A Test Lab Techno Corp.

No.140-1, Chang-an St., Bade City, Tao-Yuan County 334, Taiwan (R.O.C.)
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Part 15 C Measurement Report

Report No.	:	**0902FR12**
Applicant	:	**Applied Wireless Identifications Group Inc.**
Trade Mark	:	**AWID**
Product Model	:	**HH-6600**
Product Type	:	**RFID Handheld Terminal**
FCC ID	:	**OGSHH6600**
Dates of Test	:	**Jan. 16 ~ Feb. 24, 2009**
Test Specification	:	**47 CFR §15.247 (2007)**
		RSS-210 Issue 7(2007)
Location of Test Lab.	:	**Chang-An**

1. The test operations have to be performed with cautious behavior, the test results are as attached.
2. The test results are under chamber environment of A Test Lab Techno Corp. A Test Lab Techno Corp. does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples.
3. The measurement report has to be written approval of A Test Lab Techno Corp. It may only be reproduced or published in full.

Country Huang **20090225**
Measurement Center Manager

John Cheng **20090225**
Testing Engineer

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 *A Test Lab Techno Corp. No.140-1, Chang-an St., Bade City, Tao-Yuan County 334, 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 (15.247) & RSS-210 Issue 7(2007).

EUT	:	**RFID Handheld Terminal**
Applicant	:	**Applied Wireless Identifications Group Inc.**
		18300 Sutter Blvd, Morgan Hill, CA 95037 USA
Trade Mark	:	**AWID**
Model No	:	**HH-6600**
FCC ID	:	**OGSHH6600**

Approved by : **Country Huang 2009/02/25** ***Prepared by :*** **John Cheng 2009/02/25**

A Test Lab Techno Corp.

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Contents

1. GENERAL

1.1 Description of Equipment under Test (EUT)

Applicant： **Applied Wireless Identifications Group Inc.**
18300 Sutter Blvd, Morgan Hill, CA 95037 USA

Trade Mark	：	AWID
Product Model	：	HH-6600
Product Type	：	RFID Handheld Terminal
FCC ID	：	OGSHH6600
Hardware Version	：	N/A
Software Version	：	N/A
Type of Modulation	：	Spread Spectrum
RF Operating Frequency	：	902 MHz to 928 MHz
Number of Channels	：	50
Type of Antenna	：	Small circular polarized patch antenna

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.

1.2 Introduction

The following measurement report is submitted on behalf of **Applied Wireless Identifications Group Inc.** In support of a Class B Digital Device certification in accordance with Part2 Subpart J and Part 15 Subpart A And B&C & RSS 210 Issue7(2007) of the Commission's and Regulations.

1.3 Summary of Tests

47 CFR Part 15 Subpart C & RSS 210 Issue7				
Reference		Test	Results	Section
CFR 47 Part 15.247	RSS 210 Issue7			
15.205	RSS 210(A8.5)	Restricted Band of Operation	PASS	----
15.207(a)	RSS Gen(7.2.2)	Conducted Emissions Voltage	PASS	2.6
15.209; 15.247(d)	RSS 210(A8.5)	Radiated Spurious Emissions	PASS	3.6 & 9.5
15.247(b)	RSS 210(A8.4)	Output Power	PASS	4.4
15.247(a)(1)	RSS 210(A8.1)	Occupied Bandwidth	PASS	5.4
15.247(a)(1)	RSS 210(A8.1)	Channel Separation	PASS	6.4
15.247(a)(1)	RSS 210(A8.1)	Number of Hopping Channels	PASS	7.4
15.247(a)(1)	RSS 210(A8.1)	Time of Occupancy	PASS	8.4
15.247(d)	RSS 210(A8.5)	Conducted Spurious Emissions	PASS	10.5
15.203		Antenna Requirement	PASS	11.2
15.247(i)	RSS Gen(5.5)	Maximum Permissible Exposure	PASS	12.2
15.247(c)	RSS 210(A8.4)	Antenna Gain < 6 dBi	PASS	----
15.247(e)	RSS 210(A8.3)	Power Spectral Density	N/A	----
15.247(f)	RSS 210(A8.3)	Hybrid System Requirement	N/A	----
CFR 47 Part 15.247 (2007) / RSS 210 Issue7 (2007) / ANSI C63.4: 2003 / RSS-Gen Issue 2: 2007				

1.4 Description of Support Equipment

The EUT itself forms a system. No support equipment is required for its normal operation.

1.5 Configuration of System under Test

PC USB Link

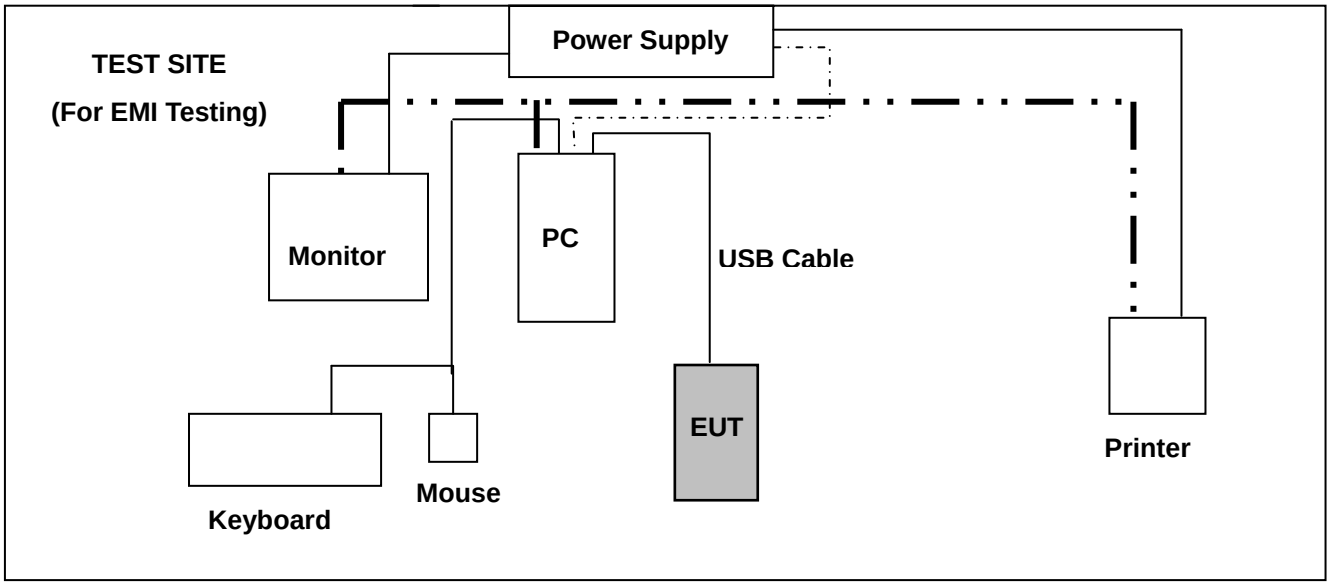


Figure 1. Configuration of System Under Test for PC USB Link

During EMI testing the EUT (RFID Handheld Terminal)'s USB port connected to the USB port of AE PC. A mouse was connected to the mouse port of IBM PC. And a keyboard was connected to the mouse port of IBM PC. And a printer was connected to the parallel port.

AC Adapter Link

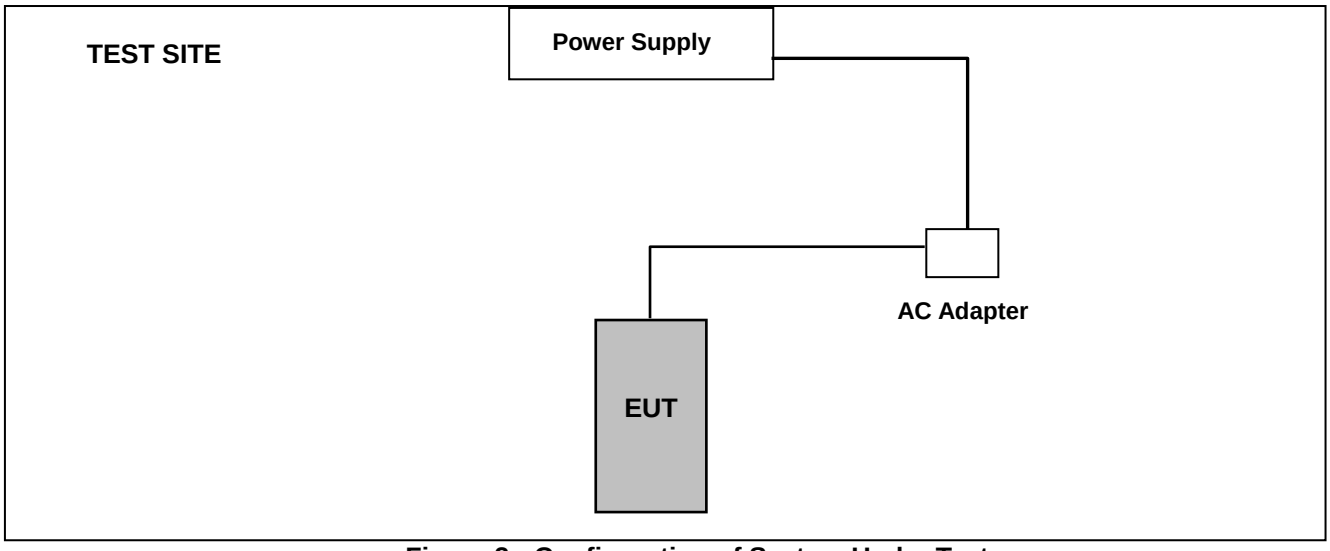


Figure 2. Configuration of System Under Test

During EMI testing the EUT (RFID Handheld Terminal)'s Power port was connected to AC Adapter..

1.6 Test Procedure

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

1.7 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 systems radiated and conducted emissions were investigated while the computer alternately transferred data to the EUT as well as to the monitor and printer. Using a test program which sent a continuous data and transferred data to and from the EUT was proven to worst case emissions. The system's physical layout and cabling was randomly arranged to ensure that maximum emission levels were attained.

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 3162/2 SH 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 CISPR 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 2.6.

2.2 Test Equipment List:

Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Spectrum Analyzer	Advantest	R3132	160300103	Mar. 06, 2008	Mar. 06, 2009
Test Receiver	R&S	ESCI	100367	Jun. 05, 2008	Jun. 05, 2009
LISN	EMCO	3816/2 SH	00060110	Jun. 04, 2008	Jun. 04, 2009
LISN	EMCO	3816/2 SH	00060111	Jun. 13, 2008	Jun. 13, 2009
Transient Limiter	ELECTRO-METRICS	EM-7600	777	Jun. 26, 2008	Jun. 26, 2009

2.3 Test Configuration:

Figure 3. Front View of the Test Configuration

Figure 4. Rear View of the Test Configuration

2.4 Test condition:

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

2.5 Conducted Emissions Limits:

Frequency range (MHz)	Limits (dBuV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5.0	56	46
5.0 to 30	60	50

2.6 Measurement Data of Conducted Emissions:

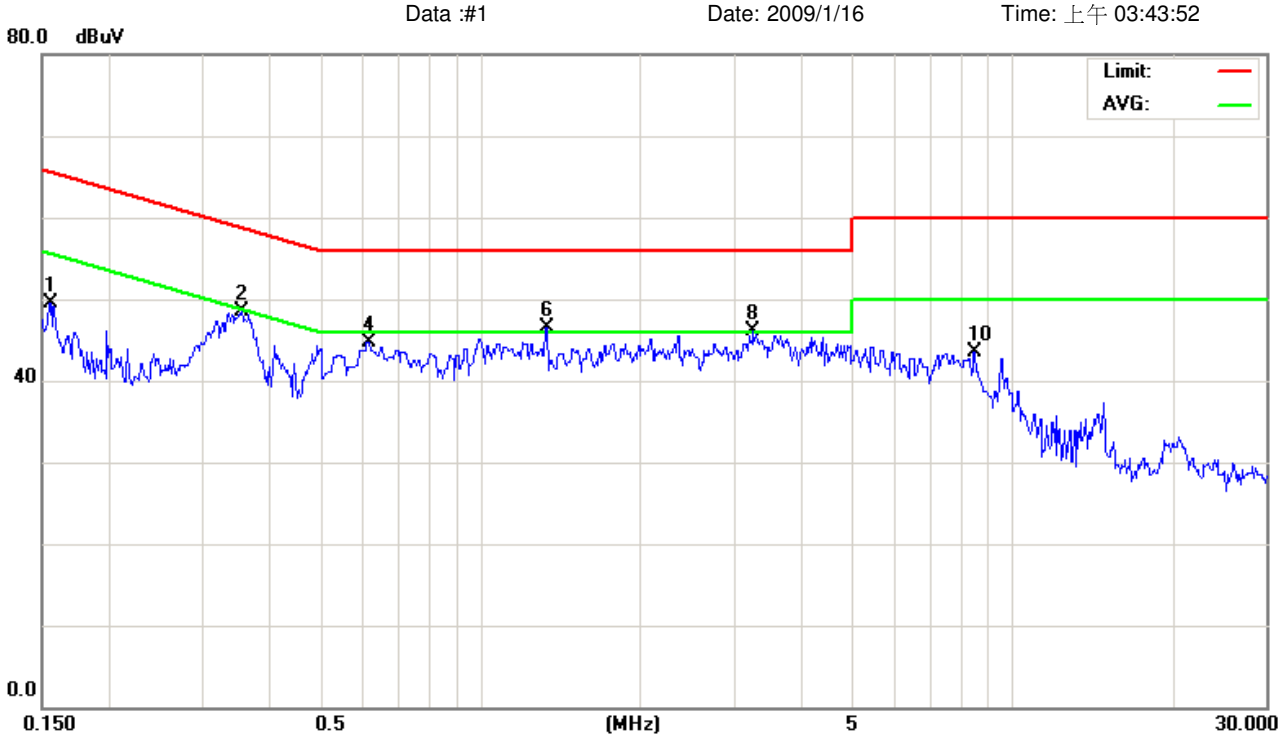
2.6.1 Conducted Emissions (Subpart C)

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

Applicant : Applied Wireless Identifications Group Inc.
Model No : HH-6600
EUT : RFID Handheld Terminal
Test Mode : Stand By
Test Date : 01/16/2009
Please refer to next pager of detail testing data.
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.

Data :#1 Date: 2009/1/16 Time: 上午 03:43:52



Site site#1 Phase: L1 Temperature: 26 ℃

Limit: CISPR22 Class B Conduction(QP) Power: AC 110V/60Hz Humidity: 55 %

EUT:

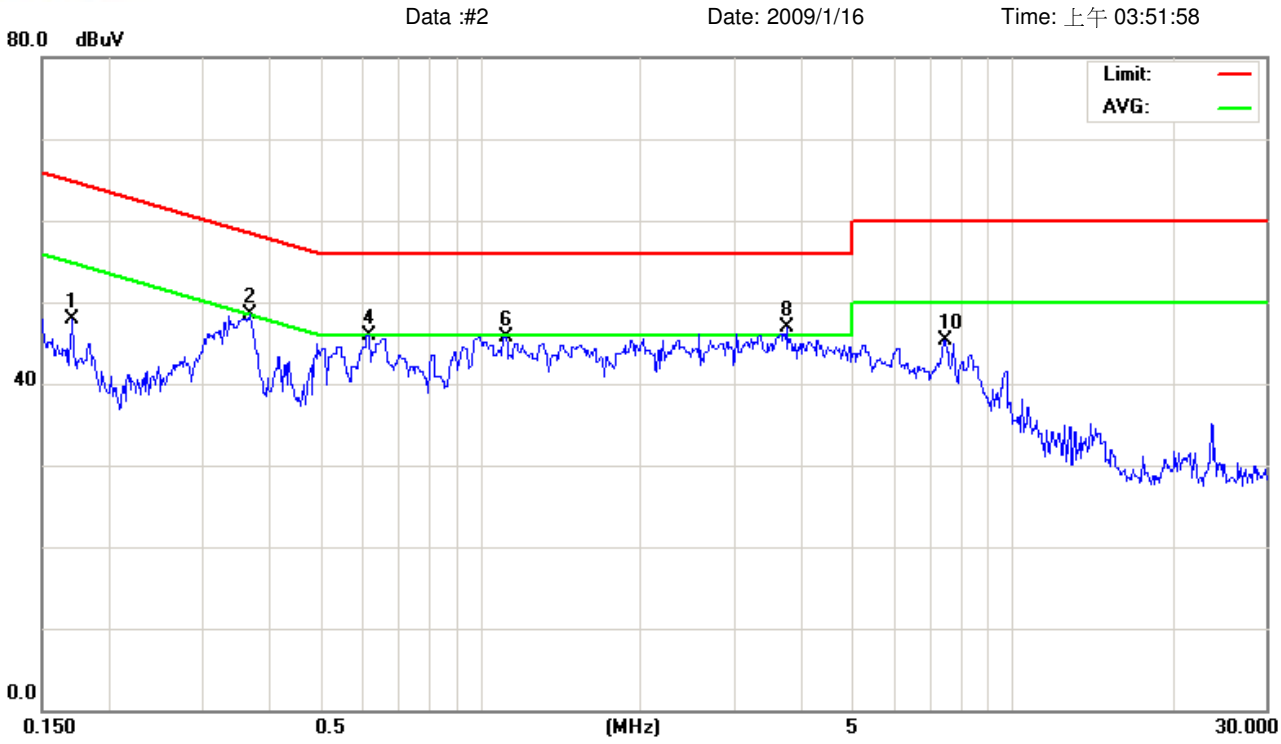
M/N: 09-0020-E

Mode: IDLE

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1549	39.86	9.73	49.59	65.73	-16.14	peak	
2		0.3551	38.74	9.78	48.52	58.84	-10.32	peak	
3		0.3551	29.32	9.78	39.10	48.84	-9.74	AVG	
4		0.6170	34.88	9.79	44.67	56.00	-11.33	peak	
5		0.6170	21.51	9.79	31.30	46.00	-14.70	AVG	
6	*	1.3280	36.76	9.82	46.58	56.00	-9.42	peak	
7		1.3280	23.48	9.82	33.30	46.00	-12.70	AVG	
8		3.2540	36.26	9.91	46.17	56.00	-9.83	peak	
9		3.2540	21.19	9.91	31.10	46.00	-14.90	AVG	
10		8.5000	33.39	10.09	43.48	60.00	-16.52	peak	

*:Maximum data x:Over limit !:over margin ●Reference Only



Site site#1 Phase: *L2* Temperature: 26 ℃

Limit: CISPR22 Class B Conduction(QP) Power: AC 110V/60Hz Humidity: 55 %

EUT:

M/N: 09-0020-E

Mode: IDLE

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1710	38.15	9.73	47.88	64.91	-17.03	peak	
2		0.3691	38.75	9.78	48.53	58.52	-9.99	peak	
3	*	0.3691	30.62	9.78	40.40	48.52	-8.12	AVG	
4		0.6170	36.11	9.79	45.90	56.00	-10.10	peak	
5		0.6170	25.11	9.79	34.90	46.00	-11.10	AVG	
6		1.1119	35.97	9.80	45.77	56.00	-10.23	peak	
7		1.1119	23.90	9.80	33.70	46.00	-12.30	AVG	
8		3.7580	36.89	9.95	46.84	56.00	-9.16	peak	
9		3.7580	23.05	9.95	33.00	46.00	-13.00	AVG	
10		7.4500	35.22	10.09	45.31	60.00	-14.69	peak	

*:Maximum data x:Over limit !:over margin ●Reference Only

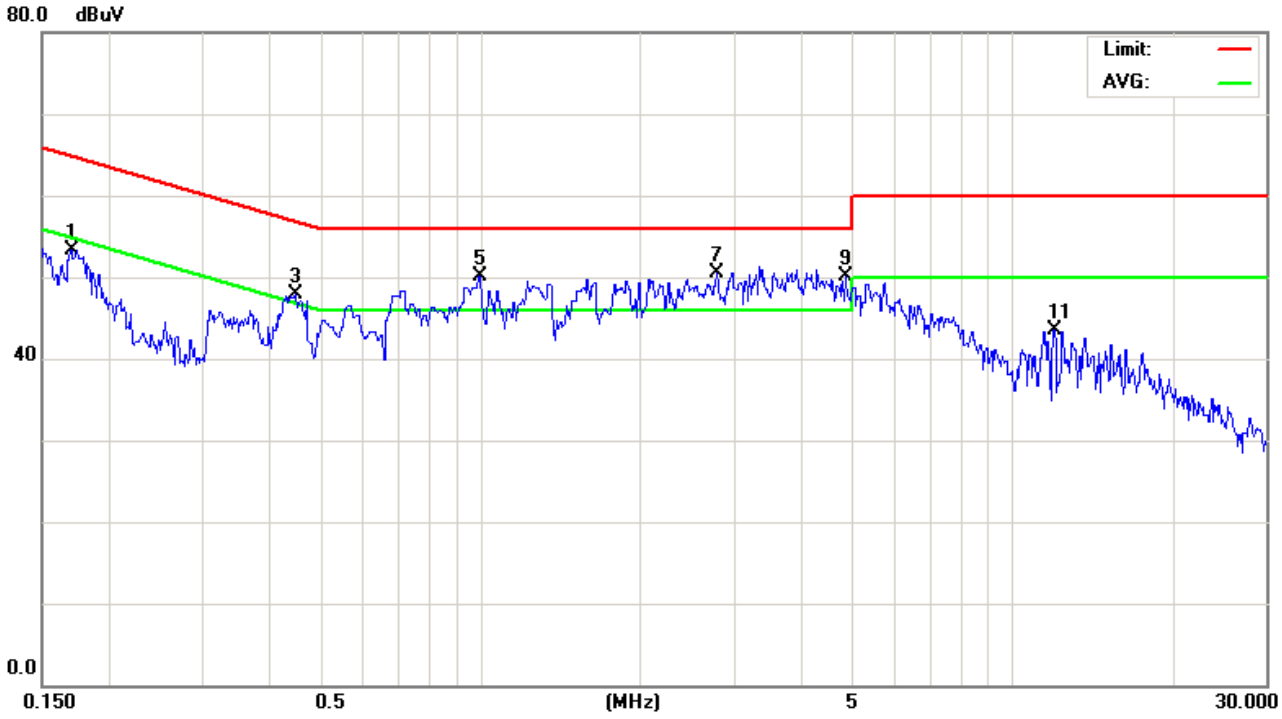
2.6.2 Conducted Emissions (Subpart C)

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

Applicant : Applied Wireless Identifications Group Inc.
Model No : HH-6600
EUT : RFID Handheld Terminal
Test Mode : Link Mode
Test Date : 01/16/2008
Please refer to next pager of detail testing data.
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.
5. The test results are the worse case.

