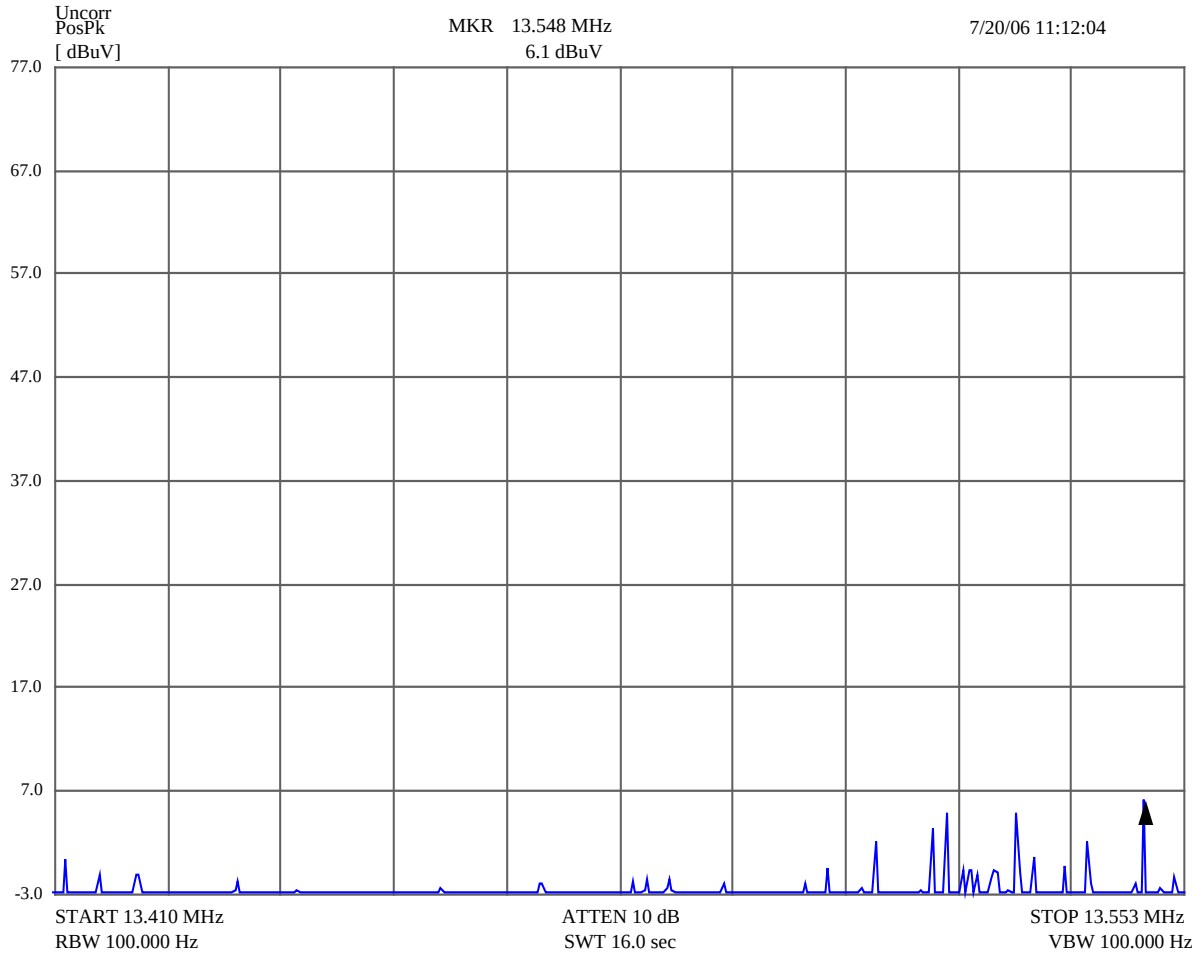


FS was measured with Loop Antenna

In-band Emissions (13.410 – 13.553 MHz)

Frequency MHz	measured dBuV/m	Ant Fac dB/m	Cabling dB	Corr dB	Corrected dBuV/m	Lmt dBuV/m	Margin dB	Notes
13.421	-1.1	10.3	0.61	-40	-30.19	50.0	-80.19	H
13.411	0.2	10.3	0.61	-40	-28.89	50.0	-78.89	V
13.508	8.1	10.3	0.61	-40	-20.99	50.0	-70.99	H
13.548	6.1	10.3	0.61	-40	-22.99	50.0	-72.99	V

