

# MW MCWONG INTERNATIONAL INC.

## 5.8GHz Doppler Sensor

Model: PSC-ID-FM-500

June 15th 2012

Report No.: SL11031502-MCW-001(FCC) Rev1.0

(This report supersedes: SL11031502-MCW-001(FCC))



Modifications made to the product : None

This Test Report is Issued Under the Authority of:

*David Zhang*

David Zhang  
Compliance Engineer

*Leslie Bai*

Leslie Bai  
Engineering Reviewer

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Test result presented in this test report is applicable to the representative sample only.

**FCC Test Report**  
To: FCC Part 15.249: 2011

**SIEMIC, INC.**  
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## Laboratory Introduction

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### Accreditations for Conformity Assessment

Country/Region	Accreditation Body	Scope
USA	FCC, A2LA	EMC , RF/Wireless , Telecom , SAR
Canada	IC, A2LA, NIST	EMC, RF/Wireless , Telecom , SAR
Taiwan	BSMI , NCC , NIST	EMC, RF, Telecom , Safety
Hong Kong	OFTA , NIST	RF/Wireless , Telecom
Australia	NATA, NIST	EMC, RF, Telecom , Safety
Korea	KCC/RRA, NIST	EMI, EMS, RF , Telecom, Safety , SAR
Japan	VCCI, JATE, TELEC, RFT	EMI, RF/Wireless, Telecom
Mexico	NOM, COFETEL, Caniety	Safety, EMC , RF/Wireless, Telecom
Europe	A2LA, NIST	EMC, RF, Telecom , Safety, SAR

### Accreditations for Product Certifications

Country	Accreditation Body	Scope
USA	FCC TCB, NIST	EMC , RF , Telecom
Canada	IC FCB , NIST	EMC , RF , Telecom
Singapore	iDA, NIST	EMC , RF , Telecom
EU	NB	EMC & R&TTE Directive
Japan	MIC (RCB 208)	RF , Telecom
HongKong	OFTA (US002)	RF , Telecom

Title: RF Test Report of 5.8GHz Doppler Sensor  
Model : PSC-ID-FM-500  
To FCC 15.249: 2011 &

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## 1 Executive Summary & EUT information

The purpose of this test programme was to demonstrate compliance of the 5.8GHz Doppler Sensor , Model:PSC-ID-FM-500 against the current Stipulated Standards. The 5.8GHz Doppler Sensor have demonstrated compliance with the FCC 15.249: 2011.

### EUT Information

<b>EUT Description</b>	:	5.8GHz Doppler Sensor
<b>Model No</b>	:	PSC-ID-FM-500
<b>Serial No</b>	:	N/A
<b>Input Power</b>	:	120-277 VAC/60HZ
<b>Classification Per Stipulated Test Standard</b>	:	Low Power Communication Device Transmitter / Device

## 2 TECHNICAL DETAILS

<b>Purpose</b>	Compliance testing of 5.8GHz Doppler Sensor with stipulated standard
<b>Applicant / Client</b>	<b>MW McWong International Inc.</b>
<b>Manufacturer</b>	<b>MW McWong International Inc.</b> 1921 Arena Blvd, Sacramento, CA
<b>Laboratory performing the tests</b>	<b>SIEMIC Laboratories</b> 2206 Ringwood Ave, San Jose, CA
<b>Test report reference number</b>	<b>SL11031502-MCW-001(FCC) Rev1.0</b>
<b>Date EUT received</b>	<b>March 21st, 2012</b>
<b>Standard applied</b>	<b>FCC 15.249: 2011</b>
<b>Dates of test (from – to)</b>	<b>June 2nd, 2012 - June 8th, 2012</b>
<b>No of Units:</b>	<b>3</b>
<b>Equipment Category:</b>	<b>DXX</b>
<b>Trade Name:</b>	<b>MW McWong International Inc.</b>
<b>Model :</b>	<b>PSC-ID-FM-500</b>
<b>RF Operating Frequency (ies)</b>	<b>5.727 GHz to 5.873 GHz</b>
<b>Number of Channels :</b>	<b>1</b>
<b>Modulation :</b>	<b>No Modulation</b>
<b>FCC ID :</b>	<b>ZZOPSC-ID-M-FM400</b>
<b>IC ID :</b>	<b>N/A</b>

Title: RF Test Report of 5.8GHz Doppler Sensor  
Model : PSC-ID-FM-500  
To FCC 15.249: 2011 &

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### **3 MODIFICATION**

**NONE**

## 4 TEST SUMMARY

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

### Low Power Communication Device Transmitter / Device

#### Test Results Summary

Test Standard	Description	Pass / Fail
47 CFR Part 15.249: 2011		
15.203	Antenna Requirement	Pass
15.207(a)	AC Line Conducted Emissions Voltage	Pass
15.249 (a)	Field Strength Emissions	Pass
15.209;15.249(d)	Radiated Spurious Emissons	Pass
	Receiver Spurious Emissions	N/A
ANSI C63.4: 2009		
PS: All measurement uncertainties are not taken into consideration for all presented test result.		

## **5 MEASUREMENTS, EXAMINATION AND DERIVED RESULTS**

### **5.1 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.

1) The EUT antenna is attached permanently to the device which meets the requirement.

## 5.2 Conducted Emissions Voltage

Requirement:

Frequency of emission (MHz)	Conducted limit (dB $\mu$ V)	
	Quasi-peak	Average
0.15–0.5	66 to 56*	56 to 46*
0.5–5	56	46
5–30	60	50

\*Decreases with the logarithm of the frequency.

Procedures:

1. All possible modes of operation were investigated. Only the 6 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  $\pm 3.86$ dB.
4. Environmental Conditions
 