Data :#1 Date: 2009/1/16 Time: 上午 02:19:09



Site site#1 Phase: L1 Temperature: 26 ℃

Limit: CISPR22 Class B Conduction(QP) Power: AC 110V/60Hz Humidity: 55 %

EUT:

M/N: 09-0020-E

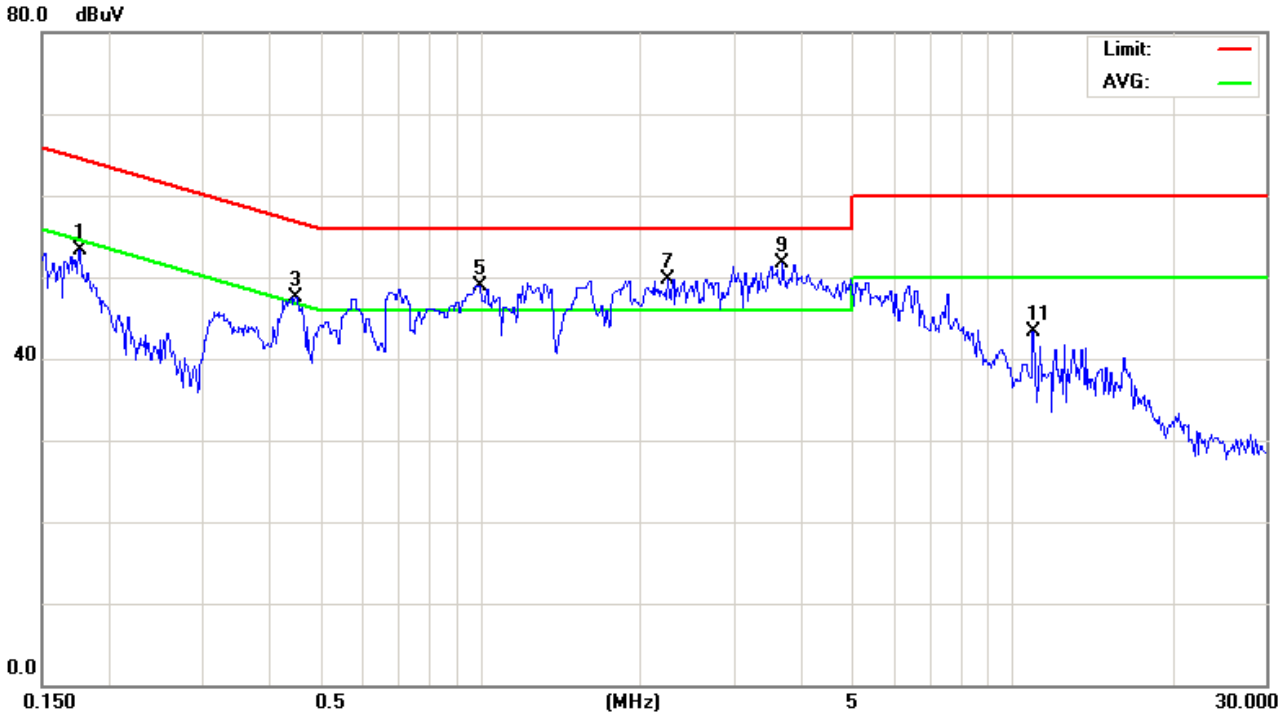
Mode: RFID

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1696	43.58	9.73	53.31	64.98	-11.67	peak	
2		0.1696	24.47	9.73	34.20	54.98	-20.78	AVG	
3		0.4481	38.14	9.78	47.92	56.91	-8.99	peak	
4		0.4482	27.52	9.78	37.30	46.91	-9.61	AVG	
5		0.9950	40.26	9.81	50.07	56.00	-5.93	peak	
6		0.9950	24.69	9.81	34.50	46.00	-11.50	AVG	
7	*	2.7769	40.69	9.90	50.59	56.00	-5.41	peak	
8		2.7770	22.10	9.90	32.00	46.00	-14.00	AVG	
9		4.8469	40.13	10.03	50.16	56.00	-5.84	peak	
10		4.8470	22.47	10.03	32.50	46.00	-13.50	AVG	
11		11.9500	33.37	10.13	43.50	60.00	-16.50	peak	

*:Maximum data x:Over limit !:over margin ●Reference Only

Data :#2 Date: 2009/1/16 Time: 上午 02:31:52



Site site#1 Phase: *L2* Temperature: 26 ℃

Limit: CISPR22 Class B Conduction(QP) Power: AC 110V/60Hz Humidity: 55 %

EUT:

M/N: 09-0020-E

Mode: RFID

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1759	43.60	9.74	53.34	64.67	-11.33	peak	
2		0.1759	24.16	9.74	33.90	54.67	-20.77	AVG	
3		0.4489	37.73	9.78	47.51	56.89	-9.38	peak	
4		0.4489	27.72	9.78	37.50	46.89	-9.39	AVG	
5		0.9950	39.16	9.81	48.97	56.00	-7.03	peak	
6		0.9950	24.59	9.81	34.40	46.00	-11.60	AVG	
7		2.2460	39.85	9.88	49.73	56.00	-6.27	peak	
8		2.2460	22.72	9.88	32.60	46.00	-13.40	AVG	
9	*	3.6950	41.70	9.94	51.64	56.00	-4.36	peak	
10		3.6950	24.36	9.94	34.30	46.00	-11.70	AVG	
11		10.9500	33.13	10.10	43.23	60.00	-16.77	peak	

*:Maximum data x:Over limit !:over margin ●Reference Only

3. Radiated Emissions Requirements

3.1 Final radiation measurements were made on a three-meter:

Final radiation measurements were made on a three-meter, Semi Anechoic Chamber. 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 250 MHz 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 26.5 GHz is investigated.

For measurements below 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 measurements above 1 GHz the resolution bandwidth is set to 1 MHz, and then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

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.

SCHWARZBECK MESS-ELEKTRONIK Biconilog Antenna (mode VULB9163) at 3 Meter and the SCHWARZBECK Double Ridged Guide Antenna (model BBHA9120D&9170) was used in frequencies 1 - 26.5 GHz at a distance of 1 meter. All test results were extrapolated to equivalent signal at 3 meters utilizing an inverse linear distance extrapolation Factor (20dB/decade).

For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

Appropriate preamplifiers were used for improving sensitivity and precautions were taken to avoid overloading or desensitizing the spectrum analyzer. No post - detector video filters were used in the test.

The spectrum analyzer's 6 dB bandwidth was set to 1 MHz, and the analyzer was operated in the peak detection mode, for frequencies both below and up 1 GHz. The average levels were obtained by subtracting the duty cycle correction factor from the peak readings.

The following procedures were used to convert the emission levels measured in decibels referenced to 1 microvolt (dBuV) into field intensity in micro volts pre meter (uV/m).

The actual field intensity in decibels referenced to 1 microvolt in to field intensity in micro colts per meter (dBuV/m).

The actual field is intensity in referenced to 1 microvolt per meter (dBuV/m) is determined by algebraically adding the measured reading in dBuV, the antenna factor (dB), and cable loss (dB) and Subtracting the gain of preamplifier (dB) is auto calculate in spectrum analyzer.

(1) Amplitude (dBuV/m) = FI (dBuV) +AF (dBuV) +CL (dBuV)-Gain (dB)

FI= Reading of the field intensity.
AF= Antenna factor.
CL= Cable loss.
P.S Amplitude is auto calculate in spectrum analyzer.

(2) Actual Amplitude (dBuV/m) = Amplitude (dBuV)-Dis(dB)

The FCC specified emission limits were calculated according the EUT operating frequency and by following linear interpolation equations:
(a) For fundamental frequency :
Transmitter Output < +30dBm
(b) For spurious frequency :
Spurious emission limits = fundamental emission limit /10

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

3.2 Test Equipment List:

Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Spectrum Analyzer	Agilent	E4408B	MY45107753	Jun. 05, 2008	Jun. 05, 2009
Pre Amplifier	Agilent	8449B	3008A02237	Jun. 03, 2008	Jun. 03, 2009
Pre Amplifier	Agilent	8447D	2944A10961	Jun. 10, 2008	Jun. 10, 2009
Test Receiver	R&S	ESCI	100367	Jun. 05, 2008	Jun. 05, 2009
Biconilog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	9163-270	Jun. 26, 2008	Jun. 26, 2009
Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	Jun. 26, 2008	Jun. 26, 2009
Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	BBHA9170	9170-320	Jun. 09, 2008	Jun. 09, 2009
Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120E	0899	Jun. 26, 2008	Jun. 26, 2009

3.3 Test Configuration:

Below 1GHz

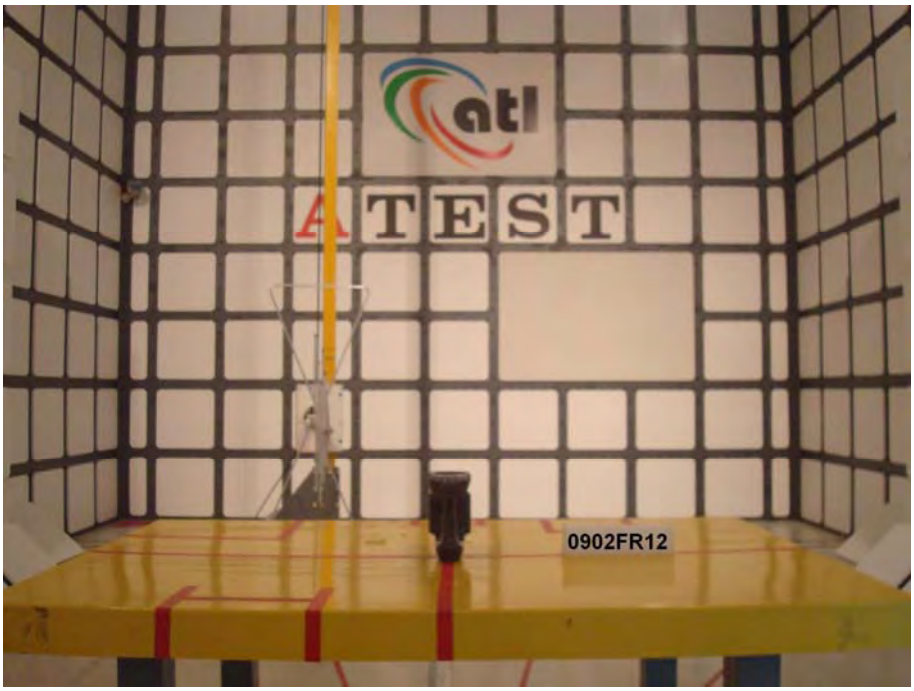


Figure 5. Front View of the Test Configuration

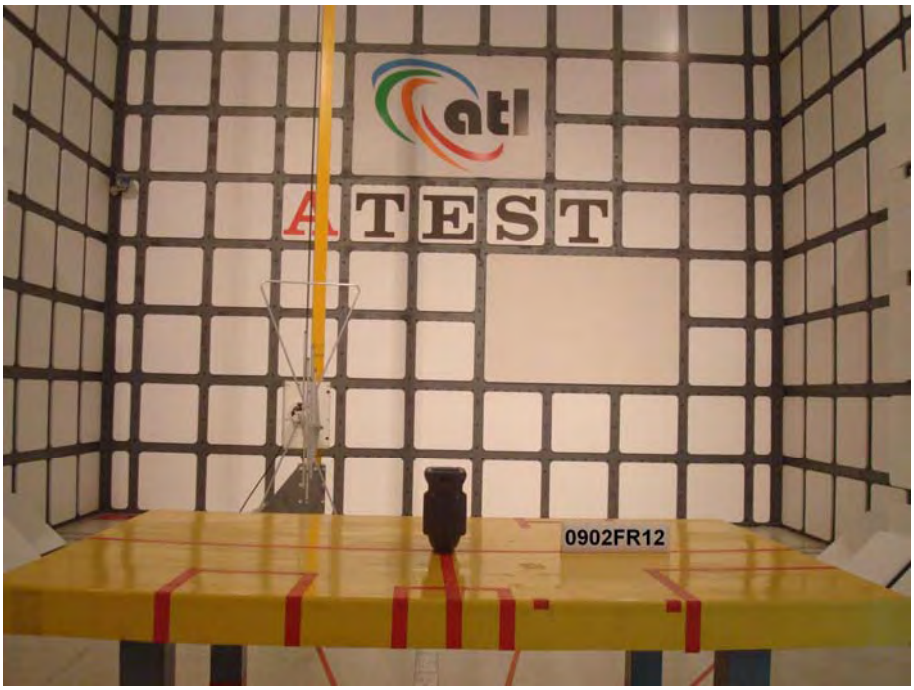


Figure 6. Rear View of the Test Configuration

Above 1GHz

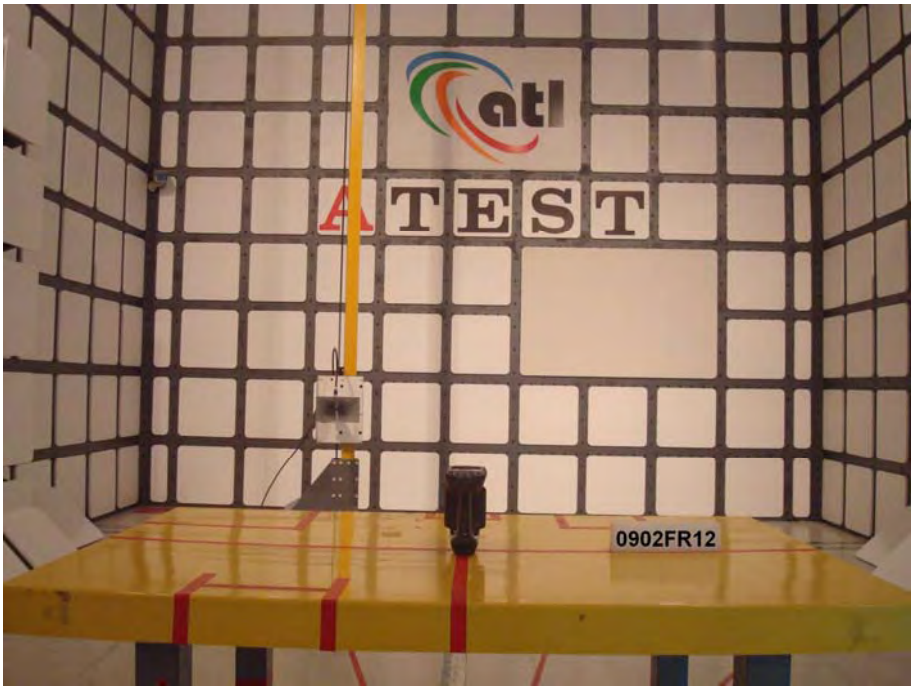


Figure 7. Front View of the Test Configuration

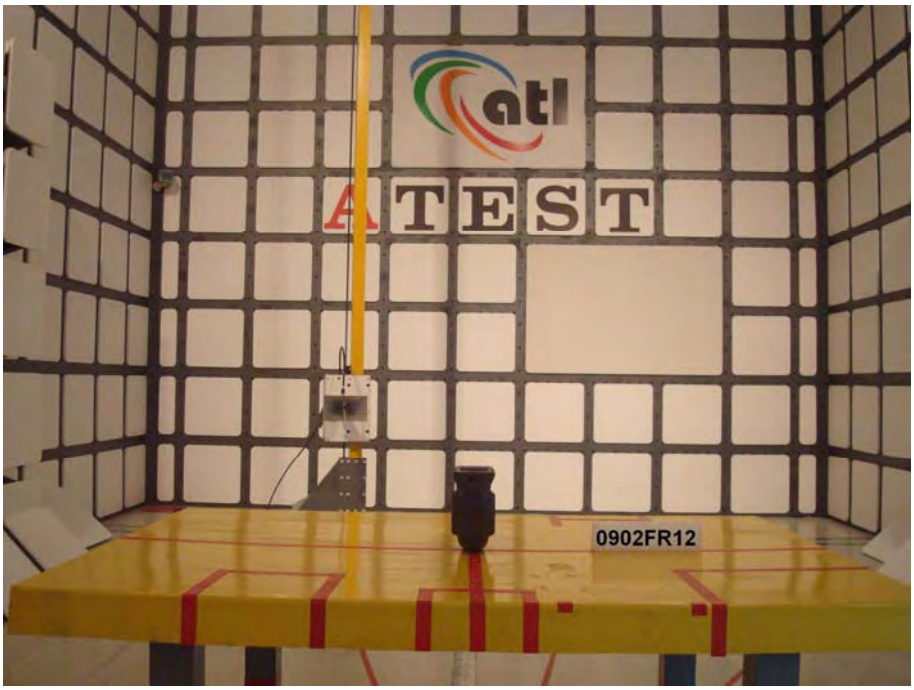


Figure 8. Rear View of the Test Configuration

3.4 Test condition:

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

3.5 Radiated Emissions Limits:

Frequency range (MHz)	Limited (dBuV)
30 to 88	40
88 to 216	43.5
216 to 960	46
Above 960	54

3.6 Measurement Data of Radiated Emissions:

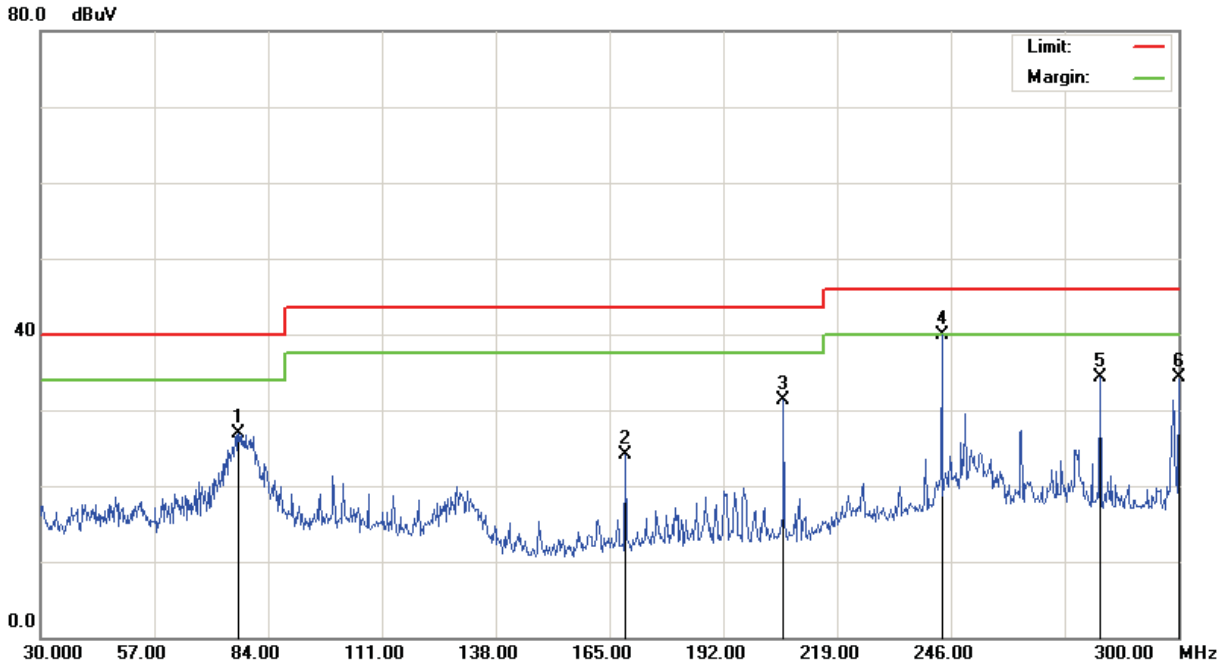
3.6.1 Open Field Radiated Emissions (Subpart C)

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

Applicant : Applied Wireless Identifications Group Inc
Model No : HH-6600
EUT : RFID Handheld Terminal
Test Mode : Link Mode _ 902.75 MHz
Test Date : 02/03 ~ 2/24/2009
Please refer to next pager of detail testing data.
Notes:

1. Margin= Amplitude - Limits
2. Distance of Measurement: 3 Meter (30-1000MHz) & (1-10GHz), 1 Meter (10-26.5GHz)
3. Height of table for EUT placed: 0.8 Meter.
4. ANT= Antenna height.
5. Amplitude= Reading Amplitude – Amplifier gain + Cable loss + Antenna factor
   (Auto calculate in spectrum analyzer)
6. The EUT was worst case on X axis after pretest on X & Y & Z axis setting.
7. The testing data only show below 18GHz's data because measure data above 18GHz was only ambit noise.
8. All frequencies from 30MHz to 26.5GHz have been tested

File :RH767(CH00) Data :#1 Date: 2009/2/24 Time: 下午 07:33:00



Site
Limit: FCC Class B 3M Radiation
EUT:
M/N: 09-0020-E
Mode: RFID
Note: CH00，單EUT置中

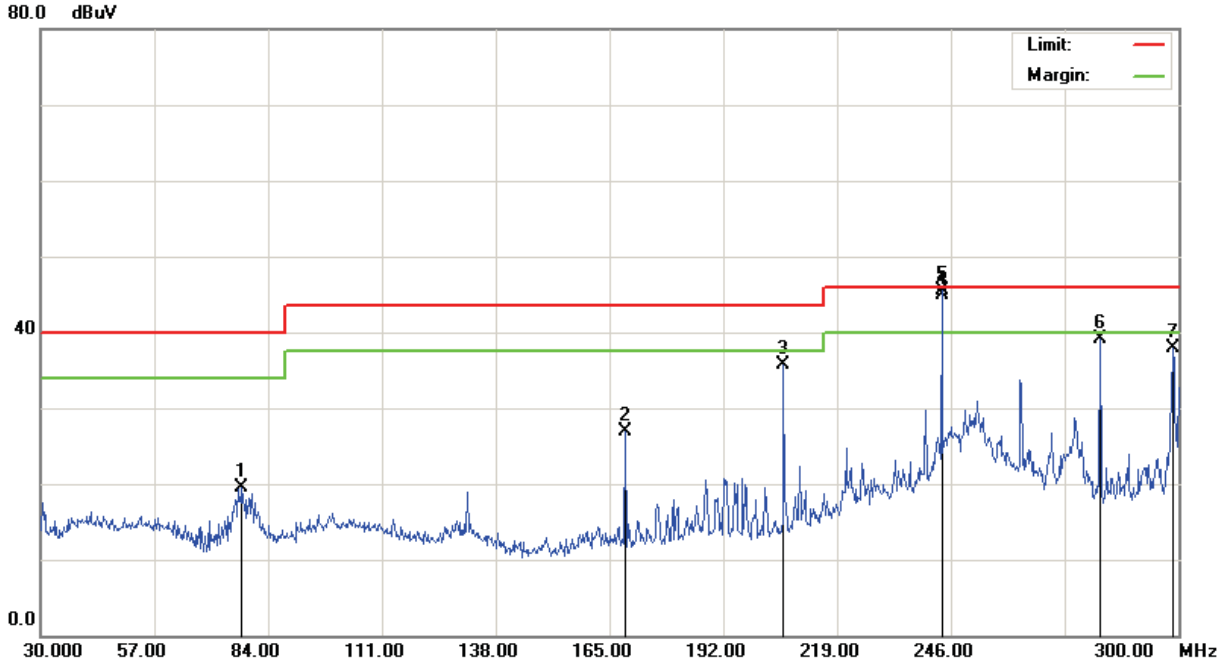
Polarization: ***Vertical***
Power:
Distance: 3m

Temperature: 22 ℃
Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		76.9800	43.77	-16.92	26.85	40.00	-13.15	peak			
2		168.7800	39.42	-15.39	24.03	43.50	-19.47	peak			
3		206.3100	44.28	-12.98	31.30	43.50	-12.20	peak			
4	*	243.8400	51.30	-11.30	40.00	46.00	-6.00	peak			
5		281.3700	44.62	-10.38	34.24	46.00	-11.76	peak			
6		300.0000	44.33	-9.98	34.35	46.00	-11.65	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

File :RH767(CH00) Data :#2 Date: 2009/2/24 Time: 下午 07:48:43



Site
Limit: FCC Class B 3M Radiation
EUT:
M/N: 09-0020-E
Mode: RFID
Note: CH00，單EUT置中

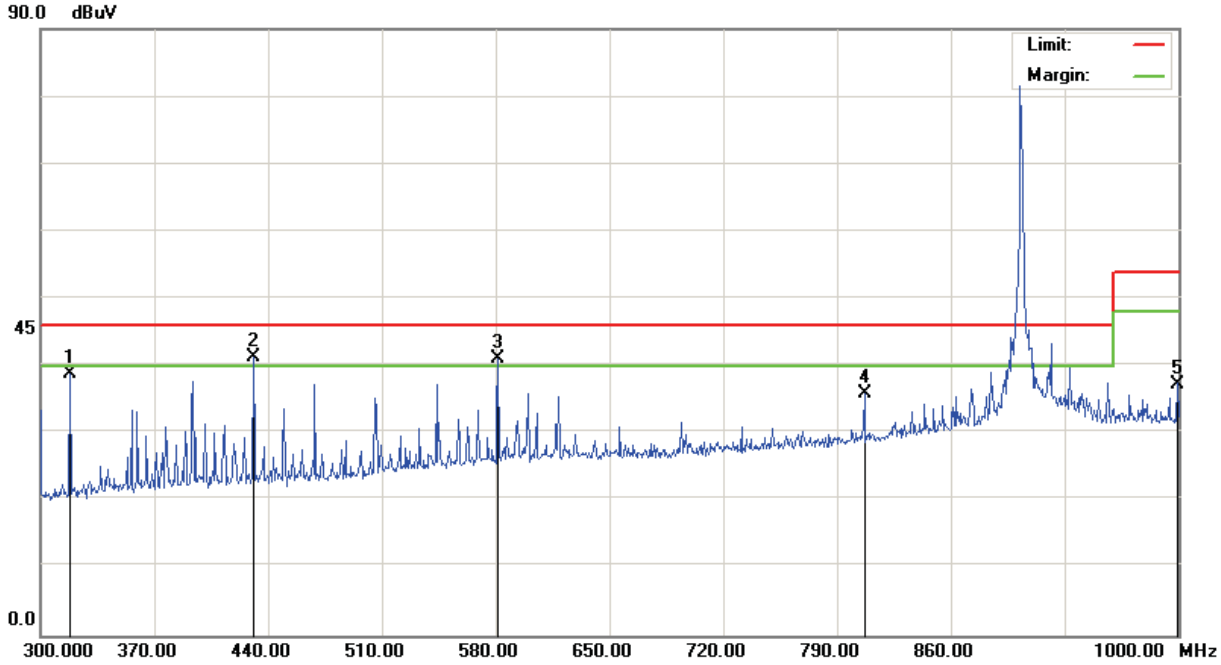
Polarization: ***Horizontal***
Power:
Distance: 3m

