

TEST REPORT

FROM



FOR

Applied Wireless ID Group, Inc.

RFID Reader Module

MPR-1510R3.2

TO



47 CFR 15.247:2005 & RSS-210 Issue 6:2005

Test Report Serial No.:
SL05100605-AWID-002

This report supersedes None

Remarks: Equipment complied with the specification ☒
 Equipment did not comply with the specification ☐

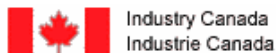
This Test Report is Issued Under the Authority of:


.....
Tested by: Kerwinn Corpuz, Test Engineer

.....
Reviewed by: Leslie Bai, Lab Manager

Issue date: 13 February 2006
Manufacturer: Applied Wireless ID Group, Inc.



Registration No. 783147



Registration No. 4842



Lab Code: KR0032



RTA No. D23/16V



NVLAP Lab Code: 200729-0

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Executive Summary

The purpose of this test programme was to demonstrate compliance of the Applied Wireless ID Group, Inc., RFID Reader Module, model: MPR-1510R3.2 against the current 47 CFR 15.247:2005 & RSS-210 Issue 6:2005. The MPR-1510R3.2 demonstrated compliance with the 47 CFR 15.247:2005 & RSS-210 Issue 6:2005.

Applied Wireless ID Group, Inc. is the applicant and claimed manufacturer of this tested product. For the detailed description of this product, please refer to the MPR-1510R3.2 User Manual.

The equipment under test is a frequency hopping system operating in the 902-928MHz band.

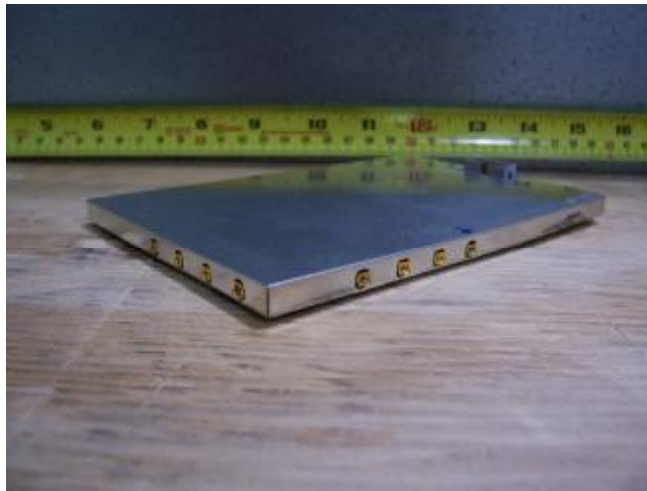
The equipment was tested with three protocols:

- 1) GEN-2 = EPC Class1 Generation2
- 2) ISOB = ISO18000-6 Type B
- 3) Class-1 = EPC Class1

The equipment was tested with the following antenna:

MTI Wireless Edge, model MT-262006/TRH/A; 6 dBi Patch antenna

The test has demonstrated that this unit complies with stipulated standards.



Radio Module Sample



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1 Technical Details

Purpose	Compliance testing of MPR-1510R3.2 with 47 CFR 15.247:2005 & RSS-210 Issue 6:2005
Applicant / Client	Applied Wireless ID Group, Inc. 382 Route 59, Section 292. Monsey, NY 10952
Manufacturer	Applied Wireless ID Group, Inc. 18300 Sutter Blvd. Morgan Hill, CA 95037
Laboratory performing the tests	SIEMIC Labs 2206 Ringwood Avenue San Jose, CA 95131
Test location(s)	SIEMIC Labs 2206 Ringwood Avenue San Jose, CA 95131
Test report reference number	SL05100605-AWID-002
Date EUT received	16 November 2005
Standard applied	47 CFR 15.247:2005 & RSS-210 Issue 6:2005
Dates of test (from – to)	16 November 2005 to 18 November 2005
No of Units:	1
Equipment Category:	DSS
Trade/Product Name:	MPR-1510R3.2
Type/Model Name/No:	MPR-1510R3.2
Technical Variants:	MPR-1510R3.2
FCC ID No.	OGSMR1510R32
IC ID No.	6449A-1510R32

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2 Tests Required

The product was tested in accordance with the following specifications.

The test results recorded in this Test Report are exclusively referred to the tested sample(s).

Test Standard		Description	Pass / Fail
47 CFR Part 15.247: 2005	RSS 210 Issue6: 2005		
15.203		Antenna Requirement	Pass
15.205	RSS210(A8.5)	Restricted Band of Operation	Pass
15.207(a)	RSSGen(7.2.2)	Conducted Emissions Voltage	Pass
15.247(a)(1)	RSS210(A8.1)	Channel Separation	Pass
15.247(a)(1)	RSS210(A8.1)	Occupied Bandwidth	Pass
15.247(a)(1)	RSS210(A8.1)	Number of Hopping Channels	Pass
15.247(a)(1)	RSS210(A8.1)	Time of Occupancy	Pass
15.247(b)	RSS210(A8.4)	Output Power	Pass
15.247(c)	RSS210(A8.4)	Antenna Gain > 6 dBi	N/A
15.247(d)	RSS210(A8.5)	Conducted Spurious Emissions	Pass
15.209; 15.247(d)	RSS210(A8.5)	Radiated Spurious Emissions	Pass
15.247(e)	RSS210(A8.3)	Power Spectral Density	N/A*
15.247(f)	RSS210(A8.3)	Hybrid System Requirement	N/A*
15.247(g)	RSS210(A8.1)	Hopping Capability	Pass
15.247(h)	RSS210(A8.1)	Hopping Coordination Requirement	Pass
15.247(i)	RSSGen(5.5)	Maximum Permissible Exposure	Pass
	RSSGen(4.8)	Receiver Spurious Emissions	Pass
ANSI C63.4: 2003			

Notes: Deviations to above standards are outlined in specific test sections if applicable.

Cable loss and external attenuation are compensated for in the measurement system when applicable.

** Equipment is a Frequency Hopping System.*

3 Antenna Requirement

Requirement(s): 47 CFR §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.

Antenna requirement must meet at least one of the following:

- a) Antenna must be permanently attached to the device.
- b) Antenna must use a unique type of connector to attach to the device.
- c) Device must be professionally installed. Installer shall be responsible for ensuring that the correct antenna is employed with the device.

The antenna has its own unique type of connector which meets the requirement.

MTI Wireless Edge, model MT-262006/TRH/A; 6 dBi Patch antenna



Front Side



Back Side



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4 Measurements, Examinations and Derived Results

4.1 General observations

Equipment serial number(s)		
Module:	Part number:	Serial number:
MPR-1510R3.2	MPR-1510R3.2	none

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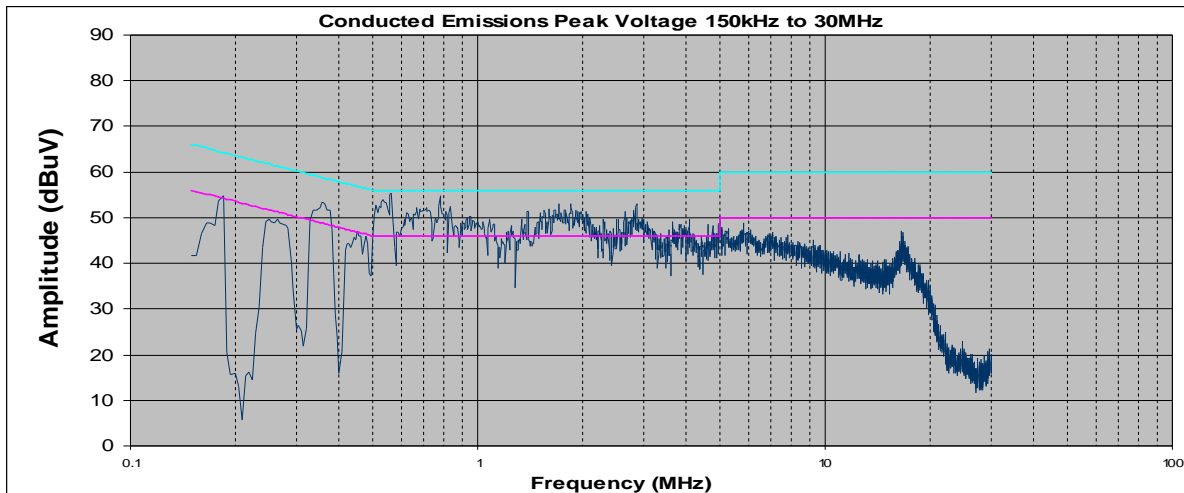
4.2 Test Results

