# **NANJING PANDA ELECTRONICS** MANUFACTRUR CO.,LTD.

**LCD-TV** 

Model: LCD3227A

September 06, 2010 Report No.: 1002760-1

(This report supersedes NONE)



Modifications made to the product: See Page 6

This Test Report is Issued Under the Authority of:

Andy.Hao **Compliance Engineer**  N:M yang

Will.Yang **Technical Manager** 



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# 1 Executive Summary & EUT Information

The purpose of this test program was to demonstrate compliance of the NANJING PANDA ELECTRONICS MANUFACTRUR CO.,LTD. LCD-TV, against the current Stipulated Standards. The LCD-TV has demonstrated compliance with the FCC Part 15 Subpart B Class B: 2009.

### **EUT Information**

EUT Description	LCD-TV used as NTSC M+ATSC TV BROADCAST RECEIVER
Model No	LCD3227A
Serial No	N/A
Input Power	AC120V/60Hz
Classification Per Stipulated Test Standard	Class B Emission Product



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# **2 TECHNICAL DETAILS**

2	Z <u>TECHNICAL DETAILS</u>
Purpose	Compliance testing of LCD-TV with stipulated standards
Applicant / Client	NANJING PANDA ELECTRONICS MANUFACTRUR CO.,LTD. No.1,Hengtong Road,Nanjing Economic Development Zone,Jiangsu
Manufacturer	NANJING PANDA ELECTRONICS MANUFACTRUR CO.,LTD. No.1,Hengtong Road,Nanjing Economic Development Zone,Jiangsu
Laboratory performing the tests	SIEMIC Nanjing (China) Laboratories NO.2-1,Longcang Dadao, Yuhua Economic Development Zone, Nanjing, China Tel:+86(25)86730128/86730129 Fax:+86(25)86730127 Email:info@siemic.com
Test report reference number	1002760-1
Date EUT received	September 01, 2010
Standard applied	FCC Part 15 Subpart B Class B: 2009
Dates of test (from – to)	September 01 - September 05, 2010
No of Units	#1
Equipment Category	LCD-TV
Trade Name	N/A
Microprocessor (s)	Unidentified
RF Operating Frequency (ies)	N/A
Clock/Oscillator Frequency (ies)	25MHz
Input Power	AC120V/60Hz
Port/Connectors	Power Output:120V/60Hz 1*TV Antenna Port 1*Earphone Output 1*Video Output with 1* RCA R&L Audio Input 2* Component Video Input with 2* RCA R&L Audio Input 1*PC Video Input with PC-Audio Input 3*HDMI Input 1*USB Service Port



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# 3 MODIFICATION

NONE



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# 4 TEST SUMMARY

The product was tested in accordance with the following specifications. All Testing has been performed according to below product classification:

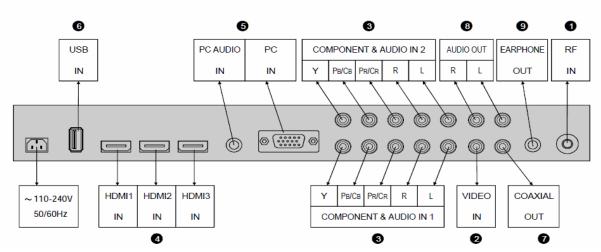
#### Class B Emission Product

**Test Results Summary** 

Emissions										
Test Standard	Description	Product Class	Pass / Fail							
FCC Part 15 Subpart B Class B: 2009	AC Line Conducted Emissions	See Above	Pass							
FCC Part 15 Subpart B Class B: 2009	Radiated Emissions	See Above	Pass							

All measurement uncertainty is not taken into consideration for all presented test result.

#### INPUT AND OUTPUT TERMINAL



Pre Test Mode:

Antenna Input Mode: 1. NTSC CH02; 2. NTSC CH36; 3. NTSC CH69.

4. ATSC CH02; 5.ATSC CH36; 6. ATSC CH69.

PC Input VGA Mode: 800\*600@60Hz;1280\*1024@60Hz;1360\*768@60Hz.

PC Input HDMI Mode: 1080i.

Final Test Mode:

Antenna Input Mode: 2. NTSC CH36 6. ATSC CH69.

PC Input VGA Mode: 1360\*768@60Hz.

PC Input HDMI Mode: 1080i.

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### 5 MEASUREMENTS, EXAMINATION AND DERIVED RESULTS

### 5.1 AC Line Conducted Emissions Test Result

#### Note:

5.

- 1. All possible modes of operation were investigated. Only the 2 worst case emissions measured, using the correct CISPR and Average detectors, are reported. All other emissions were relatively insignificant.
- 2. A "-ve" margin indicates a PASS as it refers to the margin present below the limit line at the particular frequency.
- 3. Conducted Emissions Measurement Uncertainty

All test measurements carried out are traceable to national standards. The uncertainty of the measurement at a confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2, in the range 9kHz - 30MHz (Average & Quasi-peak) is  $\pm 3.86dB$ .

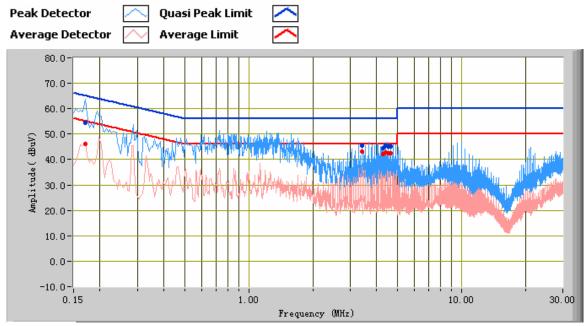
4. Environmental Conditions Temperature 25°C Relative Humidity 50% Atmospheric Pressure 1009mbar

Test Date: September 01 - September 05, 2010

Tested By: Andy.Hao

# 5.1.1 <u>Test Result Complying For FCC Part 15 Subpart B Class B: 2009</u>

Test Mode: NTSC CH36

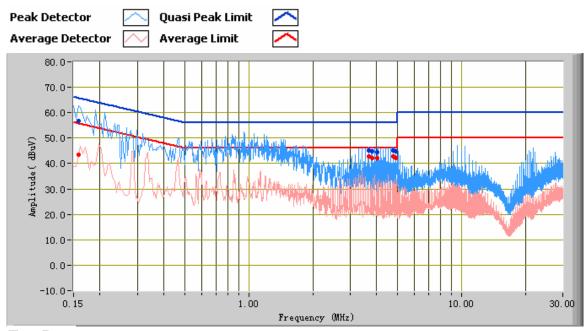


Test Data

#### Line

				20.00			
Frequency (MHz)	Quasi Peak (dBuV)	Limit (dBuV)	Margin (dB)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Factors (dB)
0.17	54.58	65.13	-10.55	46.18	55.13	-8.95	10.36
4.41	45.35	56.00	-10.65	42.91	46.00	-3.09	10.44
3.42	45.53	56.00	-10.47	43.14	46.00	-2.86	10.33
4.54	45.03	56.00	-10.97	42.45	46.00	-3.55	10.41
4.29	44.43	56.00	-11.57	42.11	46.00	-3.89	10.46
4.66	45.03	56.00	-10.97	42.31	46.00	-3.69	10.39

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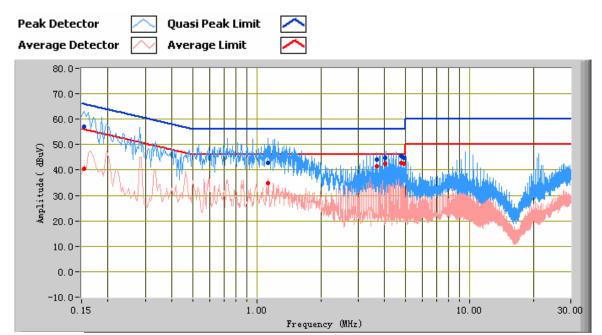
#### Test Data

#### Neutral

Frequency (MHz)	Quasi Peak (dBuV)	Limit (dBuV)	Margin (dB)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Factors (dB)
0.16	56.66	65.75	-9.09	43.60	55.75	-12.14	10.38
3.67	45.21	56.00	-10.79	42.79	46.00	-3.21	10.41
4.04	44.41	56.00	-11.59	42.00	46.00	-4.00	10.50
4.91	44.68	56.00	-11.32	42.30	46.00	-3.70	10.35
3.79	44.66	56.00	-11.34	42.19	46.00	-3.81	10.45
4.79	45.17	56.00	-10.83	42.81	46.00	-3.19	10.37

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#### Test Mode: ATSC CH69

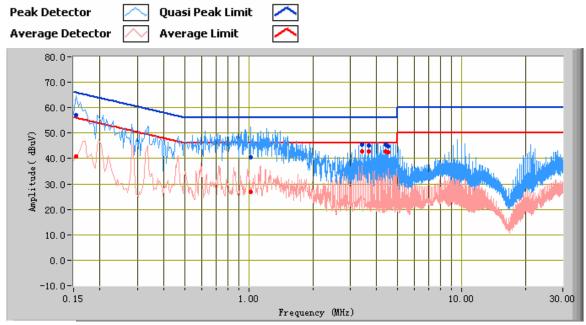


#### Test Data

#### **LINE**

Frequency (MHz)	Quasi Peak (dBuV)	Limit (dBuV)	Margin (dB)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Factors (dB)
0.15	57.14	65.97	-8.83	40.56	55.97	-15.40	10.39
1.13	42.96	56.00	-13.04	34.91	46.00	-11.09	10.16
4.04	44.81	56.00	-11.19	42.35	46.00	-3.65	10.50
4.91	44.84	56.00	-11.16	42.39	46.00	-3.61	10.35
4.79	45.35	56.00	-10.65	42.90	46.00	-3.10	10.37
3.67	43.97	56.00	-12.03	41.34	46.00	-4.66	10.41