Temperature	25°C
Relative Humidity	50%
Atmospheric Pressure	1019mbar

Test Date : June 2nd, 2012 - June 8th, 2012

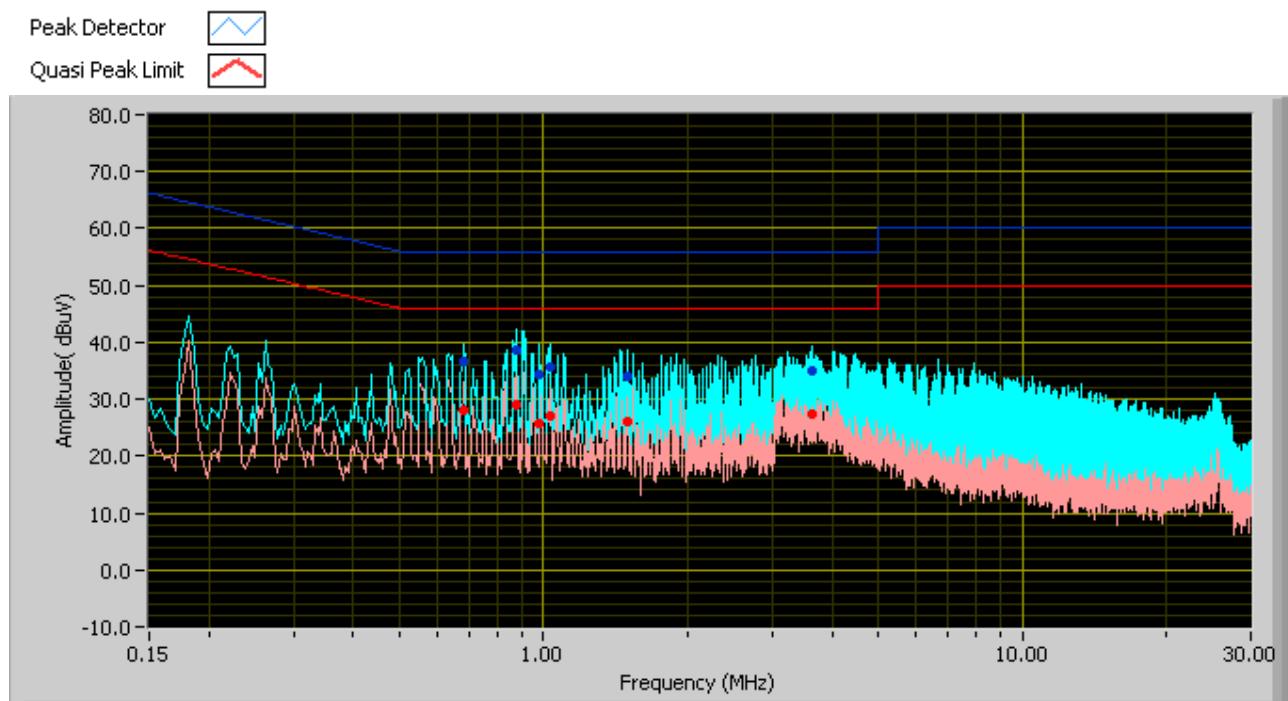
Tested By : David Zhang

**Test Result:** Pass

## Report Information

<b>Test Engineer :</b>	<b>David Zhang</b>
<b>Date :</b>	<b>6/5/2012</b>
<b>Customer/Company :</b>	<b>MW McWong International</b>
<b>EUT Description :</b>	<b>5.8GHz Doppler Sensor</b>
<b>Neutral / Line :</b>	<b>Line</b>

## Graph-



## Test Data

Frequency (MHz)	Quasi Peak (dBuV/m)	Limit (dBuV)	Margin (dB)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Factors (dB)
0.87	38.78	56.00	-17.22	29.07	46.00	-16.93	12.39
0.98	34.24	56.00	-21.76	25.65	46.00	-20.35	12.44
1.03	35.54	56.00	-20.46	27.21	46.00	-18.79	12.45
0.68	36.54	56.00	-19.46	27.97	46.00	-18.03	12.30
3.62	34.87	56.00	-21.13	27.26	46.00	-18.74	12.43
1.50	34.12	56.00	-21.88	25.93	46.00	-20.07	12.48

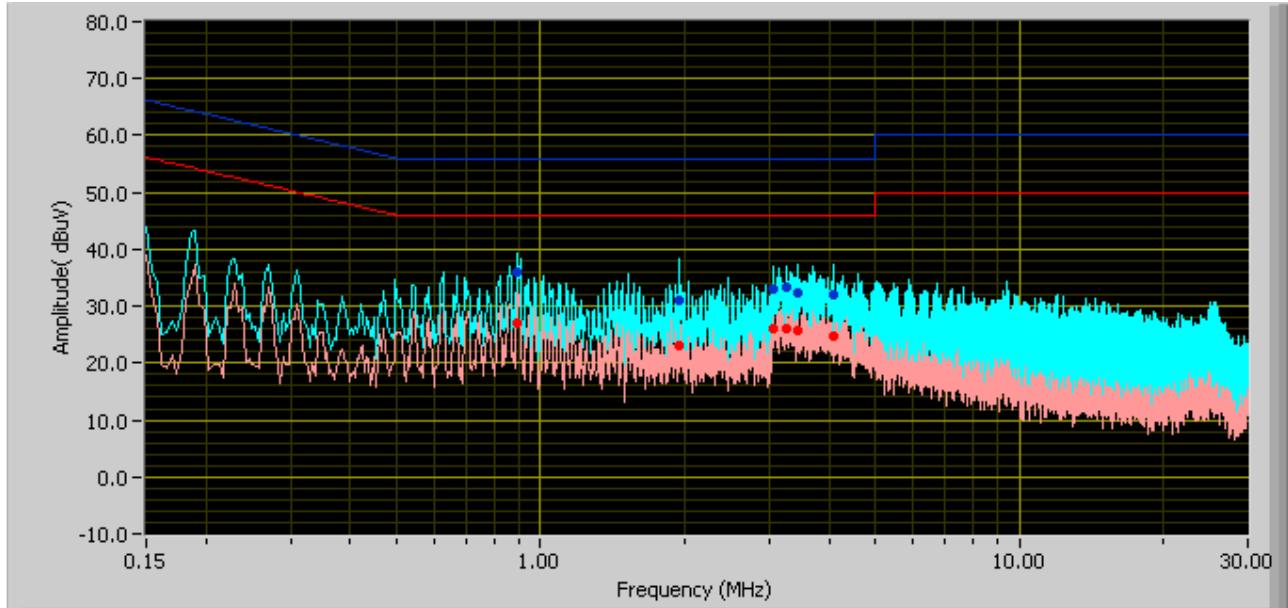
## Report Information

<b>Test Engineer :</b>	<b>David Zhang</b>
<b>Date :</b>	<b>6/5/2012</b>
<b>Customer/Company :</b>	<b>MW McWong International</b>
<b>EUT Description :</b>	<b>5.8GHz Doppler Sensor</b>
<b>Neutral / Line :</b>	<b>Neutral</b>

## Graph-

Peak Detector 

Quasi Peak Limit 



## Test Data

Frequency (MHz)	Quasi Peak (dBuV/m)	Limit (dBuV)	Margin (dB)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Factors (dB)
0.89	36.09	56.00	-19.91	27.15	46.00	-18.85	12.30
1.95	31.08	56.00	-24.92	23.06	46.00	-22.94	12.30
3.46	32.51	56.00	-23.49	25.58	46.00	-20.42	12.25
4.10	32.02	56.00	-23.98	24.72	46.00	-21.28	12.25
3.07	32.96	56.00	-23.04	25.90	46.00	-20.10	12.26
3.27	33.20	56.00	-22.80	25.93	46.00	-20.07	12.25

### 5.3 Radiated Spurious Emission Test Results

**Requirement(s):** 47 CFR §15.209; 47 CFR §15.249 (d)

**Procedures:** Radiated emissions were measured according to ANSI C63.4. The EUT was set to transmit at the highest output power. The EUT was set 3 meter away from the measuring antenna. The Log Periodic Antenna was positioned 1 meter above the ground from the centre of the loop. The measuring bandwidth was set to 100 kHz. (Note: During testing the receive antenna was raise from 1~4 meters to maximize the emission from the EUT.)