4.2.1 Conducted Emissions Voltage

Requirement(s): 47 CFR §15.207 & RSS-Gen Issue 1(7.2.2)**Procedures:**

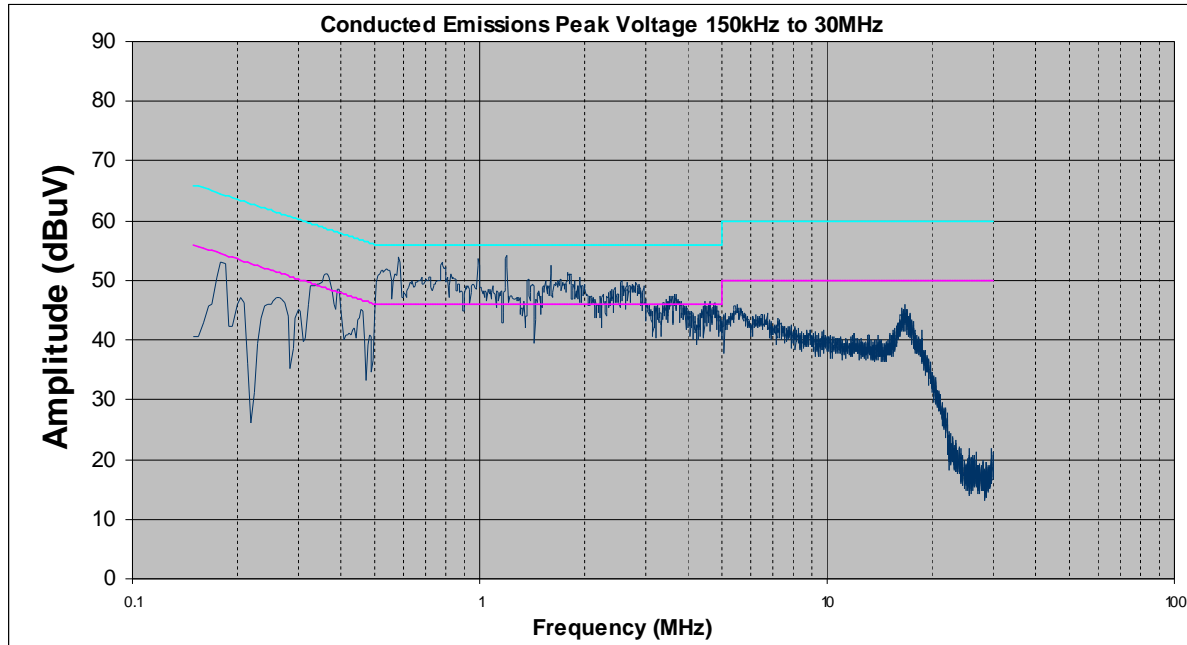
The EUT and supporting equipment were set up in accordance with the requirements of the standard on top of a 1.5m x 1m x 0.8m high, non-metallic table. The power supply for the EUT was fed through a 50Ω/50μH EUT LISN, connected to filtered mains. The RF OUT of the EUT LISN was connected to the EMI test receiver via a low-loss coaxial cable. All other supporting equipment were powered separately from another mains.

The EUT was switched on and allowed to warm up to its normal operating condition. A scan was made on the NEUTRAL line over the required frequency range using an EMI test receiver. High peaks, relative to the limit line, were then selected. The EMI test receiver was then tuned to the selected frequencies and the necessary measurements made with a receiver bandwidth setting of 10kHz. Quasi-peak and Average measurements were made. The procedure was then repeated for the PHASE line.

Results: **Note – measurement between Tx and Rx are no different to emissions.****Neutral Line Plot at 120Vac, 60Hz**

FREQ. (MHz)	Corrected Amplitude (dBuV) QP	Limit (dBuV) QP	Margin (dB) QP	Corrected Amplitude (dBuV) AVG	Limit (dBuV) AVG	Margin (dB) AVG
0.192	44.3	63.95	-19.65	30.5	53.95	-23.45
0.373	48.7	58.43	-9.73	39.5	48.43	-8.93
0.78	45.1	56	-10.9	23.5	46	-22.5
1.82	46.1	56	-9.9	23	46	-23
2.816	44.2	56	-11.8	21.7	46	-24.3

Neutral Line Table

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FREQ. (MHz)	Corrected Amplitude (dBuV) QP	Limit (dBuV) QP	Margin (dB) QP	Corrected Amplitude (dBuV) AVG	Limit (dBuV) AVG	Margin (dB) AVG
0.602	40.3	56	-15.7	18.9	46	-27.1
0.7765	45	56	-11	21.5	46	-24.5
0.99	45.2	56	-10.8	22.7	46	-23.3
1.18	41.9	56	-14.1	19.2	46	-26.8
1.729	44.5	56	-11.5	23.3	46	-22.7

Phase Line Table**Tested By:** Kerwinn Corpuz**Date Tested:** 17 November 2005

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4.2.2 Occupied Bandwidth

Requirement(s): 47 CFR §15.247(a)(1) & RSS-210 Issue 6(A8.1)**Procedures:** The 20dB bandwidths were measured conducted using a spectrum analyzer for the low, mid, and hi channels. 20 dB Bandwidth Limit: < 500 kHz.**Results:**

Plot #	Protocol	Channel	Occupied Bandwidth	Channel Bandwidth (kHz)
1	GEN-2	Low	20 dB	76.7
2	GEN-2	Mid	20 dB	76.7
3	GEN-2	High	20 dB	76.7
4	ISOB	Low	20 dB	88.3
5	ISOB	Mid	20 dB	91.7
6	ISOB	High	20 dB	85.8
7	CLASS-1	Low	20 dB	284.2
8	CLASS-1	Mid	20 dB	285
9	CLASS-1	High	20 dB	285
A	GEN-2	Low	99%	217.5
B	GEN-2	Mid	99%	220
C	GEN-2	High	99%	229.2
D	ISOB	Low	99%	246.7
E	ISOB	Mid	99%	254.2
F	ISOB	High	99%	270
G	CLASS-1	Low	99%	636.7
H	CLASS-1	Mid	99%	645
I	CLASS-1	High	99%	630



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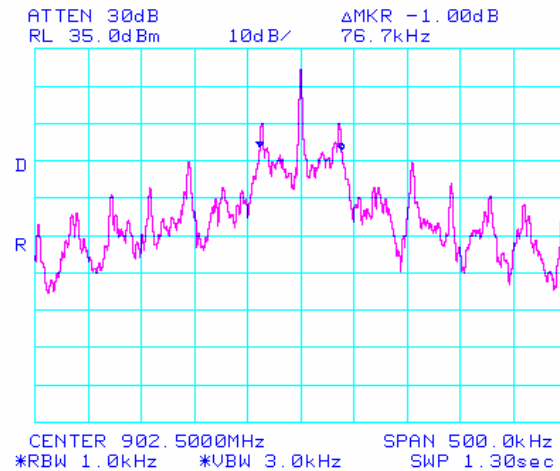
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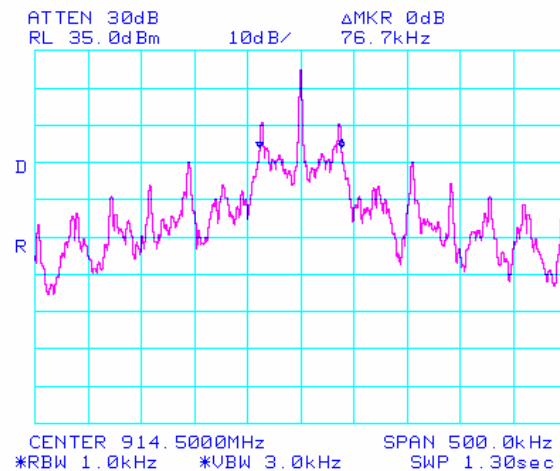
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Plot 1: 20dB Bandwidth (Low) with GEN-2 protocol



Plot 2: 20dB Bandwidth (Mid) with GEN-2 protocol



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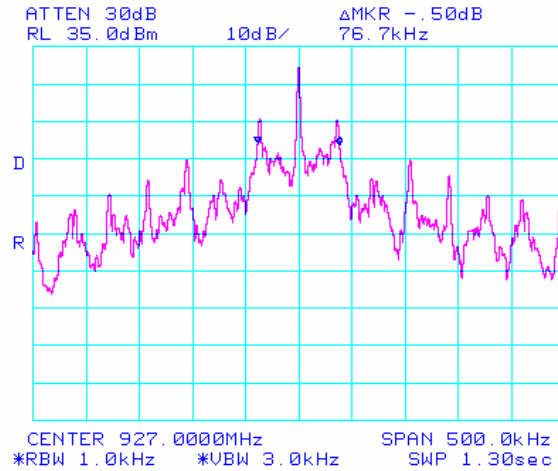
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6:2005

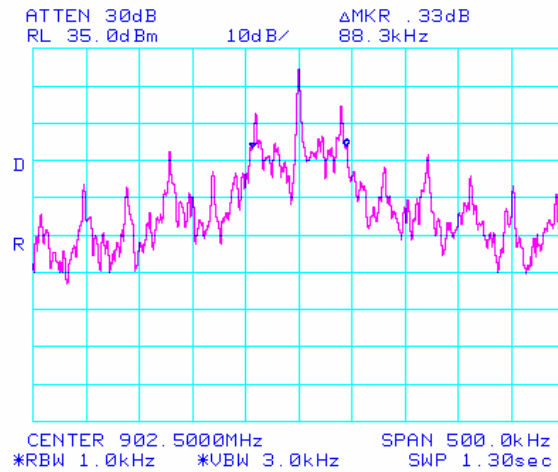
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Plot 3: 20dB Bandwidth (High) with GEN-2 protocol