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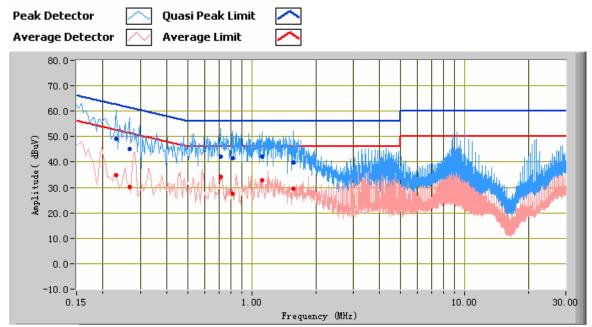
#### Test Data

#### Neutral

				1 (Cuti ut			
Frequency (MHz)	Quasi Peak (dBuV)	Limit (dBuV)	Margin (dB)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Factors (dB)
0.15	57.20	65.97	-8.76	40.69	55.97	-15.28	10.39
1.02	40.50	56.00	-15.50	27.01	46.00	-18.99	10.16
4.41	45.33	56.00	-10.67	42.93	46.00	-3.07	10.44
3.67	45.22	56.00	-10.78	42.74	46.00	-3.26	10.41
4.54	44.88	56.00	-11.12	42.43	46.00	-3.57	10.41
3.42	45.39	56.00	-10.61	42.91	46.00	-3.09	10.33

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### Test Mode: PC VGA 1360\*768@60Hz

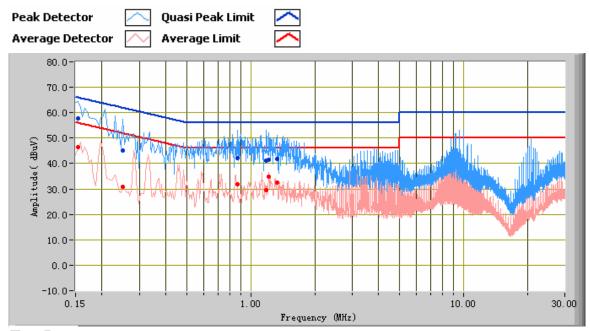


#### Test Data

#### **LINE**

Frequency (MHz)	Quasi Peak (dBuV)	Limit (dBuV)	Margin (dB)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Factors (dB)
0.23	48.96	62.57	-13.61	34.78	52.57	-17.79	10.26
0.71	42.05	56.00	-13.95	34.03	46.00	-11.97	10.13
1.57	39.84	56.00	-16.16	29.61	46.00	-16.39	10.18
0.27	45.06	61.34	-16.28	30.16	51.34	-21.18	10.22
0.81	41.55	56.00	-14.45	27.62	46.00	-18.38	10.16
1.12	42.30	56.00	-13.70	32.72	46.00	-13.28	10.16

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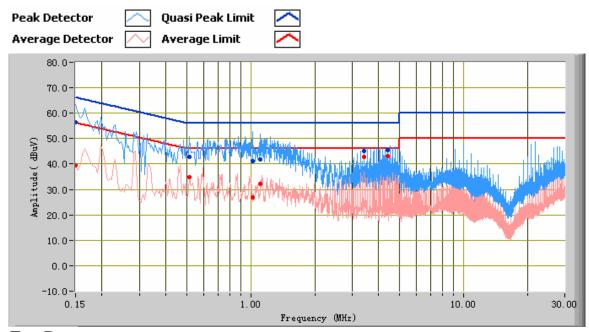
#### Test Data

#### Neutral

Frequency (MHz)	Quasi Peak (dBuV)	Limit (dBuV)	Margin (dB)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Factors (dB)
0.15	57.70	65.97	-8.27	46.36	55.97	-9.61	10.39
1.18	41.30	56.00	-14.70	29.38	46.00	-16.62	10.17
0.87	42.23	56.00	-13.77	31.72	46.00	-14.28	10.17
1.22	41.57	56.00	-14.43	34.74	46.00	-11.26	10.17
0.25	45.05	61.86	-16.81	30.71	51.86	-21.16	10.24
1.33	41.83	56.00	-14.17	32.39	46.00	-13.61	10.17

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**Test Mode: HDMI** 

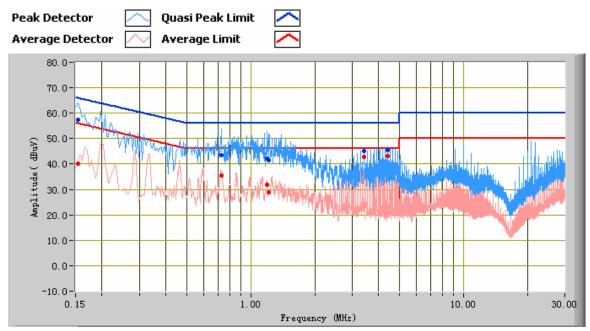


#### Test Data

#### LINE

Frequency (MHz)	Quasi Peak (dBuV)	Limit (dBuV)	Margin (dB)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Factors (dB)
0.15	56.34	66.19	-9.85	39.44	56.19	-16.75	10.40
1.02	41.04	56.00	-14.96	26.88	46.00	-19.12	10.16
1.11	41.68	56.00	-14.32	32.27	46.00	-13.73	10.16
0.51	42.77	56.00	-13.23	34.92	46.00	-11.08	10.16
4.41	45.46	56.00	-10.54	43.11	46.00	-2.89	10.44
3.42	45.28	56.00	-10.72	42.88	46.00	-3.12	10.33

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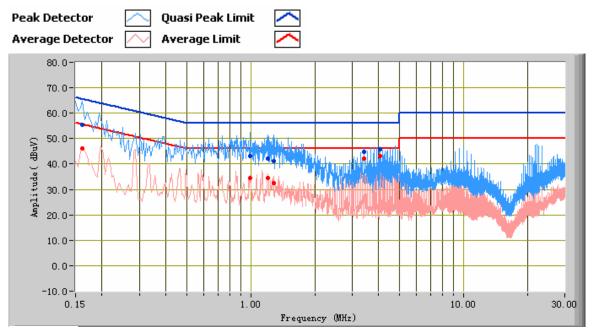
#### Test Data

#### Neutral

Frequency (MHz)	Quasi Peak (dBuV)	Limit (dBuV)	Margin (dB)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Factors (dB)
0.15	57.33	65.97	-8.63	40.26	55.97	-15.71	10.39
0.73	43.56	56.00	-12.44	35.63	46.00	-10.37	10.13
1.20	41.99	56.00	-14.01	31.95	46.00	-14.05	10.17
1.22	41.40	56.00	-14.60	28.79	46.00	-17.21	10.17
3.42	45.08	56.00	-10.92	42.66	46.00	-3.34	10.33
4.41	45.53	56.00	-10.47	43.23	46.00	-2.77	10.44

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#### Test Mode :AV

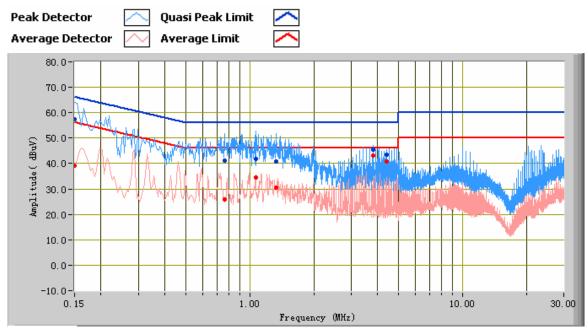


#### Test Data

#### **LINE**

Frequency (MHz)	Quasi Peak (dBuV)	Limit (dBuV)	Margin (dB)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Factors (dB)
0.16	55.30	65.54	-10.24	46.09	55.54	-9.45	10.37
1.00	43.07	56.00	-12.93	34.61	46.00	-11.39	10.16
1.20	42.18	56.00	-13.82	34.59	46.00	-11.41	10.17
1.28	41.28	56.00	-14.72	32.47	46.00	-13.53	10.17
4.04	45.81	56.00	-10.19	43.29	46.00	-2.71	10.50
3.42	44.73	56.00	-11.27	42.28	46.00	-3.72	10.33

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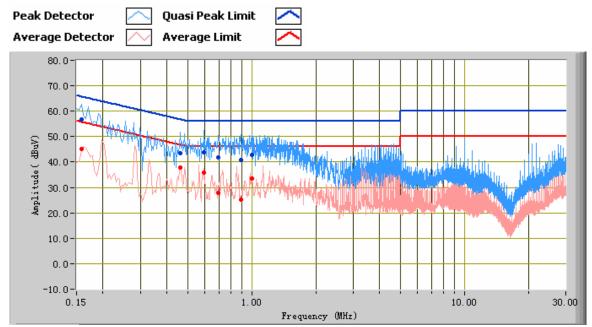
#### Test Data

