TEST REPORT

FROM

SIEMIC, INC.
Accessing global markets

For

Airaya Corp.

WirelessGRID

Model: AI108

To

FCC Part 15 Subpart E (UNII) and IC RSS-210 Issue 6 (LE-LAN)

Test Report Serial No.:
SL05033101T-ARY-003B

This report supersedes none

Remarks:	Equipment complied with the specification	[X]
	Equipment did not comply with the specification	[ ]

This Test Report is Issued Under the Authority of:

.....
Tested by: Alvin Ilarina, Test Engineer

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

Issue date: 20 Feb 2006
Manufacturer: Airaya

Industry Canada
Industrie Canada

MIC

OFTA
電訊管理局

Registration No. 783147 | Registration No. 4842 | Lab Code: KR0032 | RTA No. D23/16V

NVLAP

NVLAP Lab Code: 200729-0

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Executive Summary

The purpose of this test programme was to demonstrate compliance of the Airaya, WirelessGRID, model AI108, against the current FCC Part 15 Subpart E (UNII) and IC RSS-210 Issue 6 (LE-LAN). The WirelessGRID demonstrated compliance with the FCC Part 15 Subpart E (UNII) and IC RSS-210 Issue 6 (LE-LAN).

The WirelessGRID operates in the band of 5.25 – 5.35 GHz with an OFDM modulation technology.

Airaya is the applicant and claimed manufacturer of this tested product. For the detailed description of this product, please refer to the WirelessGRID User Manual.

The equipment was tested with the following antennas:

23 dBi Patch: Mars Antenna's and RF Systems; Model # MA-WA580-1x

28 dBi Dish: Stella Doradus; Model # 58-SD24

Channel bandwidths tested for 23 dBi antenna are 5 MHz, 10 MHz, 20 MHz, 40 MHz and 50 MHz.

Channel bandwidths tested for 28 dBi antenna are 20 MHz and 40 MHz.

40 MHz channel bandwidth is limited to 2 channels and 50 MHz channel bandwidth is limited to 1 channel.

The following modification was made to the equipment in order to make it comply with radiated emissions limits:

ECCOSORB® LS-26 Broadband Cavity Resonance Absorber material was added to the bottom of the PCB, inside the RF shield, and above the RF shield.

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

EUT Sample

1 Technical Details

Purpose	Compliance testing of WirelessGRID with FCC Part 15 Subpart E (UNII) and IC RSS-210 Issue 6 (LE-LAN)
Applicant / Client	Airaya 637 Adair Court Morgan Hill, CA 95037
Manufacturer	Airaya
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	SL05033101T-ARY-003B
Date EUT received	06 May 2005
Standard applied	FCC Part 15 Subpart E (UNII) and IC RSS-210 Issue 6 (LE-LAN)
Dates of test (from – to)	06 May 2005 to 17 Mar 2006
No of Units:	1
Equipment Category:	Equipment Category
Trade/Product Name:	WirelessGRID
Type/Model Name/No:	WirelessGRID
Technical Variants:	none
FCC ID No.	QDE-GRIDC3
IC ID No.	4433A-GRIDC3

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 Subpart E	RSS 210 Issue 6		
15.205	RSS210(A8.5)	Restricted Band of Operation	
15.207	RSSGen(7.2.2)	Conducted Emissions Voltage	
15.209		Radiated Emissions Limits; General Requirements	
15.407(a)(2)	RSS210(A9.2)(2)	Occupied Bandwidth	Pass
15.407(a)(2)	RSS210(A9.2)(2)	Peak Output Power	Pass
15.407(a)(2)	RSS210(A9.2)(2)	Peak Power Spectral Density	Pass
15.407(a)(2)		Power Reduction (antenna gain > 6dBi)	Pass
15.407(a)(6)		Peak Excursion Ratio	Pass
15.407(b)(6)	RSSGen(7.2.2)	AC Conducted Emissions	Pass
15.407(b)(2)	RSS210(A9.3)(2)	Radiated Spurious Emissions > 1GHz	Pass
15.407(b)(6)	RSS210(A9.3)(2)	Radiated Spurious Emissions < 1GHz	Pass
15.407(f)	RSSGen(5.5)	RF Exposure	Pass
15.407(g)	RSS210(A9.5)(e)	Frequency Stability	Pass
	RSS210(A9.5)(g)	User Manual	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.