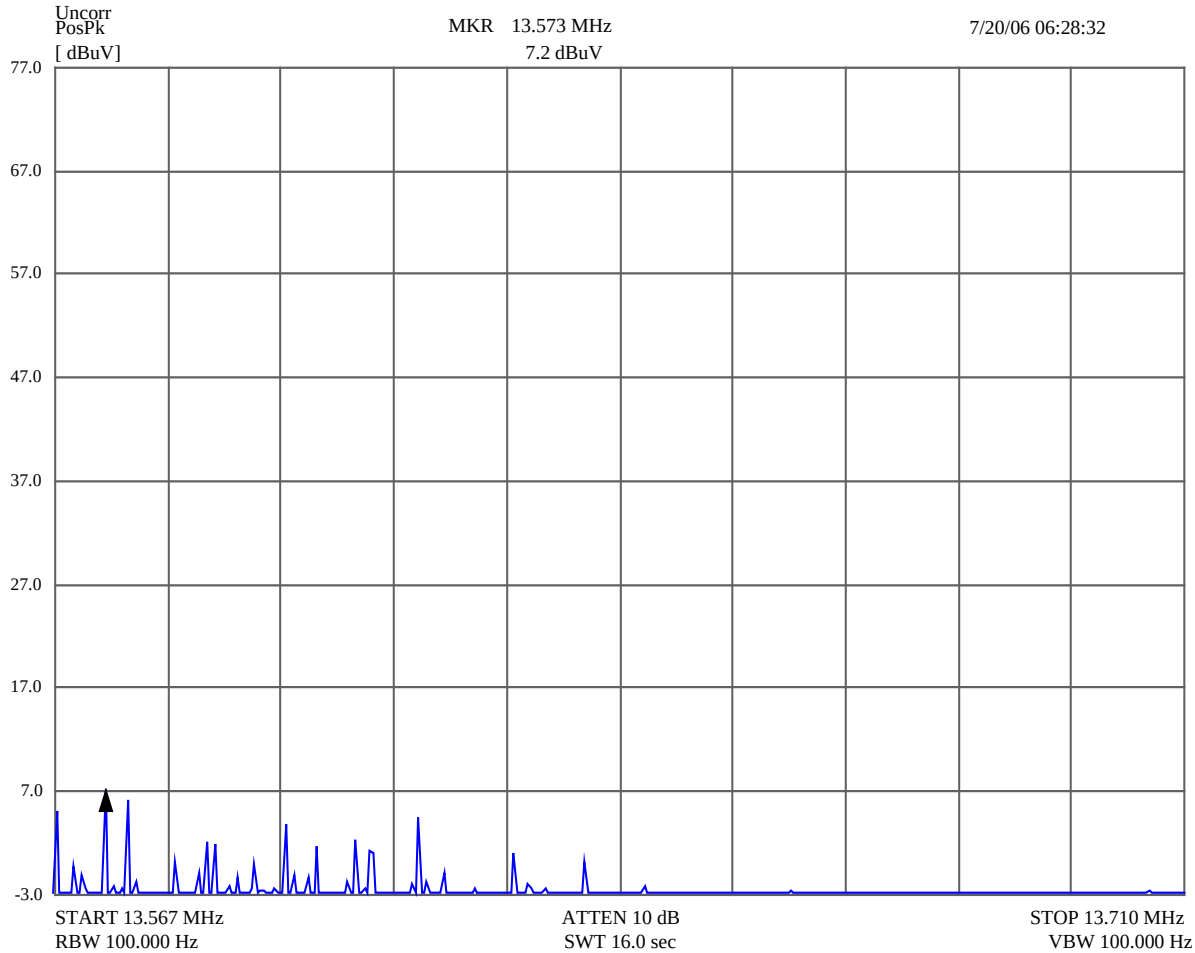


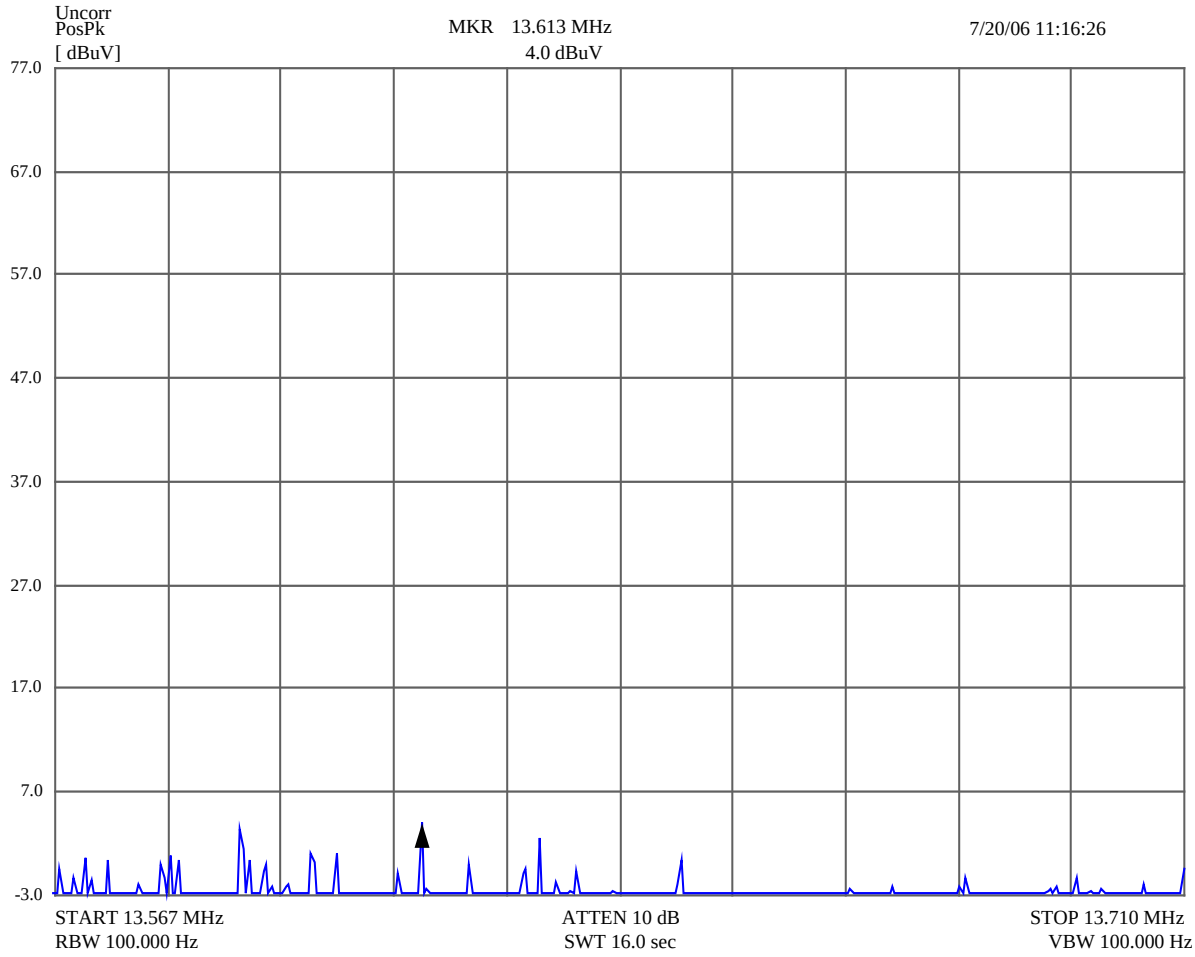


FS was measured with Loop Antenna

In-band Emissions (13.567 – 13.710 MHz)

Frequency MHz	measured dBuV/m	Ant Fac dB/m	Cabling dB	Corr dB	Corrected dBuV/m	Lmt dBuV/m	Margin dB	Notes
13.573	7.2	10.3	0.61	-40	-21.89	50.0	-71.89	H
13.613	4.0	10.3	0.61	-40	-25.09	50.0	-75.09	V
13.706	-2.6	10.3	0.61	-40	-31.69	50.0	-81.69	H
13.710	-0.6	10.3	0.61	-40	-29.69	50.0	-79.69	V

