MEASUREMENT REPORT

(FCC : Part 15 Subpart C 15.225 / ANSI C63.4-2003)

Testing Laboratory
1288

Product	:	Contactless Module
Trade Name	:	CASTLES TECHNOLOGY
Model No.	:	VEGA5000
Applicant	:	CASTLES TECHNOLOGY CO., LTD
Applicant Address	:	2F, No.205, Sec.3, Beixin Rd., Xindian District, New Taipei City 23143, Taiwan (R.O.C.)

Report Number	MLT1110P15001
Applicant	CASTLES TECHNOLOGY CO., LTD
Product	Contactless Module
Sample Received Date	2011/10/7

Report Prepared By	Jesse Tien
Signature	
Date Prepared	2011/10/7 ~ 2011/12/8

Report Authorized By	Roger Chen
Signature	
Date Authorized	2011/12/28

Test By

Max Light Technology Co., Ltd.
Room 5, 8F, No.125, Section 3 Roosevelt Road,
Taipei, Taiwan., R.O.C.
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History of Test Report

Original Report Issue Date: Dec. 28, 2011
■ No additional attachment
☐ additional attachments were issued as in the following record:

Attachment No.	Issue Date	Description
MLT1110P15001	Dec. 28, 2011	Original report

CERTIFICATION

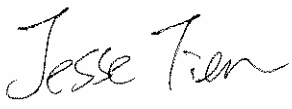
We here by verify that :

The test data, data evaluation, test procedures and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4-2003. All test were conducted by
MLT(Max Light Technology Co., Ltd) Room 5, 8F, No.125, Section 3 Roosevelt Road, Taipei, Taiwan, R.O.C Also, we attest to the accuracy of each.

We further submit that the energy emitted by the sample EUT tested as described in the report is in compliance with Class B radiated and conducted emission limit of FCC Rules Part 15 Subpart C (15.225).

Applicant Name	CASTLES TECHNOLOGY CO., LTD
Applicant Address	2F, No.205, Sec.3, Beixin Rd., Xindian District, New Taipei City 23143, Taiwan (R.O.C.)
Manufacturer Name	CASTLES TECHNOLOGY CO., LTD
Manufacturer Address	2F, No.205, Sec.3, Beixin Rd., Xindian District, New Taipei City 23143, Taiwan (R.O.C.)

Equipment	Contactless Module
Model No	VEGA5000
FCC ID	WIYVEGA5000

Report Prepared By	Jesse Tien
Signature	

Report Authorized By	Roger Chen
Signature	

1. General

1.1 Introduction

The following measurement report is submitted on behalf of CASTLES TECHNOLOGY CO., LTD In support of a Class B Digital Device certification in accordance with Part2 Subpart J and Part 15 Subpart C of the Commission's and Regulations.

1.2 Customer Details

Applicant Name	CASTLES TECHNOLOGY CO., LTD
Applicant Address	2F, No.205, Sec.3, Beixin Rd., Xindian District, New Taipei City 23143, Taiwan (R.O.C.)
Manufacturer Name	CASTLES TECHNOLOGY CO., LTD
Manufacturer Address	2F, No.205, Sec.3, Beixin Rd., Xindian District, New Taipei City 23143, Taiwan (R.O.C.)

1.3 Technical data of EUT

Equipment	Contactless Module
Model No	VEGA5000
FCC ID	WIYVEGA5000
Power Type	Powered by DC 5V (use adapter model no.PA1008-1HU)
Type of Modulation	Pulse code
Type of Antenna	Loop antenna
Frequency of Channel	1 Channel, 13.56MHz

Note1: During testing the EUT was operated at Tx or Rx mode for each emission measured. This was done in order to ensure that maximum emission levels were attained.

Note2: The adapter that used in this report is provided DC power (5V) only, it is not an accessory of VEGA5000

1.4 Summary Of Tests

Description of Standards and Results

Emission		
Test Item	**Standard**	**Result**
Conducted Emission Requirements	Part 15 15.207	PASS
Radiated Emission Requirements	Part 15 15.225(a)(b)(c)(d) Part 15 15.205 , 15.209	PASS
Frequency Tolerance Requirements	Part 15 15.225(e)	PASS
Bandwidth Emission Requirements	Part 15 15.215	PASS

47 CFR Part 15 Subpart C (1.705MHz to 30MHz Emission Limit)

Frequency (MHz)	Field Strength (30m) (uV/30m)	Field Strength (3m) (dBuV/m)
1.705 to 13.110	30	69.5
13.110 to 13.410	106	80.5
13.410 to 13.553	334	90.5
13.553 to 13.567	15848	124.0
13.567 to 13.710	334	90.5
13.710 to 14.010	106	80.5
14.010 to 30.000	30	69.5

Note : Use quasi-peak meter.

Distance Factor Limit (3m) = Limit (30m) + 40log(30/3)

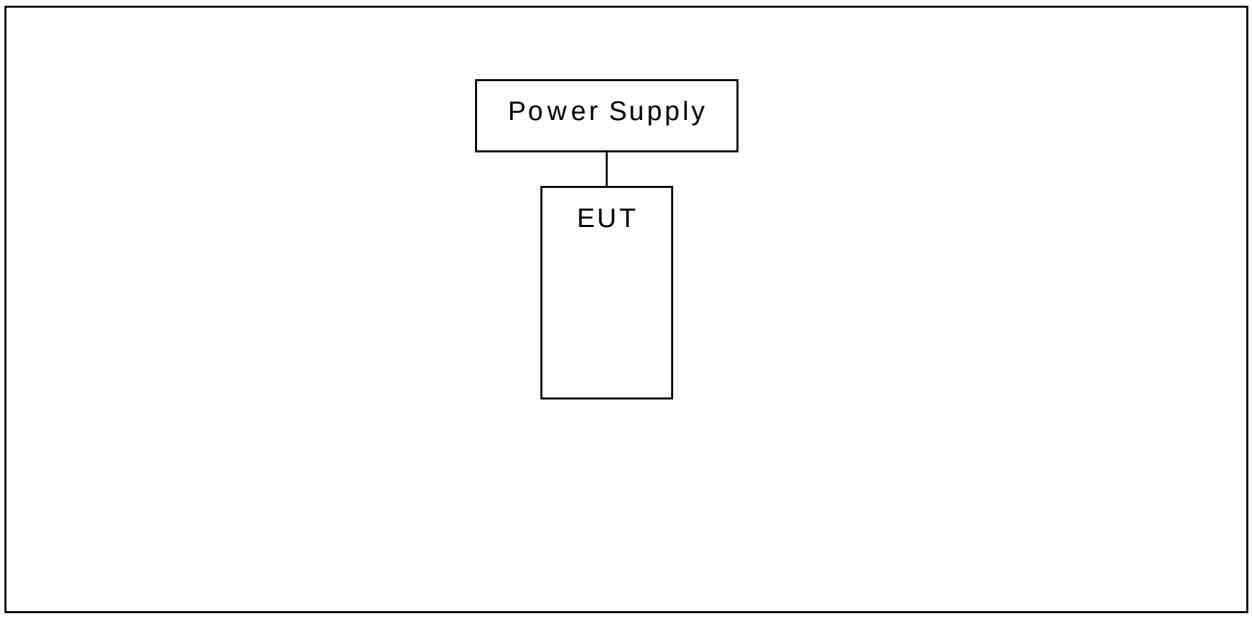
15.209 Radiated Emission Limits: General Requirements