3 Measurements, Examinations and Derived Results

3.1 General observations

Equipment serial number(s)		
Module:	Part number:	Serial number:
WirelessGRID	WirelessGRID	none

3.2 Test Results

3.2.1 AC Conducted Emissions Voltage

Requirement(s): 47 CFR §15.407(b)(6)/15.207 and RSS-Gen Issue 1(7.2.2)

Procedures: Conducted Emissions measurements were made with a spectrum analyzer and LISN. Test and set-up is according to ANSI C63.4.

Results: **120Vac, 60Hz**

Line Under Test	Result
Phase	Pass
Neutral	Pass

Line Under Test	FREQ. (MHz)	Corrected Amplitude (dBuV) QP	Limit (dBuV) QP	Margin (dB) QP	Corrected Amplitude (dBuV) AVG	Limit (dBuV) AVG	Margin (dB) AVG
Hot	0.155	27.9	79	-51.1	27.9	66	-38.1
Hot	0.175	34.3	79	-44.7	34.3	66	-31.7
Hot	0.39	27	79	-52	27	66	-39
Hot	2.69	12.5	73	-60.5	12.5	60	-47.5
Hot	4.43	26.6	73	-46.4	26.6	60	-33.4
Hot	19.45	19.8	73	-53.2	19.8	60	-40.2
Neutral	0.155	27.9	79	-51.1	27.9	66	-38.1
Neutral	0.22	30.2	79	-48.8	30.2	66	-35.8
Neutral	0.39	30.6	79	-48.4	30.6	66	-35.4
Neutral	2.19	25.4	73	-47.6	25.4	60	-34.6
Neutral	2.6	34	73	-39	34	60	-26
Neutral	18.2	26	73	-47	26	60	-34

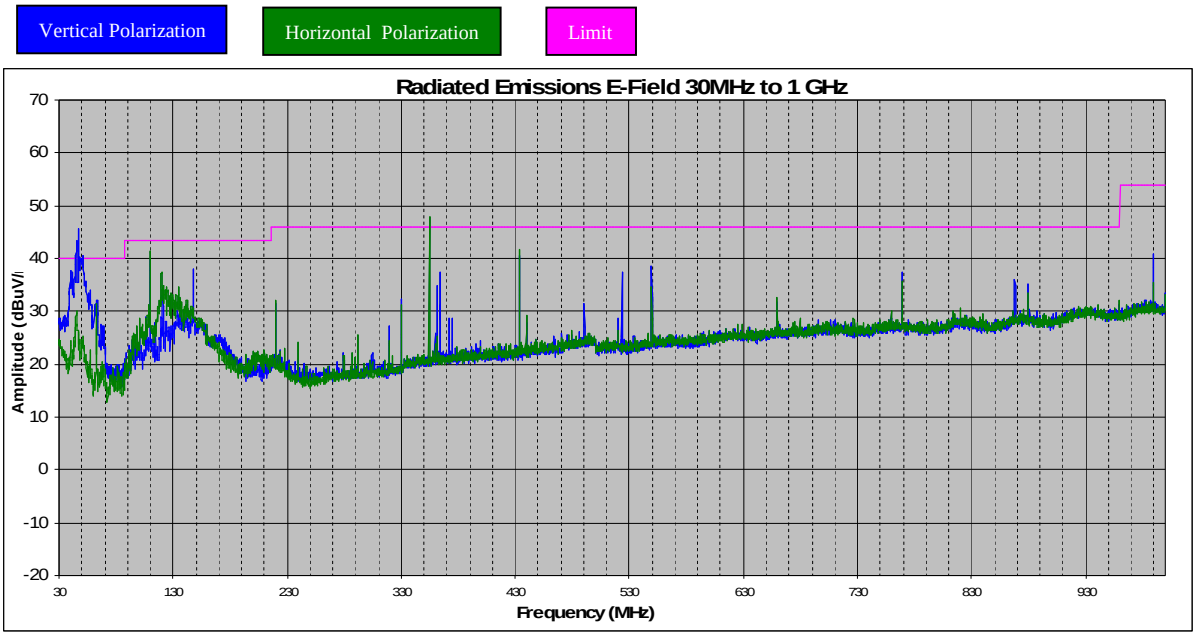
3.2.2 Radiated Spurious Emissions (< 1 GHz)