1. All possible modes of operation were investigated. Only the 6 worst case emissions measured, using the correct CISPR 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. Radiated 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, is +/- 6dB
4. Environmental Conditions 

Temperature	25°C
Relative Humidity	50%
Atmospheric Pressure	1019mbar

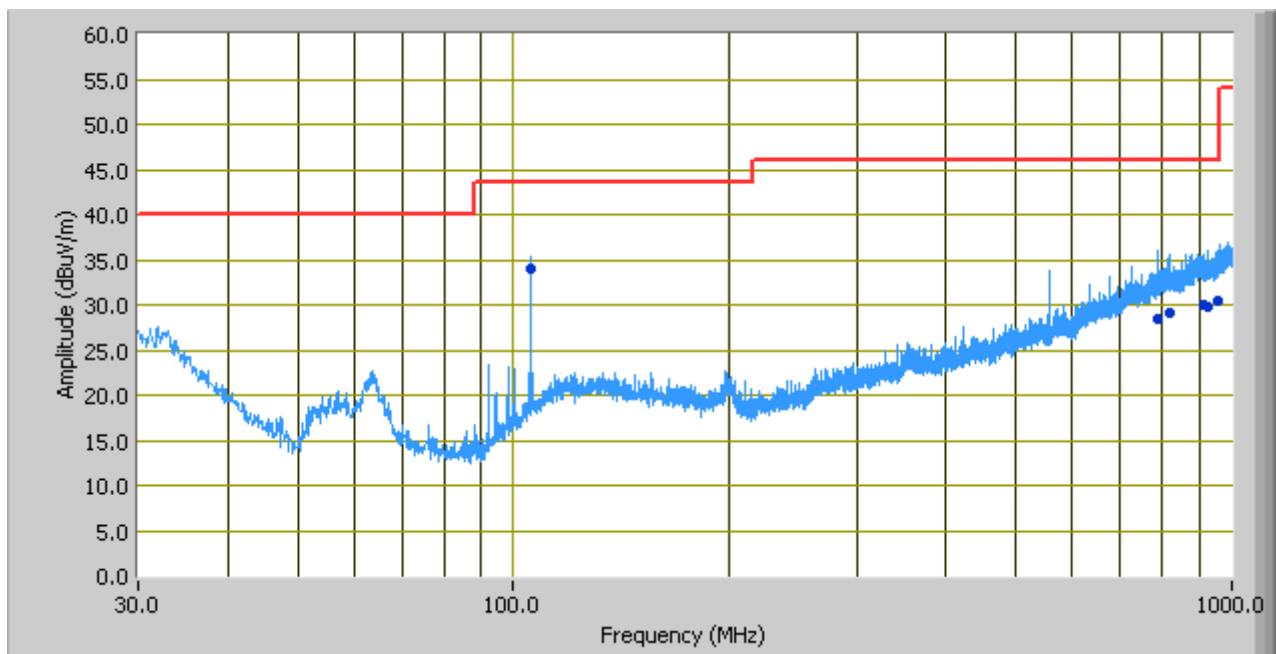
Test Date : June 2nd, 2012 - June 8th, 2012

Tested By : David Zhang

## Test Result: Pass

**Test result complying for FCC 15.249 (d) & 15.209**
**Report Information**

<b>Test Engineer :</b>	<b>David Zhang</b>
<b>Date :</b>	<b>6/5/2012</b>
<b>Customer/Company :</b>	<b>MW McWong International</b>
<b>EUT Description :</b>	<b>5.8GHz Doppler Sensor</b>
<b>Standard:</b>	<b>FCC 15 Class B @ 3m</b>

**Graph-**

**Test Data**

Frequency (MHz)	Quasi Peak (dBuV/m)	Azimuth	Polarity(H/V)	Height (cm)	Factors (dB)	Limit (dBuV)	Margin (dB)
105.77	33.90	7.00	V	142.00	12.97	43.52	-9.62
958.23	30.44	275.00	V	334.00	26.06	46.00	-15.56
790.25	28.34	339.00	V	128.00	24.21	46.00	-17.66
924.72	29.85	312.00	H	210.00	25.42	46.00	-16.15
819.79	29.01	197.00	H	137.00	24.86	46.00	-16.99
915.10	29.90	220.00	V	266.00	25.51	46.00	-16.10



## 5.4 Radiated Fundamental & Spurious Emissions

Requirement(s): 47 CFR §15.209; 47 CFR §15.249 (a); ; 47 CFR §15.249 (d)

**Procedures:** Radiated emissions were measured according to ANSI C63.4. The EUT was set to transmit at the highest output power. The EUT was set 3 meter away from the measuring antenna. The Horn Antenna (1-18GHz) was positioned 1 meter above the ground from the centre of the loop to measure the fundamental and 18-40GHz for Harmonics spurious emission (Note: During testing the receive antenna was raise from 1~4 meters to maximize the emission from the EUT.)

The limit is converted from microvolts/meter to decibel microvolts/meter.

Sample Calculation: Corrected Amplitude = Raw Amplitude (dB $\mu$ V/m) + ACF (dB) + Cable Loss (dB) – Pre-Amp.

1. All possible modes of operation were investigated
2. A "-ve" margin indicates a PASS as it refers to the margin present below the limit line at the particular frequency.
3. Radiated 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, is +/- 6dB
4. Environmental Conditions
 

Temperature	25°C
Relative Humidity	50%
Atmospheric Pressure	1019mbar

Test Date : June 2nd, 2012 - June 8th, 2012

Tested By : David Zhang

### 5.4.1 Test Result: Pass

#### Radiated Emissions Field Strength of Fundamental- Low Channel

Frequency GHz	Reading (dB $\mu$ V/m)	Direction Degree	Height Meter	Polar H / V	Antenn a Loss (dB)	Cable loss (dB)	Amplifier (dB)	Corrected Reading (dB $\mu$ V/m)	15.249 Limit (dB $\mu$ V/m)	15.249 Margin	Detector (pk/avg)
5.727	87.75	290	154	V	33.4	4.56	32.48	93.23	114	-20.77	Peak
5.727	87.5	211	126	H	33.4	4.56	32.48	92.98	114	-21.02	Peak
5.727	85.56	290	154	V	33.4	4.56	32.48	91.04	94	-2.96	Ave
5.727	86.58	211	126	H	33.4	4.56	32.48	92.06	94	-1.94	Ave