Frequency (MHz)	Field Strength (uV/ m)	dBuV/m	Distance (m)
0.009 – 0.490	2400/F(kHz)		300
0.490 – 1.705	24000/F(kHz)		30
1.705 – 30.0	30	29.5	30
30 - 88	100	40.0	3
88 - 216	150	43.5	3
216 - 960	200	46.0	3
Above 960	500	54.0	3

1.5 Description of Support Equipment

This Contactless Module itself forms a system. No support equipment is required for its normal operation.

1.6 Configuration of System Under Test



1.7 Test Procedure

All measurements contained in this report were performed according to the techniques described in Measurement procedure ANSI C63.4: 2003 "Measurement of Intentional Radiators."

1.8 General Test Condition

The conditions under which the EUT operates were varied to determine their effect on the equipment's emission characteristics. The final configuration of the test system and the mode of operation used during these tests were chosen as that which produced the highest emission levels. However, only those conditions which the EUT was considered likely to encounter in normal use were investigated.

The maximum operating frequency of the EUT is 72MHz, it is not great than 108MHz, the measurement of radiated emissions frequency only shall be made up to 1GHz.

2. Conducted Emissions Requirements

2.1 General & Setup

The power line conducted emission measurements were performed in a shielded enclosure. The EUT was assembled on a wooden table which is 80 centimeters high, was placed 40 centimeters from the back wall and at least 1 meter from the sidewall.
Power was fed to the EUT from the public utility power grid through a line filter and EMCO Model 3825/2 Line Impedance Stabilization Networks (LISN). The LISN housing, measuring instrumentation case, ground plane, etc., were electrically bonded together at the same RF potential. The Spectrum analyzer was connected to the AC line through an isolation transformer. The 50-ohm output of the LISN was connected to the spectrum analyzer directly. Conducted emission levels were in the CISPER quasi-peak detection mode. The analyzer's 6 dB bandwidth was set to 9 KHz. No post-detector video filter was used.
The spectrum was scanned from 150 KHz to 30 MHz. The physical arrangement of the test system and associated cabling was varied (within the scope of arrangements likely to be encountered in actual use) to determine the effect on the unit's emanations in amplitude and frequency. All spurious emission frequencies were observed. The highest emission amplitudes relative to the appropriate limit were measured and have been recorded in paragraph 2.5.

2.2 Test Equipment List

Item	Mfr/Brand	Instruments	Serial No.	Model/Type No.	Calibrated Date	Next Cal. Date
1.	HP	Spectrum Analyzer	73412A00110	8591EM	2011/3/25	2012/3/25
2.	EMCO	LISN	2658	3825/2	2011/3/5	2012/3/5
3.	TESEQ	ISN	24810	ISN T8	2011/4/7	2012/4/7

2.3 Test condition

EUT tested in accordance with the specifications given by the manufacturer, and exercised in the most unfavorable manner.

2.4 Conducted Emissions Limits

FCC Part 15

Frequency range (MHz)	Limits (dBuV)			
	Class A		Class B	
	QP	Avg.	QP	Avg.
0.15 to 0.50	79	66	66 to 56	56 to 46
0.50 to 5.0	73	60	56	46
5.0 to 30	73	60	60	50

2.5 Measurement Data Of Conducted Emissions

2.5.1 Conducted Emissions

The following table show a summary of the highest emissions of power line conducted emissions to the HOT and NEUTRAL conductor of the EUT power.

Test Mode : Transmit

Conducted Emissions (Class B)										
Test Port	Freq (MHz)	Read(dBuV)		Factor	Limits (dBuV)		Amplitude (dBuV)		Margin (dBuV)	
		QP	AV		QP	AV	QP	AV	QP	AV
L1	0.1668	51.94	--	1.05	65.12	55.12	52.99	--	-12.13	--
	0.1864	50.76	--	1.12	64.20	54.20	51.88	--	-12.32	--
	0.2162	48.81	--	1.12	62.96	52.96	49.93	--	-13.03	--
	0.2404	47.37	--	1.14	62.08	52.08	48.51	--	-13.57	--
	0.2603	45.61	--	1.14	61.42	51.42	46.75	--	-14.67	--
	0.3234	43.75	--	1.15	59.62	49.62	44.90	--	-14.72	--
	5.2210	32.88	--	2.06	60.00	50.00	34.94	--	-25.06	--
L2	0.1633	51.73	--	0.93	65.30	55.30	52.66	--	-12.64	--
	0.1965	47.26	--	1.07	63.76	53.76	48.33	--	-15.43	--
	0.2316	47.19	--	1.09	62.39	52.39	48.28	--	-14.11	--
	0.2521	45.03	--	1.09	61.69	51.69	46.12	--	-15.57	--
	0.3286	40.71	--	1.09	59.49	49.49	41.80	--	-17.69	--
	0.3634	37.02	--	1.09	58.65	48.65	38.11	--	-20.54	--
	5.1390	31.65	--	1.99	60.00	50.00	33.64	--	-26.36	--