Plot 4: 20dB Bandwidth (Low) with ISOB protocol

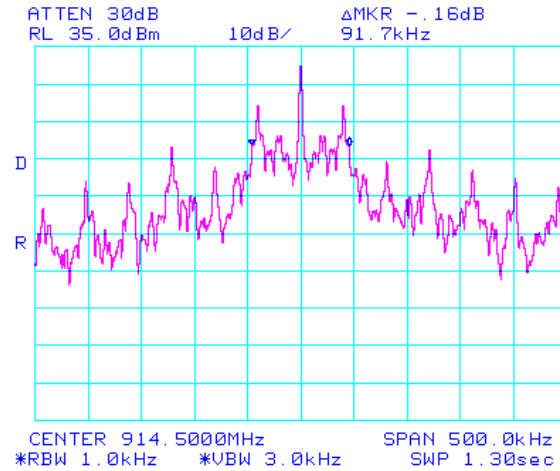


SIEMIC

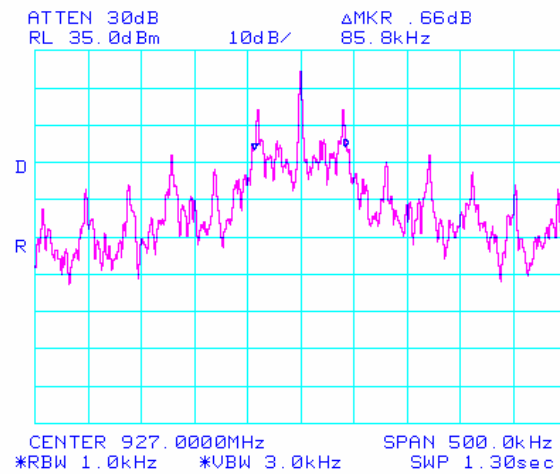
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Plot 5: 20dB Bandwidth (Mid) with ISOB protocol



Plot 6: 20dB Bandwidth (High) with ISOB protocol

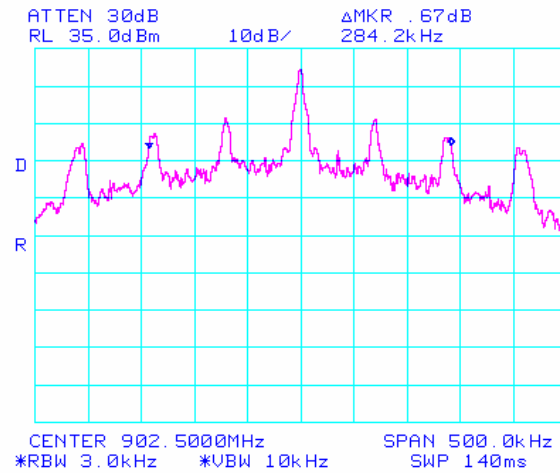


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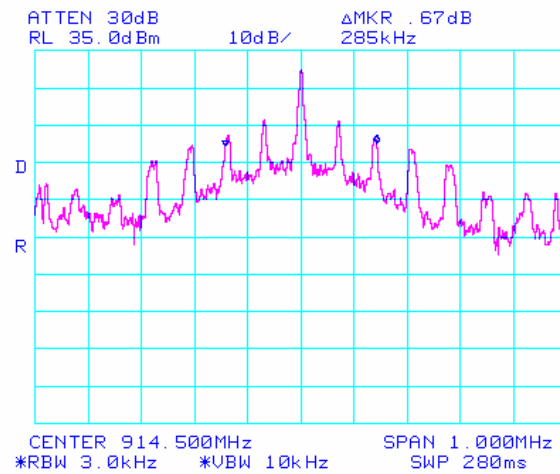
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Plot 7: 20dB Bandwidth (Low) with CLASS-1 protocol



Plot 8: 20dB Bandwidth (Mid) with CLASS-1 protocol

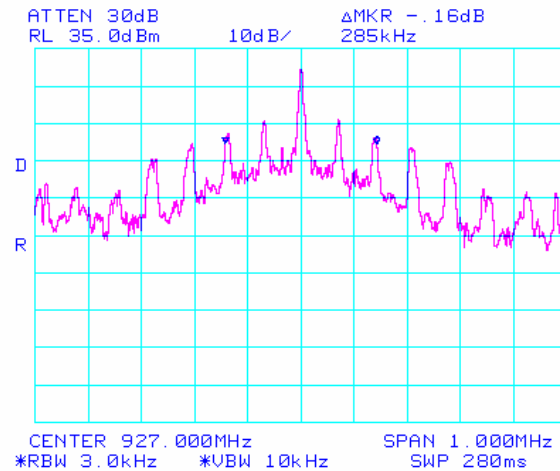


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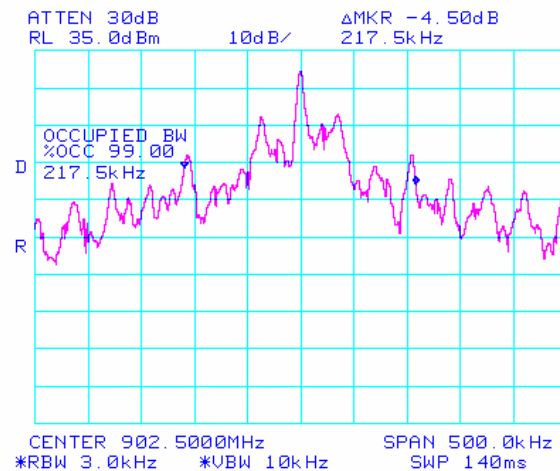
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Plot 9: 20dB Bandwidth (High) with CLASS-1 protocol



Plot A: 99% Bandwidth (Low) with GEN-2 protocol

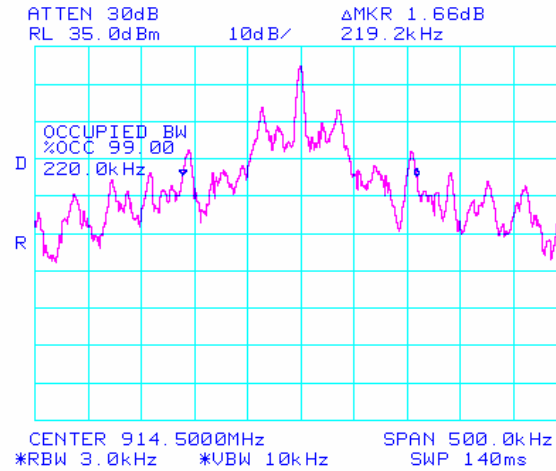


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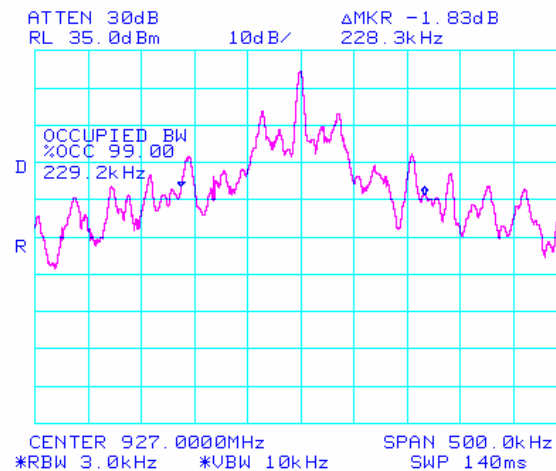
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Plot B: 99% Bandwidth (Mid) with GEN-2 protocol



Plot C: 99% Bandwidth (High) with GEN-2 protocol



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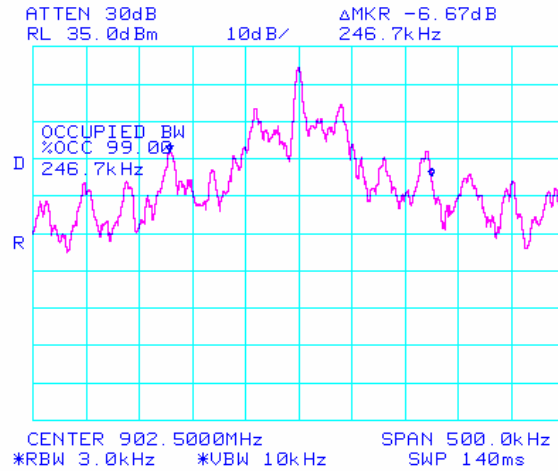
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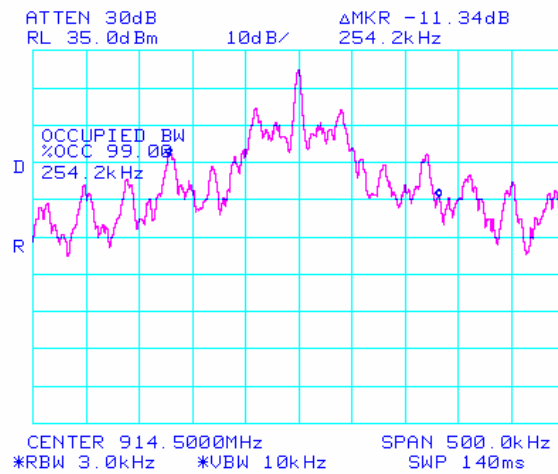
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Plot D: 99% Bandwidth (Low) with ISOB protocol