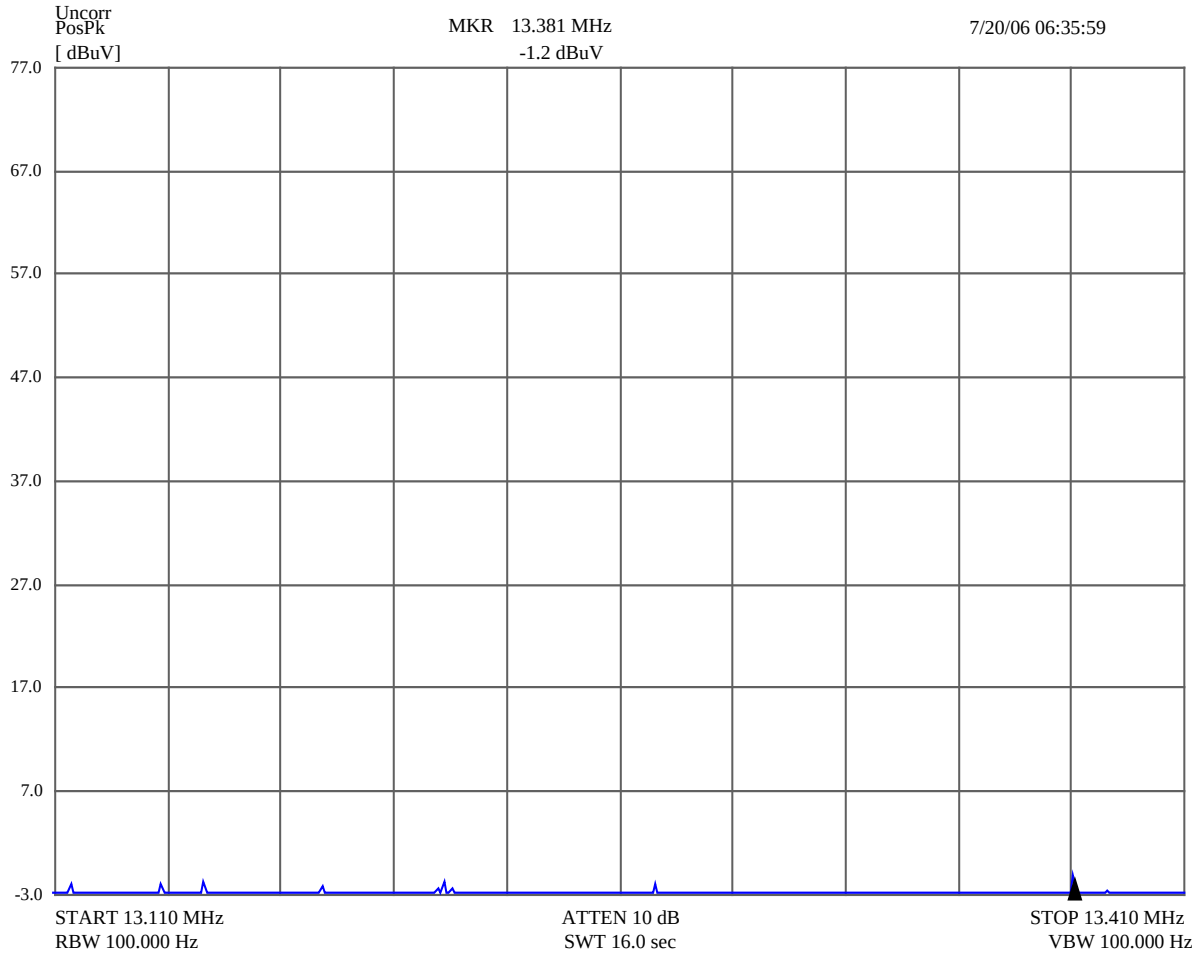


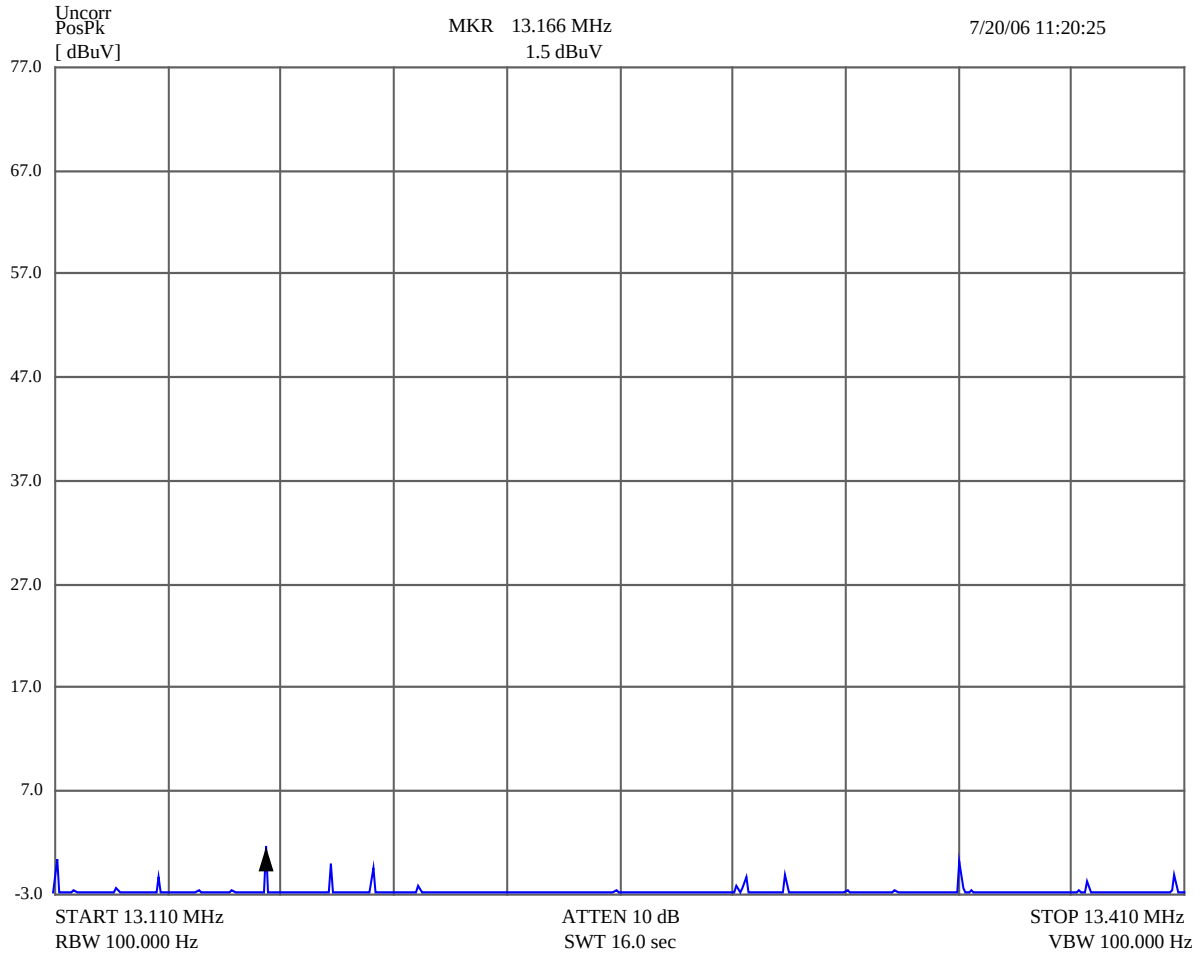


FS was measured with Loop Antenna

In-band Emissions (13.110 – 13.410. MHz)

Frequency MHz	measured dBuV/m	Ant Fac dB/m	Cabling dB	Corr dB	Corrected dBuV/m	Lmt dBuV/m	Margin dB	Notes
13.150	-1.8	10.3	0.61	-40	-30.89	40.0	-70.89	H
13.166	1.5	10.3	0.61	-40	-27.59	40.0	-67.59	V
13.381	-1.2	10.3	0.61	-40	-30.29	40.0	-70.29	H
13.351	0.1	10.3	0.61	-40	-28.99	40.0	-68.99	V