#### Neutral

		11eunu									
Frequency (MHz)	Quasi Peak (dBuV)	Limit (dBuV)	Margin (dB)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Factors (dB)				
0.15	57.33	66.19	-8.86	39.20	56.19	-16.99	10.40				
1.07	41.71	56.00	-14.29	34.52	46.00	-11.48	10.16				
0.76	41.22	56.00	-14.78	25.85	46.00	-20.15	10.14				
1.33	40.96	56.00	-15.04	30.48	46.00	-15.52	10.17				
3.79	45.51	56.00	-10.49	43.06	46.00	-2.94	10.45				
4.42	43.49	56.00	-12.51	40.98	46.00	-5.02	10.44				

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#### **Test Mode: Component**

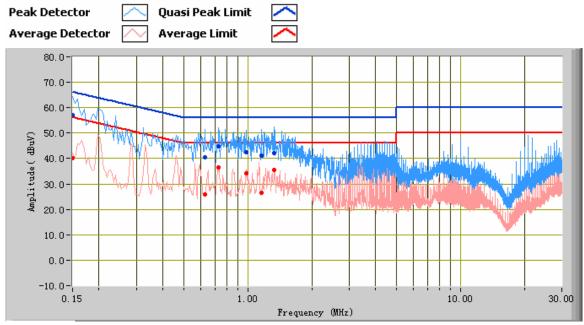


#### Test Data

#### LINE

Frequency (MHz)	Quasi Peak (dBuV)	Limit (dBuV)	Margin (dB)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Factors (dB)
0.16	56.80	65.75	-8.95	45.01	55.75	-10.74	10.38
0.60	43.68	56.00	-12.32	35.90	46.00	-10.10	10.15
0.46	43.54	56.66	-13.12	37.81	46.66	-8.86	10.17
1.00	42.69	56.00	-13.31	33.51	46.00	-12.49	10.16
0.89	40.84	56.00	-15.16	25.12	46.00	-20.88	10.17
0.69	41.82	56.00	-14.18	27.89	46.00	-18.11	10.12

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#### Test Data

#### Neutral

Frequency (MHz)	Quasi Peak (dBuV)	Limit (dBuV)	Margin (dB)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Factors (dB)
0.15	56.96	66.19	-9.23	40.04	56.19	-16.15	10.40
1.33	42.17	56.00	-13.83	35.43	46.00	-10.57	10.17
0.73	44.65	56.00	-11.35	36.57	46.00	-9.43	10.13
1.16	41.13	56.00	-14.87	26.59	46.00	-19.41	10.17
0.63	40.62	56.00	-15.38	25.78	46.00	-20.22	10.14
0.98	42.56	56.00	-13.44	34.26	46.00	-11.74	10.16



### **Radiated Emissions Test Results**

#### Note:

All possible modes of operation were investigated. Only the 6 worst case emissions measured, 1. using the correct CISPR detectors, are reported. All other emissions were relatively insignificant.

A "-ve" margin indicates a PASS as it refers to the margin present below the limit line at the 2. particular frequency.

Radiated Emissions Measurement Uncertainty 3.

All test measurements carried out are traceable to national standards. The uncertainty of the measurement at a confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2, in the range 30MHz - 1GHz (QP only @ 3m & 10m) is +6dB/-6dB (for EUTs < 0.5m X 0.5m X 0.5m).

**Environmental Conditions** 25°C Temperature 4. Relative Humidity 50%

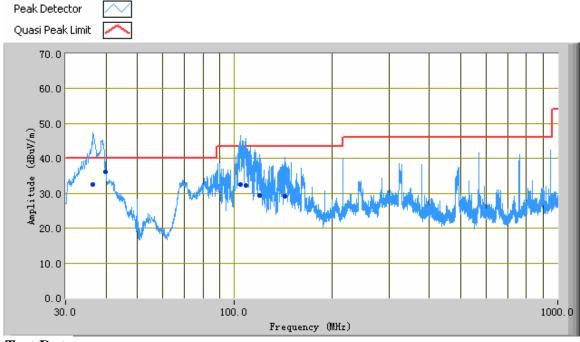
Atmospheric Pressure 1011mbar

Test date: September 01 - September 05, 2010 5.

Tested By: Andy. Hao

# 5.2.1 <u>Test Result Complying For FCC Part 15 Subpart B Class B: 2009</u>

#### Test Mode: NTSC CH36



Test Data

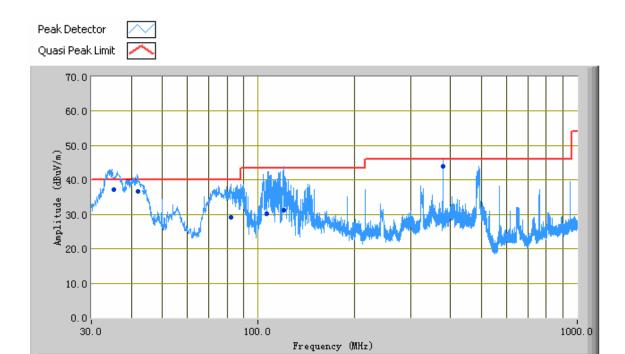
Frequency (MHz)	Quasi Peak (dBuV/m)	Azimuth	Polarity(H /V)	Height (cm)	Factors (dB)	Limit (dBuV/m)	Margin (dB)
36.59	32.40	354.00	Н	111.00	-27.38	40.00	-7.60
104.20	32.41	102.00	Н	258.00	-32.83	43.50	-11.09
108.37	32.28	206.00	Н	250.00	-31.45	43.50	-11.22
39.64	36.07	352.00	Н	101.00	-29.84	40.00	-3.93
119.28	29.30	349.00	Н	272.00	-30.96	43.50	-14.20
143.46	29.14	155.00	Н	180.00	-32.55	43.50	-14.36

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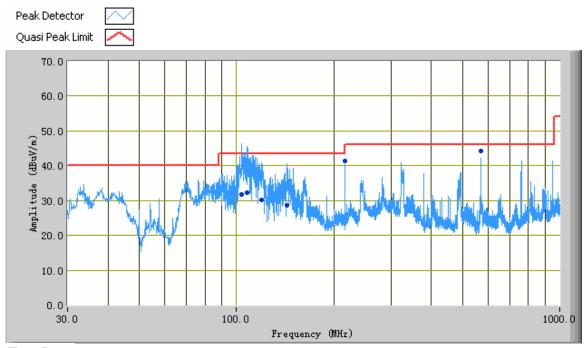


#### Test Data

Frequency (MHz)	Quasi Peak (dBuV/m)	Azimuth	Polarity(H /V)	Height (cm)	Factors (dB)	Limit (dBuV/m)	Margin (dB)
36.79	36.67	156.00	V	181.00	-28.17	40.00	-3.33
41.17	37.16	312.00	V	120.00	-30.74	40.00	-2.84
122.47	30.29	127.00	V	108.00	-30.97	43.50	-13.21
106.47	29.30	201.00	V	125.00	-31.65	43.50	-14.20
380.01	43.61	9.00	V	112.00	-29.59	46.00	-2.39
83.23	30.87	188.00	V	145.00	-37.13	40.00	-9.13

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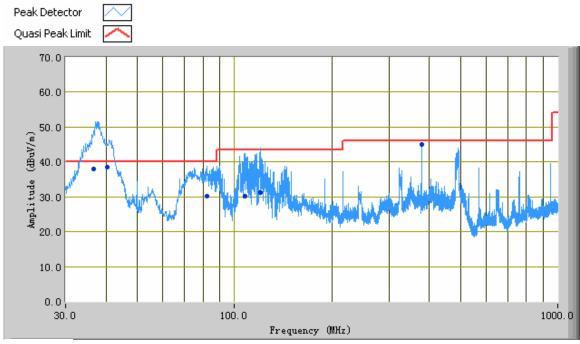
#### **Test Mode: ATSC CH69**



Test Data

Frequency (MHz)	Quasi Peak (dBuV/m)	Azimuth	Polarity(H /V)	Height (cm)	Factors (dB)	Limit (dBuV/m)	Margin (dB)
103.78	31.86	106.00	Н	216.00	-32.98	43.50	-11.64
107.57	32.22	168.00	Н	311.00	-31.69	43.50	-11.28
119.72	30.11	178.00	Н	215.00	-30.96	43.50	-13.39
142.96	28.57	159.00	Н	146.00	-32.53	43.50	-14.93
216.00	41.38	191.00	Н	148.00	-32.74	43.50	-2.12
570.01	44.18	6.00	Н	106.00	-27.53	46.00	-1.82

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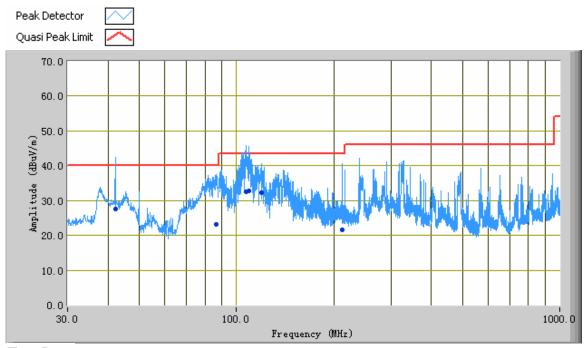