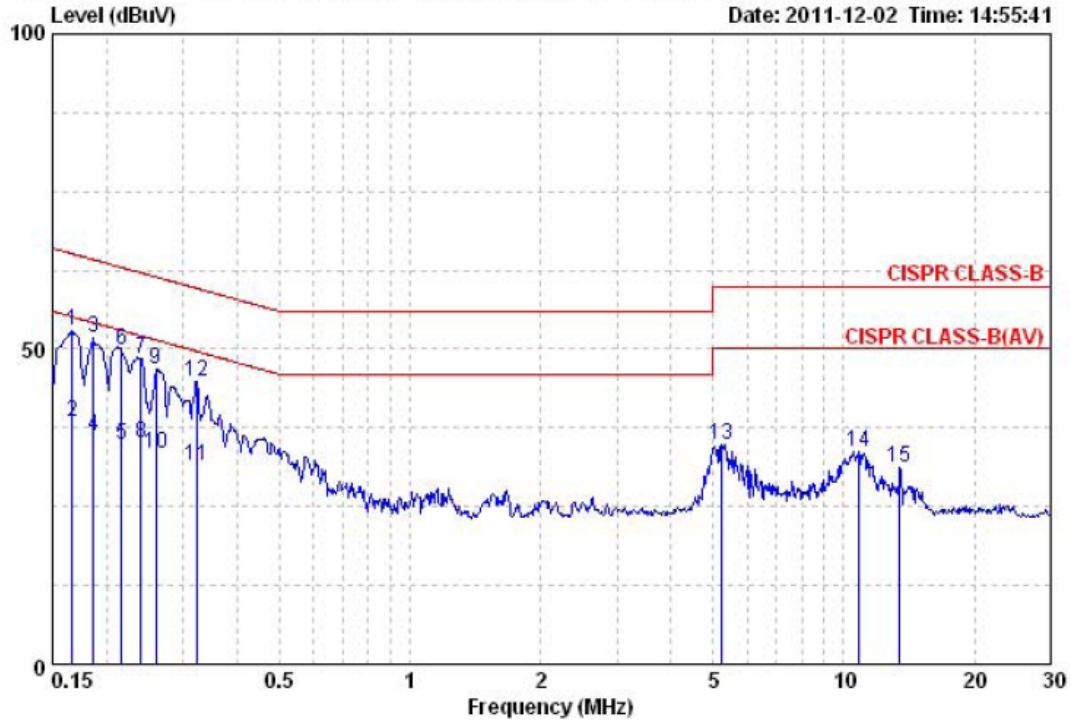
Notes : 1.L1: One end & Ground L2: The other end & Ground

2.Height of table on which the EUT was placed : 0.8 m.

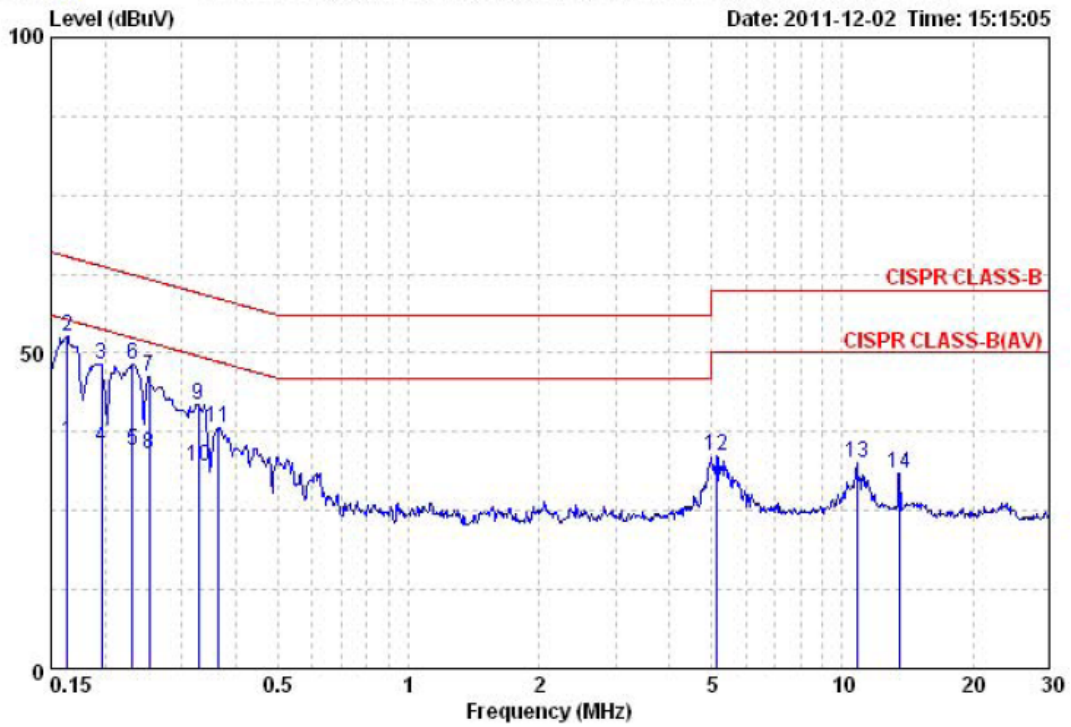
3.The Quasi-Peak Value have already met the Average Value Limit showed on above limits.

4.The above test results are obtained under the normal condition.

Test Port : L1



Test Port : L2



3. Radiated Emissions Requirements

3.1 General & Setup

Prior to open-field testing, the EUT was placed in a shielded enclosure and scanned at a close distance to determine its emission characteristics. The physical arrangement of the EUT was varied (within the scope of arrangements likely to be encountered in actual use) to determine the effect on the unit's emanations in amplitude, directivity, and frequency.
The exact system configuration which produced the highest emissions was noted so it could be reproduced later during the open-field tests. This was done to ensure that the final measurements would demonstrate the worst-case interference potential of the EUT.

3.2 Test Procedure

Final radiation measurements were made on a three-meter, open-field test site. The EUT system was placed on a nonconductive turntable which is 0.8 meters height, top surface 1.0 x 1.5 meter. The spectrum was examined from 50 kHz to 2.5 GHz in order to cover the whole spectrum below 10th harmonic which could generate from the EUT. During the test, EUT was set to transmit continuously & Measurements spectrum range from 30 MHz to 5 GHz is investigated.
For measurements from 30 MHz to 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.
For frequency range below 30MHz the Loop antenna was used at 3 m measurement distance with antenna heights of 1 m to 4 m and antenna loop front and side faced to the EUT. The axis of the antenna was rotated to maximize the emission. A CISPR quasi-peak detector is used for measurements below 30MHz and RBW / VBW is 9kHz / 30kHz.
The limit 1.75MHz to 30MHz in 15.225(a)(b)(c)(d) are specified at 30 meters, and measurements were made at 3 meters, the limit is translated to 3 meters by using a formula as follows:

Limit3m = Limit 30 m +(40log(30m/3) = 40dB)

A nonconductive material surrounded the EUT to supporting the EUT for standing on tree orthogonal planes. At each condition, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters to find the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarization.