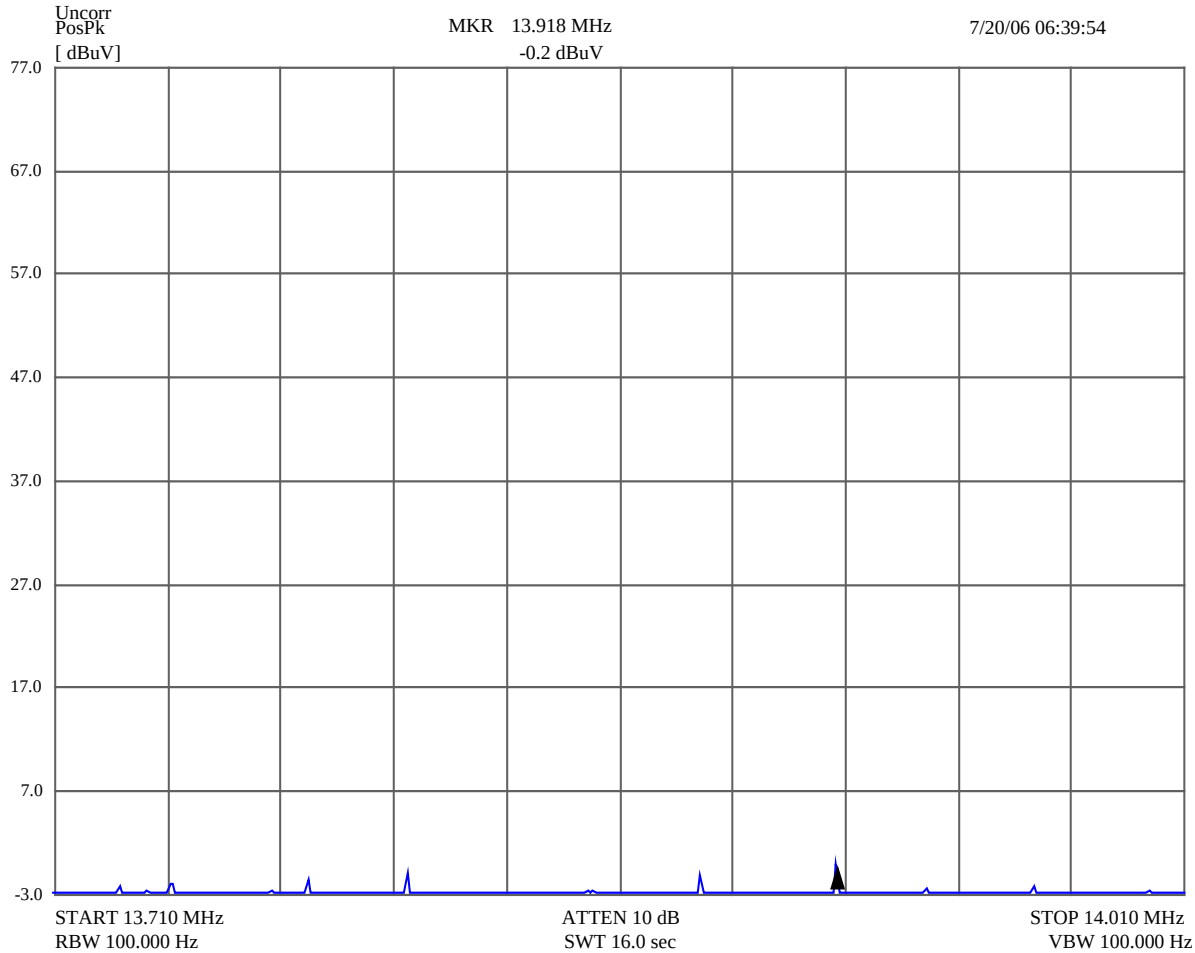


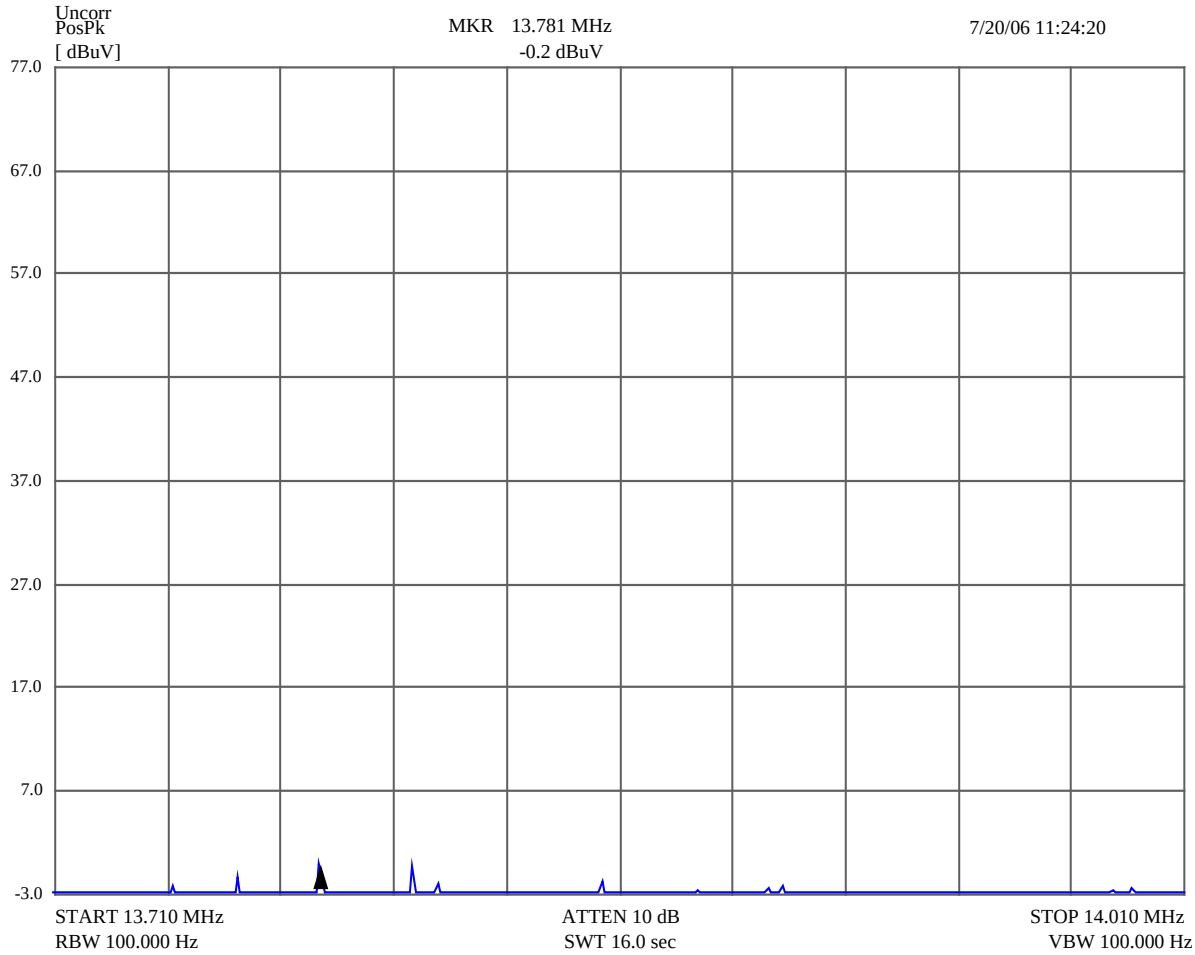


FS was measured with Loop Antenna

In-band Emissions (13.710 – 14.010. MHz)

Frequency MHz	measured dBuV/m	Ant Fac dB/m	Cabling dB	Corr dB	Corrected dBuV/m	Lmt dBuV/m	Margin dB	Notes
13.804	-1.0	10.3	0.61	-40	-30.09	40.0	-70.09	H
13.781	-0.2	10.3	0.61	-40	-29.29	40.0	-69.29	V
13.918	-0.2	10.3	0.61	-40	-29.29	40.0	-69.29	H
13.904	-2.3	10.3	0.61	-40	-31.39	40.0	-71.39	V





FS was measured with Loop Antenna

7.0 Spurious Radiated Emissions below 30 MHz.

Test Requirements: **FCC Part 15 : Subclause 15.225 (d)**
RSS-210 Issue 6: 2.6
Test Method: **ANSI C63.4: 2003**

Limit : **15.209**
Mode of operation: with modulation**.**

Field Strength Calculation:
The Field Strength (FS) is calculated by adding the Antenna Factor (AF) and Cable Factor, and subtracting the distance factor from the measured reading. The equation is as follows: FS = measured reading + AF + CF – distance factor.

Test distance corrector factor used in accordance with 15.31, 40dB per decade to correct test data for comparison to the applicable limit.