Plot E: 99% Bandwidth (Mid) with ISOB protocol



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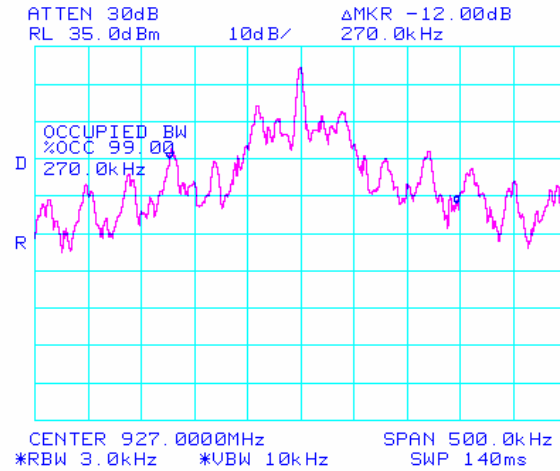
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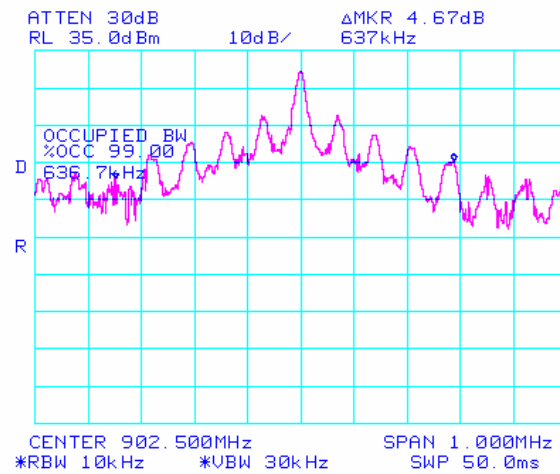
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Plot F: 99% Bandwidth (High) with ISOB protocol



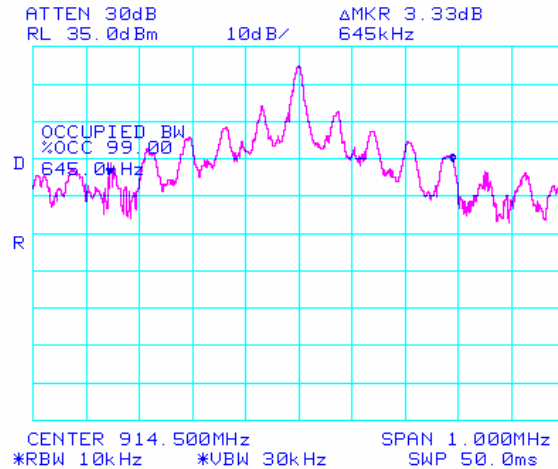
Plot G: 99% Bandwidth (Low) with CLASS-1 protocol



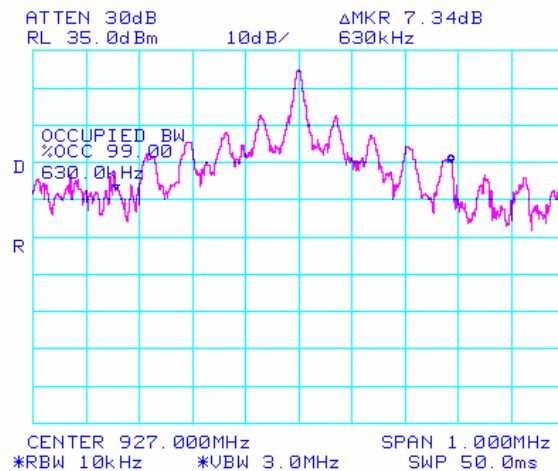
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Plot H: 99% Bandwidth (Mid) with CLASS-1 protocol



Plot I: 99% Bandwidth (High) with CLASS-1 protocol

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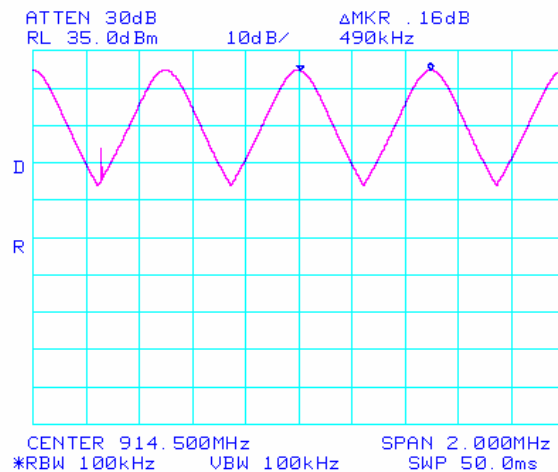
4.2.3 Carrier Frequency Separation

Requirement(s): 47 CFR §15.247(a)(1) & RSS-210 (A8.1)

Procedures: The carrier frequency separation measurement was taken conducted using a spectrum analyzer.

Results:

Plot #	Carrier Frequency Separation (MHz)
10	0.490



Plot 10: Carrier Frequency Separation

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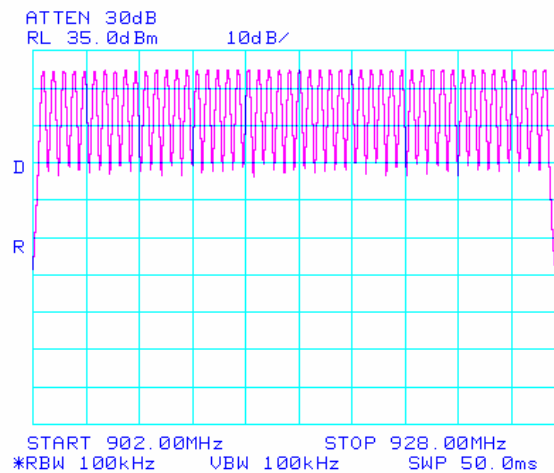
4.2.4 Number of Hopping Channels

Requirement(s): 47 CFR §15.247(a)(1) & RSS-210 (A8.1)

Procedures: The number of hopping channels was measured conducted with a spectrum analyzer.

Results:

Plot #	Number of Hopping Channels
11	50



Plot 11: Number of Hopping Channels

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4.2.5 Time of Occupancy

Requirement(s): 47 CFR §15.247(a)(1) & RSS-210 (A8.1)

The average time of occupancy shall not be greater than 0.4 second within a 20 second period.

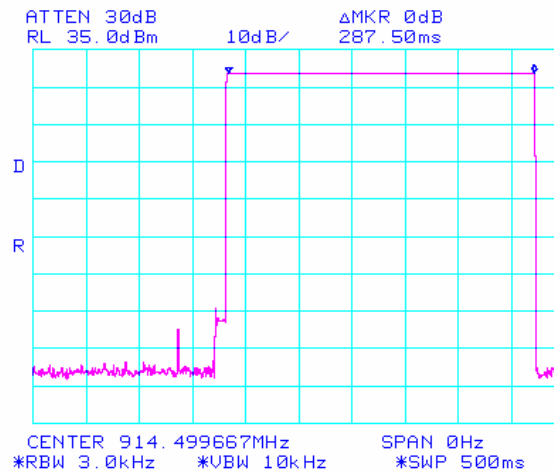
Procedures: The time of occupancy was measured conducted with a spectrum analyzer.**Results:**

Plot #	Time of Occupancy (sec)
12 to 13	0.3823

Dwell time = 0.2875 sec

Time between occupancy = 15.042 sec

Time of occupancy = period / time between occupancy * dwell time

Therefore; $20 / 15.042 * 0.2875 = 0.3823$ second**Plot 12: Dwell Time (1 of 2)**



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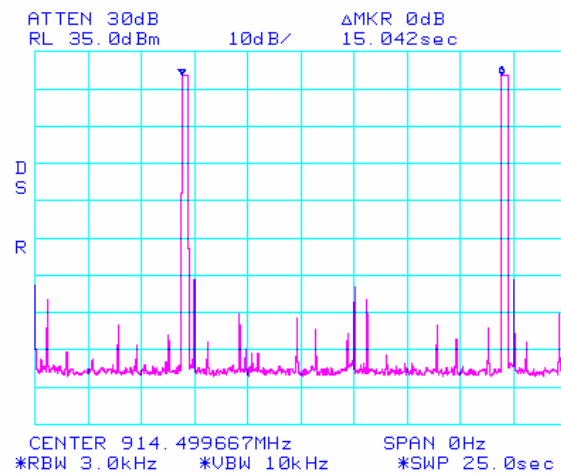
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Plot 13: Time between Occupancy (2 of 2)

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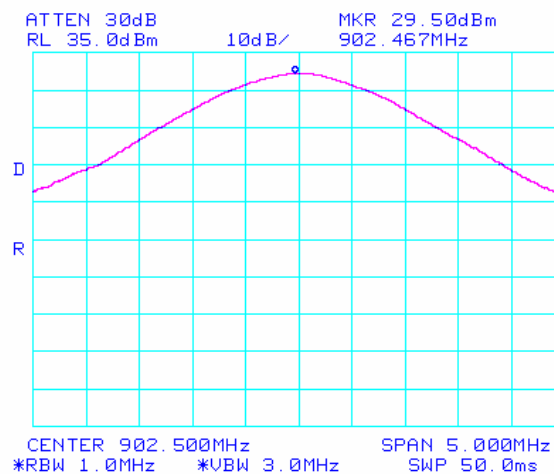
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4.2.6 Peak Output Power

Requirement(s): 47 CFR §15.247(b) & RSS-210 (A8.4)**Procedures:** The peak output power was measured conducted using a spectrum analyzer for the low, mid, and hi channels. Limit = 1 watt (30dBm)**Results:**