3.3 Test Equipment List

Item	Mfr/Brand	Instruments	Serial No.	Model/Type No.	Calibrated Date	Next Cal. Date
1.	Agilent	Spectrum Analyzer	US40240137	E7403A	2011/2/11	2012/2/11
2.	MLT	Pre Amplifier	20110209	PREAMP6G-01	2011/3/5	2012/3/5
3.	MLT	Pre Amplifier	20110301	PREAMP6G-02	2011/3/5	2012/3/5
4.	EMCO	Biconilog Antenna	00059739	3142C	2011/8/18	2012/8/17
5.	Agilent	Spectrum Analyzer	US44300422	E4446A	2011/6/10	2012/6/10
6.	ETS	Loop Antenna	1493	6507	2011/1/12	2013/1/11
7.	EMCO	Biconilog Antenna	00044568	3142C	2011/8/19	2012/8/18

3.4 Measurement Data Of Radiated Emissions

3.4.1 Open Field Radiated Emissions (1.7MHz to 30MHz)

The highest peak values of radiated emissions from the EUT transmit level, at various antenna heights and antenna polarization are recorded on the following

Test Mode： Transmitter

Radiated Emissions (VERTICAL) X Axis									
Frequency (MHz)	Amplitude (dBuV/m)	Read (dBuV/m)	Factor (dB)	Ant. Pos. (cm)	Table (Deg)	Dist (dB)	Actual Amp (dBuV/m)	Limit (dBuV/m)	Margin (dB)
4.054	42.80	59.80	-17.00	220	20	40	42.80	69.5	-26.70
12.686	29.05	47.61	-18.56	220	20	40	29.05	69.5	-40.45
13.240	27.63	46.21	-18.58	220	20	40	27.63	80.5	-52.87
13.560	66.26	84.85	-18.59	220	20	40	66.26	124	-57.74
13.746	30.02	48.62	-18.60	220	20	40	30.02	80.5	-50.48
14.172	31.35	49.97	-18.62	220	20	40	31.35	69.5	-38.15
23.955	39.26	59.42	-20.16	220	20	40	39.26	69.5	-30.24

Radiated Emissions (HORIZONTAL) X Axis									
Frequency (MHz)	Amplitude (dBuV/m)	Read (dBuV/m)	Factor (dB)	Ant. Pos. (cm)	Table (Deg)	Dist (dB)	Actual Amp (dBuV/m)	Limit (dBuV/m)	Margin (dB)
4.270	43.36	60.38	-17.02	256	0	40	43.36	69.5	-26.14
13.042	26.84	45.41	-18.57	256	0	40	26.84	69.5	-42.66
13.404	26.39	44.98	-18.59	256	0	40	26.39	80.5	-54.11
13.560	64.63	83.22	-18.59	256	0	40	64.63	124	-59.37
13.986	26.80	45.41	-18.61	256	0	40	26.80	80.5	-53.70
14.260	27.42	46.04	-18.62	256	0	40	27.42	69.5	-42.08
22.111	38.33	58.38	-20.05	256	0	40	38.33	69.5	-31.17

Radiated Emissions (VERTICAL) Y Axis									
Frequency (MHz)	Amplitude (dBuV/m)	Read (dBuV/m)	Factor (dB)	Ant. Pos. (cm)	Table (Deg)	Dist (dB)	Actual Amp (dBuV/m)	Limit (dBuV/m)	Margin (dB)
3.676	43.03	59.96	-16.93	200	0	40	43.03	69.5	-26.47
12.564	33.44	51.99	-18.55	200	0	40	33.44	69.5	-36.06
13.323	32.42	51.00	-18.58	200	0	40	32.42	80.5	-48.08
13.560	78.34	96.93	-18.59	200	0	40	78.34	124	-45.66
13.794	34.52	53.12	-18.60	200	0	40	34.52	80.5	-45.98
14.745	38.38	57.02	-18.64	200	0	40	38.38	69.5	-31.12
22.111	47.70	67.75	-20.05	200	0	40	47.70	69.5	-21.80

Radiated Emissions (HORIZONTAL) Y Axis									
Frequency (MHz)	Amplitude (dBuV/m)	Read (dBuV/m)	Factor (dB)	Ant. Pos. (cm)	Table (Deg)	Dist (dB)	Actual Amp (dBuV/m)	Limit (dBuV/m)	Margin (dB)
5.210	39.66	56.77	-17.11	100	268	40	39.66	69.5	-29.84
12.864	33.20	51.76	-18.56	100	268	40	33.20	69.5	-36.30
13.278	32.10	50.68	-18.58	100	268	40	32.10	80.5	-48.40
13.560	73.39	91.98	-18.59	100	268	40	73.39	124	-50.61
13.983	32.58	51.19	-18.61	100	268	40	32.58	80.5	-47.92
14.823	34.65	53.29	-18.64	100	268	40	34.65	69.5	-34.85
22.111	39.62	59.67	-20.05	100	268	40	39.62	69.5	-29.88

Radiated Emissions (VERTICAL) Z Axis									
Frequency (MHz)	Amplitude (dBuV/m)	Read (dBuV/m)	Factor (dB)	Ant. Pos. (cm)	Table (Deg)	Dist (dB)	Actual Amp (dBuV/m)	Limit (dBuV/m)	Margin (dB)
5.804	39.09	56.26	-17.17	200	0	40	39.09	69.5	-30.41
12.600	33.43	51.98	-18.55	200	0	40	33.43	69.5	-36.07
13.386	33.19	51.78	-18.59	200	0	40	33.19	80.5	-47.31
13.560	78.29	96.88	-18.59	200	0	40	78.29	124	-45.71
13.719	34.89	53.49	-18.60	200	0	40	34.89	80.5	-45.61
14.745	38.94	57.58	-18.64	200	0	40	38.94	69.5	-30.56
22.111	45.71	65.76	-20.05	200	0	40	45.71	69.5	-23.79

Radiated Emissions (HORIZONTAL) Z Axis									
Frequency (MHz)	Amplitude (dBuV/m)	Read (dBuV/m)	Factor (dB)	Ant. Pos. (cm)	Table (Deg)	Dist (dB)	Actual Amp (dBuV/m)	Limit (dBuV/m)	Margin (dB)
4.303	41.39	58.41	-17.02	120	50	40	41.39	69.5	-28.11
12.699	32.72	51.28	-18.56	120	50	40	32.72	69.5	-36.78
13.314	32.00	50.58	-18.58	120	50	40	32.00	80.5	-48.50
13.560	73.77	92.36	-18.59	120	50	40	73.77	124	-50.23
13.755	32.44	51.04	-18.60	120	50	40	32.44	80.5	-48.06
14.745	34.59	53.23	-18.64	120	50	40	34.59	69.5	-34.91
22.111	39.68	59.73	-20.05	120	50	40	39.68	69.5	-29.82