Test distance for this measurement is 3 meter. The calculation for determining the field strength limit at 3 meter is as follows:
Correction Factor = 40 log (distance 1/ distance 2)
Correction Factor = 40 log (30/3)
Correction Factor = 40 dB

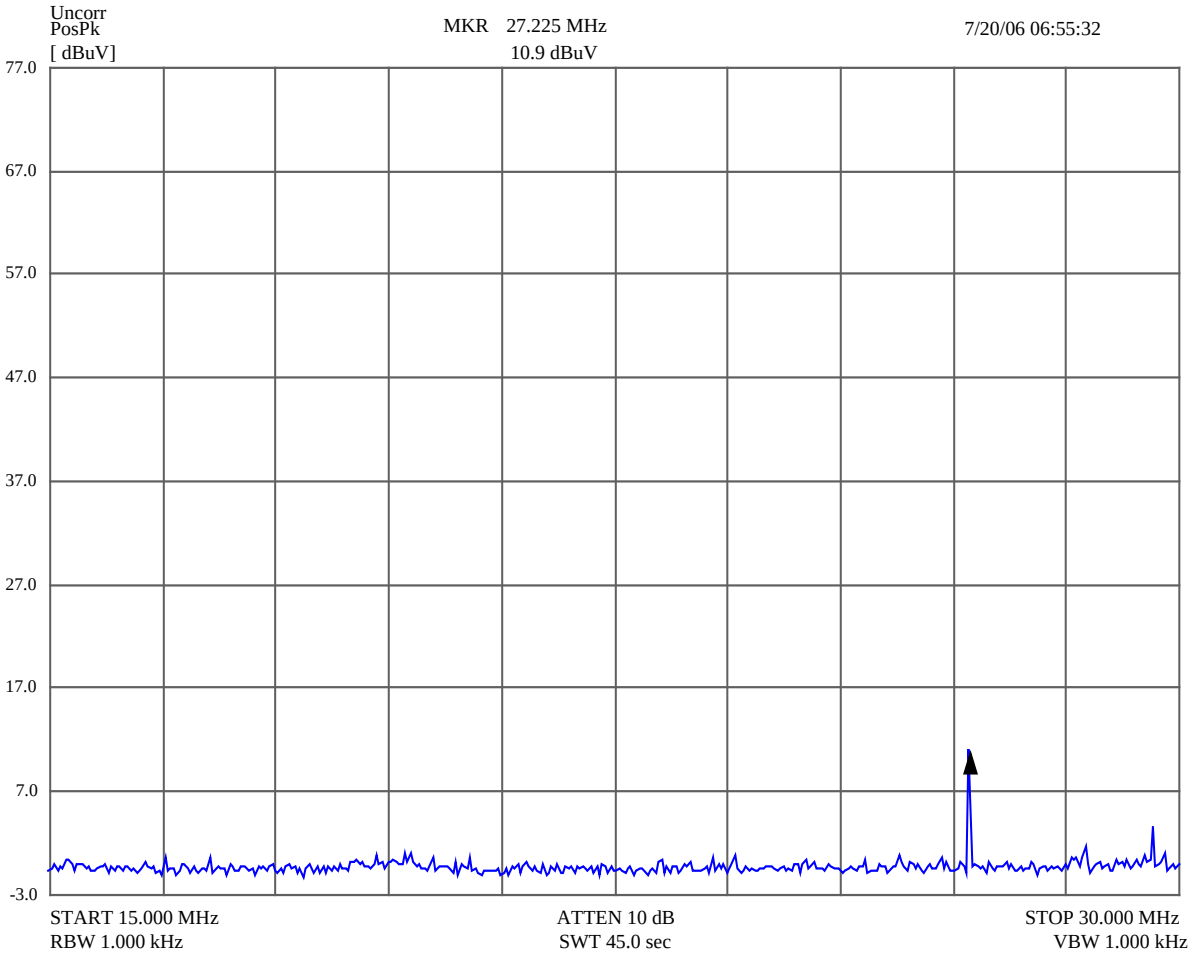
The test facility consists of a shielded semi-anechoic chamber with attached shielded control room. The semi-anechoic chamber is approximately 18 feet wide by 28 feet long by 19 feet high. A hybrid absorber combines high performance anechoic polyurethane foam with a ferrite tile base to achieve high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

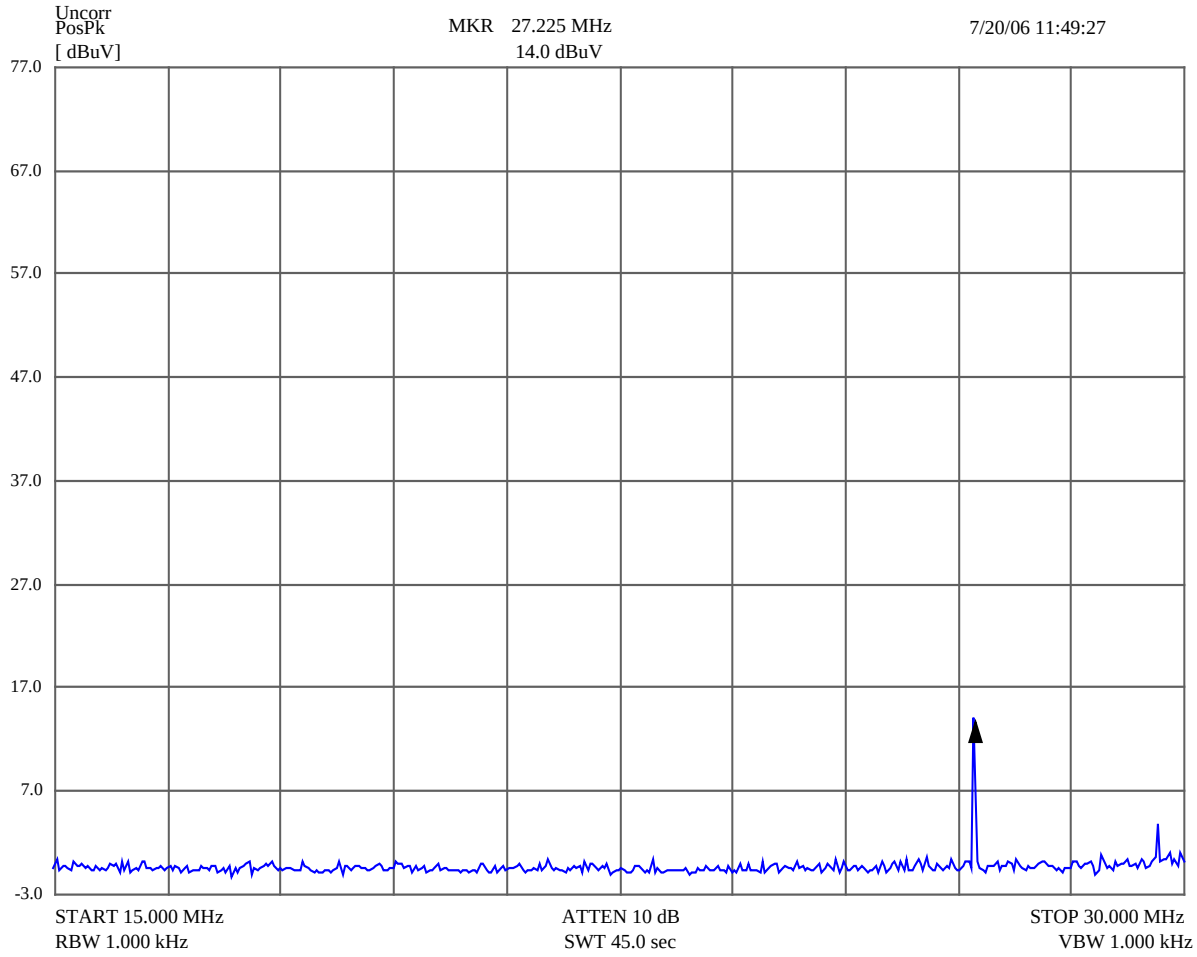
The EUT had been placed at the 0.8 m height on the non-conducting table. Transmitter had been turned on All data was obtained via a HP 85876A EMI measurement software package using an HP 85462A Receiver which is compliant to CISPR 16. The EUT was configured in various geometric patterns to find the geometric 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.