Plot #	Protocol	Channel	Peak Power (dBm)
14	GEN-2	Low	29.5
15	GEN-2	Mid	29.83
16	GEN-2	High	29.67
17	ISOB	Low	29.5
18	ISOB	Mid	29.83
19	ISOB	High	29.67
20	CLASS-1	Low	29.5
21	CLASS-1	Mid	29.83
22	CLASS-1	High	29.67

**Plot 14: Peak Power (Low) with GEN-2 protocol**

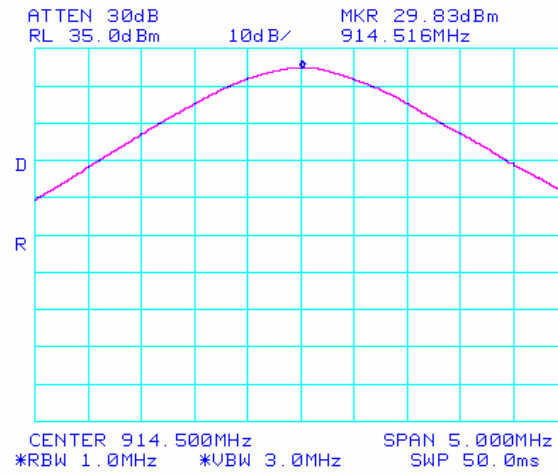


SIEMIC

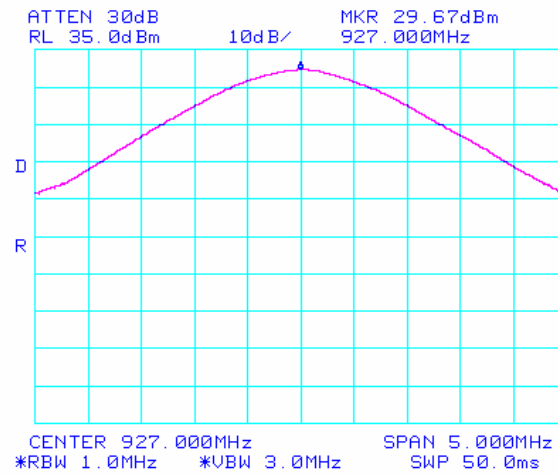
www.siemac.com

Title: Applied Wireless ID Group, Inc.
FCCID: OGSMPR1510R32
To: 47 CFR 15.247:2005 & RSS-210 Issue
6:2005

Serial# SL05100605-AWID-002
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Plot 15: Peak Power (Mid) with GEN-2 protocol



Plot 16: Peak Power (High) with GEN-2 protocol

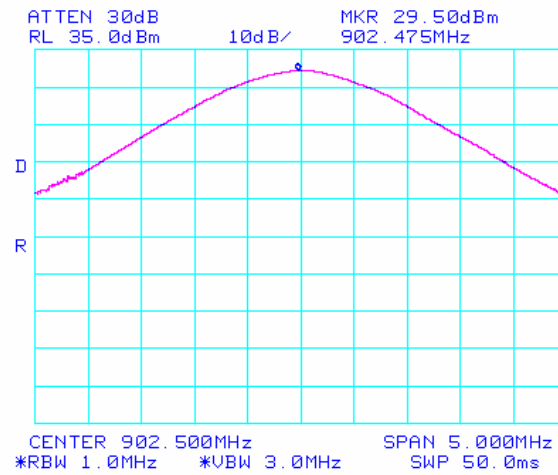


SIEMIC

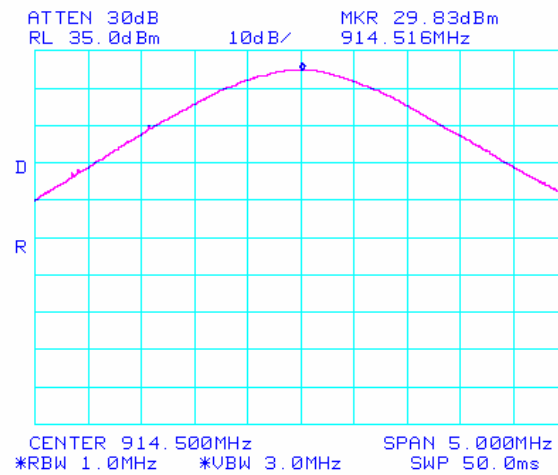
www.siemec.com

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Plot 17: Peak Power (Low) with ISOB protocol



Plot 18: Peak Power (Mid) with ISOB protocol



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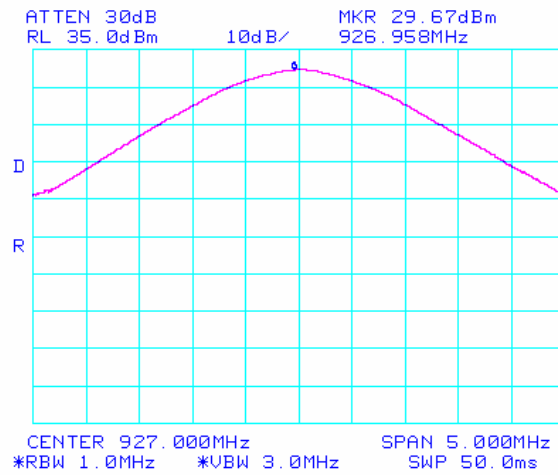
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6:2005

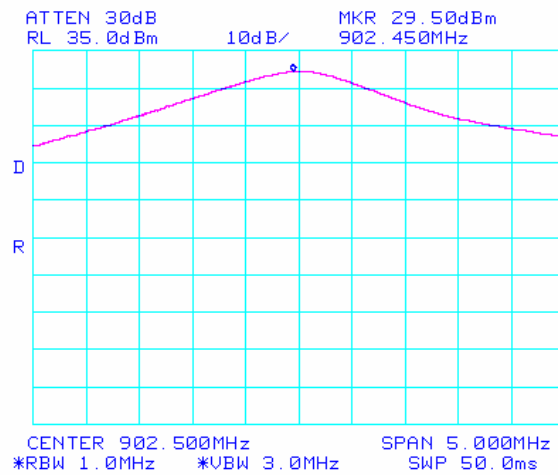
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Plot 19: Peak Power (High) with ISOB protocol



Plot 20: Peak Power (Low) with CLASS-1 protocol



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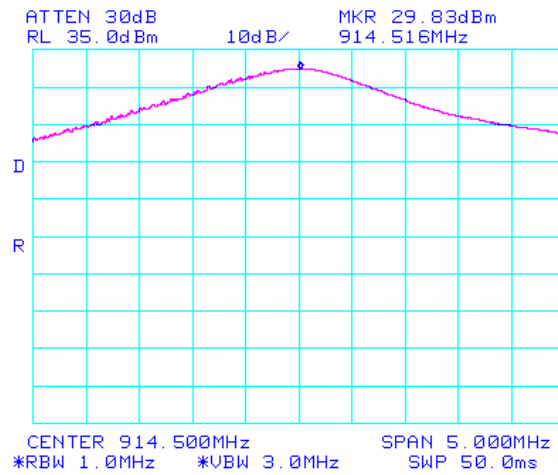
FCCID: OGSMPR1510R32

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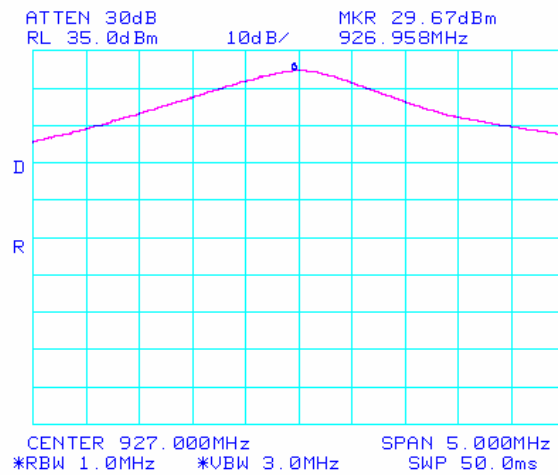
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Plot 21: Peak Power (Mid) with CLASS-1 protocol



Plot 22: Peak Power (High) with CLASS-1 protocol

Tested By: Kerwinn Corpuz

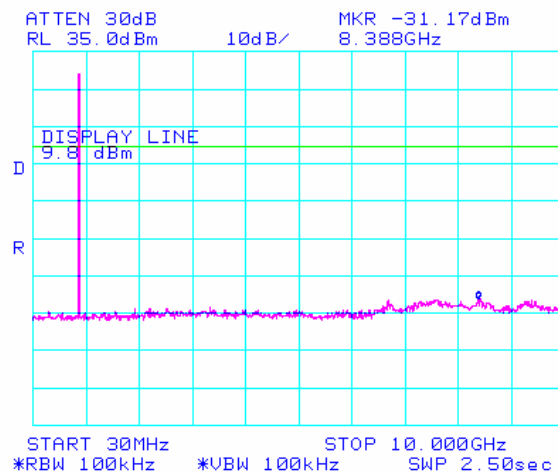
Date Tested: 16 November 2005

**SIEMIC**www.siemic.com**Title:** Applied Wireless ID Group, Inc.**FCCID:** OGSMPR1510R32**To:** 47 CFR 15.247:2005 & RSS-210 Issue 6:2005**Serial#** SL05100605-AWID-002**Issue Date** 13 February 2006**Page** 31 of 52