#### Radiated Emissions Field Strength of Harmonics- Low Channel

Frequency GHz	Reading (dB $\mu$ V/m)	Direction Degree	Height Meter	Polar H / V	Antenn a Loss (dB)	Cable loss (dB)	Amplifier (dB)	Corrected Reading (dB $\mu$ V/m)	15.249 Margin	15.249 Comments	Detector (pk/avg)
11.454	40.69	306	100	H	40.4	7.17	32.70	55.56	74	-18.44	Peak
11.454	39.69	164	100	V	40.4	7.17	32.70	54.56	74	-19.44	Peak
11.454	23.26	306	100	H	40.4	7.17	32.70	38.13	54	-15.87	Ave
11.454	23.43	164	100	V	40.4	7.17	32.70	38.30	54	-15.70	Ave



### Radiated Emissions Field Strength of Fundamental- Mid Channel

Frequency GHz	Reading (dBuV/m)	Direction Degree	Height Meter	Polar H / V	Antenn a Loss (dB)	Cable loss (dB)	Amplifier (dB)	Corrected Reading (dBuV/m)	15.245 Margin	15.245 Comments	Detector (pk/avg)
5.800	84.94	290	154	V	33.4	4.56	32.48	90.42	114	-23.58	Peak
5.800	84.15	200	149	H	33.4	4.56	32.48	89.63	114	-24.37	Peak
5.800	83.80	290	154	V	33.4	4.56	32.48	89.28	94	-4.72	Ave
5.800	82.56	200	149	H	33.4	4.56	32.48	88.04	94	-5.96	Ave

### Radiated Emissions Field Strength of Harmonics- Mid Channel

Frequency GHz	Reading (dBuV/m)	Direction Degree	Height Meter	Polar H / V	Antenn a Loss (dB)	Cable loss (dB)	Amplifier (dB)	Corrected Reading (dBuV/m)	15.245 Margin	15.245 Comments	Detector (pk/avg)
11.600	38.21	95	100	H	40.7	7.42	32.51	53.82	74	-20.18	Peak
11.600	38.11	327	100	V	40.7	7.42	32.51	53.71	74	-20.29	Peak
11.600	22.91	94	101	H	40.7	7.42	32.51	38.51	54	-15.49	Ave
11.600	22.90	327	100	V	40.7	7.42	32.51	38.51	54	-15.49	Ave

### Radiated Emissions Field Strength of Fundamental- High Channel

Frequency GHz	Reading (dBuV/m)	Direction Degree	Height Meter	Polar H / V	Antenn a Loss (dB)	Cable loss (dB)	Amplifier (dB)	Corrected Reading (dBuV/m)	15.245 Margin	15.245 Comments	Detector (pk/avg)
5.873	85.79	340	113	V	33.4	4.56	32.48	91.27	114	-22.73	Peak
5.873	85.37	115	181	H	33.4	4.56	32.48	90.85	114	-23.15	Peak
5.873	83.01	340	113	V	33.4	4.56	32.48	88.49	94	-5.51	Ave
5.873	82.76	115	181	H	33.4	4.56	32.48	88.24	94	-5.76	Ave

### Radiated Emissions Field Strength of Harmonics- High Channel

Frequency GHz	Reading (dBuV/m)	Direction Degree	Height Meter	Polar H / V	Antenn a Loss (dB)	Cable loss (dB)	Amplifier (dB)	Corrected Reading (dBuV/m)	15.245 Margin	15.245 Comments	Detector (pk/avg)
11.746	38.59	299	100	H	40.7	7.415	32.51	54.20	74	-19.80	Peak
11.746	37.78	56	100	V	40.7	7.415	32.51	53.39	74	-20.62	Peak
11.746	22.67	299	100	H	40.7	7.415	32.51	38.27	54	-15.73	Ave
11.746	22.50	56	100	V	40.7	7.415	32.51	38.10	54	-15.90	Ave

## **5.5 Receiver Spurious Emissions**

1. Conducted Measurement  
EUT was set for low , mid, high channel with modulated mode and highest RF output power.  
The spectrum analyzer was connected to the antenna terminal.
2. 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 30MHz – 40GHz is  $\pm 1.5\text{dB}$ .
3. Environmental Conditions      Temperature      23°C  
                                            Relative Humidity      50%  
                                            Atmospheric Pressure      1019mbar
4. Test Date : June 2nd, 2012 - June 8th, 2012  
Tested By : David Zhang

Standard Requirement: RSSGen(4.8)

**Procedures:** The conducted spurious emissions were measured conducted using a spectrum analyzer at mid channels. the search for spurious emissions shall be from the lowest frequency internally generated or used in the receiver (e.g. local oscillator, intermediate or carrier frequency), or 30 MHz, whichever is the higher, to at least 3 times the highest tuneable or local oscillator frequency, whichever is the higher, without exceeding 40 GHz. Receiver spurious emissions at any discrete frequency shall not exceed 2 nanowatts in the band 30-1000 MHz, or 5 nanowatts above 1 GHz.

**Test Result:** N/A



## Annex A. TEST INSTRUMENT & METHOD

### Annex A.i. TEST INSTRUMENTATION & GENERAL PROCEDURES

Instrument	Model	Serial #	Cal Date	Cal Cycle	Cal Due
<b>Conducted Emissions</b>					
R & S Receiver	ESIB 40	100179	4/20/2012	1 Year	4/20/2013
R&S LISN	ESH2-Z5	861741/013	05/18/2012	1 Year	05/18/2013
CHASE LISN	MN2050B	1018	05/18/2012	1 Year	05/18/2013
Sekonic Hygro Hermograph	ST-50	HE01-000092	5/25/2012	1 Year	5/25/2013
<b>Radiated Emissions</b>					
R & S Receiver	ESIB 40	100179	4/20/2012	1 Year	4/20/2013
Signal Analyzer	FSIQ7	825555/013	5/10/2012	1 Year	5/10/2013
Sunol Sciences, Inc. antenna (30MHz~2GHz)	JB1	A030702	06/01/2012	1 Year	06/01/2013
3 Meters SAC	3M	N/A	10/13/2011	1 Year	10/13/2012
10 Meters OATS	10M	N/A	06/17/2011	1 Year	06/17/2012
Sekonic Hygro Hermograph	ST-50	HE01-000092	5/25/2012	1 Year	5/25/2013
Test Equity Environment Chamber	1007H	1007H	06/01/2012	1 Year	06/01/2013
Horn Antenna (1-18GHz)	3115	10SL0059	4/26/2012	1 Year	4/26/2013
Pre-Amplifier(1 ~ 26GHz)	8449B	3008A00715	5/30/2012	1 Year	5/30/2013
Horn Antenna (18~40GHz)	AH-840	101013	4/23/2012	1 Year	4/23/2013
Microwave Pre-Amp (18~40GHz)	PA-840	181251	5/30/2012	1 Year	5/30/2013
<b>Permitted Freq Range</b>					
R & S Receiver	ESIB 40	100179	4/20/2012	1 Year	4/20/2013
TestEquity Environment Chamber	1007H	61201	06/01/2012	1 Year	06/01/2013
Signal Analyzer	FSIQ7	825555/013	5/10/2012	1 Year	5/10/2013