Requirement(s): 47 CFR §15.407(b)(6)/15.209 and RSS-210(A9.3)(2)

Procedures: Radiated emissions were measured according to ANSI C63.4. Equipment was tested at low, mid and hi channel with different channel bandwidth and reported the worse case.

Sample Calculation: Corrected Amplitude = Raw Amplitude + Antenna Factor + Cable Loss

Results:



Radiated Emissions Plot

Frequency	Azimuth	Measure	Antenna Polarity	Antenna Height	Raw Amplitude @ 3m	ACF	CBL loss	Corrected Amplitude @ 3m	Limit @ 3m	Delta
(MHz)	(degrees)	(Avg/QP)	(H/V)	(m)	(dBuV/m)	(dBm)	(dBm)	(dBuV/m)	(dBuV/m)	(dBuV/m)
44.893	330	qp	v	1	26.6	8.5856	0.7426	35.92	40	-4.07
50	45	qp	v	1	23.2	7.4	0.7571	31.35714286	40	-8.64
109.987	90	qp	h	2.94	29	12.797	0.91	42.707387	43.5	-0.79
114.44	0	qp	v	1	14.3	13.544	0.9144	28.75844	43.5	-14.74
329.978	30	qp	h	2	15.5	14.5	1.545	31.544527	46	-14.45
549.98	50	qp	v	1	15.8	18.2	1.85	35.84978	46	-10.15

Radiated Emissions Table

3.2.3 Radiated Spurious Emissions (> 1 GHz)

Requirement(s): 47 CFR §15.407(b)(2) and RSS-210(A9.3)(2)

Procedures: Equipment was setup in a semi-anechoic chamber. For measurements above 1 GHz an average measurement was taken with a 1MHz resolution bandwidth and a 10Hz video bandwidth was used. The measurements were made with 5MHz, 10MHz, 20MHz, 40MHz, and 50MHz channel bandwidths at the high, middle, and low channels. Emissions were investigated up to 40 GHz.

- 27 dBm = 68.2 dBµV/m at 3 meter distance.

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

Results:

Frequency	Azimuth	Detector	Antenna Polarization	Antenna Height	Raw Amplitude @ 3m	Pre Amp	ACF	Cable Loss	Corrected Amplitude @ 3m	Limit @3m	Delta	Remark
(GHz)	(degrees)	(Pk/Avg)	(v/h)	(m)	(dBuV/m)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
10.51	-	-	-	-	-	-	-	-	-	-	-	Note1, 2
10.58	-	-	-	-	-	-	-	-	-	-	-	Note1, 3
10.65	-	-	-	-	-	-	-	-	-	-	-	Note1, 4
10.51	-	-	-	-	-	-	-	-	-	-	-	Note1, 5
10.57	-	-	-	-	-	-	-	-	-	-	-	Note1, 6
10.65	-	-	-	-	-	-	-	-	-	-	-	Note1, 7
10.52	-	-	-	-	-	-	-	-	-	-	-	Note1, 8
10.56	-	-	-	-	-	-	-	-	-	-	-	Note1, 9
10.64	-	-	-	-	-	-	-	-	-	-	-	Note1, 10
10.54	-	-	-	-	-	-	-	-	-	-	-	Note1, 11
10.62	-	-	-	-	-	-	-	-	-	-	-	Note1, 12
10.58	-	-	-	-	-	-	-	-	-	-	-	Note1, 13