Frequency MHz	measured dBuV/m	Ant Fac dB/m	Cabling dB	Corr dB	Corrected dBuV/m	Lmt dBuV/m	Margin dB	Notes
27.225	10.9	8.8	0.61	-40	-19.69	30.0	-49.69	H
27.225	14.0	8.8	0.61	-40	-16.59	30.0	-46.59	V

* FS was measured with Loop Antenna

* All other emissions not reported are at least 20 dB below the limit



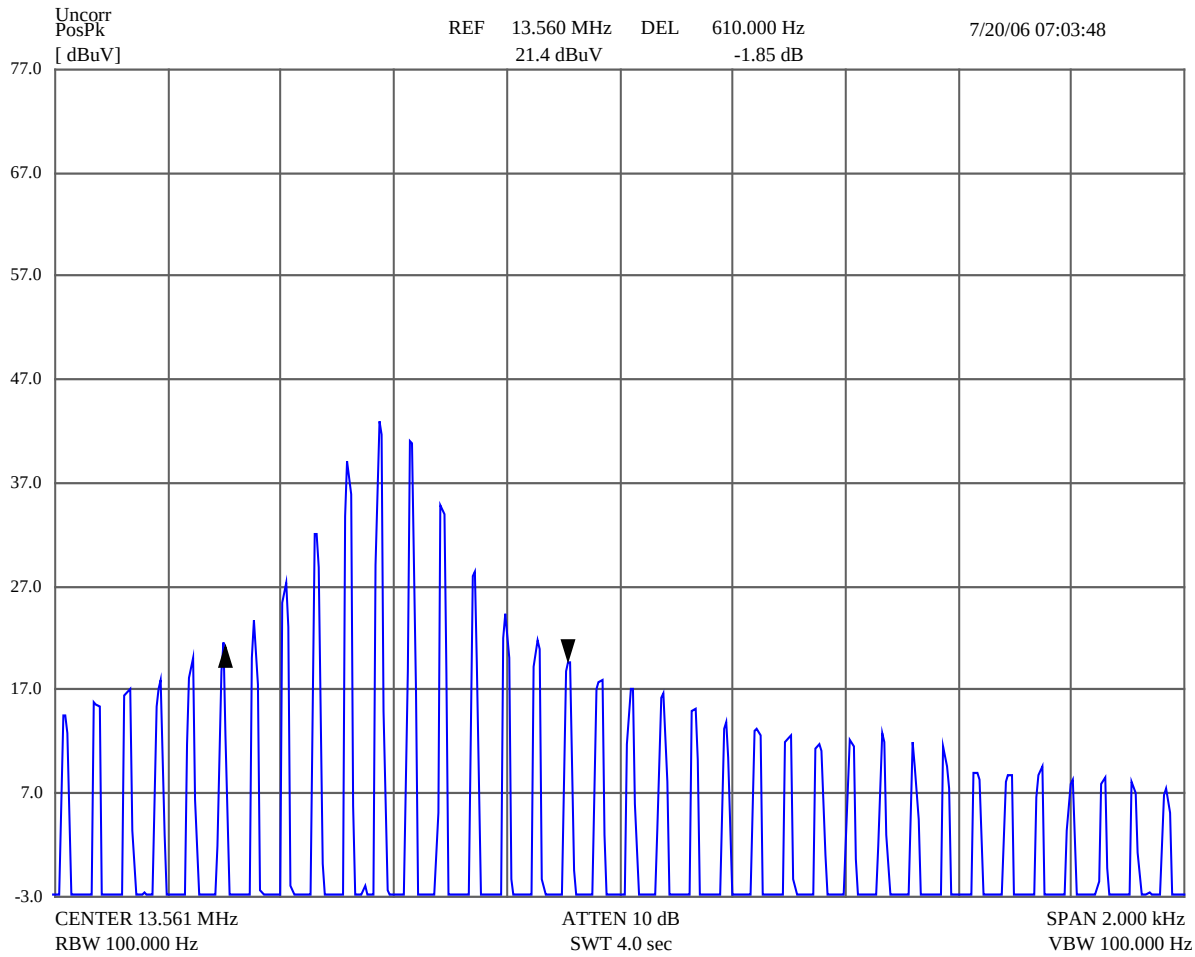

Uncorr
PosPk
[dBuV]
MKR 27.225 MHz
14.0 dBuV
7/20/06 11:49:27
77.0
67.0
57.0
47.0
37.0
27.0
17.0
7.0
-3.0
START 15.000 MHz
RBW 1.000 kHz
ATTEN 10 dB
SWT 45.0 sec
STOP 30.000 MHz
VBW 1.000 kHz

8.0 Occupied channel bandwidth

FCC Part 2 : Subclause 2.1049 ©
Test Method: ANSI C63.4: 2003

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

1. All measurements were conducted by the HP 85462A Spectrum Analyzer;
2. The fundamental frequency was typically modulated
3. The Channel BW was measured at an amplitude level reduced from the reference level by the 20 dB. :



Test Result: The 20 dB bandwidth is 610 Hz

9.0 Restricted bands

Test Requirements: **FCC Part 15 : Subclause 15.205**
RSS-210 Issue 6: 2.2

The fundamental operating frequency lies outside the restricted bands and therefore complies with the requirements of section 15.205 of the FCC rules. Any spurious emission coming the EUT was investigated to determine if any portion lies inside the restricted bands. If any portion of a spurious emissions signal was found to be within a restricted band, investigation was performed to ensure compliance with section 15.209.

10.0 Frequency Tolerance

10.1 Temperature variations

Test Requirements:	**FCC Part 15 : Subclause 15.225(e)**
	RSS-210 Issue 6: 2.1 &
Test Method:	**47 CFR Part 2**
	RSS-Gen Issue 1: 4.5
Limit :	**0.01%**
Mode of operation:	**without modulation.**

The EUT was placed in the temperature chamber and set to transmit unmodulated carrier. The transmitter was powered from the AC Adaptor (+9 Vdc).

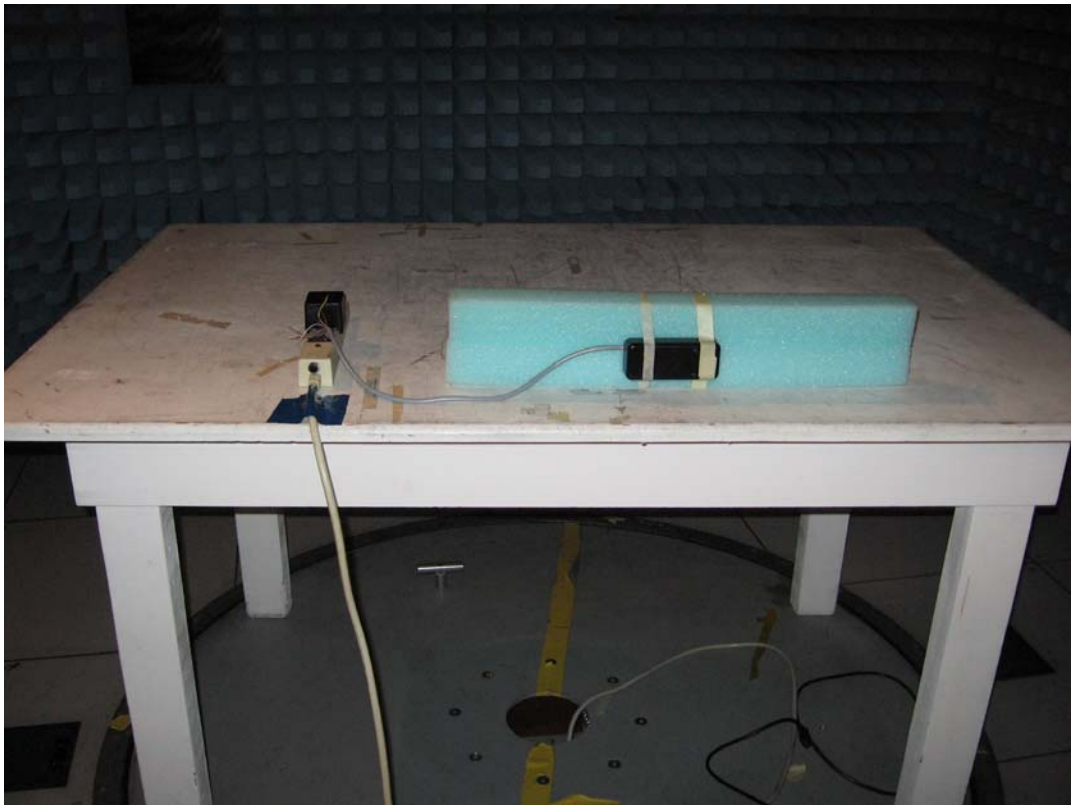
Frequency	Temperature C	Max.delta Hz	%	Limit %	Results
13.560584	+ 50	76	0.0006	0.01	PASS
13.560560	+ 40	100	0.0007	0.01	PASS
13.560592	+ 30	68	0.0005	0.01	PASS
13.560660	+ 20	0	0.0000	0.01	PASS
13.560704	+ 10	44	0.0003	0.01	PASS
13.560722	0	62	0.0005	0.01	PASS
13.560728	- 10	68	0.0005	0.01	PASS
13.560726	- 20	66	0.0005	0.01	PASS