## 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 1.5m x 1m x 0.8m high, non-metallic table, as shown in Annex B.
2. The power supply for the EUT was fed through a  $50\Omega/50\mu\text{H}$  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 = $250 \mu\text{V} = 47.96 \text{ dB}\mu\text{V}$
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. <b>7.96 dB below limit</b>

## Annex A. iii RADIATED EMISSIONS TEST DESCRIPTION

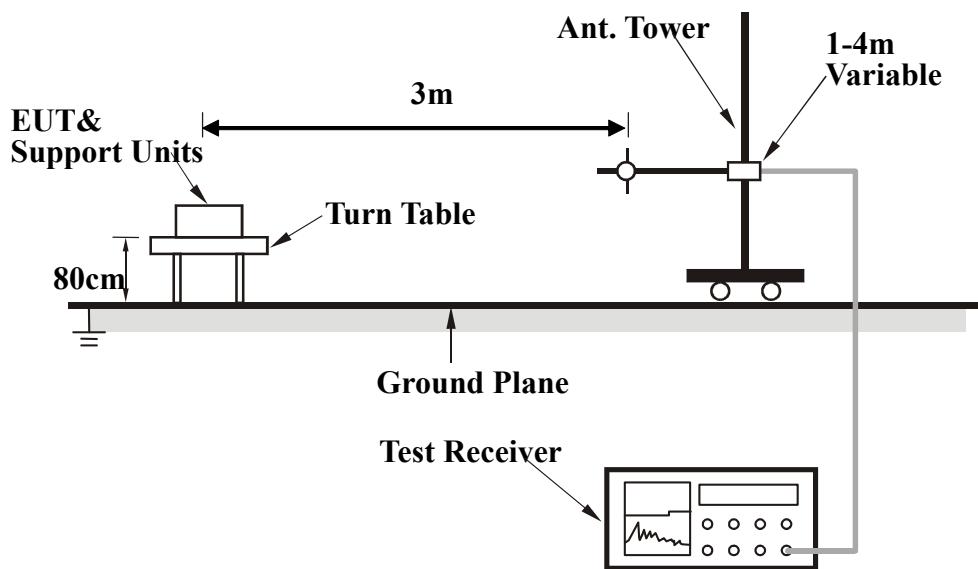
### EUT Characterisation

EUT characterisation, over the frequency range from 30MHz to 10<sup>th</sup> Harmonic, 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 0.8m on a turntable. 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).

### Test Set-up

1. The EUT and supporting equipment were set up in accordance with the requirements of the standard on top of a 1.5m X 1.0m X 0.8m high, non-metallic table.
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**

The following procedure was performed to determine the maximum emission axis of EUT:

1. With the receiving antenna is H polarization, rotate the EUT in turns with three orthogonal axes to determine the axis of maximum emission.
2. With the receiving antenna is V polarization, rotate the EUT in turns with three orthogonal axes to determine the axis of maximum emission.
3. Compare the results derived from above two steps. So, the axis of maximum emission from EUT was determined and the configuration was used to perform the final measurement.

### Final Radiated Emission Measurement

1. Setup the configuration according to figure 1. Turn on EUT and make sure that it is in normal function.
2. For emission frequencies measured below 1 GHz, a pre-scan is performed in a shielded chamber to determine the accurate frequencies of higher emissions will be checked on a open test site. As the same purpose, for emission frequencies measured above 1 GHz, a pre-scan also be performed with a 1 meter measuring distance before final test.
3. For emission frequencies measured below and above 1 GHz, set the spectrum analyzer on a 100 kHz and 1 MHz resolution bandwidth respectively for each frequency measured in step 2.
4. The search antenna is to be raised and lowered over a range from 1 to 4 meters in horizontally polarized orientation. Position the highness when the highest value is indicated on spectrum analyzer, then change the orientation of EUT on test table over a range from 0 ° to 360 ° with a speed as slow as possible, and keep the azimuth that highest emission is indicated on the spectrum analyzer. Vary the antenna position again and record the highest value as a final reading.
5. Repeat step 4 until all frequencies need to be measured were complete.
6. Repeat step 5 with search antenna in vertical polarized orientations.

During the radiated emission test, the Spectrum Analyzer was set with the following configurations:

Frequency Band (MHz)	Function	Resolution bandwidth	Video Bandwidth
30 to 1000	Peak	100 kHz	100 kHz
Above 1000	Peak	1 MHz	1 MHz
	Average	1 MHz	10 Hz

## **Sample Calculation Example**

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. For the limit is employed average value, therefore the peak value can be transferred to average value by subtracting the duty factor. The basic equation with a sample calculation is as follows:

$$\text{Peak} = \text{Reading} + \text{Corrected Factor}$$

where

$$\text{Corr. Factor} = \text{Antenna Factor} + \text{Cable Factor} - \text{Amplifier Gain (if any)}$$

And the average value is

$$\text{Average} = \text{Peak Value} + \text{Duty Factor} \text{ or}$$

$$\text{Set RBW} = 1\text{MHz}, \text{VBW} = 10\text{Hz}.$$

Note :

If the measured frequencies are fall in the restricted frequency band, the limit employed must be quasi peak value when frequencies are below or equal to 1 GHz. And the measuring instrument is set to quasi peak detector function.