Temperature: 22 ℃
Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		77.7900	36.40	-16.82	19.58	40.00	-20.42	peak			
2		168.7800	42.34	-15.39	26.95	43.50	-16.55	peak			
3		206.3100	48.69	-12.98	35.71	43.50	-7.79	peak			
4	!	243.7473	56.29	-11.30	44.99	46.00	-1.01	QP	102	260	
5	*	243.8400	56.77	-11.30	45.47	46.00	-0.53	peak			
6		281.3700	49.54	-10.38	39.16	46.00	-6.84	peak			
7		298.6500	48.00	-10.04	37.96	46.00	-8.04	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

File :RH767(CH00) Data :#3 Date: 2009/2/24 Time: 下午 10:13:53



Site
Limit: FCC Class B 3M Radiation
EUT:
M/N: 09-0020-E
Mode: RFID
Note: CH00，單EUT置中

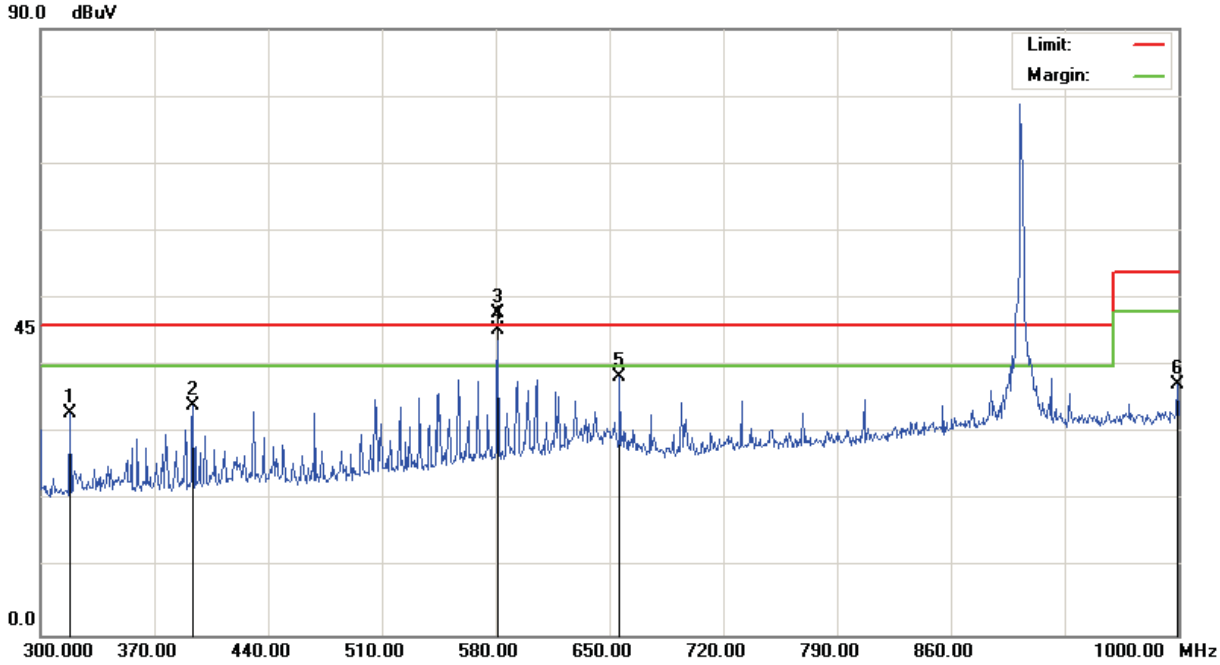
Polarization: ***Vertical***
Power:
Distance: 3m

Temperature: 22 ℃
Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		318.2000	48.53	-9.79	38.74	46.00	-7.26	peak			
2	*	430.9000	49.30	-8.03	41.27	46.00	-4.73	peak			
3	!	581.4000	46.34	-5.22	41.12	46.00	-4.88	peak			
4		806.8000	37.81	-1.91	35.90	46.00	-10.10	peak			
5		999.3000	36.70	0.65	37.35	54.00	-16.65	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

File :RH767(CH00) Data :#4 Date: 2009/2/24 Time: 下午 11:29:58



Site
Limit: FCC Class B 3M Radiation
EUT:
M/N: 09-0020-E
Mode: RFID
Note: CH00

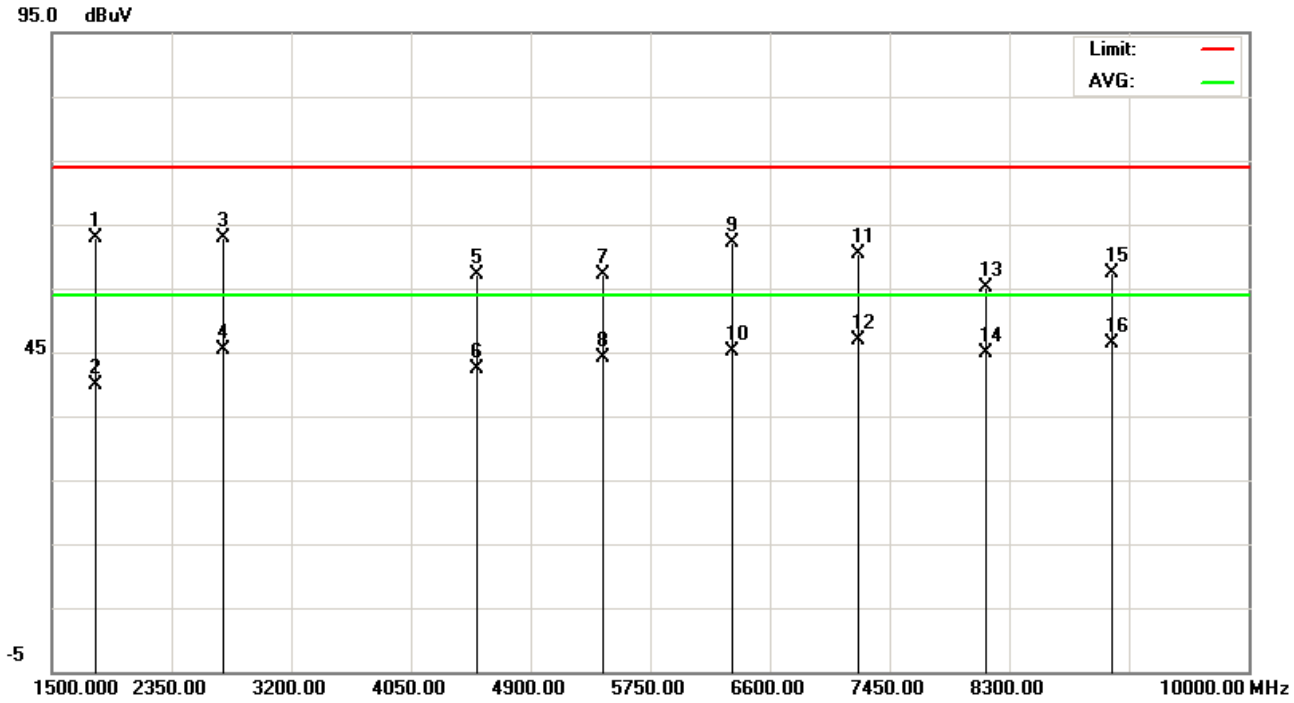
Polarization: ***Horizontal***
Power:
Distance: 3m

Temperature: 22 ℃
Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		318.2000	42.68	-9.79	32.89	46.00	-13.11	peak			
2		393.8000	42.55	-8.49	34.06	46.00	-11.94	peak			
3	*	581.4000	53.06	-5.22	47.84	46.00	1.84	peak			
4	!	581.4000	50.55	-5.22	45.33	46.00	-0.67	QP	112	89	Not Restricted bands
5		656.3000	42.90	-4.45	38.45	46.00	-7.55	peak			
6		999.3000	36.69	0.64	37.33	54.00	-16.67	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

Data :#4 Date: 2009/2/3 Time: 下午 06:32:32



Site site #1 Polarization: ***Vertical*** Temperature: 22 ℃

Limit: FCC part 15 (PK) Power: Humidity: 60 %

EUT: Distance:

M/N: 09-0020-E

Mode: RFID

Note: CH00(902.75MHz)，Antenna100cm，NB01

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		1805.500	65.37	-2.51	62.86	74.00	-11.14	peak			
2		1805.500	42.50	-2.51	39.99	54.00	-14.01	AVG			
3		2709.000	61.60	1.27	62.87	74.00	-11.13	peak			
4		2709.000	44.11	1.27	45.38	54.00	-8.62	AVG			
5		4510.000	50.55	6.53	57.08	74.00	-16.92	peak			
6		4510.000	35.73	6.53	42.26	54.00	-11.74	AVG			
7		5410.000	48.80	8.41	57.21	74.00	-16.79	peak			
8		5410.000	35.64	8.41	44.05	54.00	-9.95	AVG			
9		6328.000	51.63	10.53	62.16	74.00	-11.84	peak			
10		6328.000	34.66	10.53	45.19	54.00	-8.81	AVG			
11		7228.000	46.66	13.81	60.47	74.00	-13.53	peak			
12	*	7228.000	33.15	13.81	46.96	54.00	-7.04	AVG			
13		8128.000	39.32	15.80	55.12	74.00	-18.88	peak			

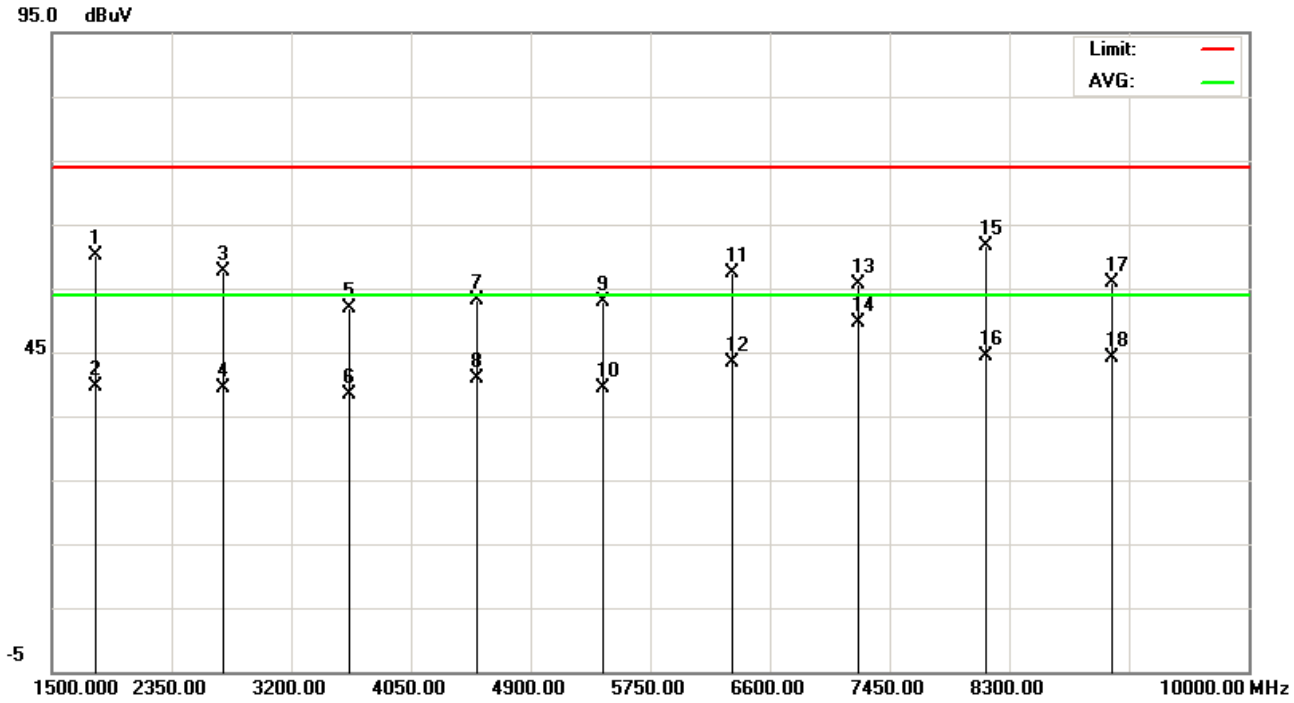
*:Maximum data x:Over limit !:over margin ●Reference Only

Site site #1	Polarization:	***Vertical***	Temperature: 22 ℃
Limit: FCC part 15 (PK)	Power:		Humidity: 60 %
EUT:	Distance:		
M/N: 09-0020-E			
Mode: RFID			
Note: CH00(902.75MHz)，Antenna100cm，NB01			

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
14		8128.000	29.19	15.80	44.99	54.00	-9.01	AVG			
15		9028.000	41.42	15.88	57.30	74.00	-16.70	peak			
16		9028.000	30.39	15.88	46.27	54.00	-7.73	AVG			

*:Maximum data x:Over limit !:over margin ●Reference Only

Data :#8 Date: 2009/2/3 Time: 下午 06:59:51



Site site #1 Polarization: ***Horizontal*** Temperature: 22 ℃

Limit: FCC part 15 (PK) Power: Humidity: 60 %

EUT: Distance:

M/N: 09-0020-E

Mode: RFID

Note: CH00(902.75MHz)，Antenna100cm，NB01

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		1805.500	62.53	-2.51	60.02	74.00	-13.98	peak			
2		1805.500	42.16	-2.51	39.65	54.00	-14.35	AVG			
3		2709.000	56.28	1.27	57.55	74.00	-16.45	peak			
4		2709.000	38.15	1.27	39.42	54.00	-14.58	AVG			
5		3610.000	48.50	3.30	51.80	74.00	-22.20	peak			
6		3610.000	35.20	3.30	38.50	54.00	-15.50	AVG			
7		4510.000	46.50	6.53	53.03	74.00	-20.97	peak			
8		4510.000	34.30	6.53	40.83	54.00	-13.17	AVG			
9		5410.000	44.43	8.41	52.84	74.00	-21.16	peak			
10		5410.000	30.88	8.41	39.29	54.00	-14.71	AVG			
11		6328.000	46.94	10.53	57.47	74.00	-16.53	peak			
12		6328.000	32.85	10.53	43.38	54.00	-10.62	AVG			
13		7228.000	41.84	13.81	55.65	74.00	-18.35	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

Site site #1
Limit: FCC part 15 (PK)
EUT:
M/N: 09-0020-E
Mode: RFID
Note: CH00(902.75MHz)，Antenna100cm，NB01

Polarization: ***Horizontal***
Power:
Distance:

Temperature: 22 ℃
Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
14	*	7228.000	35.86	13.81	49.67	54.00	-4.33	AVG			
15		8128.000	45.80	15.80	61.60	74.00	-12.40	peak			
16		8128.000	28.57	15.80	44.37	54.00	-9.63	AVG			
17		9028.000	40.02	15.88	55.90	74.00	-18.10	peak			
18		9028.000	28.15	15.88	44.03	54.00	-9.97	AVG			

*:Maximum data x:Over limit !:over margin ●Reference Only

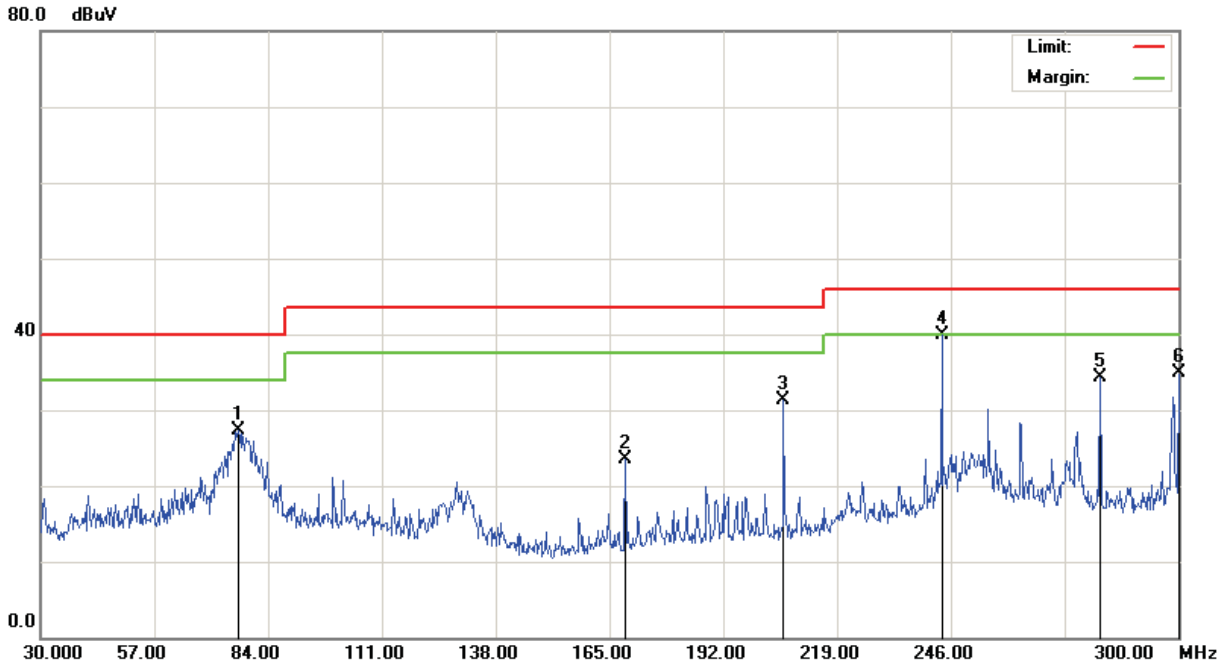
3.6.2 Open Field Radiated Emissions (Subpart C)

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

Applicant : Applied Wireless Identifications Group Inc
Model No : HH-6600
EUT : RFID Handheld Terminal
Test Mode : Link Mode _ 914.75 MHz
Test Date : 02/03 ~ 2/24/2009
Please refer to next pager of detail testing data.
Notes:

1. Margin= Amplitude - Limits
2. Distance of Measurement: 3 Meter (30-1000MHz) & (1-10GHz), 1 Meter (10-26.5GHz)
3. Height of table for EUT placed: 0.8 Meter.
4. ANT= Antenna height.
5. Amplitude= Reading Amplitude – Amplifier gain + Cable loss + Antenna factor
   (Auto calculate in spectrum analyzer)
6. The EUT was worst case on X axis after pretest on X & Y & Z axis setting.
7. The testing data only show below 18GHz's data because measure data above 18GHz was only ambit noise.
8. All frequencies from 30MHz to 26.5GHz have been tested

File :RH767(CH24) Data :#1 Date: 2009/2/24 Time: 下午 08:09:53



Site
Limit: FCC Class B 3M Radiation
EUT:
M/N: 09-0020-E
Mode: RFID
Note: CH24

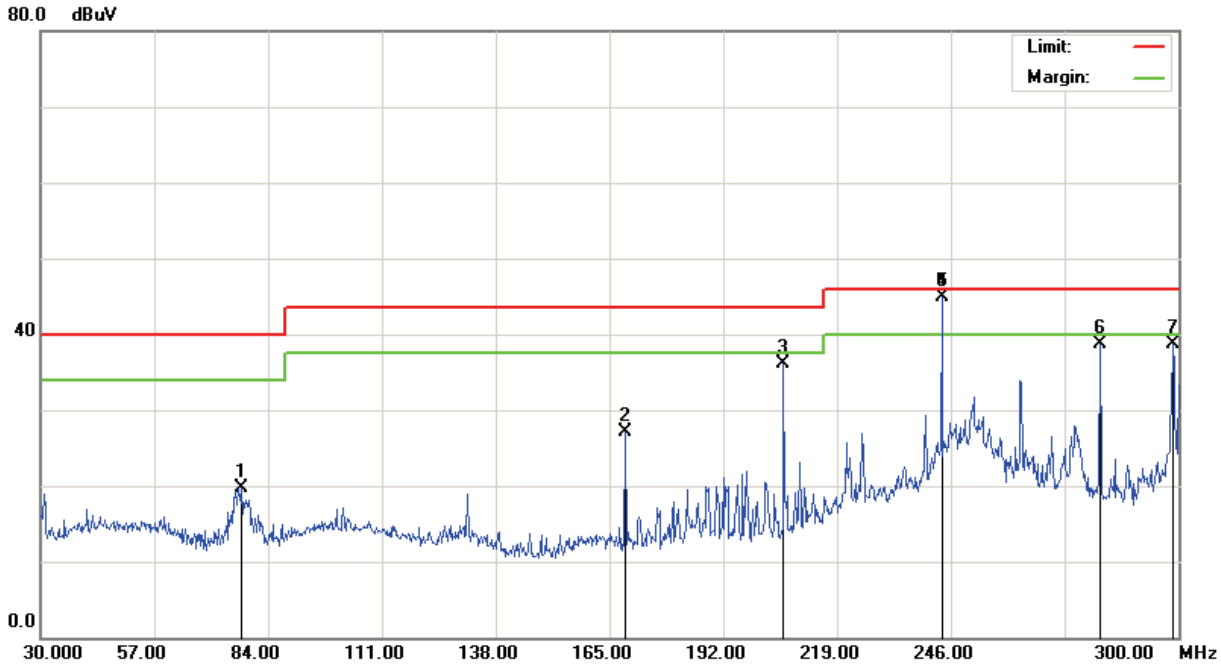
Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 22 ℃
Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		76.9800	44.29	-16.92	27.37	40.00	-12.63	peak			
2		168.7800	38.95	-15.39	23.56	43.50	-19.94	peak			
3		206.3100	44.37	-12.98	31.39	43.50	-12.11	peak			
4	*	243.8400	51.14	-11.30	39.84	46.00	-6.16	peak			
5		281.3700	44.74	-10.38	34.36	46.00	-11.64	peak			
6		300.0000	44.79	-9.98	34.81	46.00	-11.19	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