10.2 Power variation

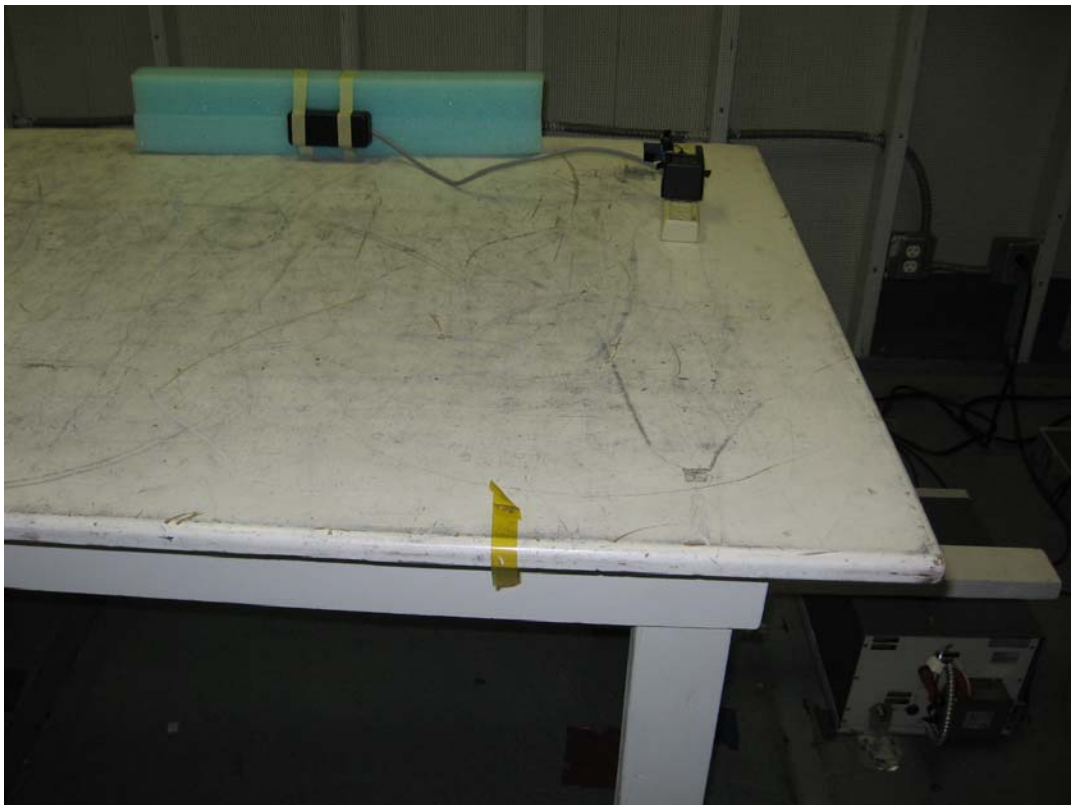
The EUT had been placed at the 0.8 m height on the non-conducting table. Transmitter had been turned on All data was obtained via a HP 85876A EMI measurement software package using an HP 85462A Receiver which is compliant to CISPR 16.
The transmitter was powered from DC Power supply and voltage variations are (±15%).

Frequency	Temperature C	Vdc V	Max.delta Hz	%	Limit %	Results
13.560660	20	9.00	0			
13.560625	20	10.35	35	0.0003	0.01	PASS
13.560613	20	7.65	47	0.0003	0.01	PASS