## **Annex B EUT AND TEST SETUP PHOTOGRAPHS**

Please see the attachment

## **Annex C. TEST SETUP AND SUPPORTING EQUIPMENT**

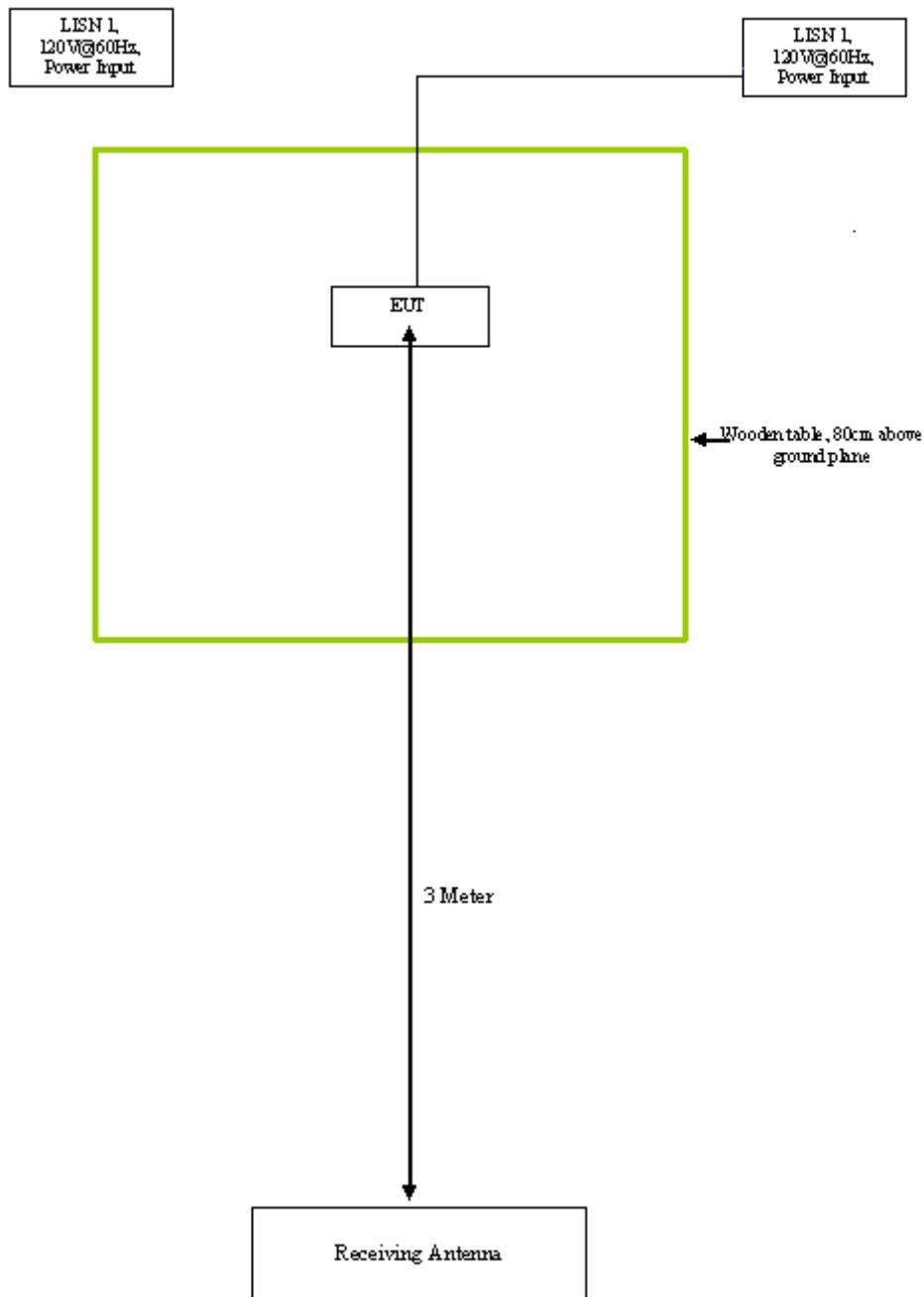
### **EUT TEST CONDITIONS**

#### **Annex C. i. SUPPORTING EQUIPMENT DESCRIPTION**

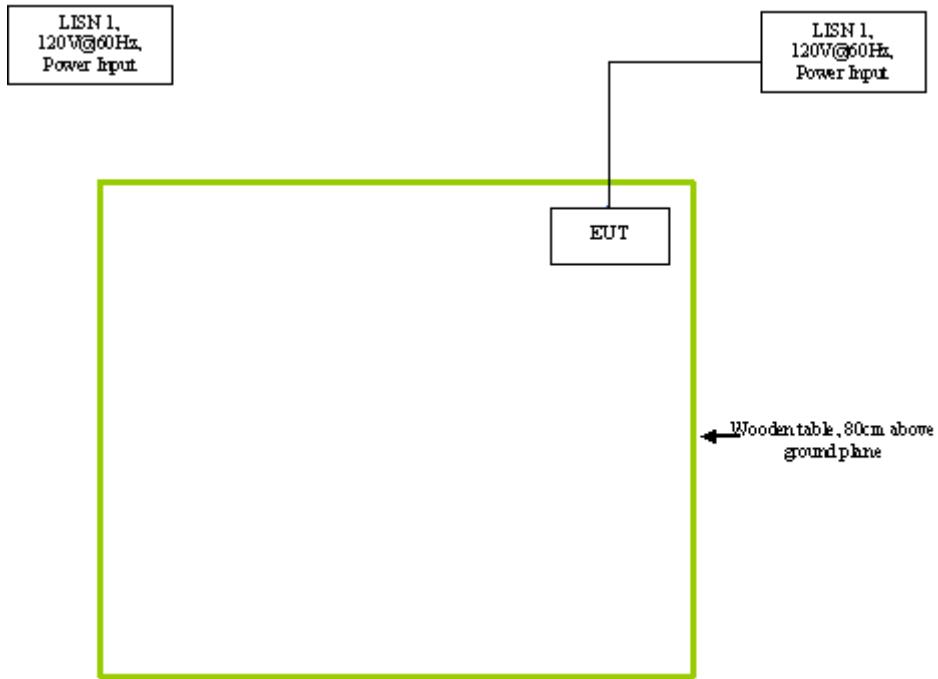
The following is a description of supporting equipment and details of cables used with the EUT.

Equipment Description (Including Brand Name)	Model & Serial Number	Cable Description (List Length, Type & Purpose)
-	-	-

**NOTE:** No special supporting equipment are used or needed during testing to achieve compliance.

**Block Configuration Diagram for Radiated Emission**

## Block Configuration Diagram for Conducted Emission



## Annex C.ii. EUT OPERATING CONDITIONS

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

Test	Description Of Operation
<b>Emissions Testing</b>	The EUT was transmitting continuously.
<b>Others Testing</b>	The EUT was transmitting continuously.