Note1: Emissions above 1GHz up to 40GHz measured noise floor.
Note2: 5 MHz Channel BW with 23 dBi; Channel Center Frequency = 5.255 GHz (low).
Note3: 5 MHz Channel BW with 23 dBi; Channel Center Frequency = 5.290 GHz (mid).
Note4: 5 MHz Channel BW with 23 dBi; Channel Center Frequency = 5.325 GHz (hi).
Note5: 10 MHz Channel BW with 23 dBi; Channel Center Frequency = 5.255 GHz (low).
Note6: 10 MHz Channel BW with 23 dBi; Channel Center Frequency = 5.285 GHz (mid).
Note7: 10 MHz Channel BW with 23 dBi; Channel Center Frequency = 5.325 GHz (hi).
Note8: 20 MHz Channel BW with 23 dBi; Channel Center Frequency = 5.260 GHz (low).
Note9: 20 MHz Channel BW with 23 dBi; Channel Center Frequency = 5.280 GHz (mid).
Note10: 20 MHz Channel BW with 23 dBi; Channel Center Frequency = 5.320 GHz (hi).
Note11: 40 MHz Channel BW with 23 dBi; Channel Center Frequency = 5.270 GHz (low).
Note12: 40 MHz Channel BW with 23 dBi; Channel Center Frequency = 5.310 GHz (hi).
Note13: 50 MHz Channel BW with 23 dBi; Channel Center Frequency = 5.290 GHz.

Additional tests were made with 28 dBi antenna to 20 MHz and 40 MHz Channel BW and emissions are noise floor.

3.2.4 Occupied Bandwidth

Requirement(s): 47 CFR §15.407(a)(2) and RSS-210(A9.2)(2)

Procedures: The 26dB and 99% bandwidths were measured at the antenna terminal using a spectrum analyzer. 26 dB BW spectrum analyzer setting: RBW = VBW = approximately 1% emission BW. 99% BW spectrum analyzer setting: RBW = approximately 1% emission BW; VBW = approximately 3 times RBW.

For Plot results, refer to APPENDIX H.

Results:

For 23 dBi antenna:

Plot #	Channel Bandwidth (MHz)	Frequency (MHz)	Channel	Measured Bandwidth (MHz)	Emission Bandwidth
1	5	5255	Low	7.67	26 dB
2	5	5290	Mid	7.37	26 dB
3	5	5325	Hi	7.67	26 dB
4	10	5255	Low	14.4	26 dB
5	10	5285	Mid	14.5	26 dB
6	10	5325	Hi	13.3	26 dB
7	20	5260	Low	25	26 dB
8	20	5280	Mid	24.5	26 dB
9	20	5320	Hi	24.5	26 dB
10	40	5270	Low	52.4	26 dB
11	40	5310	Hi	52.8	26 dB
12	50	5290	Center	59.3	26 dB
13	5	5255	Low	4.567	99%
14	5	5290	Mid	4.6	99%
15	5	5325	Hi	4.633	99%
16	10	5255	Low	8.55	99%
17	10	5285	Mid	8.5	99%
18	10	5325	Hi	8.6	99%
19	20	5260	Low	17.25	99%
20	20	5280	Mid	17.25	99%
21	20	5320	Hi	17.33	99%
22	40	5270	Low	36.4	99%
23	40	5310	Hi	36.8	99%
24	50	5290	Center	43.17	99%

For 28 dBi antenna:

Plot #	Channel Bandwidth (MHz)	Frequency (MHz)	Channel	Measured Bandwidth (MHz)	Emission Bandwidth
25	20	5260	Low	23.75	26 dB
26	20	5280	Mid	23.58	26 dB
27	20	5320	Hi	23.75	26 dB
28	40	5270	Low	50.53	26 dB
29	40	5310	Hi	50	26 dB
30	20	5260	Low	16.92	99%
31	20	5280	Mid	17.08	99%
32	20	5320	Hi	17.08	99%
33	40	5270	Low	34.53	99%
34	40	5310	Hi	34.4	99%

3.2.5 Peak Output Power

Requirement(s): 47 CFR §15.407(a)(2) and RSS-210(A9.2)(2)

Procedures: The peak output power was measured at the antenna terminal using Acceptable Procedures: Peak conducted transmit output power outlined in FCC DA 02-2138 Appendix A. 300kHz VBW was determined, where T = 4μsec.

Conducted Peak Power Limit is 250mW (24 dBm).
For 23dBi antenna, the calculated limit is 7dBm = 24dBm – (23dBi – 6dBi).
For 28dBi antenna, the calculated limit is 2dBm = 24dBm – (28dBi – 6dBi).

For Plot results, refer to APPENDIX H.

Results:

For 23 dBi antenna:

Plot #	Channel Bandwidth (MHz)	Frequency (MHz)	Channel	Measured Peak Power (dBm)	Peak Limit (dBm)
35	5	5255	Low	6.5	7
36	5	5290	Mid	5.6	7
37	5	5325	Hi	6.5	7
38	10	5255	Low	6.7	7
39	10	5285	Mid	6.8	7
40	10	5325	Hi	6.8	7
41	20	5260	Low	6.8	7
42	20	5280	Mid	6.8	7
43	20	5320	Hi	6.3	7
44	40	5270	Low	6.3	7
45	40	5310	Hi	6.3	7
46	50	5290	Center	6.6	7

For 28 dBi antenna:

Plot #	Channel Bandwidth (MHz)	Frequency (MHz)	Channel	Measured Peak Power (dBm)	Peak Limit (dBm)
47	20	5260	Low	1.4	2
48	20	5280	Mid	1.5	2
49	20	5320	Hi	0.4	2
50	40	5270	Low	1.6	2
51	40	5310	Hi	0.2	2

3.2.6 Peak Power Spectral Density

Requirement(s): 47 CFR §15.407(a)(2) and RSS-210(A9.2)(2)

Procedures: The peak power spectral density measured at the antenna terminal using a spectrum analyzer. Peak power spectral density limit is 11 dBm in any 1 MHz band.

For 23dBi antenna, the calculated limit is -6 dBm = 11dBm – (23dBi – 6dBi).
For 28dBi antenna, the calculated limit is -11 dBm = 11dBm – (28dBi – 6dBi).

To comply with the limit specified per each antenna, the video averaging was activated.

For RSS-210, the video averaging was turned off and the limit is 11 dBm.

For Plot results, refer to APPENDIX H.

Results:

23 dBi antenna:

Plot #	Channel Bandwidth (MHz)	Frequency (MHz)	Channel	Measured PPSD (dBm)	PPSD Limit (dBm)
52	5	5255	Low	-7	-6
53	5	5290	Mid	-7.33	-6
54	5	5325	Hi	-6.08	-6
55	10	5255	Low	-8.25	-6
56	10	5285	Mid	-7.75	-6
57	10	5325	Hi	-6.75	-6
58	20	5260	Low	-8.33	-6
59	20	5280	Mid	-8.67	-6
60	20	5320	Hi	-8.67	-6
61	40	5270	Low	-12.33	-6
62	40	5310	Hi	-12.58	-6
63	50	5290	Center	-11.92	-6

28 dBi antenna:

Plot #	Channel Bandwidth (MHz)	Frequency (MHz)	Channel	Measured PPSD (dBm)	PPSD Limit (dBm)
64	20	5260	Low	-12.42	-11
65	20	5280	Mid	-11.75	-11
66	20	5320	Hi	-12.08	-11
67	40	5270	Low	-12.08	-11
68	40	5310	Hi	-12.42	-11