4.2.7 Spurious Emissions at Antenna Terminals

Requirement(s): 47 CFR §15.247(d) & RSS-210 (A8.5)**Procedures:** The conducted spurious emissions were measured conducted using a spectrum analyzer for the low, mid, and hi channels.**Results:**

Plots #	Protocol	Channel	Pass/Fail
23	GEN-2	Low	Pass
24	GEN-2	Mid	Pass
25	GEN-2	High	Pass
26	ISOB	Low	Pass
27	ISOB	Mid	Pass
28	ISOB	High	Pass
29	CLASS-1	Low	Pass
30	CLASS-1	Mid	Pass
31	CLASS-1	High	Pass

Note: Emission over the limit line in the following plots is the fundamental.**Plot 23: Conducted Spurious Emissions (Low) with GEN-2 protocol**

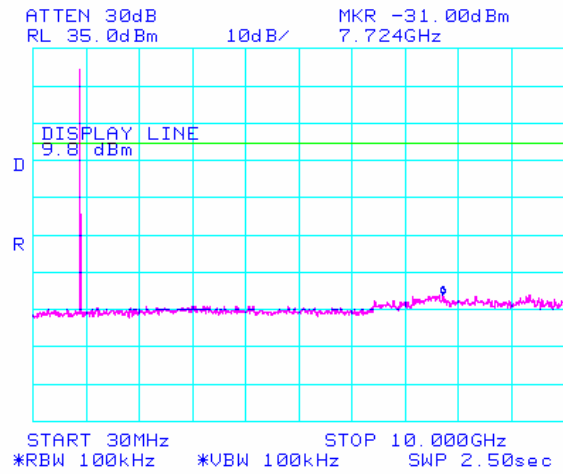


SIEMIC

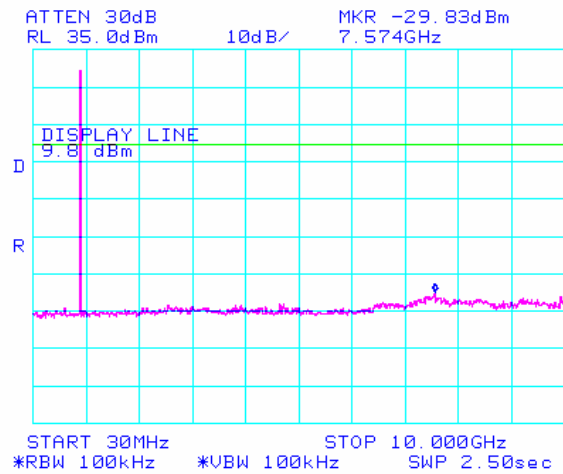
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Plot 24: Conducted Spurious Emissions (Mid) with GEN-2 protocol



Plot 25: Conducted Spurious Emissions (High) with GEN-2 protocol



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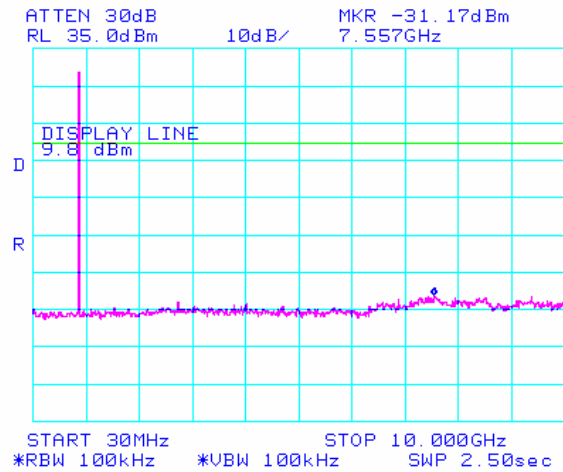
FCCID: OGSMPR1510R32

To: 47 CFR 15.247:2005 & RSS-210 Issue 6:2005

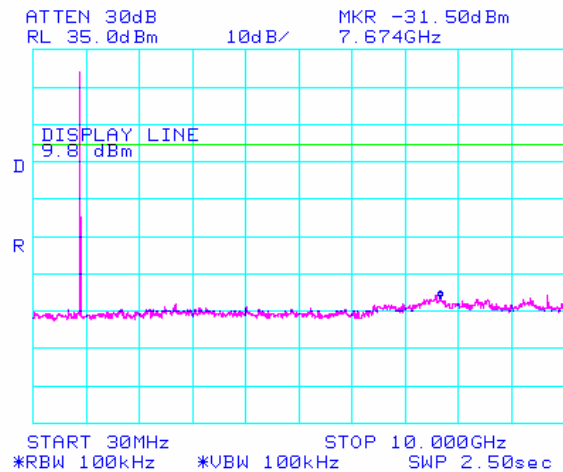
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Plot 26: Conducted Spurious Emissions (Low) with ISOB protocol



Plot 27: Conducted Spurious Emissions (Mid) with ISOB protocol

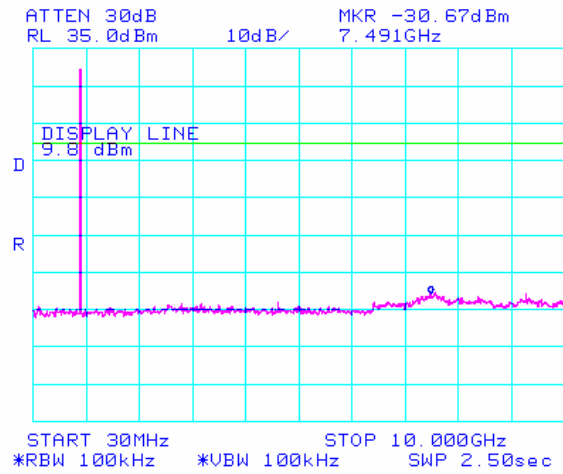


SIEMIC

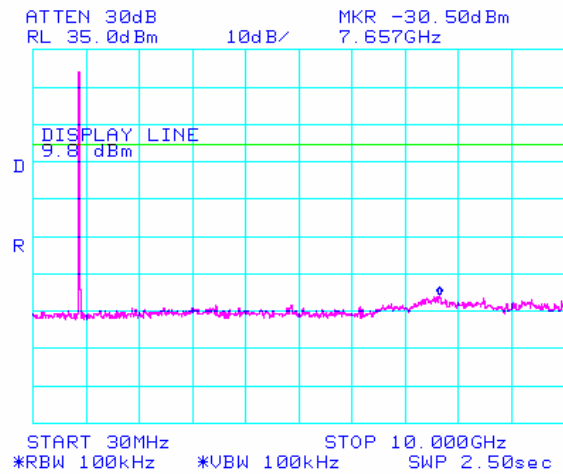
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Plot 28: Conducted Spurious Emissions (High) with ISOB protocol



Plot 29: Conducted Spurious Emissions (Low) with CLASS-1 protocol



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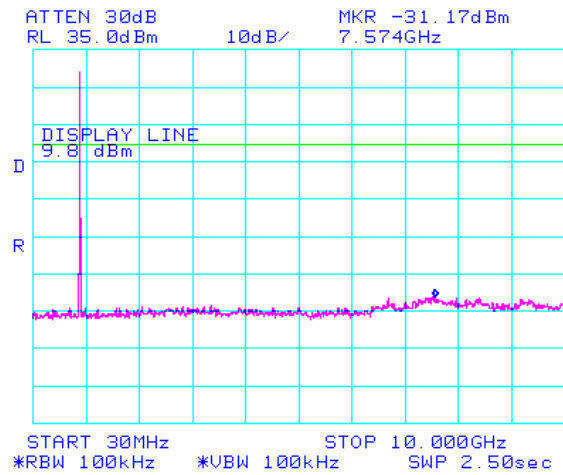
FCCID: OGSMPR1510R32

To: 47 CFR 15.247:2005 & RSS-210 Issue 6:2005

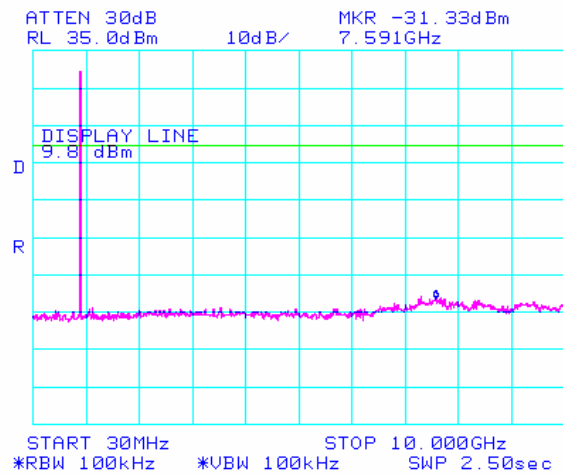
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Plot 30: Conducted Spurious Emissions (Mid) with CLASS-1 protocol