**SIEMIC, INC.**  
Accessing global markets

Title: RF Test Report of 5.8GHz Doppler Sensor  
Model : PSC-ID-FM-500  
To FCC 15.249: 2011 &

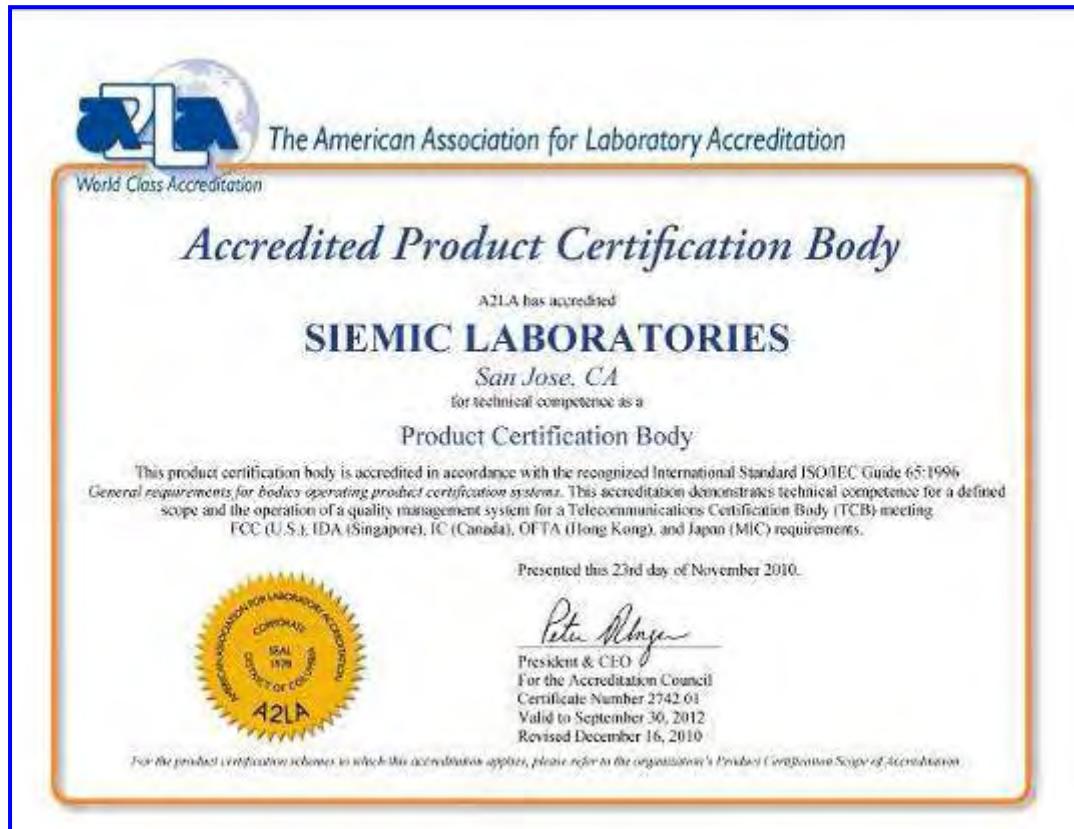
Serial# SL11031502-MCW-001(FCC) Rev1.0  
Issue Date June 15th 2012  
Page 27 of 45  
[www.siemic.com](http://www.siemic.com)

## **Annex D USER MANUAL, BLOCK & CIRCUIT DIAGRAM**

**Please see attachment**

## Annex E SIEMIC ACCREDITATION

### SIEMIC ACCREDITATION DETAILS: A2LA 17025 & ISO Guide 65 : 2742.01 , 2742.2





**The American Association for Laboratory Accreditation**

**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](http://www.siemic.com)

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

Valid to: September 30, 2012

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), Singapore (IDA) and Hong Kong (OFTA) 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

\*Please refer to FCC TCB Program Roles and Responsibilities, released July 22, 2010 detailing scopes, roles and responsibilities. <http://fajallfoss.fcc.gov/oetc/fdb/forms/FTSSearchResultPage.cfm?id=44683&switch=P>

**Industry Canada - (IC)**

Radio	Scope 1-Licence-Exempt Radio Frequency Devices; Scope 2-Licensed Personal Mobile Radio Services; Scope 3-Licensed General Mobile & Fixed Radio Services; Scope 4-Licensed Maritime & Aviation Radio Services; Scope 5-Licensed Fixed Microwave Radio Services;
-------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

\*Please refer to Industry Canada (IC) website at: <http://www.ic.gc.ca/eic/site/smt-gst/nsf/eng/sf09888.html>

**IDA – Singapore**

Line Terminal Equipment	All Technical Specifications for Line Terminal Equipment – Table 1 of IDA MRA Recognition Scheme: 2009, Annex 2
Radio-Communication Equipment	All Technical Specifications for Radio-Communication Equipment – Table 2 of IDA MRA Recognition Scheme: 2009, Annex 2

\*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/MRARecScheme.pdf](http://www.ida.gov.sg/doc/Policies%20and%20Regulation/Policies_and_Regulation_Level2/20060609145118/MRARecScheme.pdf)

(A2LA Cert. No. 2742.02) Revised 12/16/2010

*Peter Royle* Page 1 of 2

**OFTA – Hong Kong**

Radio Equipment HKTA 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1015, 1016, 1019, 1020, 1022, 1026, 1027, 1029, 1030, 1031, 1032, 1033, 1034, 1035, 1036, 1037, 1038, 1039, 1041, 1042, 1043, 1044, 1045, 1046, 1047, 1048, 1049, 1050, 1051, 1052, 1053, 1054, 1055

*\*Please refer to the Office of the Telecommunications Authority's website at:  
<http://www.ofta.gov.hk/en/standards/HKTA/Spec/hkta-10xx.html>*

Fixed Network Equipment HKTA 2001, 2005, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2040, 2041, 2102, 2103, 2104, 2108, 2201, 2202, 2203, 2204

*\*Please refer to the Office of the Telecommunications Authority's website at:  
<http://www.ofta.gov.hk/en/standards/HKTA/Spec/hkta-2xxx.html>*

**MIC – Japan**

Terminal Equipment Scope A1 - Terminal Equipment for the Purpose of Calls  
Radio Equipment Scope B1 - Unlicensed Station (all classes of equipment)

**SIEMIC ACREDITATION DETAILS: FCC Test Site Registration No. 783147****FEDERAL COMMUNICATIONS COMMISSION**

Laboratory Division  
7435 Oakland Mills Road  
Columbia, MD 21046

September 12, 2008

Registration Number: 783147

SIEMIC Laboratories  
2206 Ringwood Avenue,  
San Jose, CA 95131

Attention: Leslie Bai

---

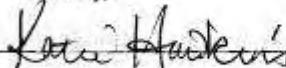
Re: Measurement facility located at San Jose  
Anechoic chamber (3 meters)  
Date of Listing: February 10, 2004

Dear Sir or Madam:

Your request for registration of the subject measurement facility has been reviewed and found to be in compliance with the requirements of Section 2.948 of the FCC rules. The information has, therefore, been placed on file and the name of your organization added to 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. Please also note that this registration does not recognize the measurement facility to perform testing for products authorized under the Declaration of Conformity (DoC) process. In order to test products subject to DoC authorization process, a measurement facility must be accredited and recognized by the FCC.

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 [www.fcc.gov](http://www.fcc.gov) under E-Filing, OET Equipment Authorization Electronic Filing, Test Firms.

Sincerely,



Katie Hawkins  
Electronics Engineer

## 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 [ramona.saar@nist.gov](mailto:ramona.saar@nist.gov) if you have any questions.