### Test Data

Frequency (MHz)	Quasi Peak (dBuV/m)	Azimuth	Polarity(H /V)	Height (cm)	Factors (dB)	Limit (dBuV/m)	Margin (dB)
37.55	37.69	113.00	V	181.00	-28.17	40.00	-2.31
41.21	38.54	321.00	V	103.00	-30.74	40.00	-1.46
120.40	31.33	127.00	V	108.00	-30.97	43.50	-12.17
107.86	30.27	188.00	V	142.00	-31.65	43.50	-13.23
380.01	44.14	9.00	V	100.00	-29.59	46.00	-1.86
82.03	30.15	191.00	V	123.00	-37.13	40.00	-9.85

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#### Test Mode: PC VGA 1360\*768@60Hz



Test Data

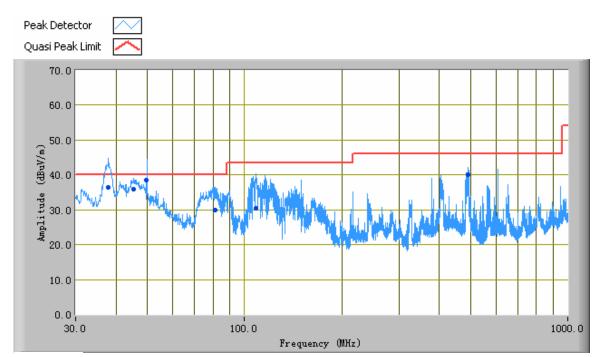
Frequency (MHz)	Quasi Peak (dBuV/m)	Azimuth	Polarity(H /V)	Height (cm)	Factors (dB)	Limit (dBuV/m)	Margin (dB)
107.22	32.57	160.00	Н	166.00	-31.81	43.50	-10.93
42.09	27.51	245.00	Н	335.00	-31.56	40.00	-12.49
108.63	32.70	165.00	Н	182.00	-31.33	43.50	-10.80
86.49	23.04	0.00	Н	226.00	-36.89	40.00	-16.96
119.59	32.15	77.00	Н	278.00	-30.96	43.50	-11.35
212.20	21.72	88.00	Н	112.00	-32.49	43.50	-21.78

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### Test Data

Frequency (MHz)	Quasi Peak (dBuV/m)	Azimuth	Polarity(H /V)	Height (cm)	Factors (dB)	Limit (dBuV/m)	Margin (dB)
37.95	36.35	89.00	V	358.00	-28.68	40.00	-3.65
50.00	37.11	70.00	V	112.00	-35.70	40.00	-2.89
45.42	35.95	99.00	V	106.00	-33.87	40.00	-4.05
108.35	30.33	186.00	V	110.00	-33.05	43.50	-13.17
81.39	29.88	128.00	V	100.00	-38.43	40.00	-10.12
492.95	39.95	340.00	V	100.00	-30.66	46.00	-6.05

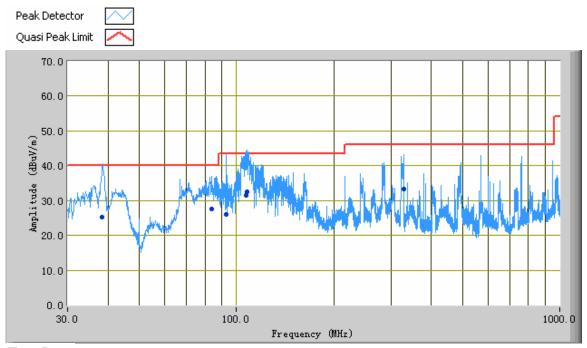
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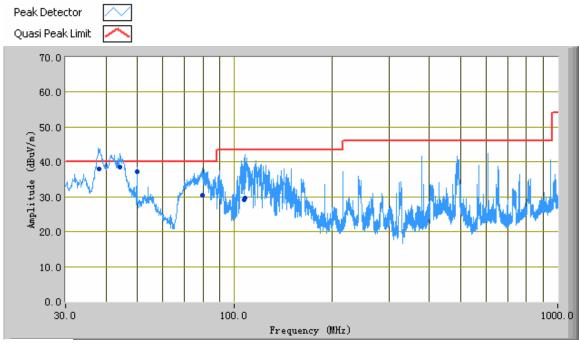
#### Test Mode: AV Mode



Test Data

Frequency (MHz)	Quasi Peak (dBuV/m)	Azimuth	Polarity(H /V)	Height (cm)	Factors (dB)	Limit (dBuV/m)	Margin (dB)
107.98	32.44	179.00	Н	289.00	-31.57	43.50	-11.06
107.18	31.46	191.00	Н	200.00	-31.88	43.50	-12.04
38.36	25.14	358.00	Н	106.00	-28.79	40.00	-14.86
93.15	25.97	269.00	Н	361.00	-35.97	43.50	-17.53
83.69	27.57	221.00	Н	311.00	-37.09	40.00	-12.43
329.15	33.34	96.00	Н	100.00	-29.05	46.00	-12.66

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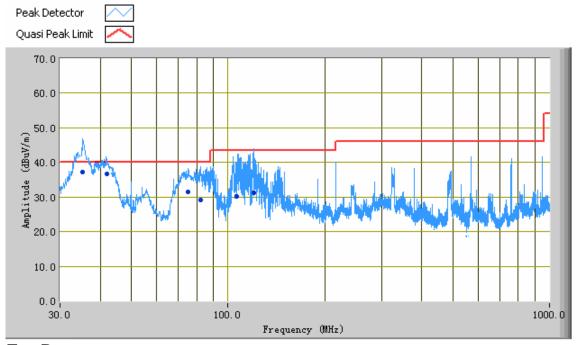


### Test Data

Frequency (MHz)	Quasi Peak (dBuV/m)	Azimuth	Polarity(H /V)	Height (cm)	Factors (dB)	Limit (dBuV/m)	Margin (dB)
37.97	38.20	82.00	V	110.00	-28.68	40.00	-1.80
44.19	38.45	94.00	V	103.00	-33.13	40.00	-1.55
50.01	37.25	88.00	V	106.00	-35.70	40.00	-2.75
107.74	29.57	171.00	V	120.00	-33.17	43.50	-13.93
79.77	30.43	192.00	V	151.00	-38.22	40.00	-9.57
106.86	29.19	170.00	V	100.00	-33.36	43.50	-14.31

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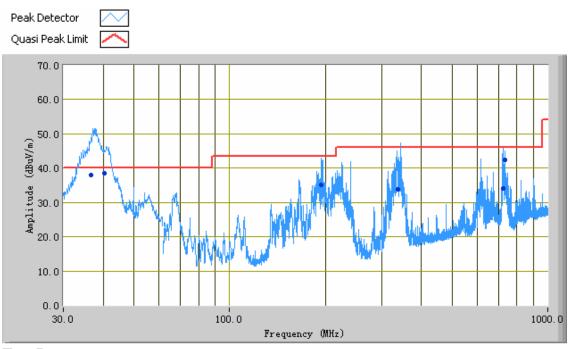
#### **Test Mode: Component**



Test Data

Frequency (MHz)	Quasi Peak (dBuV/m)	Azimuth	Polarity(H /V)	Height (cm)	Factors (dB)	Limit (dBuV/m)	Margin (dB)
38.15	36.69	58.00	Н	112.00	-28.68	40.00	-3.31
43.52	36.18	99.00	Н	102.00	-35.70	40.00	-3.82
74.27	32.78	45.00	Н	156.00	-34.25	40.00	-7.22
81.39	30.12	182.00	Н	121.00	-38.43	40.00	-9.88
108.35	30.21	168.00	Н	118.00	-33.05	43.50	-13.29
124.79	31.82	245.00	Н	100.00	-34.78	43.50	-11.68

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Test Data

	Quasi Peak (dBuV/m)	Azimuth	Polarity(H /V)	Height (cm)	Factors (dB)	Limit (dBuV/m)	Margin (dB)
36.97	37.64	127.00	V	118.00	-28.17	40.00	-2.36
42.11	37.50	231.00	V	130.00	-30.74	40.00	-2.50
721.99	34.00	1.00	V	234.00	-21.43	46.00	-12.00
734.27	42.49	20.00	V	183.00	-21.54	46.00	-3.51
334.92	34.47	66.00	V	190.00	-30.88	46.00	-11.53
195.93	35.73	31.00	V	176.00	-30.79	43.50	-7.77

Note: All emission level of above 1GHz are 20db below the FCC Limit

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# Annex A. TEST INSTRUMENTATION & GENERAL PROCEDURES

### Annex A.i. TEST INSTRUMENTATION

Instrument	Model	Serial #	Calibration Due	
Conducted Emissions				
R&S Receiver	ESCI	101216	02/19/2011	
Com-Power LISN	LI 115	241090	05/02/2011	
Com-Power LISN	LI 115	241091	05/02/2011	
Com-Power LIMITER	LIT-153	531021	N/A	
Video SG	VM700T	N/A	N/A	
Radiated Emissions				
R&S Receiver	ESCI	101216	02/19/2011	
Sunol Sciences, Inc. Antenna (30MHz~2GHz)	JB3	20SL071	07/22/2011	
HP Pre-Amplifier	8447F	1937A01160	04/24/2011	
Video SG	VM700T	N/A	N/A	

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#### Annex A.ii. CONDUCTED EMISSIONS TEST DESCRIPTION

#### Test Set-up

- 1. The EUT and supporting equipment were set up in accordance with the requirements of the standard on top of a 0.1m high, non-metallic support, as shown in Annex B.
- 2. The power supply for the EUT was fed through a  $50\Omega/50\mu$ H EUT LISN, connected to filtered mains.
- 3. The RF OUT of the EUT LISN was connected to the EMI test receiver via a low-loss coaxial cable.
- 4. All other supporting equipments were powered separately from another main supply.