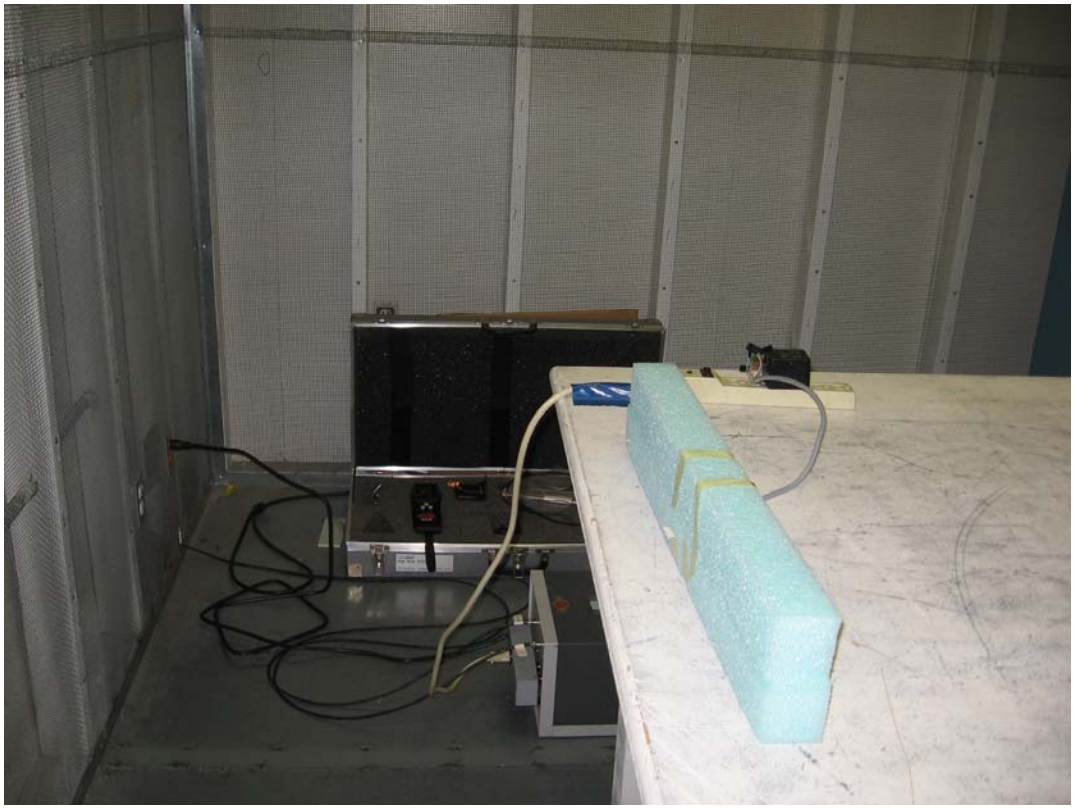
11. Photographs of Test Set-Up



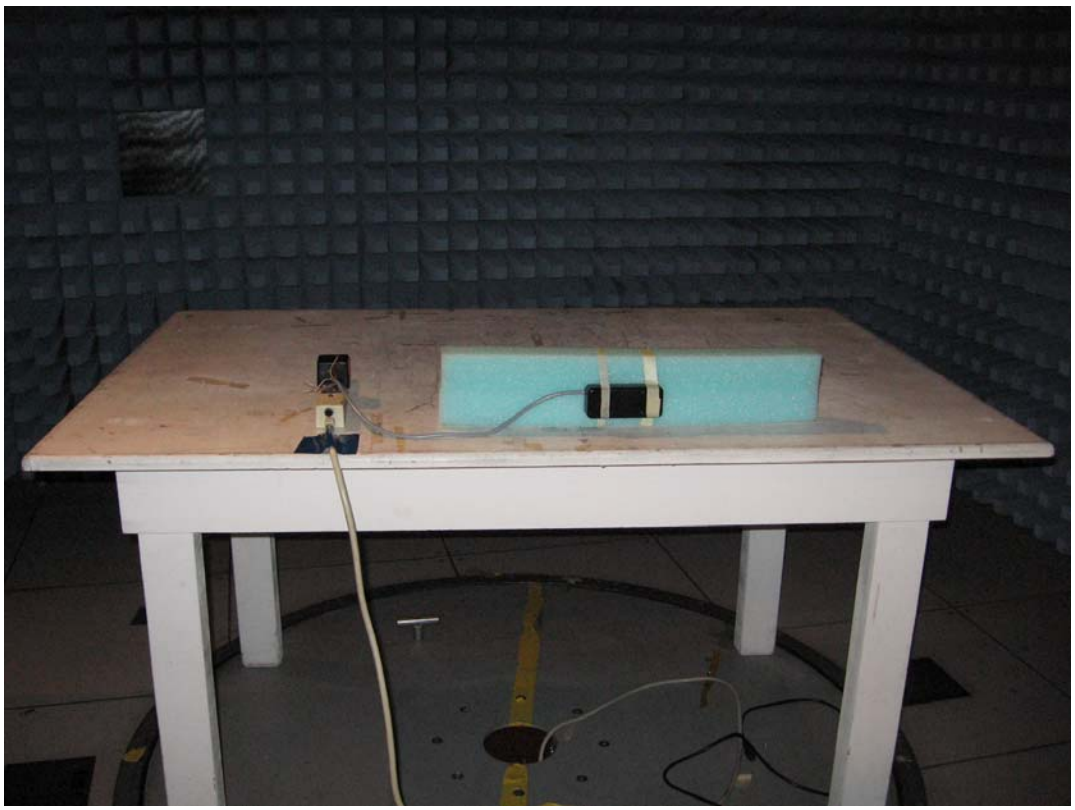
Radiated Emission Test
(Front View)



Conducted Emission Test
(Front View)



Conducted Emission Test
(Rear View)



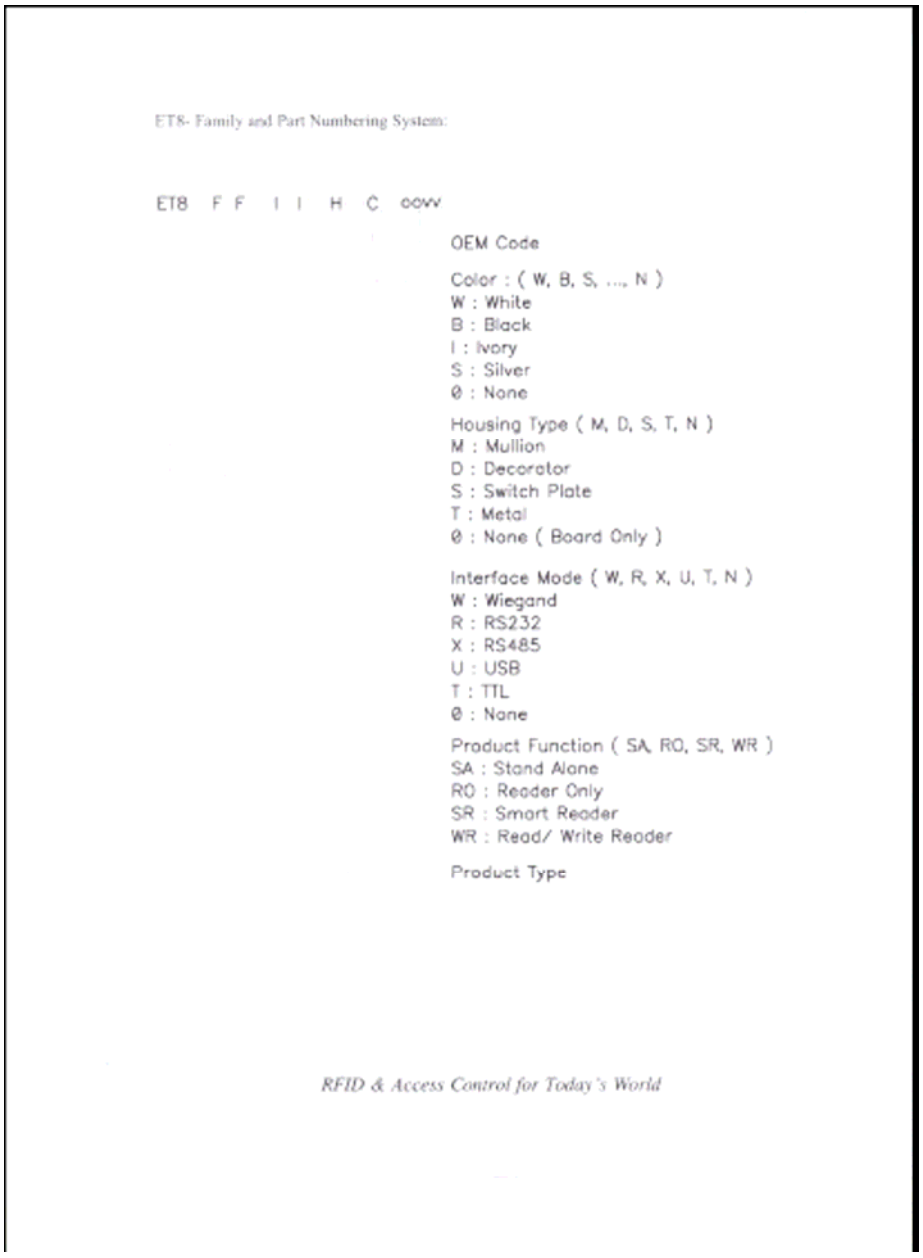
EUT: e*Tag Quasar.
MODEL : ET8-FF-II-H-C-OOVV

Tests per 15.225 (a)(b)(c)(d)

EUT: e*Tag Quasar.
MODEL : ET8-FF-II-H-C-OOVV

Frequency Tolerance
Temperature Test , Voltage Variation Test
Tests per 15.225 (e)

Appendix A : ET8-Family and Part Numbering System



ET8- Family and Part Numbering System:

ET8 F F I I H C oovv

OEM Code

Color : (W, B, S, ..., N)
W : White
B : Black
I : Ivory
S : Silver
0 : None

Housing Type (M, D, S, T, N)
M : Mullion
D : Decorator
S : Switch Plate
T : Metal
0 : None (Board Only)

Interface Mode (W, R, X, U, T, N)
W : Wiegand
R : RS232
X : RS485
U : USB
T : TTL
0 : None

Product Function (SA, RO, SR, WR)
SA : Stand Alone
RO : Reader Only
SR : Smart Reader
WR : Read/ Write Reader

Product Type

RFID & Access Control for Today's World

Appendix B :Certificate of Accreditation

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

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

For the National Institute of Standards and Technology

NVLAP-01C (REV. 2005-05-19)