RSS-210; 23 dBi antenna:

Plot #	Channel Bandwidth (MHz)	Frequency (MHz)	Channel	Measured PPSD (dBm)	PPSD Limit (dBm)
69	5	5255	Low	4.0	11
70	5	5290	Mid	3.33	11
71	5	5325	Hi	4.0	11
72	10	5255	Low	3.5	11
73	10	5285	Mid	3.5	11
74	10	5325	Hi	3.17	11
75	20	5260	Low	0.0	11
76	20	5280	Mid	-0.5	11
77	20	5320	Hi	-1.0	11
78	40	5270	Low	-4.0	11
79	40	5310	Hi	-4.0	11
80	50	5290	Center	-4.99	11

RSS-210; 28 dBi antenna:

Plot #	Channel Bandwidth (MHz)	Frequency (MHz)	Channel	Measured PPSD (dBm)	PPSD Limit (dBm)
81	20	5260	Low	-4.5	11
82	20	5280	Mid	-7.5	11
83	20	5320	Hi	-5.83	11
84	40	5270	Low	-5.83	11
85	40	5310	Hi	-7.0	11

3.2.7 Peak Excursion Ratio

Requirement(s): 47 CFR §15.407(a)(6)

Procedures: The peak excursion ratio was measured at the antenna terminal using a spectrum analyzer. Trace A setting: RBW = VBW = 1 MHz. Trace B setting: RBW = 1 MHz and VBW = 30 kHz.

For Plot results, refer to APPENDIX H.

Results:

23 dBi antenna:

Plot #	Channel Bandwidth (MHz)	Frequency (MHz)	Channel	Measured Peak Excursion (dB)	PE Limit (dB)
86	5	5255	Low	9.33	13
87	5	5290	Mid	8.67	13
88	5	5325	Hi	9.33	13
89	10	5255	Low	8.84	13
90	10	5285	Mid	8.66	13
91	10	5325	Hi	8.84	13
92	20	5260	Low	8.67	13
93	20	5280	Mid	8.33	13
94	20	5320	Hi	8.67	13
95	40	5270	Low	7.83	13
96	40	5310	Hi	7.67	13
97	50	5290	Center	8.33	13

28 dBi antenna:

Plot #	Channel Bandwidth (MHz)	Frequency (MHz)	Channel	Measured Peak Excursion (dB)	PE Limit (dB)
98	20	5260	Low	7.17	13
99	20	5280	Mid	8.84	13
100	20	5320	Hi	8.83	13
101	40	5270	Low	7.5	13
102	40	5310	Hi	7.5	13

3.2.8 Spurious Emissions at Antenna Terminals

Requirement(s): 47 CFR §15.407(b)(2)

Procedures: The spurious emissions was measured at the antenna terminal using a spectrum analyzer. The measurements were made for the 5MHz, 10MHz, 20MHz, 40MHz, and 50MHz bandwidths at hi, mid, and low channels with the highest output power.

Out of Band Emission Limit: -27 dBm / MHz (EIRP)

For Plot results, refer to APPENDIX H.

Results:

Plots #	Channel Bandwidth (MHz)	Frequency (MHz)	Channel	Pass/Fail
103 to 104	5	5325	Low	Pass
105 to 106	5	5290	Mid	Pass
107 to 108	5	5255	Hi	Pass
109 to 110	10	5325	Low	Pass
111 to 112	10	5285	Mid	Pass
113 to 114	10	5255	Hi	Pass
115 to 116	20	5320	Low	Pass
117 to 118	20	5280	Mid	Pass
119 to 120	20	5260	Hi	Pass
121 to 124	40	5310	Low	Pass
125 to 128	40	5270	Hi	Pass
129 to 132	50	5290	Center	Pass

3.2.9 Restricted Bandedges

Requirement(s): 47 CFR §15.205

Procedures: The restricted bandedges were measured radiated emission using a spectrum analyzer. The measurements were made for the 5MHz, 10MHz, 20MHz, 40MHz, and 50MHz bandwidths at the appropriate bandedge.