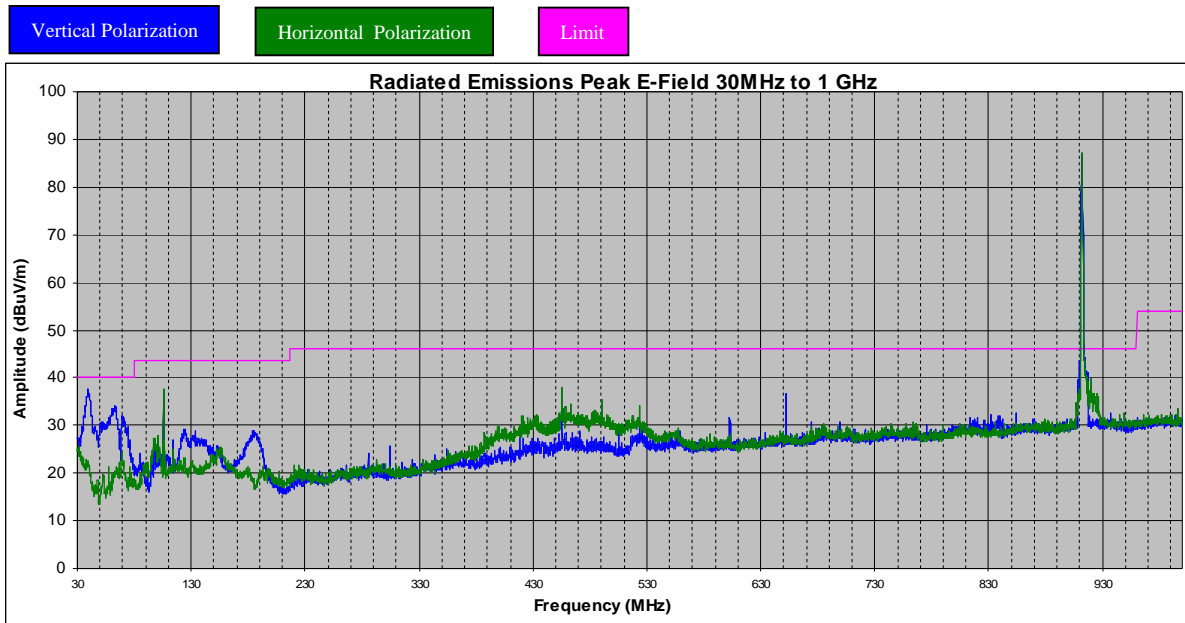
Plot 31: Conducted Spurious Emissions (High) with CLASS-1 protocol

Tested By: Kerwinn Corpuz

Date Tested: 16 November 2005

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6:2005**Serial#** SL05100605-AWID-002**Issue Date** 13 February 2006**Page** 36 of 52

4.2.8 Radiated Spurious Emissions < 1 GHz

Requirement(s): 47 CFR §15.209 & RSS-210 (A8.5)**Procedures:** Radiated emissions were measured according to ANSI C63.4. Equipment was tested with three protocols at low, mid and high with the worse case protocol (GEN-2) reported.**Results:****Note:** Emission above the limit is the fundamental.

Radiated Emissions Plot

Freq (MHz)	Peak Corrected at 3m (dBuV/m)	Limit (dBuV/m)	Delta (dB)
39.51	37.67	40	-2.33
62.50	34.29	40	-5.71
105.66	37.54	43.5	-5.96

Radiated Emissions Data

Sample Calculation: Corrected Amplitude = Raw Amplitude + ACF + Cable Loss

Tested By: Kerwinn Corpuz**Date Tested:** 17 November 2005

**SIEMIC**www.siemic.com**Title:** Applied Wireless ID Group, Inc.**FCCID:** OGSMPR1510R32**To:** 47 CFR 15.247:2005 & RSS-210 Issue
6:2005**Serial#** SL05100605-AWID-002**Issue Date** 13 February 2006**Page** 37 of 52

4.2.9 Radiated Spurious Emissions > 1 GHz

Requirement(s): 47 CFR §15.209 & RSS-210 (A8.5)

Procedures: Equipment was setup in a semi-anechoic chamber. For measurements above 1 GHz an average measurement was taken with a 10Hz video bandwidth was used. Equipment was tested with three protocols at low, mid and high with the worse case protocol (GEN-2) reported.

Results: **$f_o = 0.9025$ GHz (Low)**

Frequency	Azimuth	Detector	Antenna Polarization	Antenna Height	Raw Amplitude @ 3m	Pre Amp	ACF	Cable Loss	Corrected Amplitude @ 3m	Limit @ 3m	Delta
(GHz)	(degrees)	(Pk/Avg)	(v/h)	(m)	(dBuV/m)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
1.805	-	-	-	-	-	-	-	-	-	-	-
2.7075	15	Pk	v	1.4	50.4	32.68	29.45	2.36	49.53	74	-24.47
2.7075	15	Avg	v	1.4	41.1	32.68	29.45	2.36	40.23	54	-13.77
2.7075	260	Pk	h	1.4	47.8	32.68	29.56	2.36	47.04	74	-26.96
2.7075	260	Avg	h	1.4	39.4	32.68	29.56	2.36	38.64	54	-15.36

Note: 1.805 GHz and emissions after 3rd harmonic measured noise floor.

 $f_o = 0.9145$ GHz (Mid)

Frequency	Azimuth	Detector	Antenna Polarization	Antenna Height	Raw Amplitude @ 3m	Pre Amp	ACF	Cable Loss	Corrected Amplitude @ 3m	Limit @ 3m	Delta
(GHz)	(degrees)	(Pk/Avg)	(v/h)	(m)	(dBuV/m)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
1.829	-	-	-	-	-	-	-	-	-	-	-
2.7435	10	Pk	v	1.4	52.5	32.69	29.69	2.36	51.86	74	-22.14
2.7435	10	Avg	v	1.4	45	32.69	29.69	2.36	44.36	54	-9.64
2.7435	85	Pk	h	1.4	51.3	32.69	29.82	2.36	50.79	74	-23.21
2.7435	85	Avg	h	1.4	42	32.69	29.82	2.36	41.49	54	-12.51

Note: 1.829 GHz and emissions after 3rd harmonic measured noise floor.

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Frequency	Azimuth	Detector	Antenna Polarization	Antenna Height	Raw Amplitude @ 3m	Pre Amp	ACF	Cable Loss	Corrected Amplitude @ 3m	Limit @ 3m	Delta
(GHz)	(degrees)	(Pk/Avg)	(v/h)	(m)	(dBuV/m)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
1.854	-	-	-	-	-	-	-	-	-	-	-
2.781	10	Pk	v	1.4	57.6	32.70	29.93	2.37	57.20	74	-16.80
2.781	10	Avg	v	1.4	48.9	32.70	29.93	2.37	48.50	54	-5.50
2.781	270	Pk	h	1.4	53.3	32.70	30.09	2.37	53.06	74	-20.94
2.781	270	Avg	h	1.4	44.3	32.70	30.09	2.37	44.06	54	-9.94

Note: 1.854 GHz and emissions after 3rd harmonic measured noise floor.

Sample Calculation:

EUT Field Strength = Raw Amplitude – Amplifier Gain(dB) + Antenna Factor(dB) + Cable Loss(dB) + Filter Attenuation(dB, if used)

Tested By: Kerwinn Corpuz

Date Tested: 17 November 2005

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4.2.10 Radiated Emissions – Band Edge

Requirement(s): 47 CFR §15.247(d) & RSS-210 (A8.5)

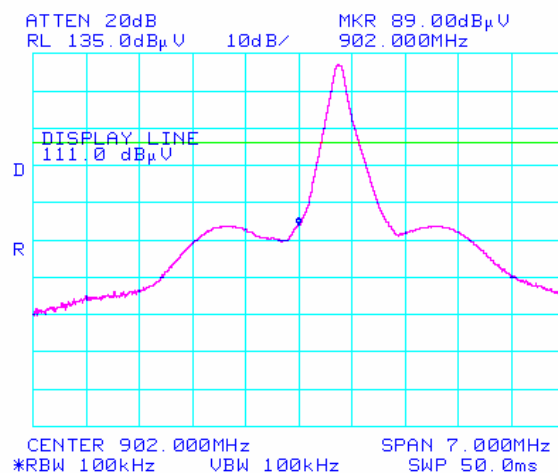
Procedures: Radiated emissions were measured according to ANSI C63.4. Equipment was tested with three protocols at low and high channel. An offset was set to spectrum analyzer with 22.6 dB. Limit = 20 dB attenuation from peak power.