File :RH767(CH24) Data :#2 Date: 2009/2/24 Time: 下午 08:19:04



Site
Limit: FCC Class B 3M Radiation
EUT:
M/N: 09-0020-E
Mode: RFID
Note: CH24

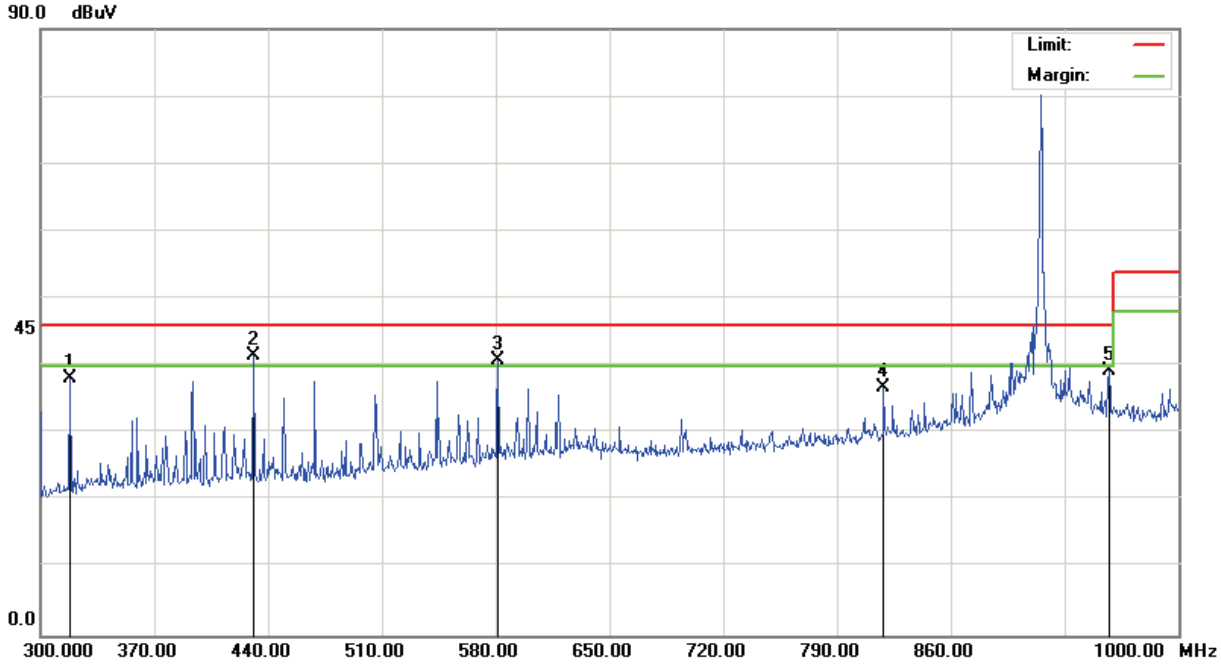
Polarization: ***Horizontal***
Power:
Distance: 3m

Temperature: 22 ℃
Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		77.7900	36.59	-16.82	19.77	40.00	-20.23	peak			
2		168.7800	42.43	-15.39	27.04	43.50	-16.46	peak			
3		206.3100	48.99	-12.98	36.01	43.50	-7.49	peak			
4	!	243.8400	56.17	-11.30	44.87	46.00	-1.13	QP	102	257	
5	*	243.8400	56.21	-11.30	44.91	46.00	-1.09	peak			
6		281.3700	49.05	-10.38	38.67	46.00	-7.33	peak			
7		298.6500	48.68	-10.04	38.64	46.00	-7.36	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

File :RH767(CH24) Data :#3 Date: 2009/2/24 Time: 下午 10:45:09



Site
Limit: FCC Class B 3M Radiation
EUT:
M/N: 09-0020-E
Mode: RFID
Note: CH24

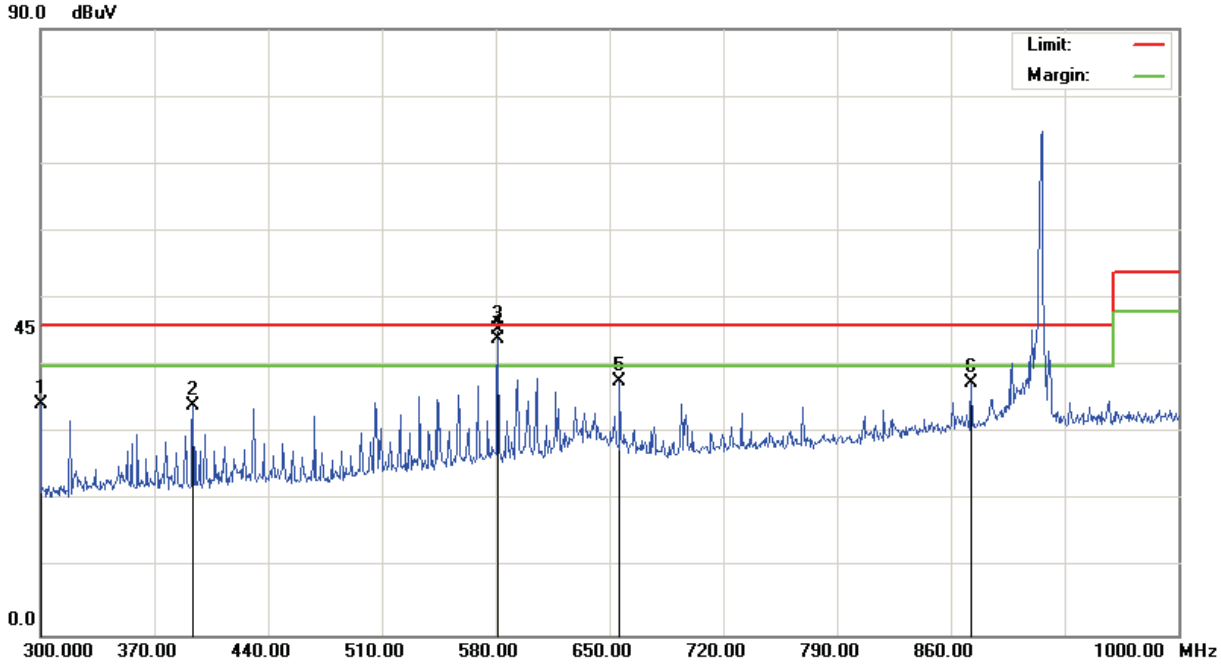
Polarization: ***Vertical***
Power:
Distance: 3m

Temperature: 22 ℃
Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		318.2000	47.96	-9.79	38.17	46.00	-7.83	peak			
2	*	430.9000	49.62	-8.03	41.59	46.00	-4.41	peak			
3	!	581.4000	46.06	-5.22	40.84	46.00	-5.16	peak			
4		818.7000	38.60	-1.89	36.71	46.00	-9.29	peak			
5		957.3000	38.85	0.32	39.17	46.00	-6.83	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

File :RH767(CH24) Data :#4 Date: 2009/2/25 Time: 上午 01:00:58



Site
Limit: FCC Class B 3M Radiation
EUT:
M/N: 09-0020-E
Mode: RFID
Note: CH24

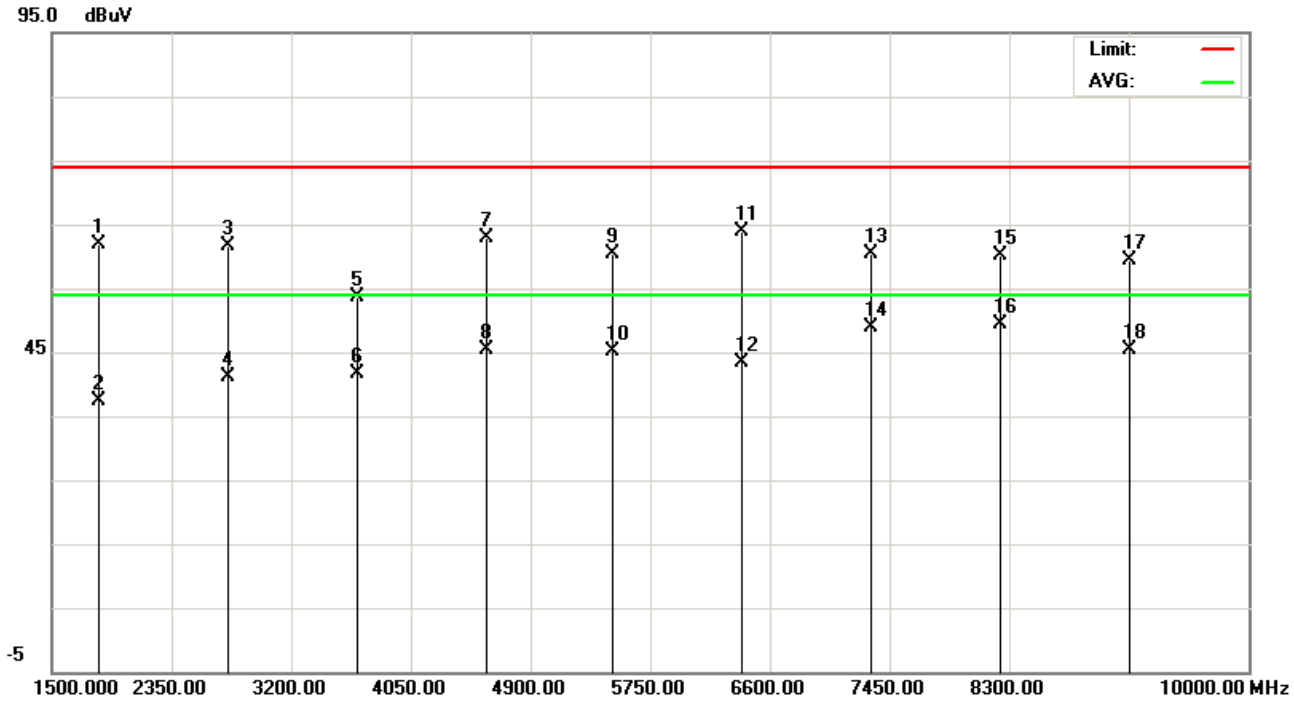
Polarization: ***Horizontal***
Power:
Distance: 3m

Temperature: 22 ℃
Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		300.0000	44.27	-9.98	34.29	46.00	-11.71	peak			
2		393.8000	42.55	-8.49	34.06	46.00	-11.94	peak			
3	*	581.2461	50.51	-5.22	45.29	46.00	-0.71	QP	122	241	Not Restricted bands
4	!	581.4000	49.19	-5.22	43.97	46.00	-2.03	peak			
5		656.3000	42.08	-4.45	37.63	46.00	-8.37	peak			
6		872.6000	38.29	-0.84	37.45	46.00	-8.55	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

Data :#4 Date: 2009/2/3 Time: 下午 07:15:18



Site site #1 Polarization: ***Vertical*** Temperature: 22 ℃

Limit: FCC part 15 (PK) Power: Humidity: 60 %

EUT: Distance:

M/N: 09-0020-E

Mode: RFID

Note: CH24(914.75MHz)，Antenna100cm，NB01

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		1828.250	64.21	-2.44	61.77	74.00	-12.23	peak			
2		1828.250	39.73	-2.44	37.29	54.00	-16.71	AVG			
3		2744.750	60.21	1.37	61.58	74.00	-12.42	peak			
4		2744.750	39.69	1.37	41.06	54.00	-12.94	AVG			
5		3664.000	50.12	3.40	53.52	74.00	-20.48	peak			
6		3664.000	38.19	3.40	41.59	54.00	-12.41	AVG			
7		4582.000	56.15	6.78	62.93	74.00	-11.07	peak			
8		4582.000	38.61	6.78	45.39	54.00	-8.61	AVG			
9		5482.000	51.73	8.65	60.38	74.00	-13.62	peak			
10		5482.000	36.43	8.65	45.08	54.00	-8.92	AVG			
11		6400.000	53.20	10.77	63.97	74.00	-10.03	peak			
12		6400.000	32.56	10.77	43.33	54.00	-10.67	AVG			
13		7318.000	46.57	13.76	60.33	74.00	-13.67	peak			

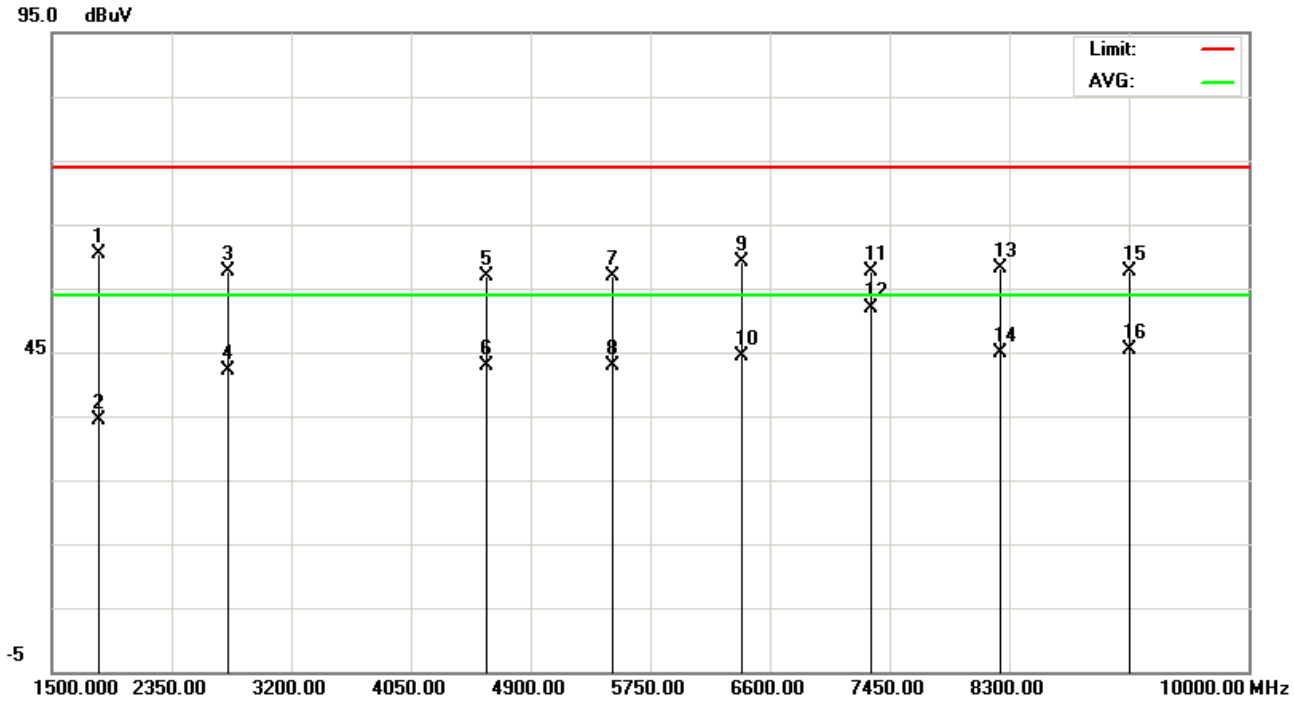
*:Maximum data x:Over limit !:over margin ●Reference Only

Site site #1	Polarization: ***Vertical***	Temperature: 22 ℃
Limit: FCC part 15 (PK)	Power:	Humidity: 60 %
EUT:	Distance:	
M/N: 09-0020-E		
Mode: RFID		
Note: CH24(914.75MHz)，Antenna100cm，NB01		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
14		7318.000	35.14	13.76	48.90	54.00	-5.10	AVG			
15		8236.000	44.95	15.25	60.20	74.00	-13.80	peak			
16	*	8236.000	34.09	15.25	49.34	54.00	-4.66	AVG			
17		9154.000	42.56	16.80	59.36	74.00	-14.64	peak			
18		9154.000	28.63	16.80	45.43	54.00	-8.57	AVG			

*:Maximum data x:Over limit !:over margin ●Reference Only

Data :#8 Date: 2009/02/03 Time: 下午 07:28:44



Site site #1 Polarization: ***Horizontal*** Temperature: 22 ℃

Limit: FCC part 15 (PK) Power: Humidity: 60 %

EUT: Distance:

M/N: 09-0020-E

Mode: RFID

Note: CH24(914.75MHz)，Antenna100cm，NB01

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		1828.250	62.93	-2.44	60.49	74.00	-13.51	peak			
2		1828.250	36.87	-2.44	34.43	54.00	-19.57	AVG			
3		2744.750	56.20	1.37	57.57	74.00	-16.43	peak			
4		2744.750	40.88	1.37	42.25	54.00	-11.75	AVG			
5		4582.000	50.03	6.78	56.81	74.00	-17.19	peak			
6		4582.000	36.10	6.78	42.88	54.00	-11.12	AVG			
7		5482.000	48.20	8.65	56.85	74.00	-17.15	peak			
8		5482.000	34.17	8.65	42.82	54.00	-11.18	AVG			
9		6400.000	48.41	10.77	59.18	74.00	-14.82	peak			
10		6400.000	33.63	10.77	44.40	54.00	-9.60	AVG			
11		7318.000	43.98	13.76	57.74	74.00	-16.26	peak			
12	*	7318.000	38.17	13.76	51.93	54.00	-2.07	AVG			
13		8236.000	42.76	15.25	58.01	74.00	-15.99	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

Site site #1	Polarization: ***Horizontal***	Temperature:	22 ℃
Limit: FCC part 15 (PK)	Power:	Humidity:	60 %
EUT:	Distance:		
M/N: 09-0020-E			
Mode: RFID			
Note: CH24(914.75MHz)，Antenna100cm，NB01			

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
14		8236.000	29.62	15.25	44.87	54.00	-9.13	AVG			
15		9154.000	40.87	16.80	57.67	74.00	-16.33	peak			
16		9154.000	28.59	16.80	45.39	54.00	-8.61	AVG			

*:Maximum data x:Over limit !:over margin ●Reference Only

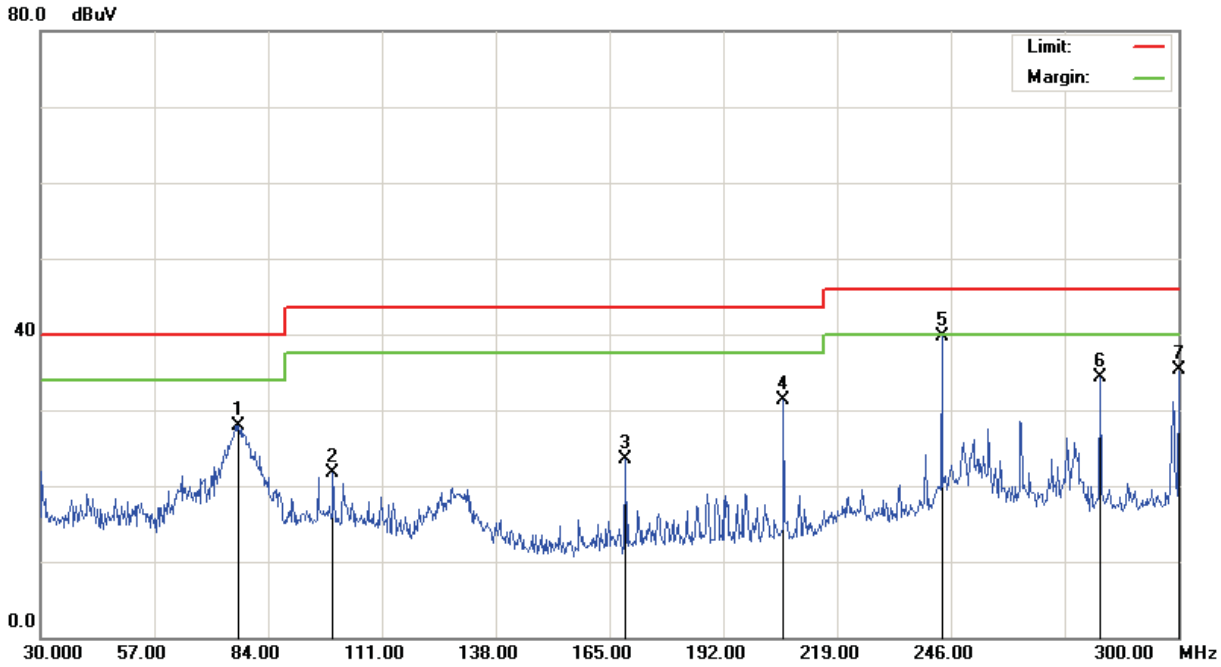
3.6.3 Open Field Radiated Emissions (Subpart C)

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

Applicant : Applied Wireless Identifications Group Inc
Model No : HH-6600
EUT : RFID Handheld Terminal
Test Mode : Link Mode _ 927.25 MHz
Test Date : 02/03 ~ 2/24/2009
Please refer to next pager of detail testing data.
Notes:

1. Margin= Amplitude - Limits
2. Distance of Measurement: 3 Meter (30-1000MHz) & (1-10GHz), 1 Meter (10-26.5GHz)
3. Height of table for EUT placed: 0.8 Meter.
4. ANT= Antenna height.
5. Amplitude= Reading Amplitude – Amplifier gain + Cable loss + Antenna factor
   (Auto calculate in spectrum analyzer)
6. The EUT was worst case on X axis after pretest on X & Y & Z axis setting.
7. The testing data only show below 18GHz's data because measure data above 18GHz was only ambit noise.
8. All frequencies from 30MHz to 26.5GHz have been tested

File :RH767(CH49) Data :#1 Date: 2009/2/24 Time:



Site
Limit: FCC Class B 3M Radiation
EUT:
M/N: 09-0020-E
Mode: RFID
Note: CH49

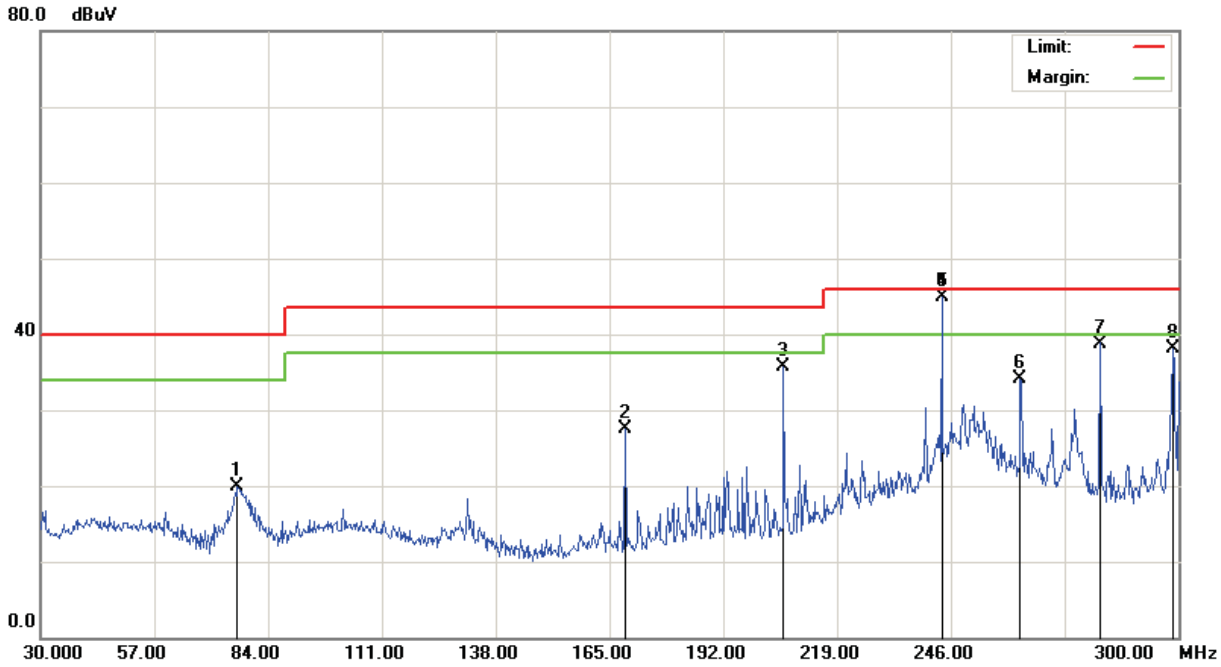
Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 22 ℃
Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		76.9800	44.76	-16.92	27.84	40.00	-12.16	peak			
2		99.3900	33.47	-11.80	21.67	43.50	-21.83	peak			
3		168.7800	38.94	-15.39	23.55	43.50	-19.95	peak			
4		206.3100	44.33	-12.98	31.35	43.50	-12.15	peak			
5	*	243.8400	51.04	-11.30	39.74	46.00	-6.26	peak			
6		281.3700	44.72	-10.38	34.34	46.00	-11.66	peak			
7		300.0000	45.22	-9.98	35.24	46.00	-10.76	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

File :RH767(CH49) Data :#2 Date: 2009/2/24 Time:



Site
Limit: FCC Class B 3M Radiation
EUT:
M/N: 09-0020-E
Mode: RFID
Note: CH49

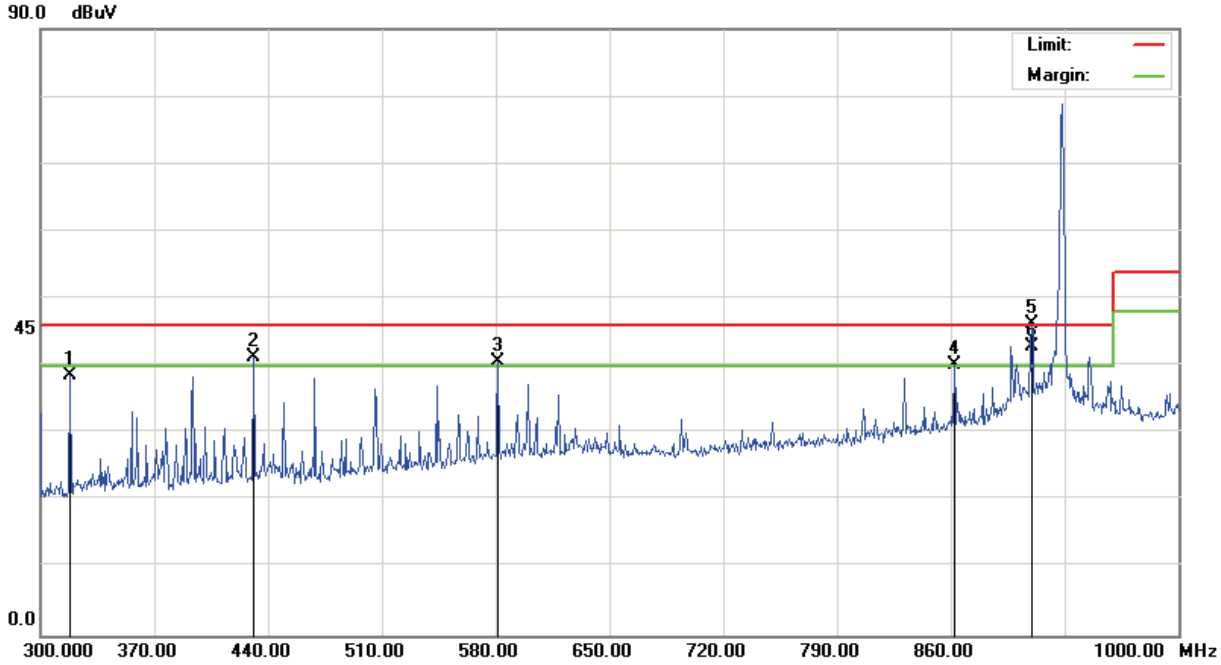
Polarization: ***Horizontal***
Power:
Distance: 3m

Temperature: 22 ℃
Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		76.7100	36.85	-16.95	19.90	40.00	-20.10	peak			
2		168.7800	42.83	-15.39	27.44	43.50	-16.06	peak			
3		206.3100	48.64	-12.98	35.66	43.50	-7.84	peak			
4	*	243.8400	56.28	-11.30	44.98	46.00	-1.02	QP	102	258	
5	!	243.8400	56.23	-11.30	44.93	46.00	-1.07	peak			
6		262.4700	45.16	-11.14	34.02	46.00	-11.98	peak			
7		281.3700	49.18	-10.38	38.80	46.00	-7.20	peak			
8		298.6500	48.11	-10.04	38.07	46.00	-7.93	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

File :RH767(CH49) Data :#3 Date: 2009/2/24 Time:



Site
Limit: FCC Class B 3M Radiation
EUT:
M/N: 09-0020-E
Mode: RFID
Note: CH49

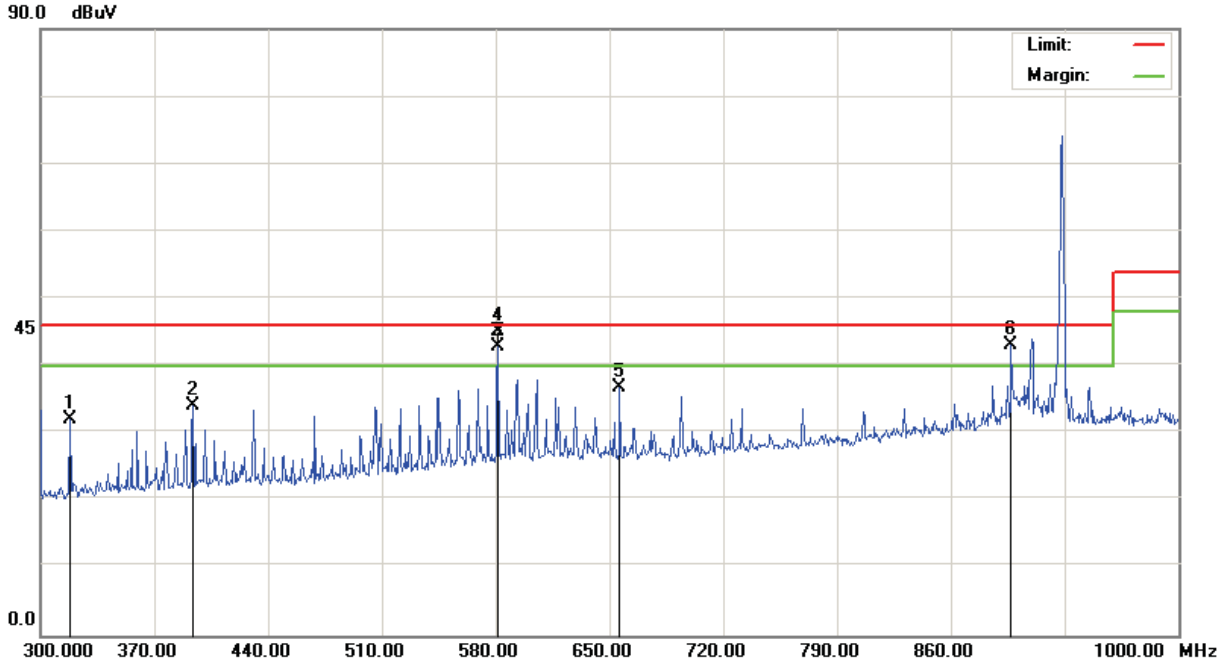
Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 22 ℃
Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		318.2000	48.40	-9.79	38.61	46.00	-7.39	peak			
2	!	430.9000	49.38	-8.03	41.35	46.00	-4.65	peak			
3	!	581.4000	45.75	-5.22	40.53	46.00	-5.47	peak			
4	!	862.1000	40.96	-0.82	40.14	46.00	-5.86	peak			
5	*	909.7000	46.32	-0.01	46.31	46.00	0.31	peak			
6	!	909.7000	42.85	-0.01	42.84	46.00	-3.16	QP			

*:Maximum data x:Over limit !:over margin ●Reference Only

File :RH767(CH49) Data :#4 Date: 2009/2/25 Time:



Site
Limit: FCC Class B 3M Radiation
EUT:
M/N: 09-0020-E
Mode: RFID
Note: CH49

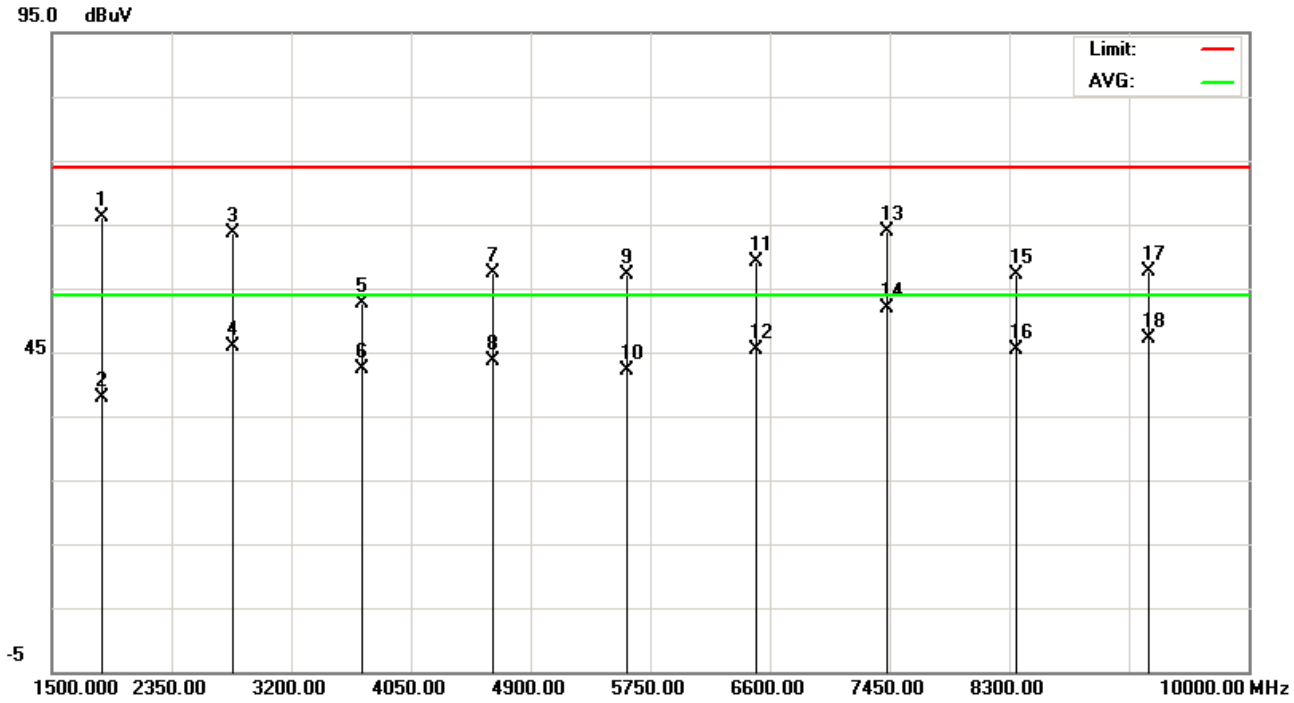
Polarization: ***Horizontal***
Power:
Distance: 3m

Temperature: 22 ℃
Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		318.2000	41.75	-9.79	31.96	46.00	-14.04	peak			
2		393.8000	42.51	-8.49	34.02	46.00	-11.98	peak			
3	!	581.4000	48.19	-5.22	42.97	46.00	-3.03	peak			
4	*	581.4000	50.36	-5.22	45.14	46.00	-0.86	QP			Not Restricted bands
5		656.3000	41.29	-4.45	36.84	46.00	-9.16	peak			
6	!	897.1000	43.51	-0.45	43.06	46.00	-2.94	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

Data :#4 Date: 2009/02/03 Time: 下午 07:57:13



Site site #1 Polarization: *Vertical* Temperature: 22 ℃

Limit: FCC part 15 (PK) Power: Humidity: 60 %

EUT: Distance:

M/N: 09-0020-E

Mode: RFID

Note: CH49(927.75MHz)，Antenna144cm，NB01

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		1854.250	68.24	-2.22	66.02	74.00	-7.98	peak			
2		1854.250	40.12	-2.22	37.90	54.00	-16.10	AVG			
3		2780.500	62.08	1.57	63.65	74.00	-10.35	peak			
4		2780.500	44.38	1.57	45.95	54.00	-8.05	AVG			
5		3700.000	48.81	3.91	52.72	74.00	-21.28	peak			
6		3700.000	38.43	3.91	42.34	54.00	-11.66	AVG			
7		4636.000	50.47	7.01	57.48	74.00	-16.52	peak			
8		4636.000	36.74	7.01	43.75	54.00	-10.25	AVG			
9		5572.000	48.28	8.96	57.24	74.00	-16.76	peak			
10		5572.000	33.28	8.96	42.24	54.00	-11.76	AVG			
11		6490.000	48.01	11.14	59.15	74.00	-14.85	peak			
12		6490.000	34.26	11.14	45.40	54.00	-8.60	AVG			
13		7426.000	50.13	13.66	63.79	74.00	-10.21	peak			

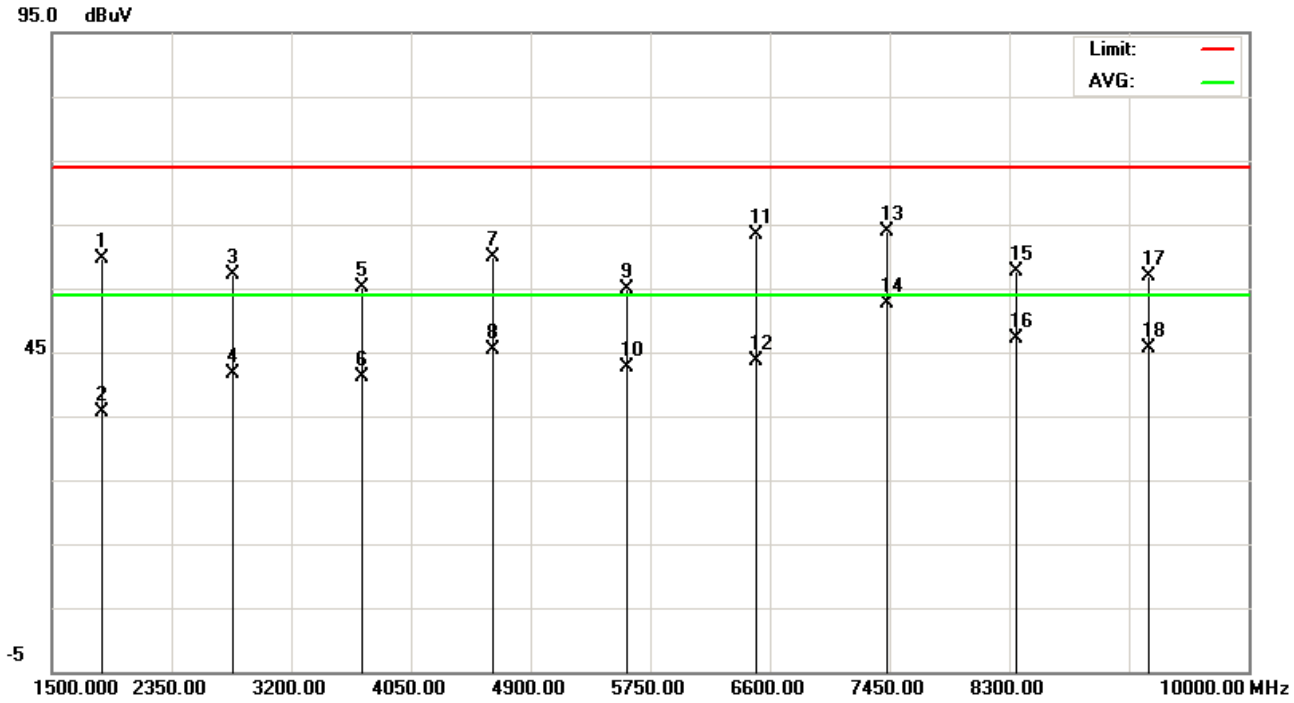
*:Maximum data x:Over limit !:over margin ●Reference Only

Site site #1	Polarization:	***Vertical***	Temperature: 22 ℃
Limit: FCC part 15 (PK)	Power:		Humidity: 60 %
EUT:	Distance:		
M/N: 09-0020-E			
Mode: RFID			
Note: CH49(927.75MHz)，Antenna144cm，NB01			

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
14	*	7426.000	38.12	13.66	51.78	54.00	-2.22	AVG			
15		8344.000	41.86	15.22	57.08	74.00	-16.92	peak			
16		8344.000	30.17	15.22	45.39	54.00	-8.61	AVG			
17		9280.000	40.63	17.04	57.67	74.00	-16.33	peak			
18		9280.000	30.08	17.04	47.12	54.00	-6.88	AVG			

*:Maximum data x:Over limit !:over margin ●Reference Only

Data :#8 Date: 2009/02/03 Time: 下午 08:07:03



Site site #1 Polarization: ***Horizontal*** Temperature: 22 ℃

Limit: FCC part 15 (PK) Power: Humidity: 60 %

EUT: Distance:

M/N: 09-0020-E

Mode: RFID

Note: CH49(927.75MHz)，Antenna100cm，NB01

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		1854.250	61.75	-2.22	59.53	74.00	-14.47	peak			
2		1854.250	37.88	-2.22	35.66	54.00	-18.34	AVG			
3		2780.500	55.53	1.57	57.10	74.00	-16.90	peak			
4		2780.500	40.17	1.57	41.74	54.00	-12.26	AVG			
5		3700.000	51.29	3.91	55.20	74.00	-18.80	peak			
6		3700.000	37.33	3.91	41.24	54.00	-12.76	AVG			
7		4636.000	52.75	7.01	59.76	74.00	-14.24	peak			
8		4636.000	38.36	7.01	45.37	54.00	-8.63	AVG			
9		5572.000	46.02	8.96	54.98	74.00	-19.02	peak			
10		5572.000	33.62	8.96	42.58	54.00	-11.42	AVG			
11		6490.000	52.14	11.14	63.28	74.00	-10.72	peak			
12		6490.000	32.51	11.14	43.65	54.00	-10.35	AVG			
13		7426.000	50.19	13.66	63.85	74.00	-10.15	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

Site site #1
Limit: FCC part 15 (PK)
EUT:
M/N: 09-0020-E
Mode: RFID
Note: CH49(927.75MHz)，Antenna100cm，NB01

Polarization: ***Horizontal***
Power:
Distance:

Temperature: 22 ℃
Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
14	*	7426.000	38.98	13.66	52.64	54.00	-1.36	AVG			
15		8344.000	42.45	15.22	57.67	74.00	-16.33	peak			
16		8344.000	31.81	15.22	47.03	54.00	-6.97	AVG			
17		9280.000	39.93	17.04	56.97	74.00	-17.03	peak			
18		9280.000	28.47	17.04	45.51	54.00	-8.49	AVG			

*:Maximum data x:Over limit !:over margin ●Reference Only

4. Maximum Conducted Output Power Requirements

4.1 Test Condition & Setup:

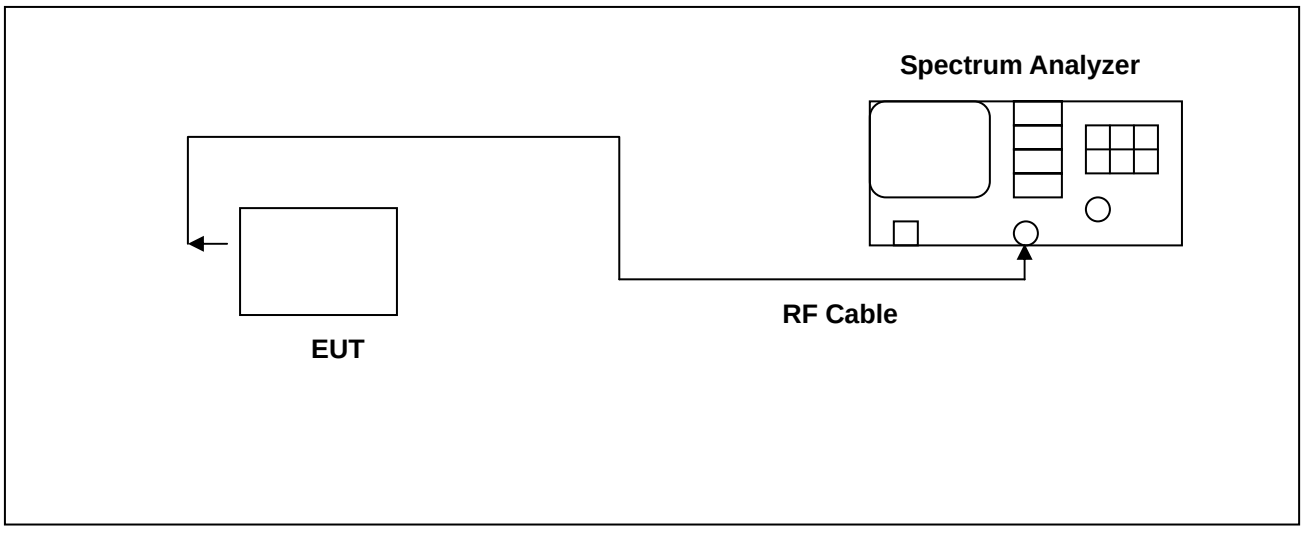
The tests below are run with the EUT's transmitter set at high power in TX mode. The EUT is needed to force selection of output power level and channel number. While testing, EUT was set to transmit continuously. Remove the Subjective device's antenna and connect the RF output port to spectrum analyzer. The maximum peak output power shall not exceed 1 watt.

Use a direct connection between the antenna port of transmitter and the spectrum Analyzer, for prevent the spectrum analyzer input attenuation 40-50 dB. Set the RBW Bandwidth of the emission or use a channel power meter mode.

For antennas with gains of 6 dBi or less, maximum allowed transmitter output is 1 watt (+30 dBm). For antennas with gains greater than 6 dBi, transmitter output level must be decreased by an amount equal to (GAIN - 6)/3 dBm.

The antenna port of the EUT was connected to the input of a power meter. Power was read directly and cable loss correction was added to the reading to obtain power at the EUT antenna terminals.

4.2 Test Instruments Configuration:



4.3 Test Equipment List:

Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Spectrum Analyzer	Agilent	E4445A	MY45300744	Dec. 22, 2008	Dec. 22, 2009

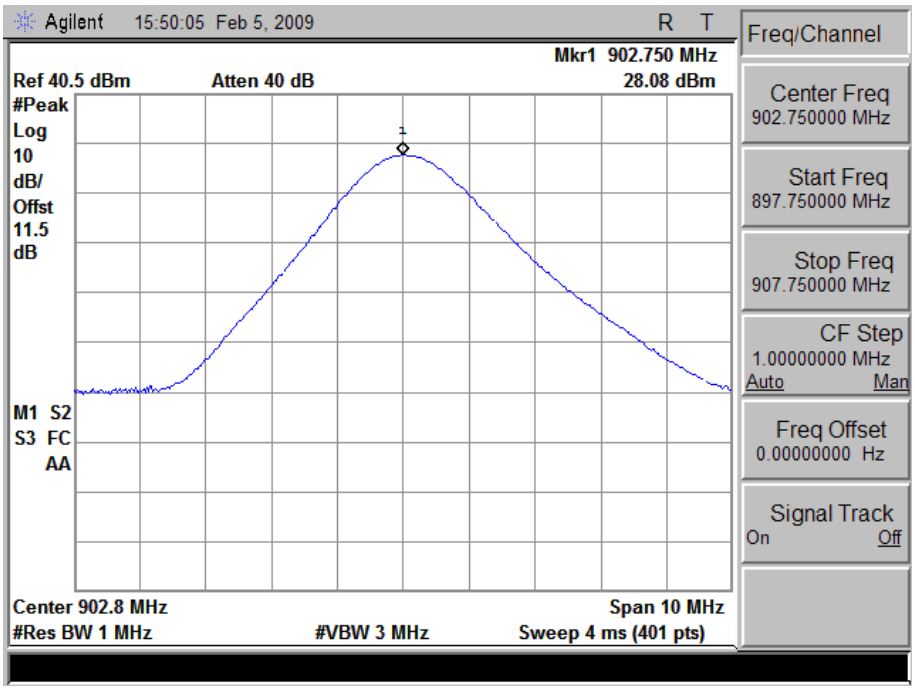
4.4 Test Result

Frequency (MHz)	Output (dBm)	Required Limit
902.75	28.08	<30dBm
914.75	27.88	<30dBm
927.25	27.64	<30dBm

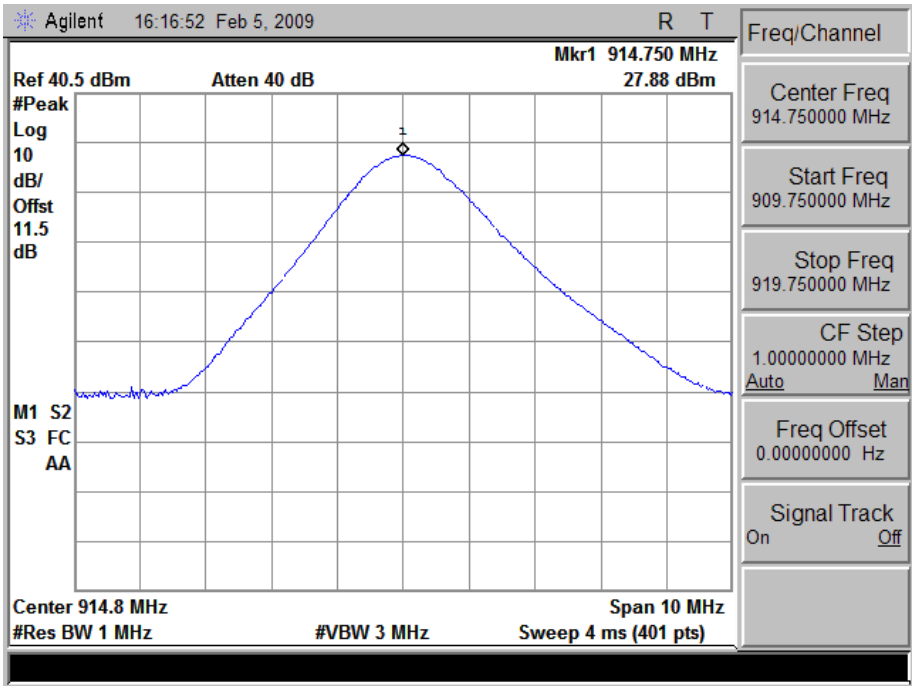
Note: Test Graphs See next page.