Peak measurement spectrum analyzer setting: RBW = VBW = 1MHz.

Average measurement spectrum analyzer setting: RBW = 1MHz and VBW = 10Hz.

Results:

With Dish Antenna (23 dBi)

Plot	EUT Channel bandwidth	EUT Center Freq	Reference level @ 3m	Delta	Spurious level	Limit @ 3m	Margin	Detector	Polarization	Remark
	(MHz)	(MHz)	(dBµV/m)	(dBc)	(dBµV/m)	(dBµV/m)	(dB)	(Pk/Avg)	(V/H)	
133	5	5325	81.7	43	38.7	74	-35.3	Pk	V	See note 1, 2
134	5	5325	65.4	39.2	26.2	54	-27.8	Avg	V	See note 1, 2
135	10	5325	76.4	37.8	38.6	74	-35.4	Pk	V	See note 1, 2
136	10	5325	64.5	36.8	27.7	54	-26.3	Avg	V	See note 1, 2
137	20	5320	74.9	36	38.9	74	-35.1	Pk	V	See note 1, 2
138	20	5320	63.9	37.2	26.7	54	-27.3	Avg	V	See note 1, 2
139	40	5310	71.4	32.7	38.7	74	-35.3	Pk	V	See note 1, 2
140	40	5310	60	33.8	26.2	54	-27.8	Avg	V	See note 1, 2
141	50	5290	71	32.5	38.5	74	-35.5	Pk	V	See note 1, 2
142	50	5290	59.7	32.7	27	54	-27	Avg	V	See note 1, 2

With Patch Antenna (28 dBi)

Plot	EUT Channel bandwidth	EUT center freq	Reference level @ 3m	Delta	Spurious level	Limit	Margin	Detector	Polarization	Remark
	(MHz)	(MHz)	(dBµV/m)	(dBc)	(dBµV/m)	(dBµV/m)	(dB)	(Pk/Avg)	(V/H)	
143	20	5320	71.7	33.2	38.5	74	-35.5	Pk	V	See note 1, 2
144	20	5320	61.7	34.7	27	54	-27	Avg	V	See note 1, 2
145	40	5310	68.5	30.2	38.3	74	-35.7	Pk	V	See note 1, 2
146	40	5310	58.9	31.7	27.2	54	-26.8	Avg	V	See note 1, 2

Note 1: Investigated Emissions with vertical and horizontal polarization, worse case at vertical polarization.

Note 2: Tested only at 5.35 GHz restricted bandedge due to EUT operating frequency range is 5.275 – 5.325 GHz.

Tested By: Alvin Ilarina

Date Tested: 22 Sep 2005

4 TEST INSTRUMENTATION

4.1 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
High Pass Filter	LORCH	4 HPD-X6000-SR	See Note
Harmonic Mixer (18-26.5 GHz)	HP	11970K	10/03/2006
Harmonic Mixer (26.5-40 GHz)	HP	11970A	10/03/2006

Note: Functional Verification

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
PC Laptop	1. Power cord 2. Ethernet

EUT Description	:	AIRAYA WirelessGRID
Model No	:	AI108
Serial No	:	01966

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

Test	Description Of Operation
	The EUT was controlled and monitored via Ethernet by a PC running a radio test program. The data rate was set at maximum at each bandwidth to simulate worse case conditions during the equipment operation.

APPENDIX B: External Photos

See Attachment

APPENDIX C: CIRCUIT/BLOCK DIAGRAMS

See Attachment

APPENDIX D: Internal Photos

See Attachment

APPENDIX E: PRODUCT DESCRIPTION

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

APPENDIX F: FCC LABEL LOCATION

See Attachment

APPENDIX G: USER MANUAL

See Attachment

APPENDIX H: PLOTS OF TEST RESULT

See Attachment filename “SL05033101T-ARY-003B_plots.pdf”

END OF REPORT