#### **Test Method**

- 1. The EUT was switched on and allowed to warm up to its normal operating condition.
- 2. A scan was made on the NEUTRAL line (for AC mains) or Earth line (for DC power) over the required frequency range using an EMI test receiver.
- 3. High peaks, relative to the limit line, were then selected.
- 4. The EMI test receiver was then tuned to the selected frequencies and the necessary measurements made with a receiver bandwidth setting of 10 KHz. For FCC tests, only Quasi-peak measurements were made; while for CISPR/EN tests, both Quasi-peak and Average measurements were made.
- 5. Steps 2 to 4 were then repeated for the LIVE line (for AC mains) or DC line (for DC power).

#### Sample Calculation Example

At 20 MHz limit = 250  $\mu$ V = 47.96 dB $\mu$ V

Transducer factor of LISN, pulse limiter & cable loss at 20 MHz = 11.20 dB

Q-P reading obtained directly from EMI Receiver =  $40.00 \text{ dB}\mu\text{V}$ 

(Calibrated for system losses)

Therefore, Q-P margin = 47.96 – 40.00 = 7.96 i.e. **7.96 dB below limit** 

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#### Annex A. iii. RADIATED EMISSIONS TEST DESCRIPTION

#### **EUT Characterisation**

EUT characterisation, over the frequency range from 30MHz to 1GHz (for FCC tests, until the  $5^{th}$  harmonic for operating frequencies  $\geq$  108MHz), was done in order to minimise radiated emissions testing time while still maintaining high confidence in the test results.

The EUT was placed in the chamber, at a height of about 0.1m on a support. Its radiated emissions frequency profile was observed, using a spectrum analyzer /receiver with the appropriate broadband antenna placed 3m away from the EUT. Radiated emissions from the EUT were maximised by rotating the turntable manually, changing the antenna polarisation and manipulating the EUT cables while observing the frequency profile on the spectrum analyzer / receiver. Frequency points at which maximum emissions occurred, clock frequencies and operating frequencies were then noted for the formal radiated emissions test at the Open Area Test Site (OATS) or EMC chamber.

#### Test Set-up

- The EUT and supporting equipment were set up in accordance with the requirements of the standard on top of a 0.1m high, non-metallic support as shown in Annex B.
- 2. The filtered power supply for the EUT and supporting equipment were tapped from the appropriate power sockets located on the turntable.
- 3. The relevant broadband antenna was set at the required test distance away from the EUT and supporting equipment boundary.

#### **Test Method**

- 1. The EUT was switched on and allowed to warm up to its normal operating condition.
- 2. The test was carried out at the selected frequency points obtained from the EUT characterisation. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarization, and adjusting the antenna height in the following manner:
  - a. Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen.
  - b. The EUT was then rotated to the direction that gave the maximum emission.
  - c. Finally, the antenna height was adjusted to the height that gave the maximum emission.
- 3. A Quasi-peak measurement was then made for that frequency point.
- 4. Steps 2 and 3 were repeated for the next frequency point, until all selected frequency points were measured.
- 5. The frequency range covered was from 30MHz to 1GHz (for FCC tests, until the 5<sup>th</sup> harmonic for operating frequencies ≥ 108MHz), using the Biconical antenna for frequencies from 30MHz to 230MHz, Log-periodical antenna for frequencies from 230MHz to 1GHz, and the Horn antenna above 1GHz.

#### Sample Calculation Example

At 300 MHz

 $limit = 200 \mu V/m = 46.00 dB\mu V/m$ 

Log-periodic antenna factor & cable loss at 300 MHz = 18.50 dB

Q-P reading obtained directly from EMI Receiver =  $40.00 \text{ dB}\mu\text{V/m}$ 

(Calibrated level including antenna factors & cable losses)

Therefore, Q-P margin = 46.00 - 40.00 = 6.00

i.e. 6 dB below limit

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# Annex B. EUT AND TEST SETUP PHOTOGRAPHS

### Annex B.i. Photograph 1: EUT External Photo







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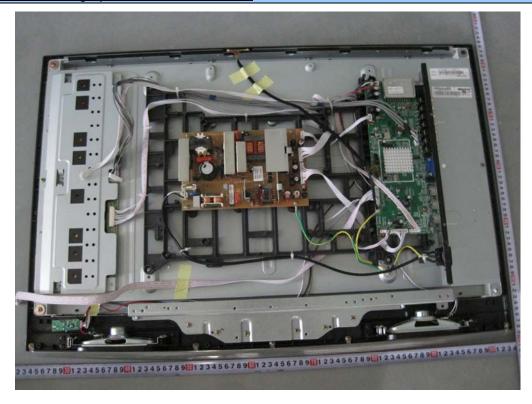






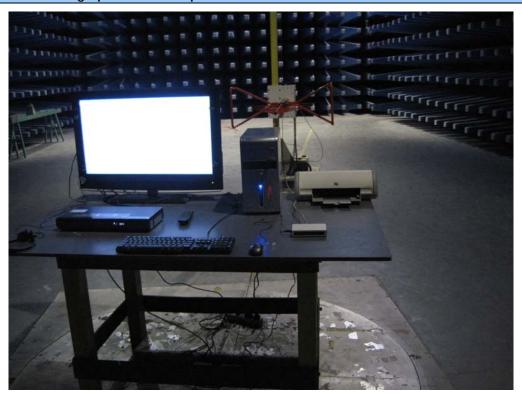
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## Annex B.ii. Photograph 2: EUT Internal Photo



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## Annex B.iii. Photograph 2: Test setup Photo



Radiated Emissions Test Set-up Front View



Radiated Emissions Test Set-up Rear View

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Conducted Emissions Test Set-up Front View



Conducted Emissions Test Set-up Rear View

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### Annex C. TEST SETUP AND SUPPORTING EQUIPMENT

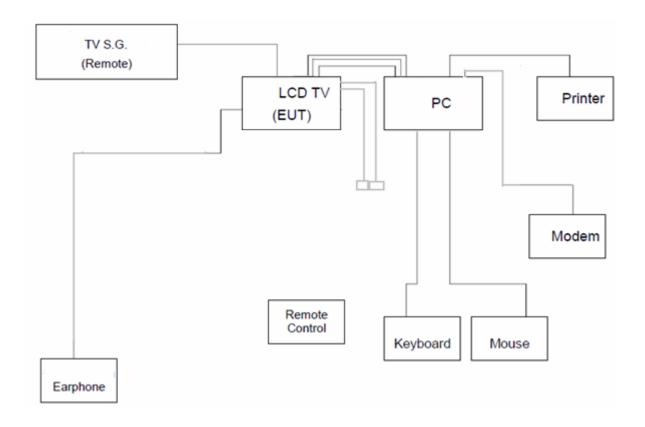
### **EUT TEST CONDITIONS**

## Annex C. i. SUPPORTING EQUIPMENT DESCRIPTION

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

Equipment Description (Including Brand Name)	Model & Serial Number	Cable Description (List Length, Type & Purpose)
SONY DVD	BDP-S350	6*1.8m,RCA Video/Audio Line
Dell PC	INSPIRON 530	2m HDMI CABLE,2m VGA CABLE
HP Printer	HP deskjet D1368	2m USB CABLE
TP-LINk Modem	TL-SF1800+	2m CAT LAN
Dell Keyboard	L100	N/A
Mouse	N/A	N/A

## **Block Diagram Of Test Set-up**



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## Annex C.ii. EUT OPERATING CONDITIONS

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

Test	Description Of Operation
Emissions	The EUT is running continuously to stimulate the worst case.

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## Annex D. USER MANUAL / BLOCK DIAGRAM / SCHEMATICS / PART LIST

Please see attachment

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#### Annex E. SIEMIC ACCREDITATION CERTIFICATES

SIEMIC ACREDITATION DETAILS: A2LA Certificate Number: 2742.01





# THE AMERICAN ASSOCIATION FOR LABORATORY ACCREDITATION

#### ACCREDITED LABORATORY

A2LA has accredited

#### SIEMIC LABORATORIES

San Jose, CA

for technical competence in the field of

#### **Electrical Testing**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated 18 June 2005).



Presented this 11th day of July 2008.

President
For the Accreditation Council
Certificate Number 2742.01
Valid to September 30, 2010

For the tests or types of tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.



# THE AMERICAN ASSOCIATION FOR LABORATORY ACCREDITATION

#### ACCREDITED PRODUCT CERTIFICATION BODY

A2LA has accredited

SIEMIC INC.