Notes : 1. Amplitude = Reading Amplitude + Factor
Factor = Amp gain+ Cable loss + Ant factor (Auto calculate in spectrum analyzer)
2. Ant (cm) = Antenna height.
3. Distance of Measurement : 3 Meter
4. Dist(dB) = 40log(30/3) = 40dB (30 = 30m , 3 = 3m)
5. Height of table for EUT placed: 0.8 Meter.
6. Actual Amp = Amplitude – Dist (30m to 3m)
7. Margin= .Actual Amp – Limits

3.4.2 Open Field Radiated Emissions (30MHz to 1GHz)

The highest peak values of radiated emissions from the EUT at various antenna heights, antenna polarization, EUT orientation, etc. are recorded on the following

Test Mode : Transmit (worst case: YAxis)

Radiated Emissions (VERTICAL)Class B							
Frequency (MHz)	Read (dBuV/m)	Factor	Ant. (cm)	Table (Degree)	Amplitude (dBuV/m)	Limits (dBuV/m)	Margin (dB)
30.25	56.73	-20.70	100	288	36.03	40	-3.97
38.10	56.97	-24.46	100	141	32.51	40	-7.49
48.90	59.43	-28.84	100	111	30.59	40	-9.41
135.57	60.56	-31.74	100	263	28.82	43.5	-14.68
149.07	60.51	-30.21	100	198	30.30	43.5	-13.20
158.52	58.56	-28.94	100	239	29.62	43.5	-13.88
162.57	57.60	-28.77	100	212	28.83	43.5	-14.67
641.60	47.28	-12.76	100	200	34.52	46	-11.48
785.10	44.14	-10.58	100	325	33.56	46	-12.44

Notes : 1. Margin= Amplitude - Limits
2. Distance of Measurement : 3 Meter
3. Height of table for EUT placed: 0.8 Meter.
4. Amplitude= Reading –Amp gain+ Cable loss + Ant factor
(Auto calculate in spectrum analyzer)
5. Pre amplifier Gain :38dB to 42dB

Radiated Emissions (HORIZONTAL)Class B							
Frequency (MHz)	Read (dBuV/m)	Factor	Ant. (cm)	Table (Degree)	Amplitude (dBuV/m)	Limits (dBuV/m)	Margin (dB)
51.60	57.75	-29.32	400	111	28.43	40	-11.57
99.66	62.33	-30.87	400	99	31.46	43.5	-12.04
162.70	59.44	-28.92	400	128	30.52	43.5	-12.98
189.57	55.09	-28.53	400	298	26.56	43.5	-16.94
222.51	54.21	-27.43	400	255	26.78	46	-19.22
517.70	50.89	-17.56	300	317	33.33	46	-12.67
636.70	46.86	-14.56	232	163	32.30	46	-13.70
643.70	47.72	-14.39	222	157	33.33	46	-12.67
867.00	45.38	-10.06	124	108	35.32	46	-10.68

Notes : 1. Margin= Amplitude - Limits

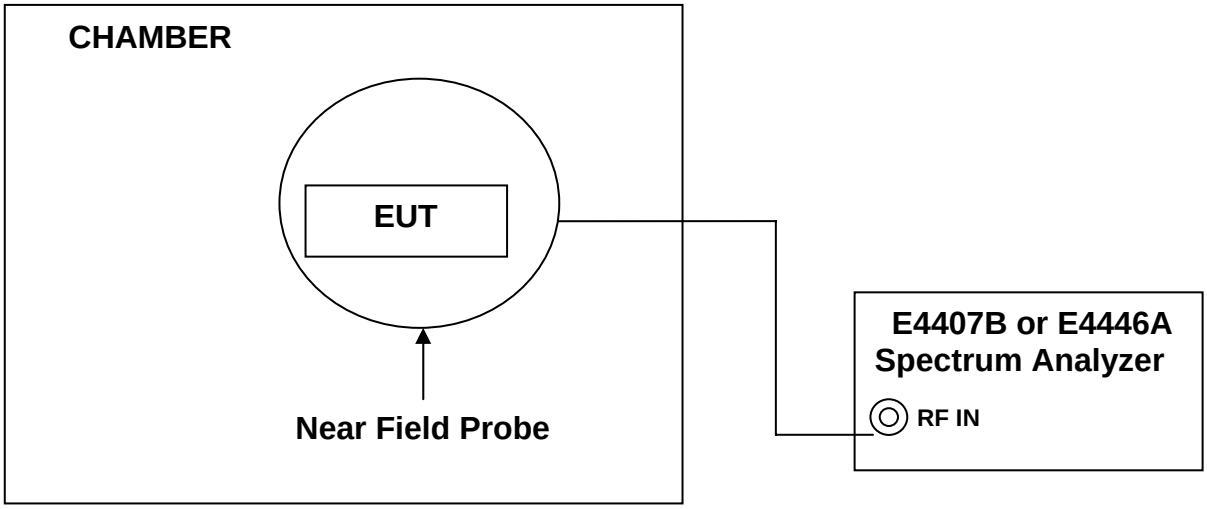
2. Distance of Measurement : 3 Meter
3. Height of table for EUT placed: 0.8 Meter.
4. Amplitude= Reading –Amp gain+ Cable loss + Ant factor
   (Auto calculate in spectrum analyzer)
5. Pre amplifier Gain :38dB to 42dB

4. Frequency Tolerance Requirements

4.1 Test Condition & Setup

15.225(e) The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency over a temperature variation of -20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 23 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.
The resolution bandwidth of the spectrum analyzer was set to 10Hz., “span” set to 2kHz.
The detector function was set to peak and hold mode read frequency.