4.5 Test Graphs

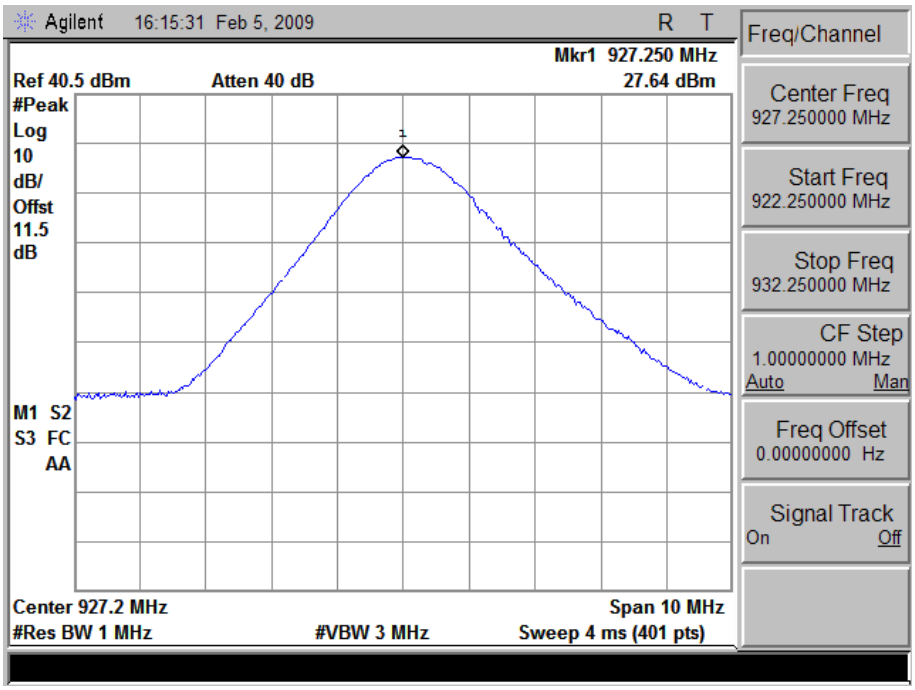
902.75MHz



914.75MHz



927.25MHz



5. Occupied Bandwidth Requirements

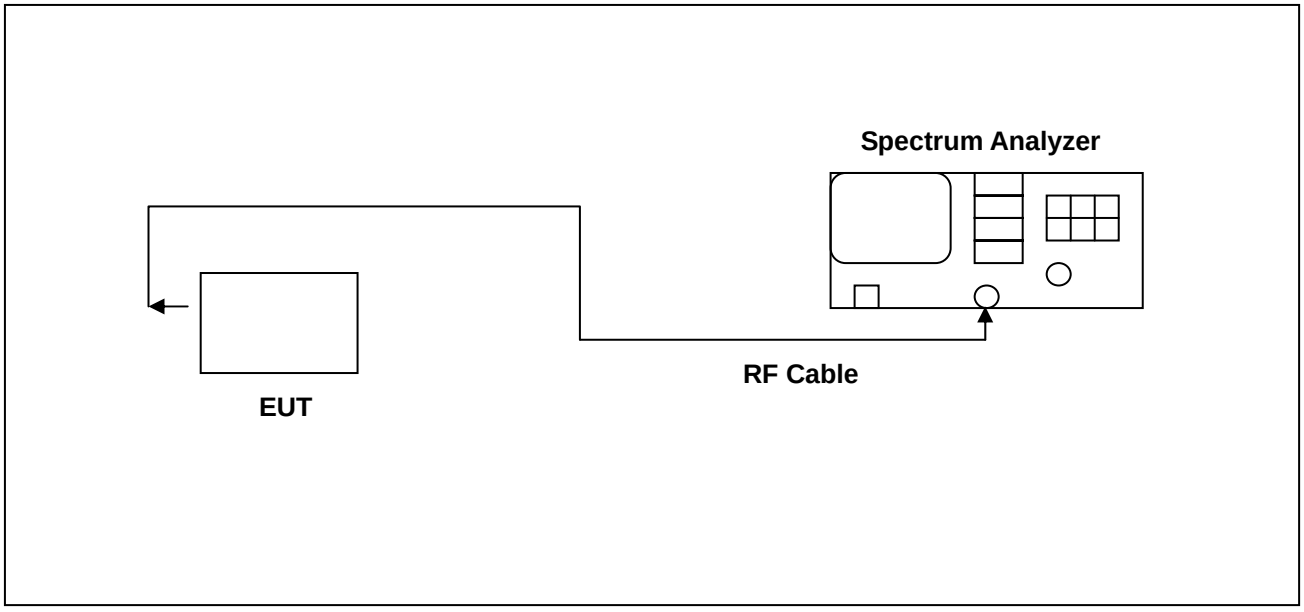
5.1 Test Condition & Setup:

The RF output port of the Equipment-Under-Test is directly coupled to the input of the EMC analyzer through a specialized RF connector and a 10dB passive attenuator. A fully charged battery was used for the supply voltage. The Bluetooth frequency hopping function of the EUT was enabled. The spectrum analyzer used the following settings:

1. Span = approx. 2 to 3 times the 20dB bandwidth, centered on a hopping frequency
2. RBW ≥ 1% of the 20dB span
3. VBW ≥ RBW
4. Sweep = auto
5. Detector function = peak
6. Trace = max hold

The trace was allowed to stabilize. The EUT was transmitting at its maximum data rate. The marker-to-peak function was used to set the marker to the peak of the emission. The marker-delta function was used to measure 20dB down one side of the emission. The marker-delta function and marker was moved to the other side of the emission until it was even with the reference marker. The marker-delta reading at this point was the 20dB bandwidth of the emission.

5.2 Test Instruments Configuration:



5.3 Test Equipment List:

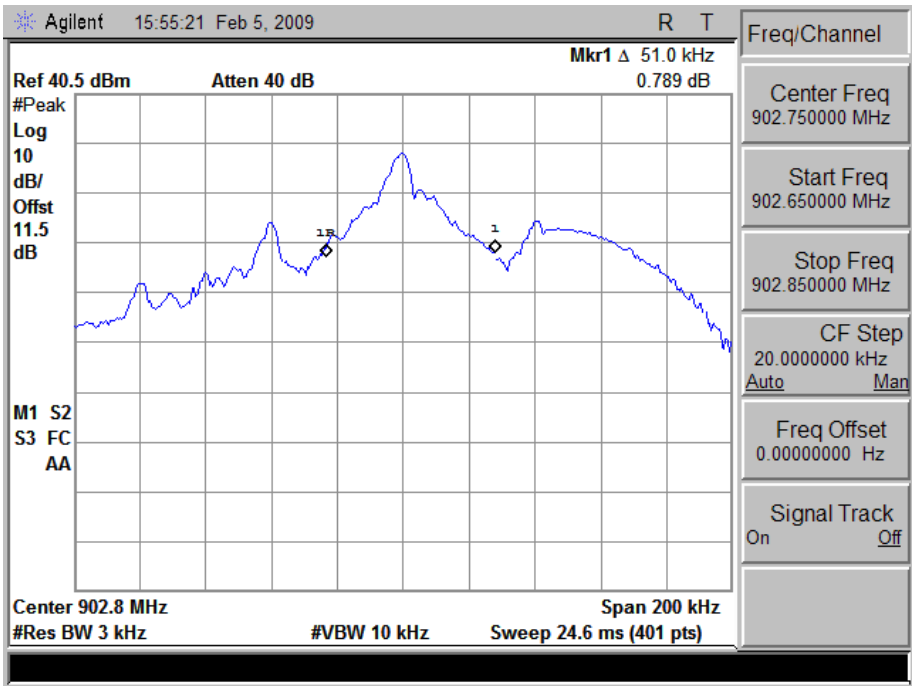
Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Spectrum Analyzer	Agilent	E4445A	MY45300744	Nov. 29, 2008	Nov. 29, 2009

5.4 Test Result

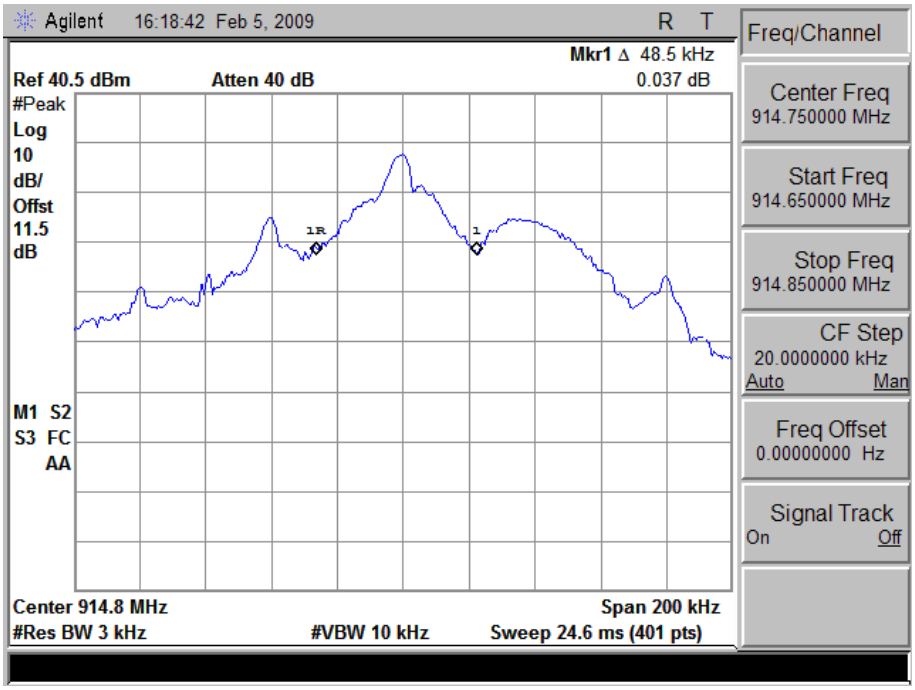
Frequency (MHz)	20dB Bandwidth (KHz)	99 % Bandwidth (KHz)	Required Limit
902.75	51.0	134.8776	<500 kHz
914.75	48.5	115.0912	<500 kHz
927.25	60.5	206.4692	< 500 kHz

5.5 Test Graphs

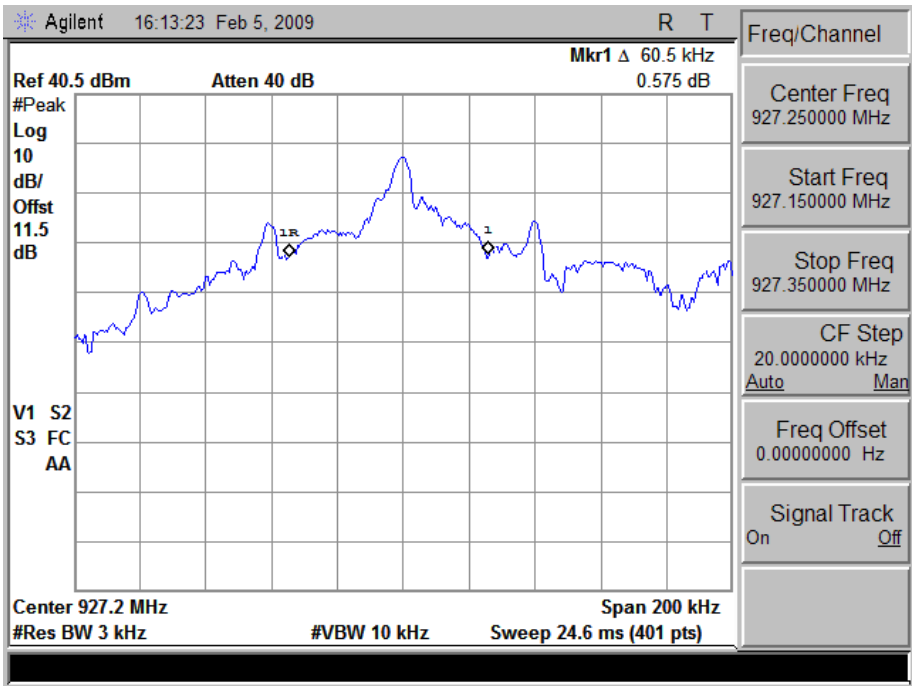
20 dB Bandwidth _ 902.75MHz



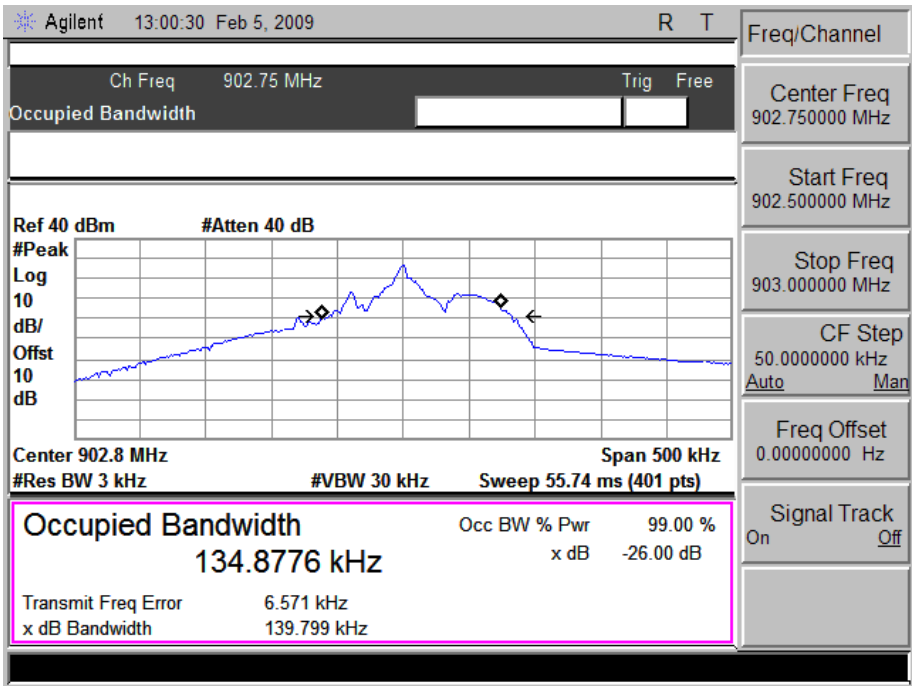
20 dB Bandwidth _ 914.75MHz



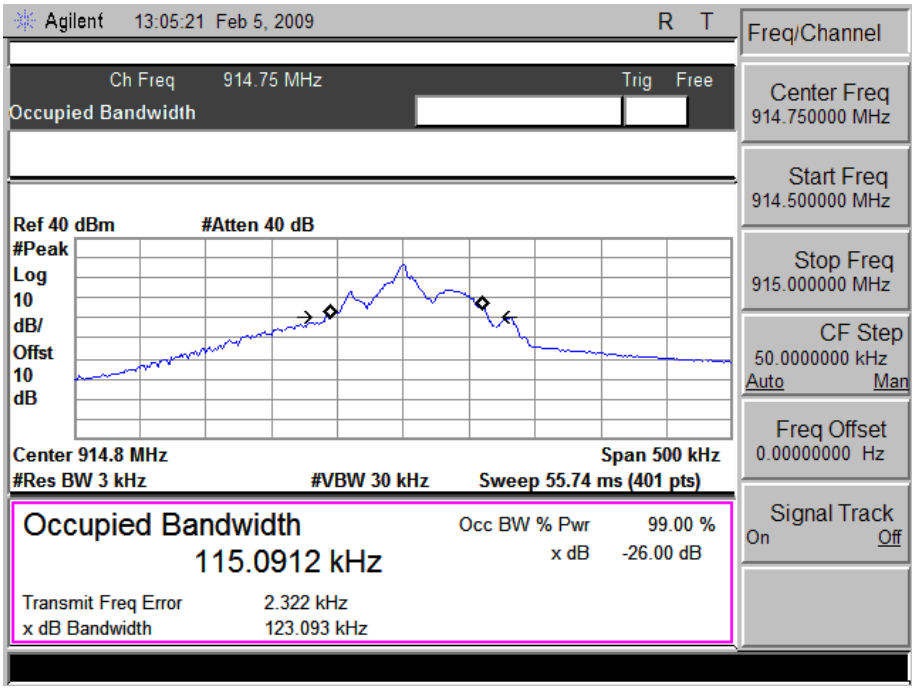
20 dB Bandwidth _ 927.25MHz



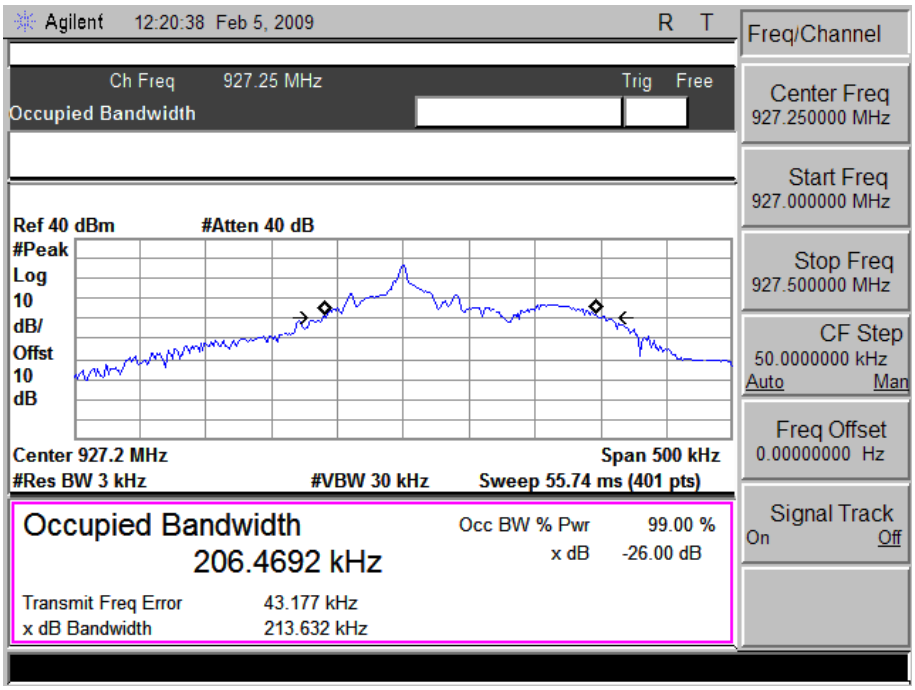
99% Bandwidth _ 902.75MHz



99% Bandwidth _ 914.75MHz



99% Bandwidth _ 927.25MHz



6. Carrier Frequency Separation Requirements

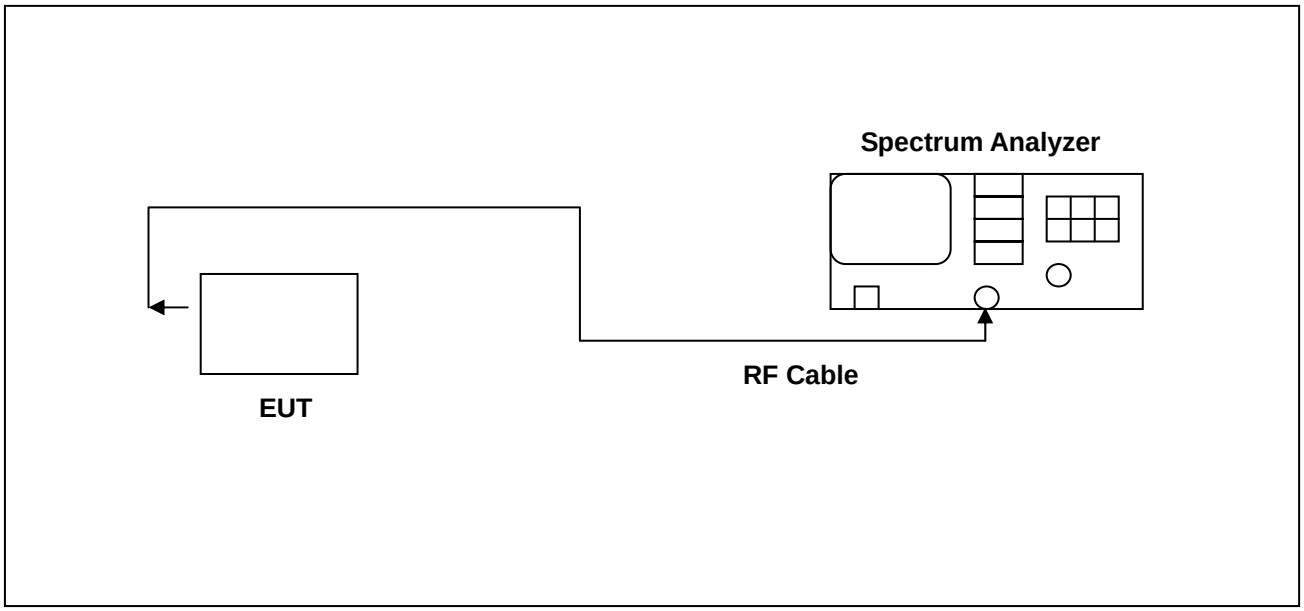
6.1 Test Condition & Setup:

The RF output port of the Equipment-Under-Test is directly coupled to the input of the EMC analyzer through a specialized RF connector and a 10dB passive attenuator. A fully charged battery was used for the supply voltage. The Bluetooth transmitter of the V6 had its hopping function enabled. The following spectrum analyzer settings were used:

1. Span = wide enough to capture the peaks of two adjacent channels
2. Resolution (or IF) Bandwidth (RBW) ≥ 1% of the span
3. Video (or Average) Bandwidth (VBW) ≥ RBW
4. Sweep = auto
5. Detector function = peak
6. Trace = max hold

The trace was allowed to stabilize. The marker-delta function was used to determine the separation between the peaks of the adjacent channels.