San Jose, CA

for technical competence as a

Product Certification Body

This product certification body is accredited in accordance with the recognized International Standard ISO/IEC Guide 65:1996 General requirements for bodies operating product certification systems. This accreditation demonstrates technical competence for a defined scope and the operation of a quality management system for a Telecommunications Certification Body (TCB) meeting FCC (U.S.), IDA (Singapore) and IC (Canada) requirements.

Body (ICB) meeting FCC (

Presented this 9th day of January 2009.

President

For the Accreditation Council Certificate Number: 2742.02 Valid to: September 30, 2010

For the product certification schemes to which this accreditation applies, please refer to the certification body's Scope of Accreditation.



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#### SCOPE OF ACCREDITATION TO ISO/IEC GUIDE 65:1996

SIEMIC INC. 2206 Ringwood Ave. San Jose, CA 95131

Mr. Snell Leong (Authorized Representative) Phone: 408 526 1188

www.siemic.com

#### PRODUCT CERTIFICATION CONFORMITY ASSESSMENT BODY (CAB)

Valid to: September 30, 2010 Certificate Number: 2742.02

In recognition of the successful completion of the A2LA Certification Body Accreditation Program evaluation, including the US Federal Communications Commission (FCC), Industry Canada (IC) and Singapore (IDA) requirements for the indicated types of product certifications, accreditation is granted to this organization to perform the following product certification schemes:

Economy Scope

#### Federal Communication Commission - (FCC)

Unlicensed Radio Frequency Devices A1, A2, A3, A4 Licensed Radio Frequency Devices B1, B2, B3, B4

Telephone Terminal Equipment C

#### <u>Industry Canada - (IC)</u>

Radio All Radio Standards Specifications (RSS) in Category I

Equipment Standards List Radio

\*Please refer to Industry Canada (IC) website at: http://www.ic.gc.ca/epic/site/smt-gst.nsf/en/h\_sf01342e.html

#### IDA - Singapore

Line Terminal Equipment All Technical Specifications for Line Terminal

Equipment - Table 1 of IDA MRA Recognition

Scheme: 2008, Annex 2

Radio-Communication Equipment All Technical Specifications for Radio-Communication

Equipment - Table 2 of IDA MRA Recognition

Scheme: 2008, Annex 2

(A2LA Cert. No. 2742.02) 01/09/09

<sup>\*</sup>Please refer to FCC TCB Program Roles and Responsibilities, v04, released February 14, 2008 detailing scopes, roles and responsibilities. <a href="http://www.fcc.gov/oet/ea/FCC-Overview-TCB-Program.pdf">http://www.fcc.gov/oet/ea/FCC-Overview-TCB-Program.pdf</a>

<sup>\*</sup>Please refer to Info-Communication Development Authority (iDA) Singapore website at: http://www.ida.gov.sg/doc/Policies%20and%20Regulation/Policies\_and\_Regulation\_Level2/20060609145118/MRA RecScheme.pdf

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#### SIEMIC ACREDITATION DETAILS: FCC Test Site Registration No. 783147

#### FEDERAL COMMUNICATIONS COMMISSION

Laboratory Division 7435 Oakland Mills Road Columbia, MD 21046

December 20, 2007

Registration Number: 783147

SIEMIC Laboratories 2206 Ringwood Avenue, San Jose, CA 95131

Attention: Leslie Bai

Re: Measurement facility located at San Jose

3 & 10 meter site

Date of Renewal: December 20, 2007

Dear Sir or Madam:

Your request for renewal of the registration of the subject measurement facility has been received. The information submitted has been placed in your file and the registration has been renewed. The name of your organization will remain on the list of facilities whose measurement data will be accepted in conjunction with applications for Certification under Parts 15 or 18 of the Commission's Rules. Please note that the file must be updated for any changes made to the facility and the registration must be renewed at least every three years.

Measurement facilities that have indicated that they are available to the public to perform measurement services on a fee basis may be found on the FCC website <a href="www.fcc.gov">www.fcc.gov</a> under E-Filing, OET Equipment Authorization Electronic Filing, Test Firms.

Sincerely,

Phyllis Parrish Industry Analyst

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#### SIEMIC ACREDITATION DETAILS: Industry of Canada CAB ID: US0160



UNITED STATES DEPARTMENT OF COMMERCE National Institute of Standards and Technology Gaithersburg, Maryland 20899-

March 4, 2009

Mr. Leslie Bai SIEMIC, Inc. 2206 Ringwood Avenue San Jose, CA 95131

Dear Mr. Bai:

NIST is pleased to inform you that your laboratory has been recognized by Industry Canada (IC), under the Asia Pacific Economic Cooperation for Telecommunications Equipment Mutual Recognition Arrangement (APEC Tel MRA). Your laboratory is now designated to act as a Conformity Assessment Body (CAB) under Appendix B, **Phase I** Procedures, of the APEC Tel MRA. The pertinent information about your laboratory's designation is as follows:

CAB Name: SIEMIC, Inc.

Physical Location: 2206 Ringwood Avenue, San Jose, CA 95131 USA

Identification No.: US0160

Recognized Scope: CS-03 Part I, II, V, VI, VII and VIII

You may submit test data to IC to verify that the equipment to be imported into Canada satisfies the applicable requirements. The designation of your organization will remain in force as long as its accreditation for the designated scope remains valid and comply with the designation requirements.

Recognized CABs are listed on the NIST website at http://ts.nist.gov/mra. Please contact Ms. Ramona Saar at (301) 975-5521 or <a href="mailto:ramona.saar@nist.gov">ramona.saar@nist.gov</a> if you have any questions.

Sincerely,

David F. Alderman

Group Leader, Standards Coordination and Conformity Group Standards Services Division

Enclosure

cc: CAB Program Manager

Parist In Alde



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OUR FILE: 46405-4842

Submission No: 126429

#### SIEMIC ACREDITATION DETAILS: Industry of Canada Test Site Registration No. 4842-1

Industry Industrie

May 23rd, 2008

Siemic Inc. 2206 Ringwood Ave. San Jose CA 95131 USA

Attention: Leslie Bai

Dear Sir/Madame:

The Bureau has received your application for the registration / renewal of a 3/10m OATS. Be advised that the information received was satisfactory to Industry Canada. The following number(s) is now associated to the site(s) for which registration / renewal was sought (4842A-1). Please reference the appropriate site number in the body of test reports containing measurements performed on the site. In addition, please be informed that the Bureau is now utilizing a new site numbering scheme in order to simplify the electronic filing process. Our goal is to reduce the number of secondary codes associated to one particular company. The following changes have been made to your record.

- Your primary code is: 4842
- The company number associated to the site(s) located at the above address is: 4842A
- The table below is a summary of the changes made to the unique site registration number(s):

New Site	Obsolete Site	Description of Site	Expiry Date
Number	Number		(YYYY-MM-DD)
4842A-1	4842-1	3m Chamber	2010-05-23

Furthermore, to obtain or renew a unique site number, the applicant shall demonstrate that the site has been accredited to ANSI C63.4-2003 or later. A scope of accreditation indicating the accreditation by a recognized accreditation body to ANSI C63.4-2003 shall be accepted. Please indicate in a letter the previous assigned site number if applicable and the type of site (example: 3 meter OATS or 3 meter chamber). If the test facility is not accredited to ANSI C63.4-2003 or later, the test facility shall submit test data demonstrating full compliance with the ANSI standard. The Bureau will evaluate the filing to determine if recognition shall be granted.

The frequency for re-validation of the test site and the information that is required to be filed or retained by the testing party shall comply with the requirements established by the accrediting organization. However, in all cases, test site re-validation shall occur on an interval not to exceed two years. There is no fee or form associated with an OATS filing. OATS submissions are encouraged to be submitted electronically to the Bureau using the following URL; http://strategis.ic.gc.ca/epic/internet/inceb-bhst.nsf/en/h tt00052e.html.

If you have any questions, you may contact the Bureau by e-mail at <a href="mailto:certification.bureau@ic.ge.c">certification.bureau@ic.ge.c</a> Please reference our file and submission number above for all correspondence.

Yours sincerely.

S. Proulx

Test & Measurement Specialist Certification and Engineering Bureau 3701 Carling Ave., Building 94 Ottawa, Ontario K2H 8S2

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#### SIEMIC ACREDITATION DETAILS: FCC DOC CAB Recognition: US1109

#### FEDERAL COMMUNICATIONS COMMISSION

Laboratory Division 7435 Oakland Mills Road Columbia, MD 21046

August 28, 2008

Siemic Laboratories 2206 Ringwood Ave., San Jose, CA 95131

Attention:

Leslie Bai

Re:

Accreditation of Siemic Laboratories

Designation Number: US1109 Test Firm Registration #: 540430

Dear Sir or Madam:

We have been notified by American Association for Laboratory Accreditation that Siemic Laboratories has been accredited as a Conformity Assessment Body (CAB).

At this time Siemic Laboratories is hereby designated to perform compliance testing on equipment subject to Declaration Of Conformity (DOC) and Certification under Parts 15 and 18 of the Commission's Rules.

This designation will expire upon expiration of the accreditation or notification of withdrawal of designation.