4.2 Test Instruments Configuration



4.3 Test Equipment List

Item	Mfr/Brand	Instruments	Serial No.	Model/Type No.	Calibrated Date	Next Cal. Date
1.	Agilent	Spectrum Analyzer	US44300422	E4446A	2011/6/10	2012/6/10
2.	Agilent	Spectrum Analyzer	US39240419	E4407B	2011/2/1	2012/2/1
3.	EM	Probe	107328	EM-6992	N/A	N/A
4.	GIANT FORCE	CHAMBER	GP-94272-1	GTH-064S	2011/7/26	2012/7/25

4.4 Test Results

Test Conditions		Result		Limit
Temperature ℃	Voltage (AC)	Frequency (MHz)	Tolerance ±%	<0.01%
+23℃	120V	13.559975	0.0001844	PASS
-20℃	102V	13.560000	0.0000000	PASS
	138V	13.560000	0.0000000	PASS
+55℃	102V	13.560000	0.0000000	PASS
	138V	13.560000	0.0000000	PASS

Note :1. AC input : 120V/60Hz (100%)

: 102V/60Hz (85%)

: 138V/60Hz (115%)

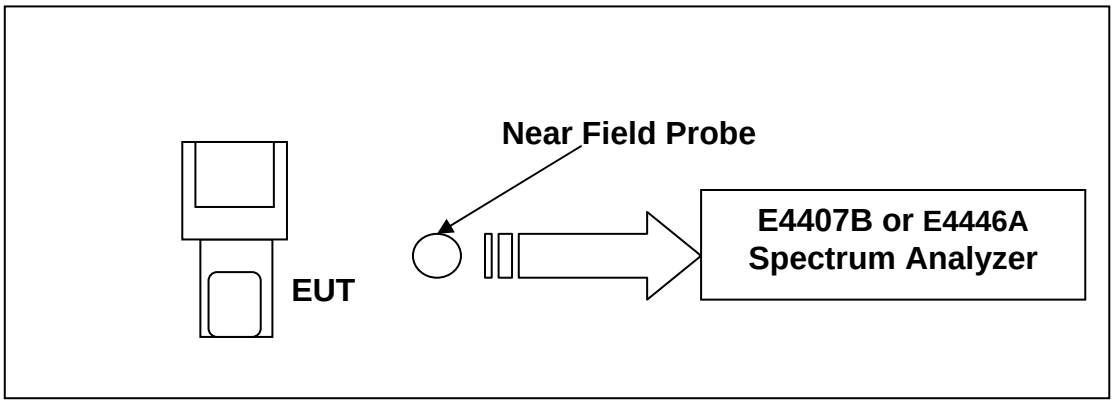
2. Operation frequency 13.56MHz

5. Transmitter Bandwidth Measurements

5.1 Test Condition & Setup

The transmitter bandwidth measurements were performed in a shielded enclosure. The EUT was placed on a wooded table which is 0.8 meters height and a near field probe was used at a testing, EUT was set to transmit continuously.
The resolution bandwidth of the spectrum analyzer was set to 1kHz. The detector function was set to peak and hold mode to clearly observe the components. The maximum permitted bandwidth at 13.553MHz to 13.567MHz with respect to the reference level specified of the center frequency of the EUT.