6.2 Test Instruments Configuration:



6.3 Test Equipment List:

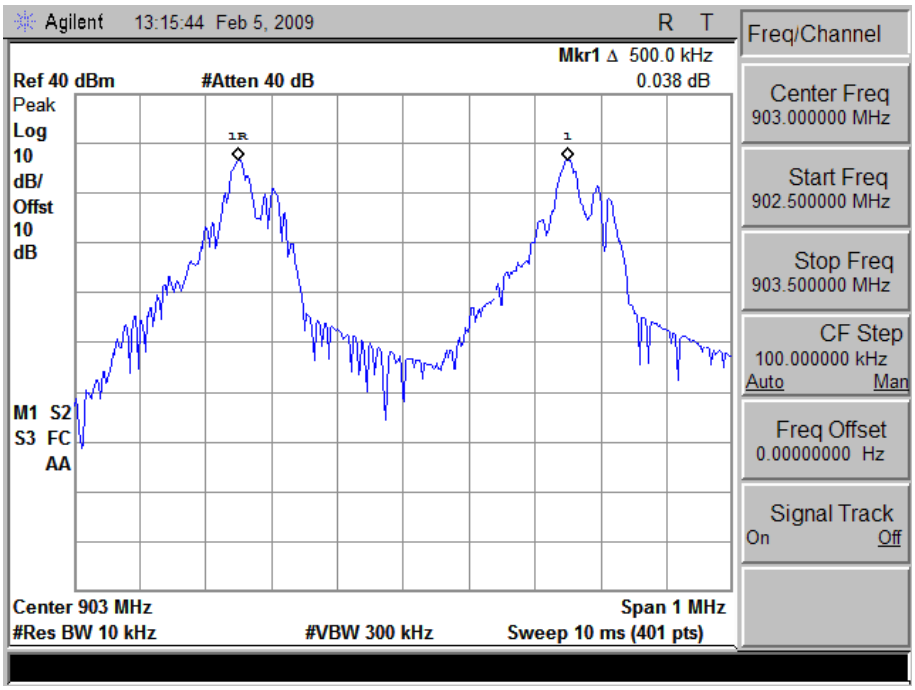
Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Spectrum Analyzer	Agilent	E4445A	MY45300744	Nov. 29, 2008	Nov. 29, 2009
Attenuator	RADIALL	R41572000	0603033073	NA	NA

6.4 Test Result:

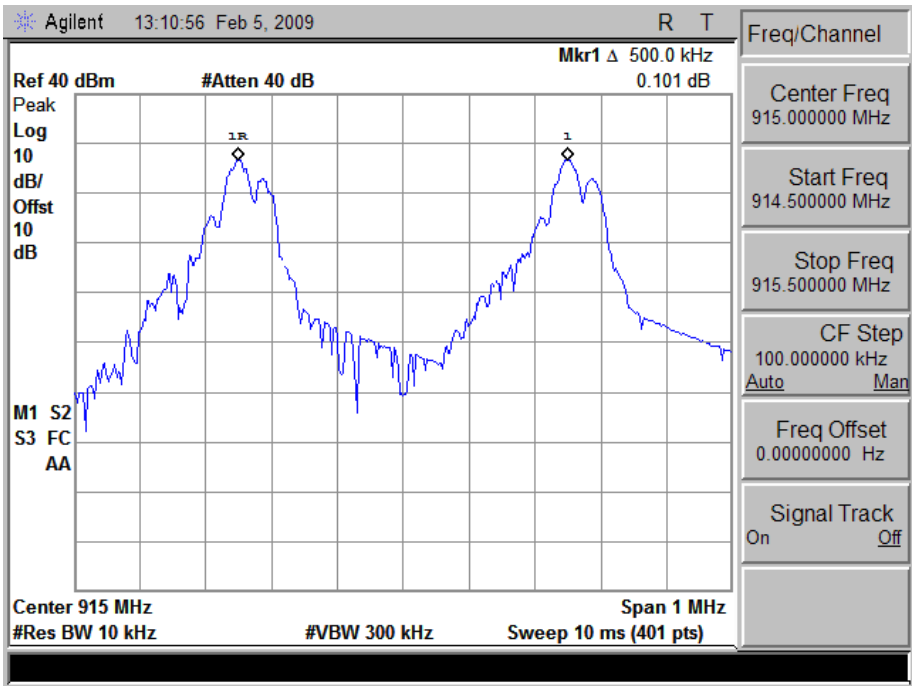
Carrier Frequency Separation Measure:	500 kHz

6.5 Test Graphs

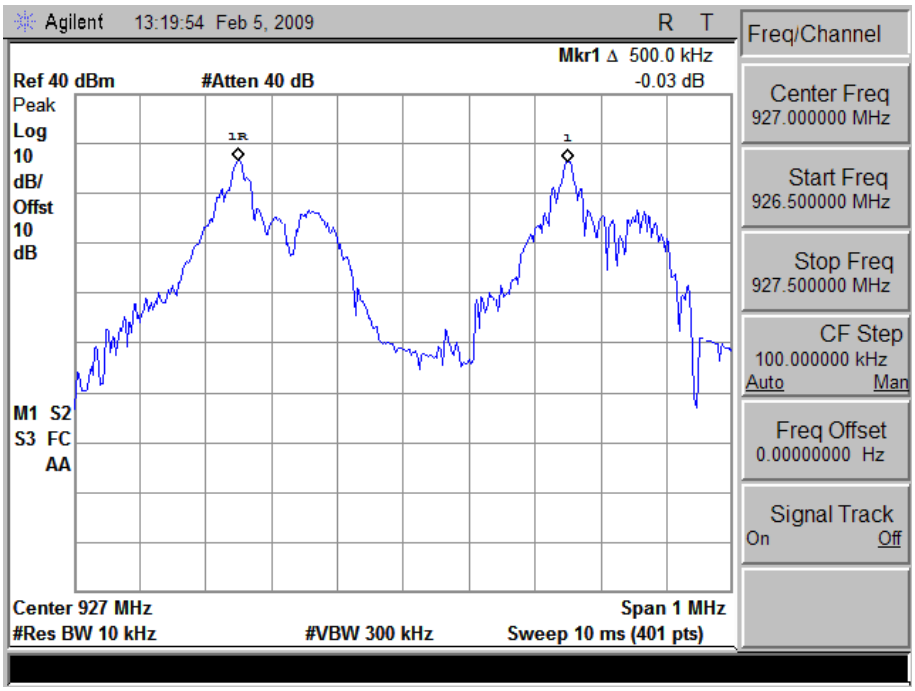
902.75MHz



914.75MHz



927.25MHz



7. Number of Hopping Requirements

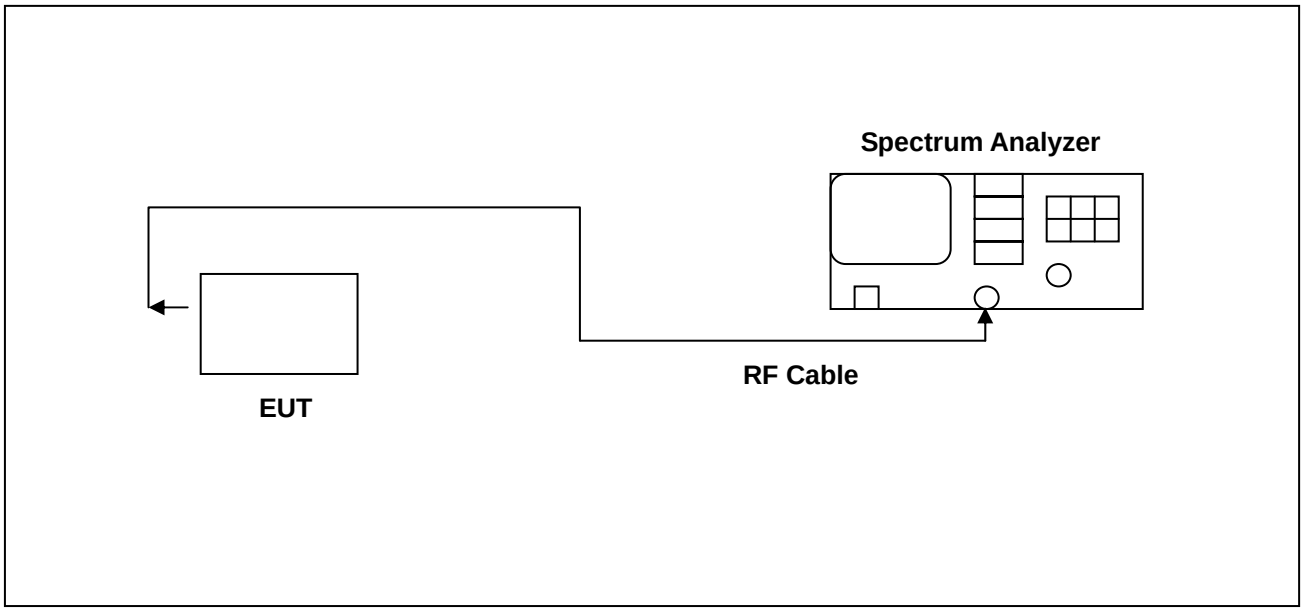
7.1 Test Condition & Setup:

The RF output port of the Equipment-Under-Test is directly coupled to the input of the EMC analyzer through a specialized RF connector and a 10dB passive attenuator. A fully charged battery was used for the supply voltage. The Bluetooth frequency hopping function of the EUT was enabled. The spectrum analyzer used the following settings:

1. Span = the frequency band of operation
2. RBW ≥ 1% of the span
3. VBW ≥ RBW
4. Sweep = auto
5. Detector function = peak
6. Trace = max hold

The trace was allowed to stabilize.

7.2 Test Instruments Configuration:



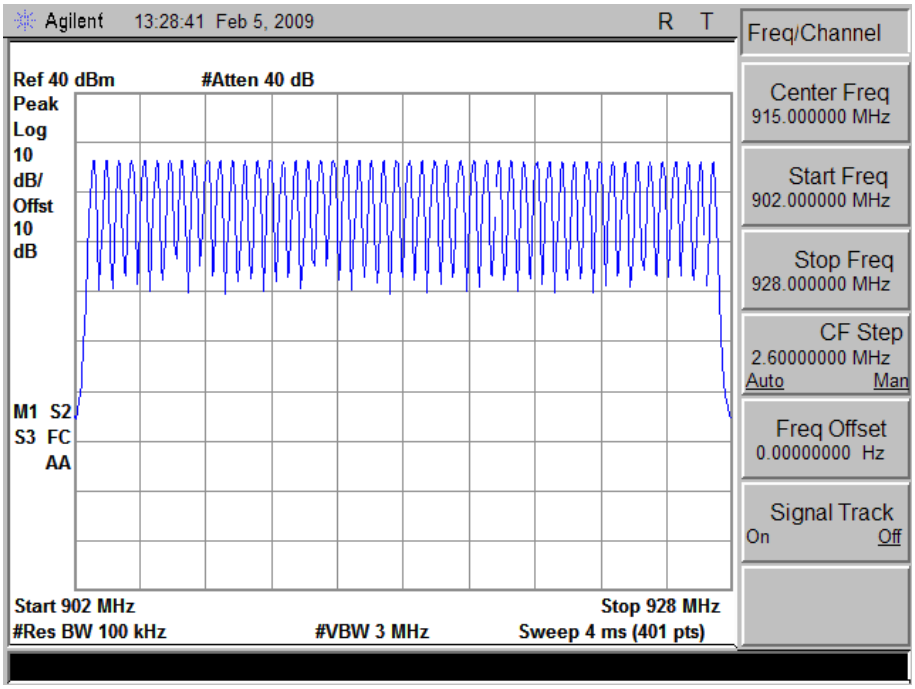
7.3 Test Equipment List:

Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Spectrum Analyzer	Agilent	E4445A	MY45300744	Dec. 29, 2008	Dec. 29, 2009
Attenuator	RADIALL	R41572000	0603033073	NA	NA

7.4 Test Result:

Number of Hopping Measure:	50 CH

7.5 Test Graphs



8. Time of Occupancy (Dwell Time) Requirements

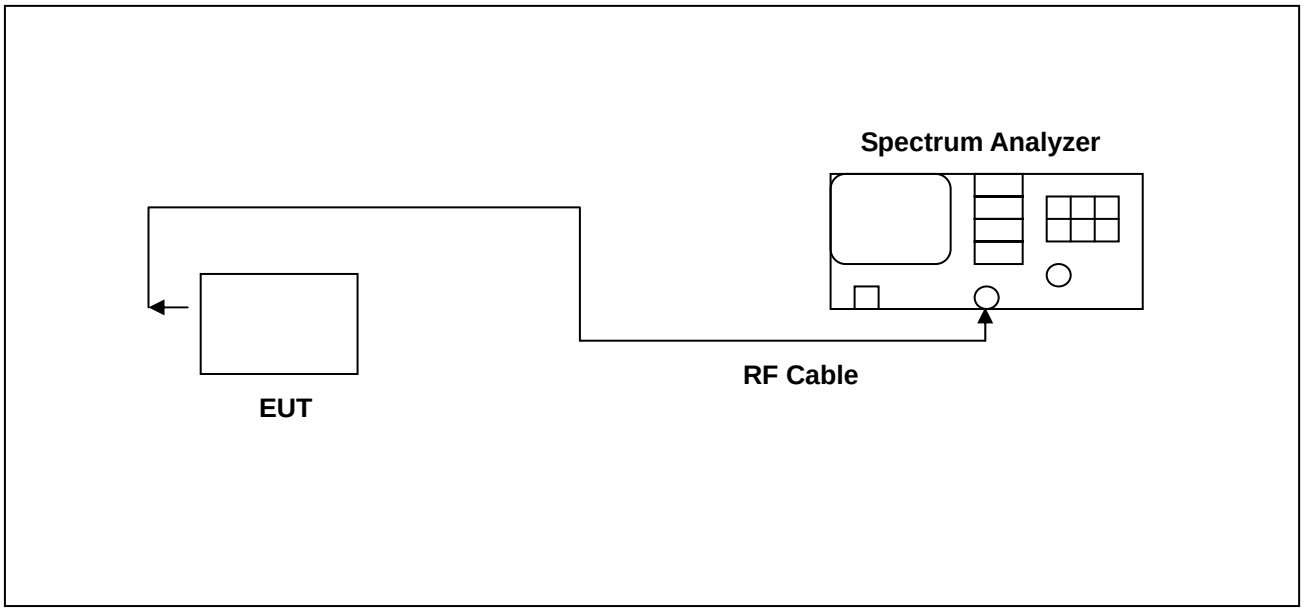
8.1 Test Condition & Setup:

The RF output port of the Equipment-Under-Test is directly coupled to the input of the EMC analyzer through a specialized RF connector and a 10dB passive attenuator. A fully charged battery was used for the supply voltage. The Bluetooth hopping function of the EUT was enabled. The following spectrum analyzer settings were used:

1. Span = zero span, centered on a hopping channel
2. RBW = 3 kHz
3. VBW ≥ RBW
4. Sweep = as necessary to capture the entire dwell time per hopping channel
5. Detector function = peak
6. Trace = max hold

The marker-delta function was used to determine the dwell time.

8.2 Test Instruments Configuration:



8.3 Test Equipment List:

Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Spectrum Analyzer	Agilent	E4445A	MY45300744	Dec. 29, 2008	Dec. 29, 2009
Attenuator	RADIALL	R41572000	0603033073	NA	NA

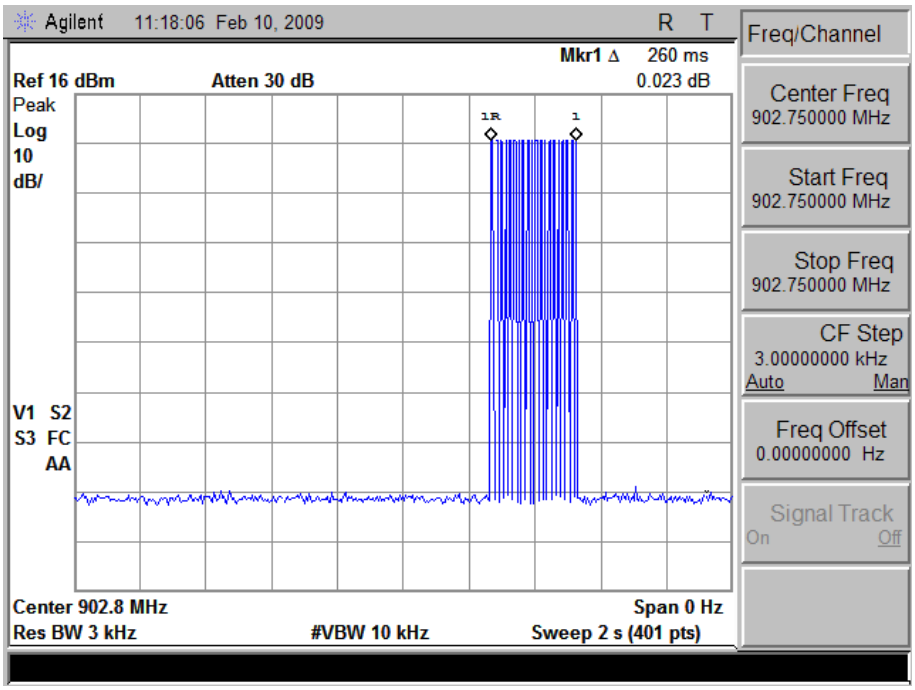
8.4 Test Result

Time Of Occupancy (1)	50*0.4=20 s
Dwell time (2)	0.26 s
Time between occupancy (3)	13.5 s
Time Of Occupancy=(1)/(3)*(2)	**385** ms
LIMIT(msec)	<=400
The average time of occupancy shall not be greater than 0.4 second within a 20 second period.	

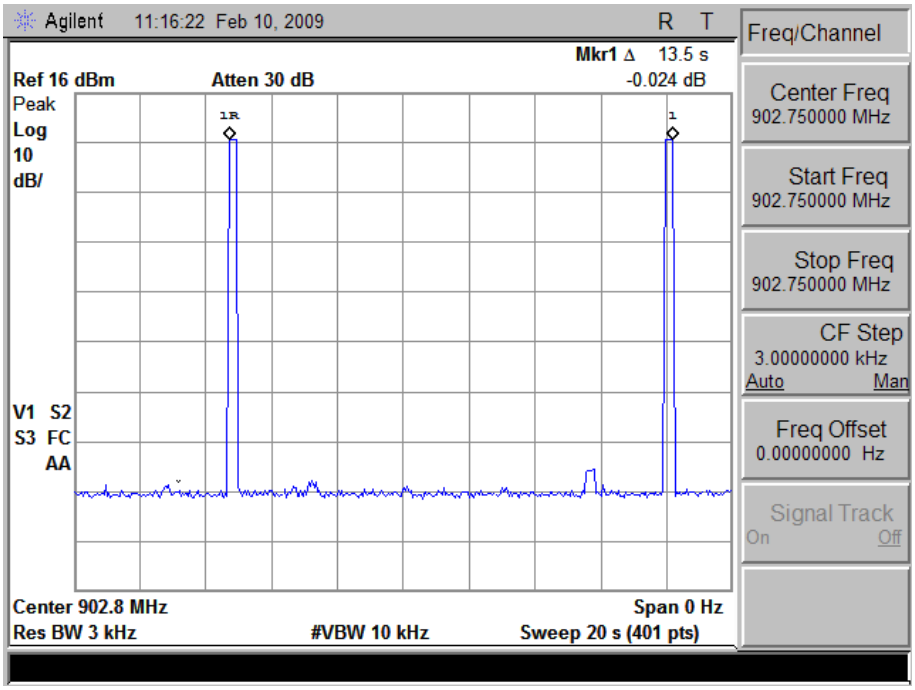
Note: RB=3KHz; VB=10kHz; SPAN=0MHz; Sweep Time=2 sec

8.5 Test Graphs

Dwell time



Time between occupancy



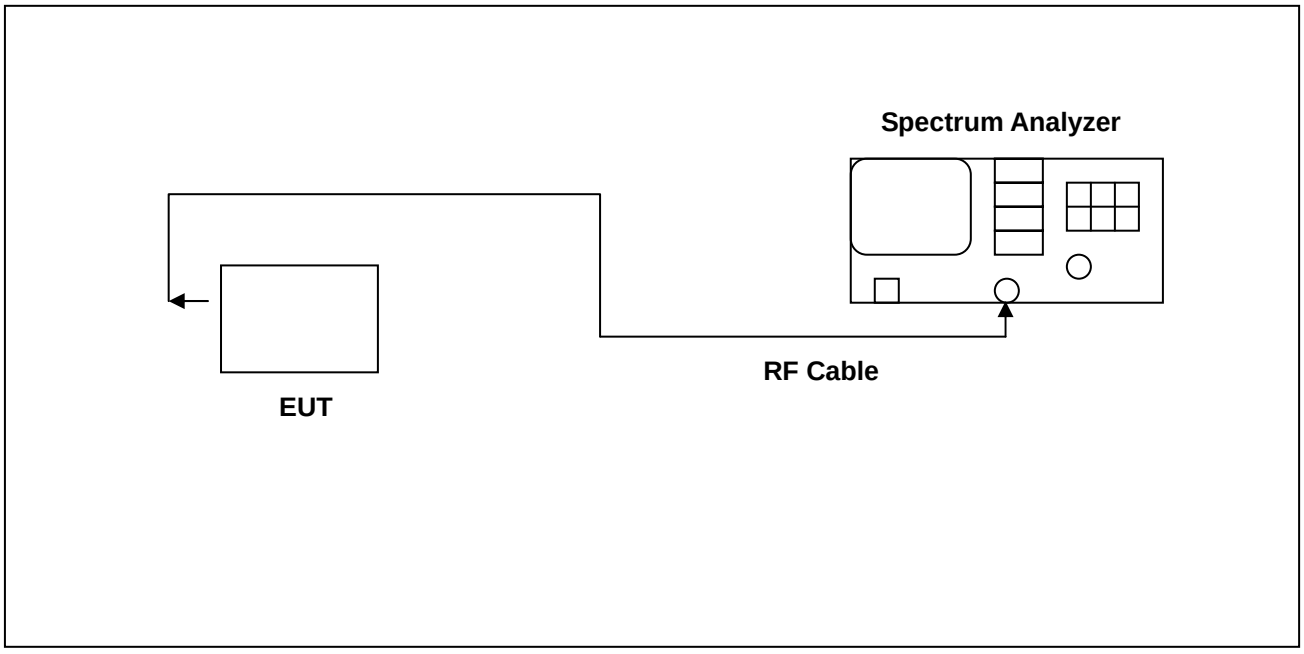
9. Out of Band Conducted Emissions Requirements

9.1 Test Condition & Setup:

In any 100 kHz bandwidth outside the EUT pass band, the RF power produced by the modulation products of the spreading sequence, the information sequence, and the carrier frequency shall be at least 20 dB below that of the maximum in-band 100 kHz emission, antenna output of the EUT was coupled directly to spectrum analyzer; if an external attenuator and/or cable was used, these losses are compensated for with the analyzer OFFSET function.

All other types of emissions from the EUT shall meet the general limits for radiated frequencies outside the pass band. The test was performed at 3 channels (Channel 1, 6, 11)

9.2 Test Instruments Configuration:



9.3 Test Equipment List:

Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Spectrum Analyzer	Agilent	E4445A	MY45300744	Dec. 22, 2008	Dec. 22, 2009

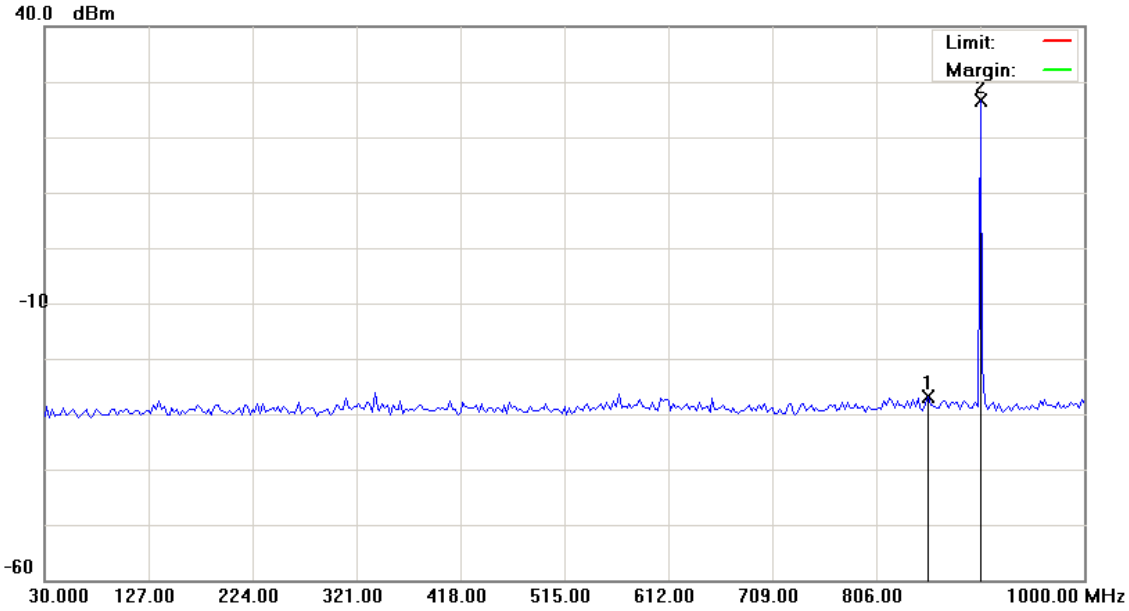
9.4 Test Result:

Refer to attached data sheets. Data shows out of band emissions are suppressed well below the -20 dBc minimum required by the Rules.