Sincerely,

George Tannahill
Electronics Engineer



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#### SIEMIC ACREDITATION DETAILS: Australia CAB ID: US0160



UNITED STATES DEPARTMENT OF COMMERCE National Institute of Standards and Technology Gaithersburg, Maryland 20899-

November 20, 2008

Mr. Leslie Bai SIEMIC, Inc. 2206 Ringwood Avenue San Jose, CA 95131

Dear Mr. Bai:

NIST is pleased to inform you that your laboratory has been recognized by the Australian Communications and Media Authority (ACMA) under the Asia Pacific Economic Cooperation for Telecommunications Equipment Mutual Recognition Arrangement (APEC Tel MRA). Your laboratory is now designated to act as a Conformity Assessment Body (CAB) under Appendix B, **Phase I** Procedures, of the APEC Tel MRA. The pertinent information about your laboratory's designation is as follows:

CAB Name:

Siemic, Inc.

Physical Location:

2206 Ringwood Avenue, San Jose, CA 95131

Identification No.:

US0160

Recognized Scope:

EMC: AS/NZS 4251.1 (until 5/31/2009), AS/NZS 4251.2 (until 5/31/2009), AS/NZS CISPR 11, AS/NZS CISPR 14.1, AS/NZS CISPR 22, AS/NZS

61000.6.3, AS/NZS 61000.6.4

Radiocommunications: AS/NZS 4281, AS/NZS 4268, AS/NZS 4280.1, AS/NZS 4280.2, AS/NZS 4295, AS/NZS 4582, AS/NZS 4583, AS/NZS 4769.1, AS/NZS

4769.2, AS/NZS 4770, AS/NZS 4771

<u>Telecommunications</u>: AS/ACIF S002:05, AS/ACIF S003:06, AS/ACIF S004:06, AS/ACIF S006:01, AS/ACIF S016:01, AS/ACIF S031:01, AS/ACIF S038:01, AS/ACIF S040:01, AS/ACIF S041:05, AS/ACIF S043.2:06, AS/NZS 60950.1

You may submit test data to ACMA to verify that the equipment to be imported into Australia satisfies the applicable requirements. The designation of your organization will remain in force as long as its accreditation for the designated scope remains valid and comply with the designation requirements. Recognized CABs are listed on the NIST website at http://ts.nist.gov/mra. Please contact Ms. Ramona Saar, at (301) 975-5521 or <a href="mainto:ramona.saar@nist.gov">ramona.saar@nist.gov</a> if you have questions.

Sincerely,

David F. Alderman

Group Leader, Standards Coordination and Conformity Group

Standards Services Division

David I. aldum

Enclosure

cc: Snell Leong, Siemic, Inc.; Ramona Saar, NIST

NIST



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#### SIEMIC ACREDITATION DETAILS: Korea CAB ID: US0160



UNITED STATES DEPARTMENT OF COMMERCE National Institute of Standards and Technology Gaithersburg, Maryland 20899

October 1, 2008

Mr. Leslie Bai SIEMIC, Inc. 2206 Ringwood Avenue San Jose, CA 95131

Dear Mr. Bai:

NIST is pleased to inform you that your laboratory has been recognized by the Radio Research Agency (RRA) Korea Communications Commission (KCC) under the Asia Pacific Economic Cooperation for Telecommunications Equipment Mutual Recognition Arrangement (APEC Tel MRA). Your laboratory is now designated to act as a Conformity Assessment Body (CAB) under Appendix B, **Phase I** Procedures, of the APEC Tel MRA. The pertinent information about your laboratory's designation is as follows:

CAB Name: SIEMIC, Inc.

Physical Location: 2206 Ringwood Avenue, San Jose, CA 95131

Identification No.: US0160

Recognized Scope: EMI: KCC Notice 2008-39, RRL Notice 2008-3: CA Procedures for EMI

KN22: Test Method for EMI

EMS: KCC Notice 2008-38, RRL Notice 2008-4: CA Procedures for EMS KN24, KN-61000-4-2, -4-3, -4-4, -4-5, -4-6, -4-8, -4-11: Test Method for EMS Wireless: RRL Notice 2008-26, RRL Notice 2008-2, RRL Notice 2008-10,

RRL Notice 2007-49, RRL Notice 2007-20, RRL Notice 2007-21,

RRL Notice 2007-80, RRL Notice 2004-68

Wired: President Notice 20664, RRL Notice 2007-30,

RRL Notice 2008-7 with attachments 1, 3, 5, 6

President Notice 20664, RRL Notice 2008-7 with attachment 4

You may submit test data to RRA/KCC to verify that the equipment to be imported into Korea satisfies the applicable requirements. The designation of your organization will remain in force as long as its accreditation for the designated scope remains valid and comply with the designation requirements.

Recognized CABs are listed on the NIST website at http://ts.nist.gov/mra. If you have any questions please contact Ramona Saar at (301) 975-5521 or ramona.saar@nist.gov.

Sincerely,

David F. Alderman

Group Leader, Standards Coordination and Conformity Group

Standards Services Division

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Enclosure

cc: Ramona Saar

NIST

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#### SIEMIC ACREDITATION DETAILS: Taiwan BSMI Accreditation No. SL2-IN-E-1130R



UNITED STATES DEPARTMENT OF COMMERCE National Institute of Standards and Technology Geithersburg, Maryland 20898-

May 3, 2006

Mr. Leslie Bai SIEMIC Laboratories 2206 Ringwood Avenue San Jose, CA 95131

Dear Mr. Bai:

I am pleased to inform you that your laboratory has been recognized by the Chinese Taipei's Bureau of Standards, Metrology, and Inspection (BSMI) under the Asia Pacific Economic Cooperation (APEC) Mutual Recognition Arrangement (MRA). Your laboratory is now designated to act as a Conformity Assessment Body (CAB) under Appendix B, Phase I Procedures, of the APEC Tel MRA. You may submit test data to BSMI to verify that the equipment to be imported into Chinese Taipei satisfies the applicable requirements. The designation of your organization will remain in force as long as its accreditation for the designation information is as follows:

BSMI number: SL2-IN-E-1130R (Must be applied to the test reports)

- U.S Identification No: US0160
- Scope of Designation: CNS 13438
- Authorized signatory: Mr. Leslie Bai

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The names of all recognized CABs will be posted on the NIST website at http://ts.nist.gov/mra. If you have any questions, please contact Mr. Dhillon at 301-975-5521. We appreciate your continued interest in our international conformity assessment activities.

Sincerely,

David F. Alderman

Group Leader, Standards Coordination and Conformity Group

ec: Jogindar Dhillon



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#### SIEMIC ACREDITATION DETAILS: Taiwan NCC CAB ID: US0160



UNITED STATES DEPARTMENT OF COMMERCE National Institute of Standards and Technology Gaithersburg, Maryland 20899

November 25, 2008

Mr. LeslieBai SIEMIC, Inc. 2206 Ringwood Avenue San Jose, CA 95131

Dear Mr. Bai:

NIST is pleased to inform you that your laboratory has been recognized by the National Communications Commission (NCC) for the requested scope expansion under the Asia Pacific Economic Cooperation for Telecommunications Equipment Mutual Recognition Arrangement (APEC Tel MRA). Your laboratory is designated to act as a Conformity Assessment Body (CAB) under Appendix B, **Phase I** Procedures, of the APEC Tel MRA. The pertinent information about your laboratory's designation is as follows:

CAB Name: SIEMIC, Inc.

Physical Location: 2206 Ringwood Avenue, San Jose, CA 95131

Identification No.: US0160 Current Scope: LP0002

Additional Scope: PSTN01, ADSL01, ID0002, IS6100 and CNS 14336

You may submit test data to NCC to verify that the equipment to be imported into China satisfies the applicable requirements. The designation of your organization will remain in force as long as its accreditation for the designated scope remains valid and comply with the designation requirements.

Recognized CABs are listed on the NIST website at http://ts.nist.gov/mra. If you have any questions please contact Ramona Saar at (301) 975-5521 or ramona.saar@nist.gov.

Sincerely,

David F. Alderman

Group Leader, Standards Coordination and Conformity Group Standards Services Division

Enclosure

cc: Ramona Saar

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#### SIEMIC ACREDITATION DETAILS: Mexico NOM Recognition



#### Laboratorio Valentín V. Rivero

México D.F. a 16 de octubre de 2006.

LESLIE BAI DIRECTOR OF CERTIFICATION SIEMIC LABORATORIES, INC. ACCESSING GLOBAL MARKETS PRESENTE

En contestación a su escrito de fecha 5 de septiembre del año en curso, le comento que estamos muy interesados en su intención de firmar un Acuerdo de Reconocimiento Mutuo, para lo cual adjunto a este escrito encontrara el Acuerdo en Idioma ingles y espeñol prellenado de los cuales le pido sea revisado y en su caso corregido, para que si esta de acuerdo poder firmarlo para mandarlo con las autoridades Mexicanas para su visto bueno y así poder ejercer dicho acuerdo.

Aprovecho este escrito para mencionarle que nuestro intermediario gastor será la empresa Isatel de México. S. A. de C. V., empresa que ha colaborado durante mucho tiempo con nosotros en lo refacionado a la evaluación de la conformidad y que quenta con amplia experiencia en la gestoria de la certificación de cumplimiento con Normas Oficiales Mexicanas de producto en México.