5.2 Test Instruments Configuration



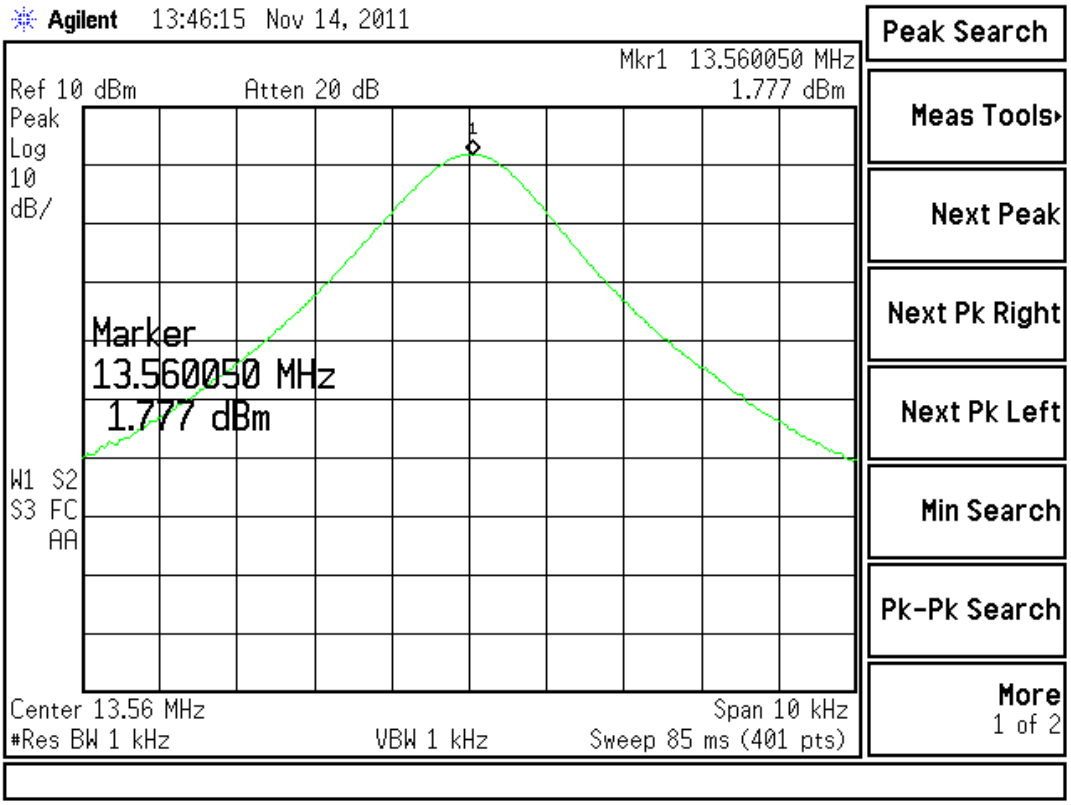
5.3 Test Equipment List

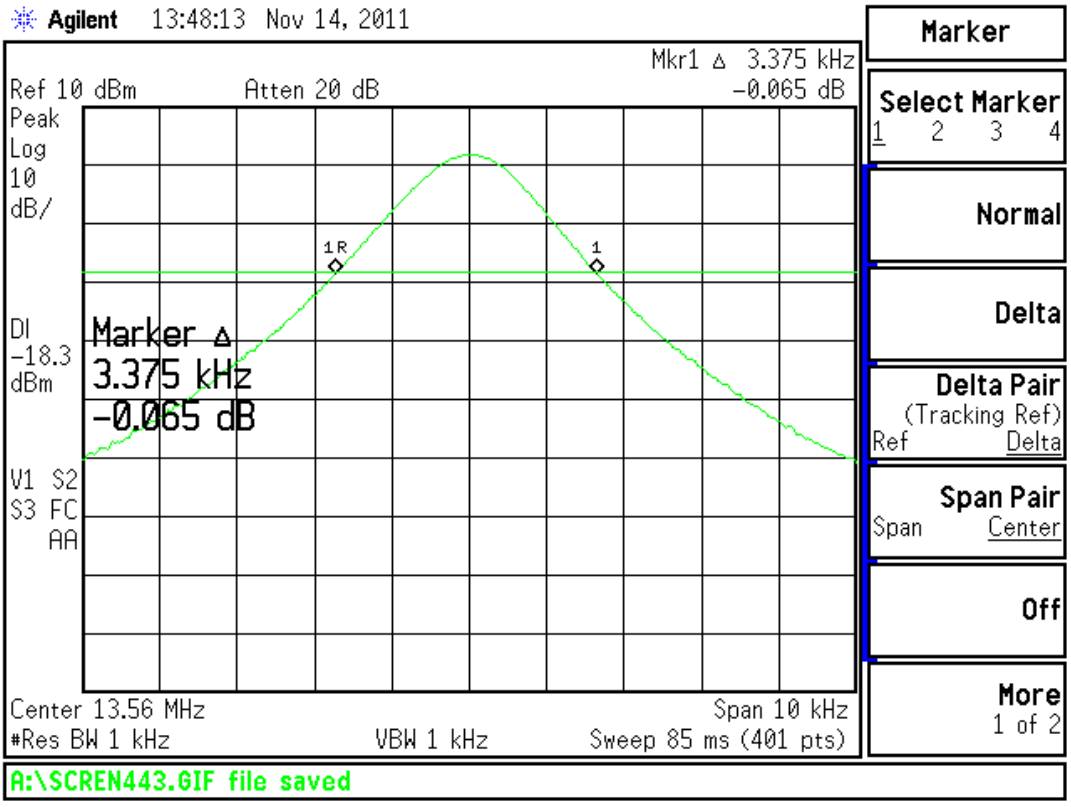
Item	Mfr/Brand	Instruments	Serial No.	Model/Type No.	Calibrated Date	Next Cal. Date
1.	Agilent	Spectrum Analyzer	US44300422	E4446A	2011/6/10	2012/6/10
2.	Agilent	Spectrum Analyzer	US39240419	E4407B	2011/2/1	2012/2/1
3.	EM	Probe	107328	EM-6992	N/A	N/A

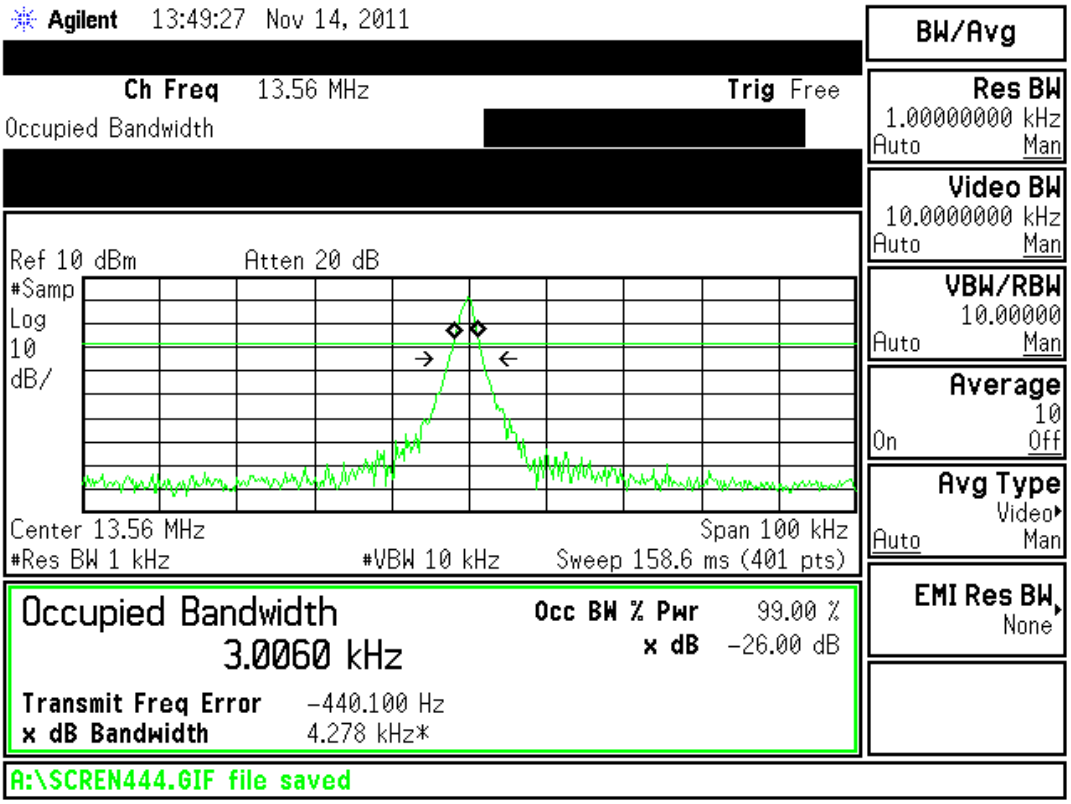
5.4 Test Results

Operation Frequency	13.560050	MHz
20dB Bandwidth Measurement	3.375	kHz
99% Occupied Bandwidth	3.0060	kHz