Sample Calculation:

EUT Field Strength = Raw Amplitude + Antenna Factor(dB) + Cable Loss(dB)

Results:

Plot #	Freq (MHz)	Peak Corrected at 3m (dBμV/m)	Limit (dBμV/m)	Delta (dB)	Protocol
32	902	89	111	-22	GEN-2
33	928	89	111	-22	GEN-2
34	902	88	111	-23	ISOB
35	928	88	111	-23	ISOB
36	902	108.83	111	-2.17	CLASS-1
37	928	104.5	111	-6.5	CLASS-1

**Plot 32: Lower Edge with GEN-2 protocol**

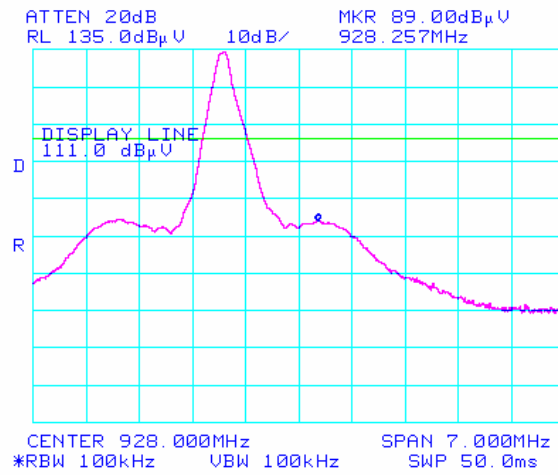


SIEMIC

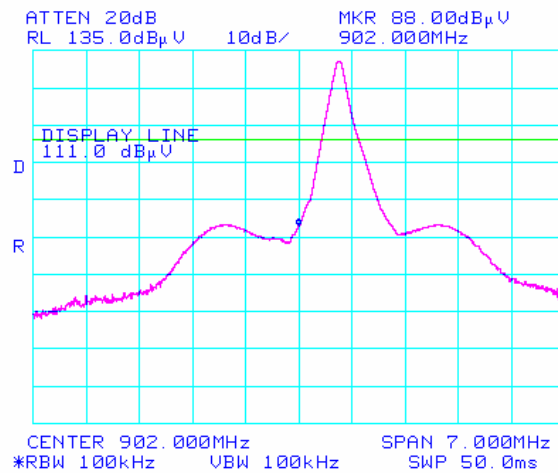
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Plot 33: Upper Edge with GEN-2 protocol



Plot 34: Lower Edge with ISOB protocol

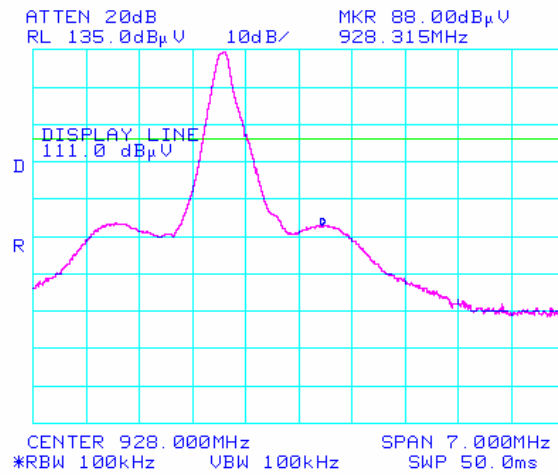


SIEMIC

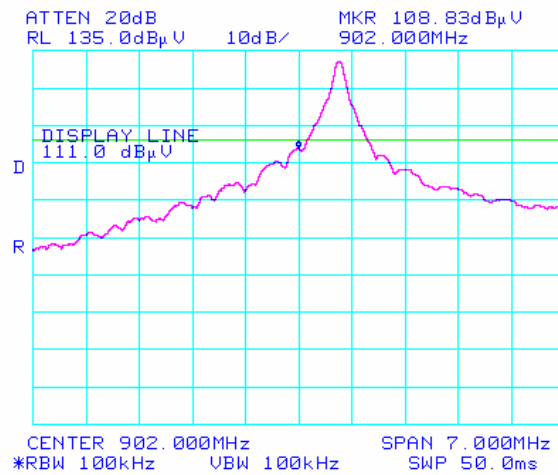
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Plot 35: Upper Edge with ISOB protocol



Plot 36: Lower Edge with CLASS-1 protocol



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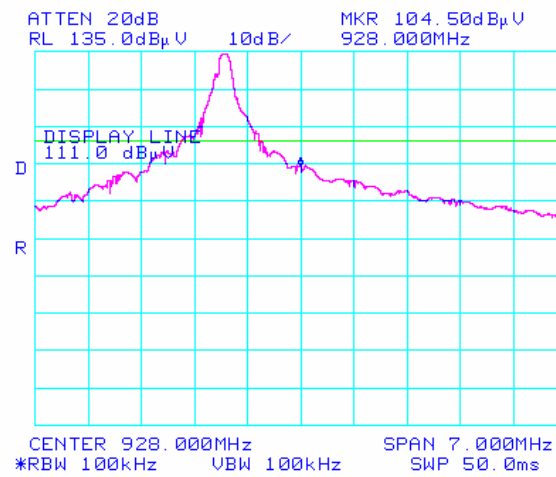
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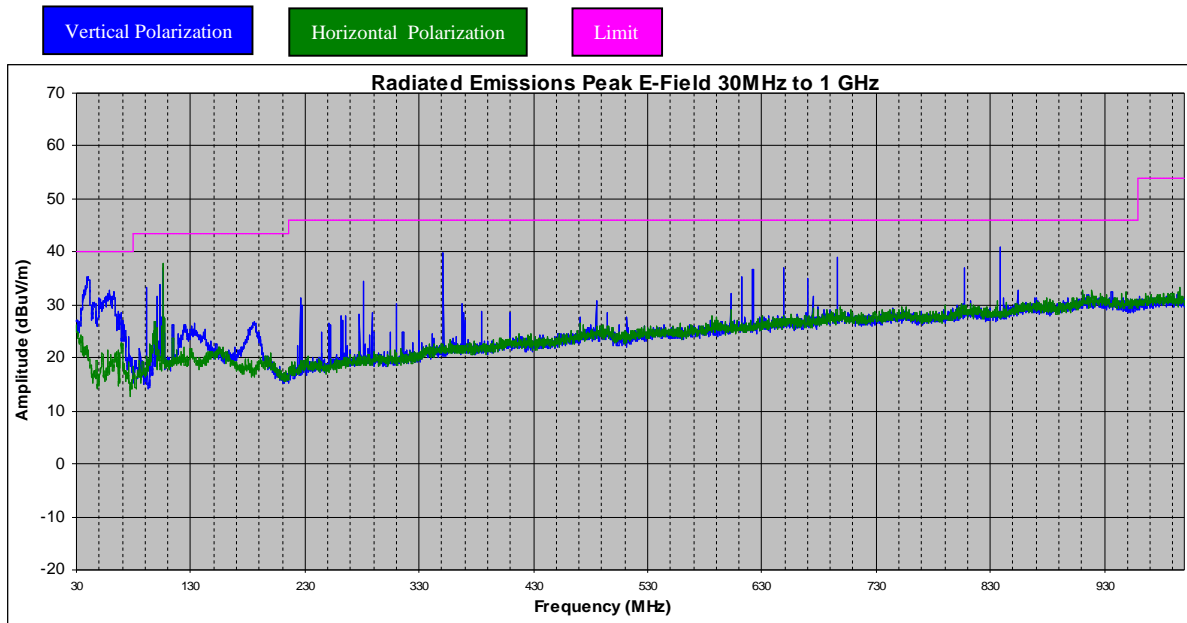
Plot 37: Upper Edge with CLASS-1 protocol

Tested By: Kerwinn Corpuz

Date Tested: 18 November 2005

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4.2.11 Receiver Spurious Emissions

Requirement(s): RSS-GEN (4.8)**Procedures:** Radiated emissions were measured according to RSS-GEN. Measurement was taken with spectrum analyzer.**Results:**

Radiated Emissions Plot

Freq (MHz)	Peak Corrected at 3m (dBuV/m)	Limit (dBuV/m)	Delta (dB)
40.67	35.29	40	-4.71
839.27	40.98	46	-5.02
105.66	37.94	43.5	-5.56
351.26	39.68	46	-6.32
696.49	38.96	46	-7.04

Radiated Emissions Data

Sample Calculation: Corrected Amplitude = Raw Amplitude + ACF + Cable Loss

Tested By: Kerwinn Corpuz**Date Tested:** 18 November 2005

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5 TEST INSTRUMENTATION

5.1 TEST INSTRUMENTATION

Instrument	Manufacturer	Model	CAL Due Date
Spectrum Analyzer	HP	8568B	04/26/2006
Quasi-Peak Adapter	HP	85650A	04/26/2006
RF Pre-Selector	HP	85685A	04/26/2006
Spectrum Analyzer	HP	8564E	12/29/2006
Power Meter	HP	437B	04/26/2006
Power Sensor	HP	8485A	04/26/2006
Antenna	Emco	3115	07/12/2006
Antenna	Emco	3115	See Note
Signal Generator	Wiltron	68169B	04/26/2006
Chamber	Lingren	3m	08/21/2006
Pre-Amplifier	HP	8449	07/19/2006
DMM	Fluke	73III	07/04/2006
Variac	KRM	AEEC-2090	See Note
Environment Chamber	TestEquity	1007H	10/27/2006
DMM	Fluke	51II	See Note
Notch Filter	AWID	N/A	See Note

Note: Functional Verification

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APPENDIX A: EUT TEST CONDITIONS

The following is the description of supporting equipment and details of cables used with the EUT.

Equipment Description (Including Brand Name)	Cable Description
AWID MPR-3014	1. Power cord 2. MMCX to TNC cable

EUT Description	: RFID Reader Module
Model No	: MPR-1510R3.2
Serial No	: none

The following is the description of how the EUT is exercised during testing.

Test	Description Of Operation
	The EUT was controlled via PC to enter test modes necessary to complete the testing.



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APPENDIX B: EXTERNAL PHOTOS

See Attachment



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APPENDIX C: CIRCUIT/BLOCK DIAGRAMS

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APPENDIX D: INTERNAL PHOTOS

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APPENDIX E: PRODUCT DESCRIPTION

Detail description of this product is shown in the User's Guide.



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APPENDIX F: FCC LABEL LOCATION

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APPENDIX G: USER MANUAL

See Attachment



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