Me despido de ustad enviándole un cordial seludo y esperando sus comentanos al Acuerdo que nos poupa.

Atentamente:

Ing. Faustino Boriez González Gerente Púerlico del Laboratorio de GAMEN.

Culturile 71 Historiems Condess CR100 Molecu, D.F. Tur. 5204-0305 con 12 liness Fair 5264-0406 mere catalog.org



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#### SIEMIC ACREDITATION DETAILS: Hong Kong OFTA CAB ID: US0160



UNITED STATES DEPARTMENT OF COMMERCE National Institute of Standards and Technology Gaithersburg, Maryland 20899-

December 8, 2008

Mr. Leslie Bai SIEMIC, Inc. 2206 Ringwood Avenue San Jose, CA 95131

Dear Mr. Bai:

NIST is pleased to inform you that your laboratory has been recognized by the Office of the Telecommunications Authority (OFTA) under the Asia Pacific Economic Cooperation for Telecommunications Equipment Mutual Recognition Arrangement (APEC Tel MRA). Your laboratory is now designated to act as a Conformity Assessment Body (CAB) under Appendix B, **Phase I** Procedures, of the APEC Tel MRA. The pertinent information about your laboratory's designation is as follows:

CAB Name: SIEMIC, Inc.

Physical Location: 2206 Ringwood Avenue, San Jose, California 95131 USA

Identification No.: US0160

Recognized Scope: Radio: HKTA 1002, 1007, 1008, 1010, 1015, 1016, 1020, 1022, 1026,

1027, 1029, 1030, 1031, 1032, 1033, 1034, 1035, 1036, 1037, 1039, 1041,

1042, 1043, 1044, 1046, 1047, 1048, 1049, 1051

**Telecom:** HKTA 2011, 2012, 2013, 2014, 2017, 2018, 2022, 2024, 2026,

2027, 2028, 2029, 2030, 2031, 2032, 2033

You may submit test data to OFTA to verify that the equipment to be imported into Hong Kong satisfies the applicable requirements. The designation of your organization will remain in force as long as its accreditation for the designated scope remains valid and comply with the designation requirements.

Recognized CABs are listed on the NIST website at http://ts.nist.gov/mra. If you have any questions please contact Ramona Saar at (301) 975-5521 or ramona.saar@nist.gov.

Sincerely,

David F. Alderman

Group Leader, Standards Coordination and Conformity Group

Standards Services Division

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Enclosure

cc: Ramona Saar

NST



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#### **SIEMIC ACREDITATION DETAILS: Australia ACMA CAB ID: US0160**



UNITED STATES DEPARTMENT OF COMMERCE National Institute of Standards and Technology Gaithersburg, Maryland 20899-

November 20, 2008

Mr. Leslie Bai SIEMIC, Inc. 2206 Ringwood Avenue San Jose, CA 95131

Dear Mr. Bai:

NIST is pleased to inform you that your laboratory has been recognized by the Australian Communications and Media Authority (ACMA) under the Asia Pacific Economic Cooperation for Telecommunications Equipment Mutual Recognition Arrangement (APEC Tel MRA). Your laboratory is now designated to act as a Conformity Assessment Body (CAB) under Appendix B, **Phase I** Procedures, of the APEC Tel MRA. The pertinent information about your laboratory's designation is as follows:

CAB Name: Siemic, Inc.

Physical Location: 2206 Ringwood Avenue, San Jose, CA 95131

Identification No.: US0160

Recognized Scope: EMC: AS/NZS 4251.1 (until 5/31/2009), AS/NZS 4251.2 (until 5/31/2009),

AS/NZS CISPR 11, AS/NZS CISPR 14.1, AS/NZS CISPR 22, AS/NZS

61000.6.3, AS/NZS 61000.6.4

Radiocommunications: AS/NZS 4281, AS/NZS 4268, AS/NZS 4280.1, AS/NZS 4280.2, AS/NZS 4295, AS/NZS 4582, AS/NZS 4583, AS/NZS 4769.1, AS/NZS

4769.2, AS/NZS 4770, AS/NZS 4771

<u>Telecommunications</u>: AS/ACIF S002:05, AS/ACIF S003:06, AS/ACIF S004:06, AS/ACIF S006:01, AS/ACIF S016:01, AS/ACIF S031:01, AS/ACIF S038:01, AS/ACIF S040:01, AS/ACIF S041:05, AS/ACIF S043.2:06, AS/NZS 60950.1

You may submit test data to ACMA to verify that the equipment to be imported into Australia satisfies the applicable requirements. The designation of your organization will remain in force as long as its accreditation for the designated scope remains valid and comply with the designation requirements. Recognized CABs are listed on the NIST website at http://ts.nist.gov/mra. Please contact Ms. Ramona Saar, at (301) 975-5521 or ramona.saar@nist.gov if you have questions.

Sincerely,

David F. Alderman

Group Leader, Standards Coordination and Conformity Group

Standards Services Division

David T. alder

Enclosure

cc: Snell Leong, Siemic, Inc.; Ramona Saar, NIST

NST

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#### SIEMIC ACREDITATION DETAILS: Australia NATA Recognition



Leslie Bai SIEMIC, Inc. 2206 Ringwood Avenue San Jose, CA 95131

November 4, 2008

Under Australian government legislation, the Australian Communications and Media Authority (ACMA) has determined the National Association of Testing Authorities, Australia (NATA) as an accreditation body as per Section 409(1) of the Telecommunications Act 1997 (Cth). Pursuant to Section 409(2) of the Telecommunications Act 1997 (Cth), I am pleased to advise that your laboratory has been determined as a Recognised Testing Authority (RTA).

This determination has been made on the basis of your accreditation by A2LA accreditation no. 2742.01 and the Mutual Recognition Agreement between NATA and A2LA. It is effective from 11 July 2008. RTA status applies only to the following standards and is contingent upon their continued inclusion in your laboratory's scope of accreditation.

AS/ACIF S002, AS/ACIF S003, AS/ACIF S004, AS/ACIF S006, AS/ACIF S016, AS/ACIF S031, AS/ACIF S038, AS/ACIF S041 and AS/ACIF S043.2

As an RTA, your laboratory has the following obligations:

- 1. the laboratory shall continue to meet all of the accreditation criteria of A2LA;
- the authorised representative of the laboratory shall notify NATA of changes to the staff or operations of the laboratory which would affect the performance of the tests for which the laboratory has been determined;
- 3. compliance of equipment shall be reported on test reports bearing the A2LA logo/endorsement.

Current information on the Australian Communications and Media Authority and regulatory requirements for telecommunications products within Australia can be obtained from the ACMA's web-site at "<a href="http://www.acma.gov.au">http://www.acma.gov.au</a>". Further information about NATA may be gained by visiting "<a href="http://www.nata.asn.au">http://www.nata.asn.au</a>".

Please note that AS/ACIF S040 and New Zealand standards do not form part of the RTA scheme.

Your RTA listing will appear on the NATA website shortly.

Kind Regards

Chris Norton, Senior Scientific Officer Measurement Science and Technology National Association of Testing Authorities (NATA) 71-73 Flemington Road North Melbourne Vic 3051 Australia

Ph: +61 3 9329 1633 Fx: +61 3 9326 5148 E-Mail: <u>Christopher.Norton@nata.asn.au</u>

Internet: www.nata.asn.au



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#### SIEMIC ACREDITATION DETAILS: VCCI Radiated Test Site Registration No. R-3083





VCCI Council

# **CERTIFICATE**

Company: SIEMIC Inc.

<Member No. 3081 >

Facility: SIEMIC Inc.

(Radiation 3 meter site)

Location of Facility:

2206 Ringwood Avenue, San Jose, CA 95131 USA

This is to certify that the following measuring facility has been registered in accordance with the Rules for Voluntary Control Measures

Registration No.: R-3083

Date of Registration: June 12, 2009

This Certificate is valid until September 30, 2010





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#### SIEMIC ACREDITATION DETAILS: VCCI Conducted (Main Port) Test Site Registration No. C-3421





VCCI Council

# **CERTIFICATE**

Company: SIEMIC Inc.

<Member No. 3081 >

Facility: SIEMIC Inc.

(Main Ports Conducted Interference Measurement)

Location of Facility:

2206 Ringwood Avenue, San Jose, CA 95131 USA

This is to certify that the following measuring facility has been registered in accordance with the Rules for Voluntary Control Measures

Registration No.: C-3421

Date of Registration: June 12, 2009

This Certificate is valid until September 30, 2010



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SIEMIC ACREDITATION DETAILS: VCCI Conducted (Telecom Port) Test Site Registration No. T-1597





VCCI Council

## **CERTIFICATE**

Company: SIEMIC Inc.

<Member No. 3081

Facility: SIEMIC Inc.

(Telecominication Ports Conducted Interference Measurement)

Location of Facility:

2206 Ringwood Avenue, San Jose, CA 95131 USA

This is to certify that the following measuring facility has been registered in accordance with the Rules for Voluntary Control Measures

Registration No.: T-1597

Date of Registration: June 12, 2009

This Certificate is valid until September 30, 2010