9.5 Test Graphs

Applicant : Applied Wireless Identifications Group Inc.
Model No : HH-6600
EUT : RFID Handheld Terminal
Test Mode : Low CH / Middle CH / High CH
Test Date : 02/05/2009
Please refer to next pager of detail testing data.

File :902 Data :#1 Date: 2009/2/5 Time: 下午 02:19:31



Site: site #1
Limit:
EUT:
M/N: 09-0020-E
Mode: RFID
Note: 902.75MHz

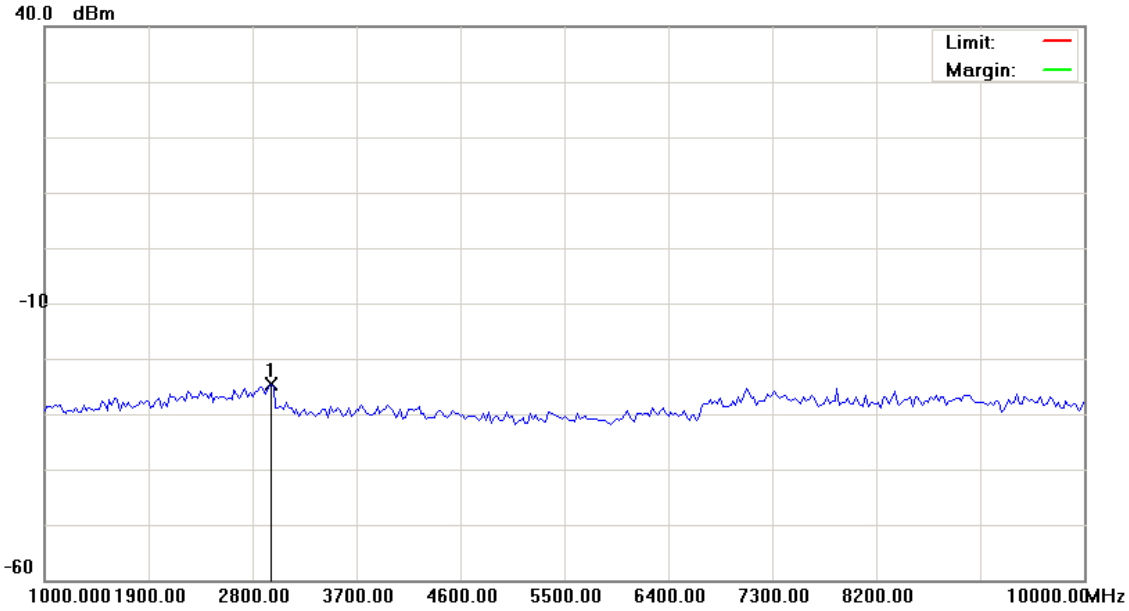
Polarization:
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		854.5000	-27.78	1.00	-26.78			peak			
2	*	903.0000	25.60	1.00	26.60			peak			

*:Maximum data x:Over limit !:over margin

File :902 Data :#2 Date: 2009/2/5 Time: 下午 02:19:45

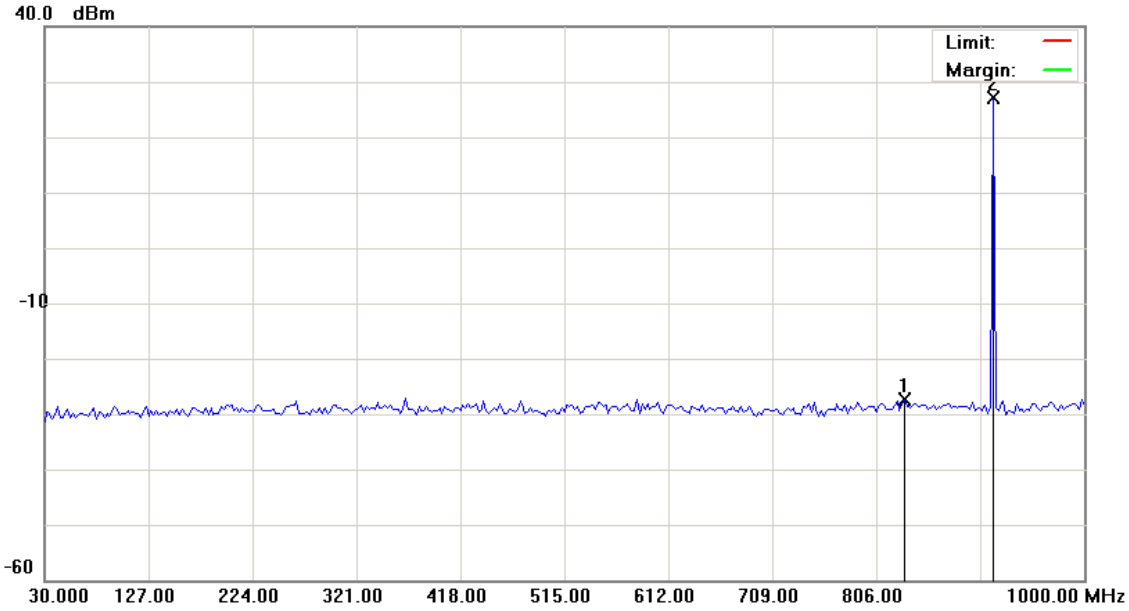


Site: site #1	Polarization:	Temperature: 26 ℃
Limit:	Power: AC 110V/60Hz	Humidity: 55 %
EUT:	Distance:	
M/N: 09-0020-E		
Mode: RFID		
Note: 902.75MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2957.500	-25.66	1.00	-24.66			peak			

*:Maximum data x:Over limit !:over margin

File :914 Data :#1 Date: 2009/2/5 Time: 下午 02:26:38



Site: site #1
Limit:
EUT:
M/N: 09-0020-E
Mode: RFID
Note: 914.75MHz

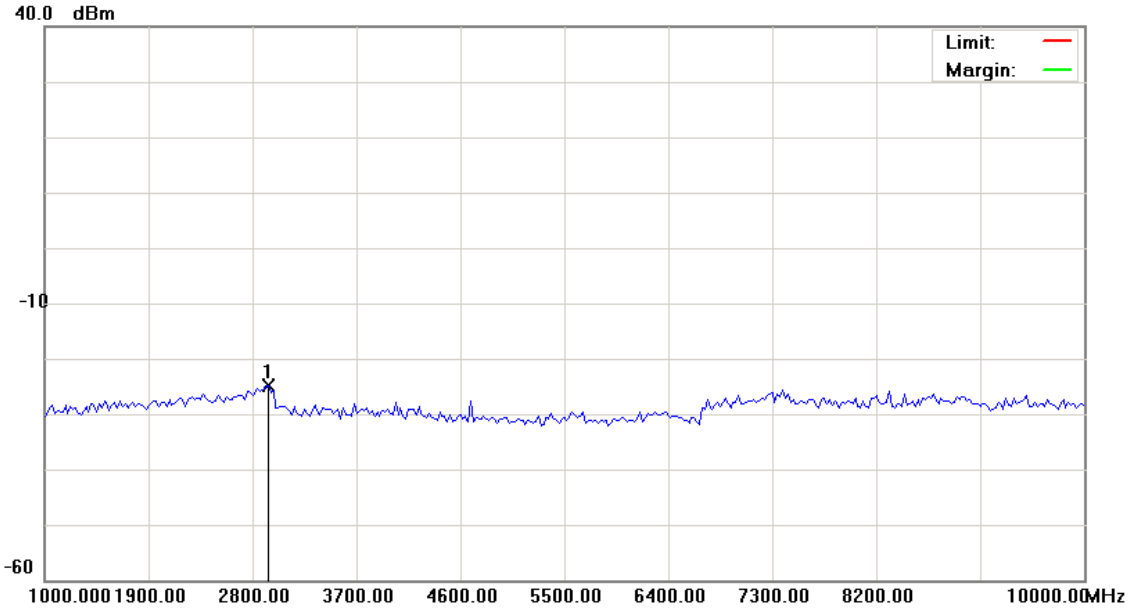
Polarization:
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		832.6750	-28.46	1.00	-27.46			peak			
2	*	915.1250	26.05	1.00	27.05			peak			

*:Maximum data x:Over limit !:over margin

File :914 Data :#2 Date: 2009/2/5 Time: 下午 02:26:52

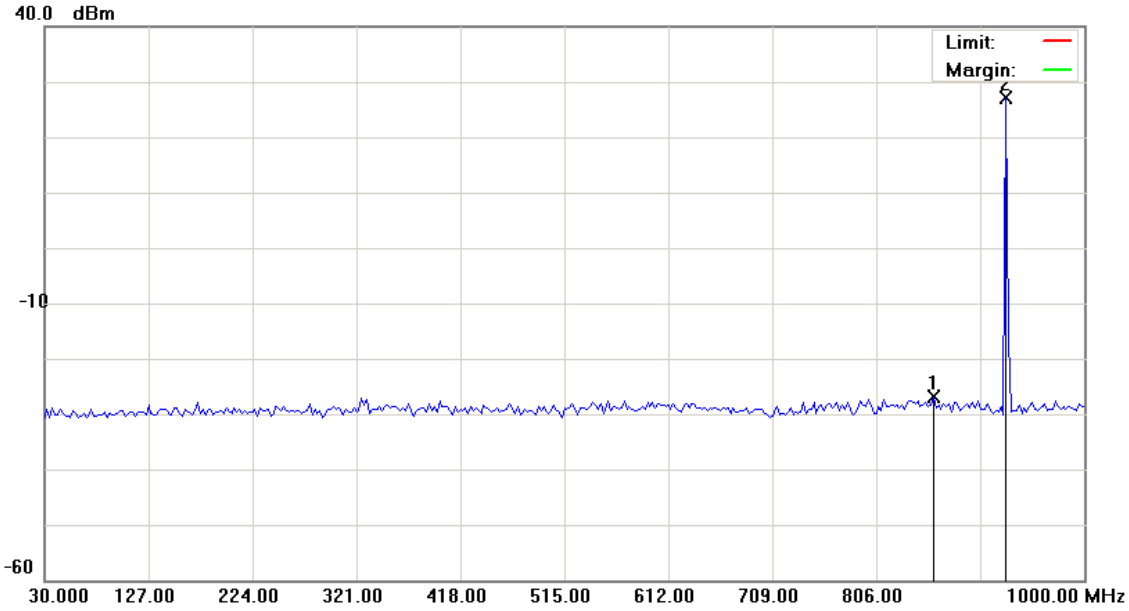


Site: site #1	Polarization:	Temperature: 26 ℃
Limit:	Power: AC 110V/60Hz	Humidity: 55 %
EUT:	Distance:	
M/N: 09-0020-E		
Mode: RFID		
Note: 914.75MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2935.000	-25.88	1.00	-24.88			peak			

*:Maximum data x:Over limit !:over margin

File :927 Data :#1 Date: 2009/2/5 Time: 下午 02:22:20



Site: site #1
Limit:
EUT:
M/N: 09-0020-E
Mode: RFID
Note: 927.25MHz

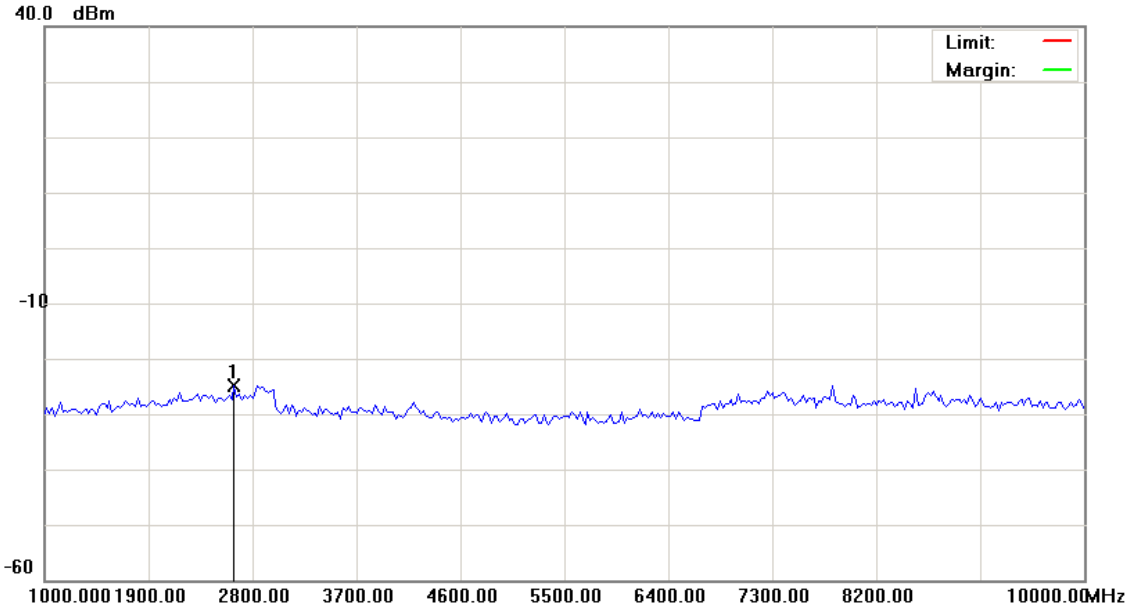
Polarization:
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1		859.3500	-27.95	1.00	-26.95			peak			
2	*	927.2500	26.07	1.00	27.07			peak			

*:Maximum data x:Over limit !:over margin

File :927 Data :#2 Date: 2009/2/5 Time: 下午 02:22:34



Site: site #1
Limit:
EUT:
M/N: 09-0020-E
Mode: RFID
Note: 927.25MHz

Polarization:
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2642.500	-25.83	1.00	-24.83			peak			

*:Maximum data x:Over limit !:over margin

10. Band Edges Requirements

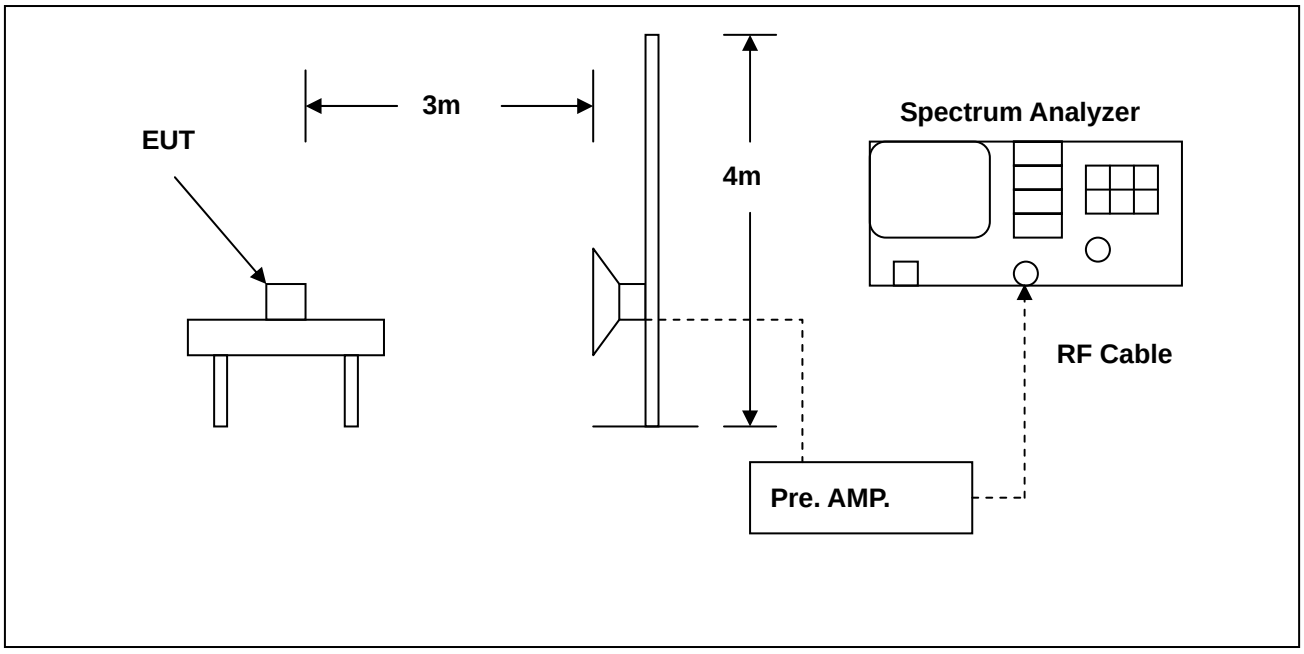
10.1 Test Condition & Setup:

The emissions on the harmonics frequencies, the limits, and the margin of compliance are presented. These tests were made when the transmitter was in full radiated power. The additional test was performed to show compliance with the requirement at the band-edge frequency 902 MHz and up to 928 MHz.

The transmitter was configured with the worst case antenna and setup to transmit at the highest channel. Then the field strength was measured at 928 MHz.

The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel. Then the field strength was measured at 902 MHz.

10.2 Test Instruments Configuration:



10.3 Test Equipment List:

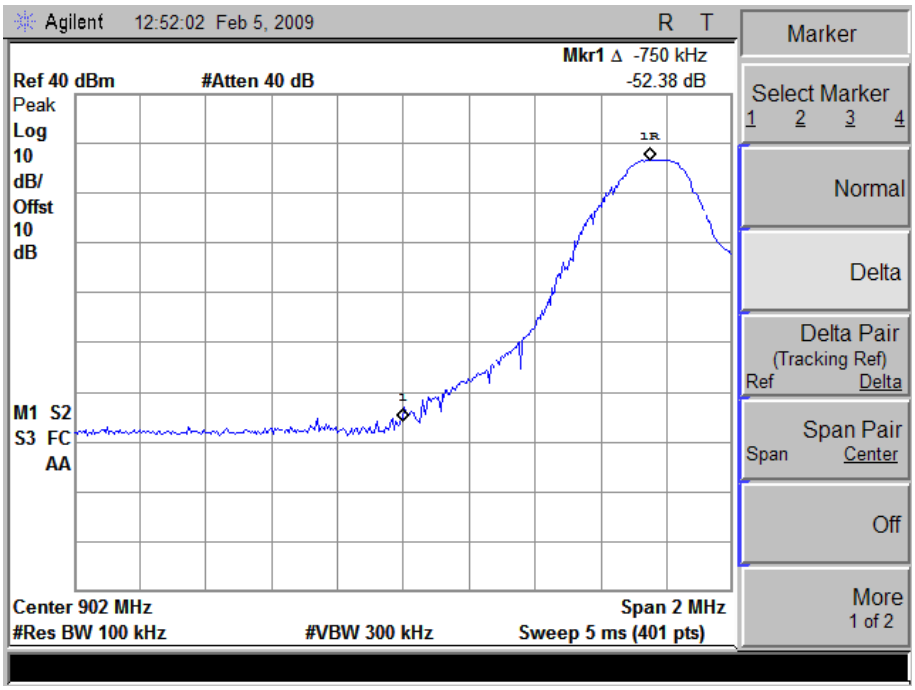
Describe	Manufacturer	Model	Serial Number	Calibration	
				Cal. Date	Due Date
Spectrum Analyzer	Agilent	E4408B	MY45107753	Jun. 05, 2008	Jun. 05, 2009
Pre Amplifier	Agilent	8449B	3008A02237	Jun. 03, 2008	Jun. 03, 2009
Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	9163	9163-270	Jun. 23, 2008	Jun. 23, 2009

10.4 Test Result

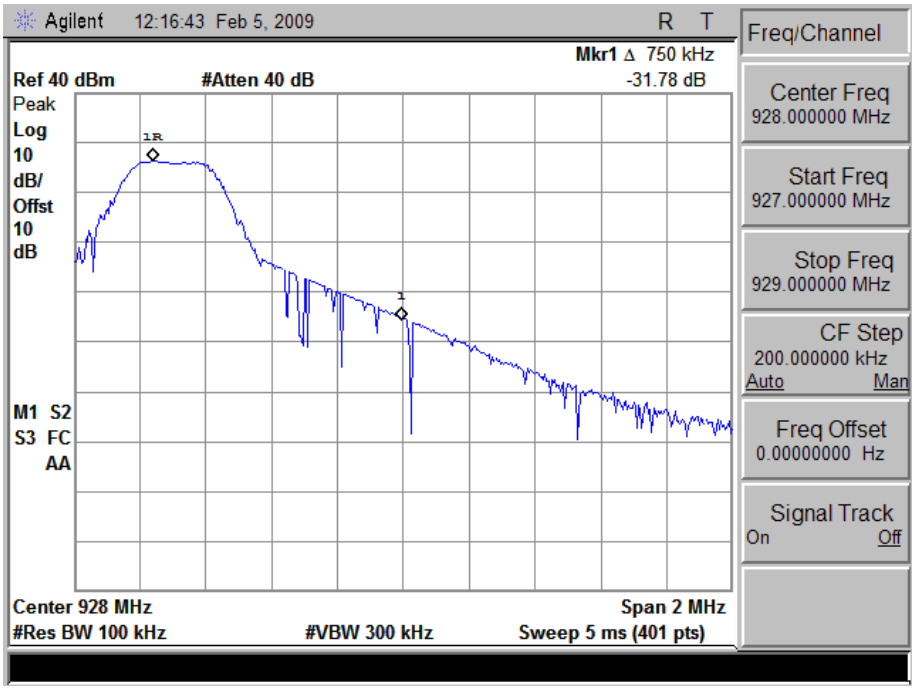
Frequency (MHz)	Band Edges (dB)	Required Limit (dB)
902.75	**-52.38**	**> 20**
927.25	**-31.78**	**> 20**

10.5 Test Graphs

Lowest Channel



Highest Channel



11. Antenna Requirements

11.1 Standard Applicable:

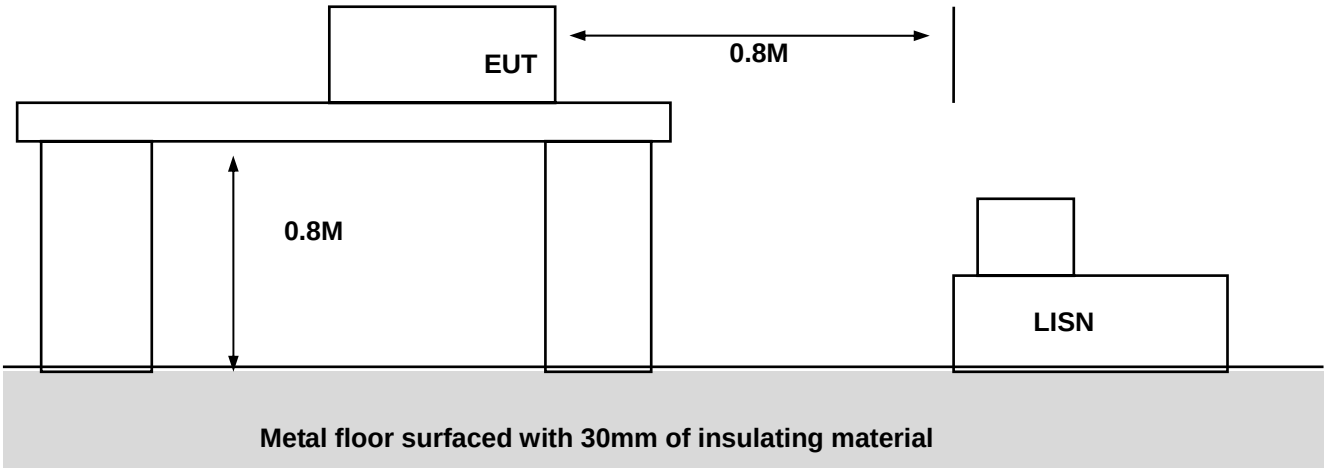
For intentional device, according to 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.
And According to 15.247 (b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

11.2 Antenna Connector Construction

The antenna used in this product is exernal antenna and RP rf connector complied with the15.203 requirements.
The antenna maximum Gain is **1.0dBi**.

Appendix A - EUT Test SETUP

MEASUREMENT OF POWER LINE CONDUCTED RFI VOLTAGE



MEASUREMENT OF RADIATED EMISSION