5.5 Test Graphs

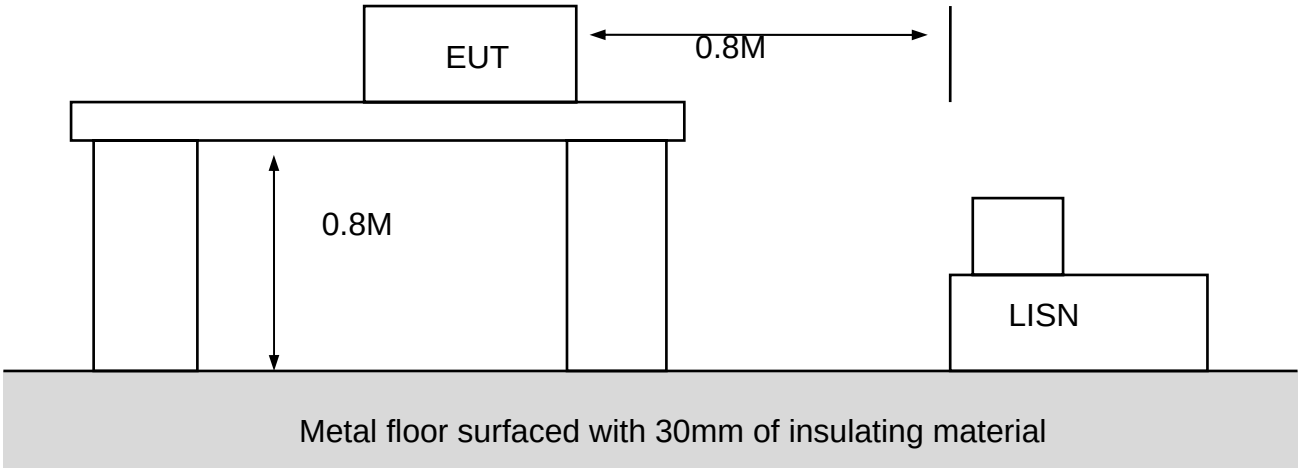



Agilent 13:48:13 Nov 14, 2011
Mkr1 Δ 3.375 kHz
Ref 10 dBm
Atten 20 dB
−0.065 dB
Peak
Log
10
dB/
1R
1
DI
−18.3
dBm
Marker Δ
3.375 kHz
−0.065 dB
V1 S2
S3 FC
AA
Center 13.56 MHz
#Res BW 1 kHz
VBW 1 kHz
Span 10 kHz
Sweep 85 ms (401 pts)
Marker
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref Delta
Span Pair
Span Center
Off
More
1 of 2
A:\SCREN443.GIF file saved

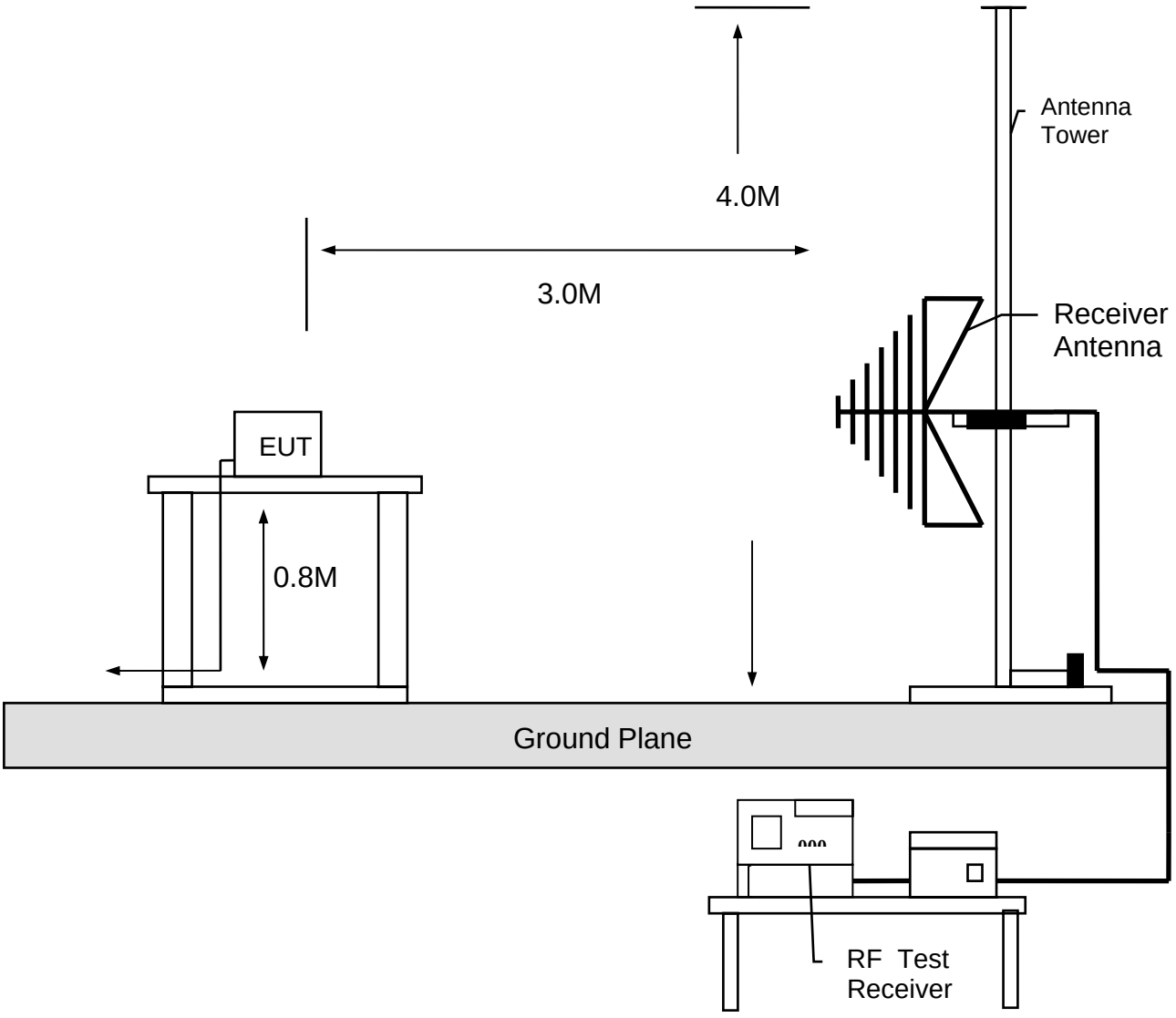

Agilent 13:49:27 Nov 14, 2011
Ch Freq 13.56 MHz
Trig Free
Occupied Bandwidth
Ref 10 dBm
Atten 20 dB
#Samp
Log
10
dB/
Center 13.56 MHz
#Res BW 1 kHz
#VBW 10 kHz
Span 100 kHz
Sweep 158.6 ms (401 pts)
Occupied Bandwidth
3.0060 kHz
Occ BW % Pwr 99.00 %
x dB −26.00 dB
Transmit Freq Error −440.100 Hz
x dB Bandwidth 4.278 kHz*
BW/Avg
Res BW
1.00000000 kHz
Auto Man
Video BW
10.0000000 kHz
Auto Man
VBW/RBW
10.00000
Auto Man
Average
10
On Off
Avg Type
Video
Auto Man
EMI Res BW
None
A:\SCREN444.GIF file saved

Appendix I - EUT Test SETUP

MEASUREMENT OF POWER LINE CONDUCTED RFI VOLTAGE



MEASUREMENT OF RADIATED EMISSION



Appendix II - Brand / Trade Name & Model No. Multiple Listee

Model No.	Trade Name
N/A	N/A