Sincerely,

David F. Alderman  
 Group Leader, Standards Coordination and Conformity Group  
 Standards Services Division

Enclosure

cc: CAB Program Manager

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

May 27, 2010

OUR FILE: 46405-4842  
Submission No: 140856

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

*Attention:* Snell Leong

Dear Sir/Madame:

The Bureau has received your application for the renewal of a 3m alternative test site. 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 keep for your records the following information;

- Your primary code is: 4842
- The company number associated to the site(s) located at the above address is: 4842A

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 or later shall be accepted. Please indicate in a letter the previous assigned site number if applicable and the type of site (example: 3 metre OATS or 3 metre 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](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 [certification.bureau@ic.gc.ca](mailto:certification.bureau@ic.gc.ca) Please reference our file and submission number above for all correspondence.

Yours sincerely,

Dalwinder Gill  
For: Wireless Laboratory Manager  
Certification and Engineering Bureau  
3701 Carling Ave., Building 94  
P.O. Box 11490, Station 'H'  
Ottawa, Ontario K2H 8S2  
Email: [dalwinder.gill@ic.gc.ca](mailto:dalwinder.gill@ic.gc.ca)  
Tel. No. (613) 998-8363  
Fax. No. (613) 990-4752

**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

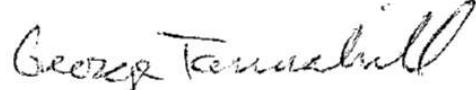
Dear Sir or Madam:

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  
George Tannahill  
Electronics Engineer

**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  
Telecommunications: 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](mailto:ramona.saar@nist.gov) if you have questions.

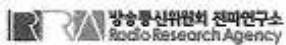
Sincerely,

David F. Alderman  
Group Leader, Standards Coordination and Conformity Group  
Standards Services Division

Enclosure

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

## SIEMIC ACREDITATION DETAILS: Korea CAB ID: US0160



KOREA COMMUNICATIONS COMMISSION  
 REPUBLIC OF KOREA  
 1, Wonhyero-3ga, Yongsan-gu, Seoul, 140-848, Korea

KCC/RRA

## Radio Research Agency

Tel: +82 2 710 6610  
 Fax: +82 2 710 6619  
[Homepage : www.rra.go.kr](http://www.rra.go.kr)

14<sup>th</sup> Jan, 2011

Radio Research Agency  
 Korea Communications Commission  
 #1, Wonhyero-3ga, Yongsan-gu  
 Seoul, Korea 140-848  
 (Tel) 82-2-710-6610, (Fax) 82-2-710-6619  
 Jan 14<sup>th</sup>, 2011

Mr. David F. Alderman  
 Group Leader, Standards Coordination and Conformity Group  
 National Institute of Standards and Technology  
 100 Bureau Drive, Stop 2100  
 Gaithersburg, Maryland 20899-2100, USA

Dear Mr. David F. Alderman:

This is to confirm the recognition by Radio Research Agency of

SIEMIC, Inc. (US0160)

as an accredited Conformity Assessment Body (CAB) under the terms of Phase I of the APEC TEL MRA. The scope for which this laboratory has been recognized is given below.

Coverage	Standards	Date of Recognition
Current Scope	EMI : KCC Notice 2008-39, RRL Notice 2008-3 and KN22 EMS : KCC Notice 2008-38, RRL Notice 2008-4, KN24, KN 61000-4-2, -4-3, -4-4, -4-5, -4-6, -4-8, -4-11 Radio : RRL Notice 2008-26, RRL Notice 2008-2, RRL Notice 2008-10, RRL Notice 2007-49, RRL Notice 2007-20, RRL Notice 2007-11, RRL Notice 2007-80, RRL Notice 2004-68 Telecom : President Notice 20664, RRL Notice 2007-30, 2008-7(1,3,4,5,6)	Jan 14 <sup>th</sup> , 2011
Updated Scope	SAR : RRA Notice 2008-16, RRA Notice 2008-18, KCC Notice 2009-27	

This recognition is contingent upon the maintenance of this CAB's accreditation status and is limited to the standards listed above.

If you have any inquiries about this recognition, please contact to Certification Division of Radio Research Agency with above address and telephone numbers.

Best Regards,

Ahn, Kun-Young  
 Director Certification Division

Enclosure

cc: Ramona Saar - NIST,  
 JungMin Park - RRA

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

UNITED STATES DEPARTMENT OF COMMERCE  
National Institute of Standards and Technology  
Gaithersburg, Maryland 20883

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 designated scope remains valid and comply with the designation requirements. The pertinent 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**

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

cc: Jagminder Dhillon

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

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

March 16, 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 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, PSTN01, ADSL01, ID0002, IS6100 and CNS 14336  
Additional Scope: PLMN07

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](mailto:ramona.saar@nist.gov).

Sincerely,

David F. Alderman  
Group Leader, Standards Coordination and Conformity Group  
Standards Services Division

Enclosure

cc: Ramona Saar

**SIEMIC ACREDITATION DETAILS: Mexico NOM Recognition**

CÁMARA NACIONAL  
DE LA INDUSTRIA  
ELECTRÓNICA, DE  
TELECOMUNICACIONES  
E INFORMÁTICA

**Laboratorio Valentín V. Rivero**

Méjico D.F. a 16 de octubre de 2006.

LESLIE BAI  
DIRECTOR OF CERTIFICATION  
SIEMIC LABORATORIES, INC.  
ACCEESSING GLOBAL MARKETS  
P R E S E N T E

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 inglés y español prellenado de los cuales le pido sea revisado y en su caso corregido, para que si esto 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 intermediano gestor será la empresa Isotel de México, S. A. de C. V., empresa que ha colaborado durante mucho tiempo con nosotros en lo relacionado a la evaluación de la conformidad y que cuenta con amplia experiencia en la gestión de la certificación de cumplimiento con Normas Oficiales Mexicanas de producto en México.

Me deseo de usted enviándole un cordial saludo y esperando sus comentarios al Acuerdo que nos ocupa.

Atentamente:

Ing. Faustino Sánchez González  
Gerente Técnico del Laboratorio de  
CANIETI

**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](mailto:ramona.saar@nist.gov).

Sincerely,

*David F. Alderman*

David F. Alderman  
 Group Leader, Standards Coordination and Conformity Group  
 Standards Services Division

Enclosure

cc: Ramona Saar

**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  
Telecommunications: 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](mailto:ramona.saar@nist.gov) if you have questions.

Sincerely,

*David F. Alderman*

David F. Alderman  
 Group Leader, Standards Coordination and Conformity Group  
 Standards Services Division

Enclosure

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

**NIST**

**SIEMIC ACREDITATION DETAILS: Australia NATA Recognition**

Leslie Bal  
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;
2. 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.

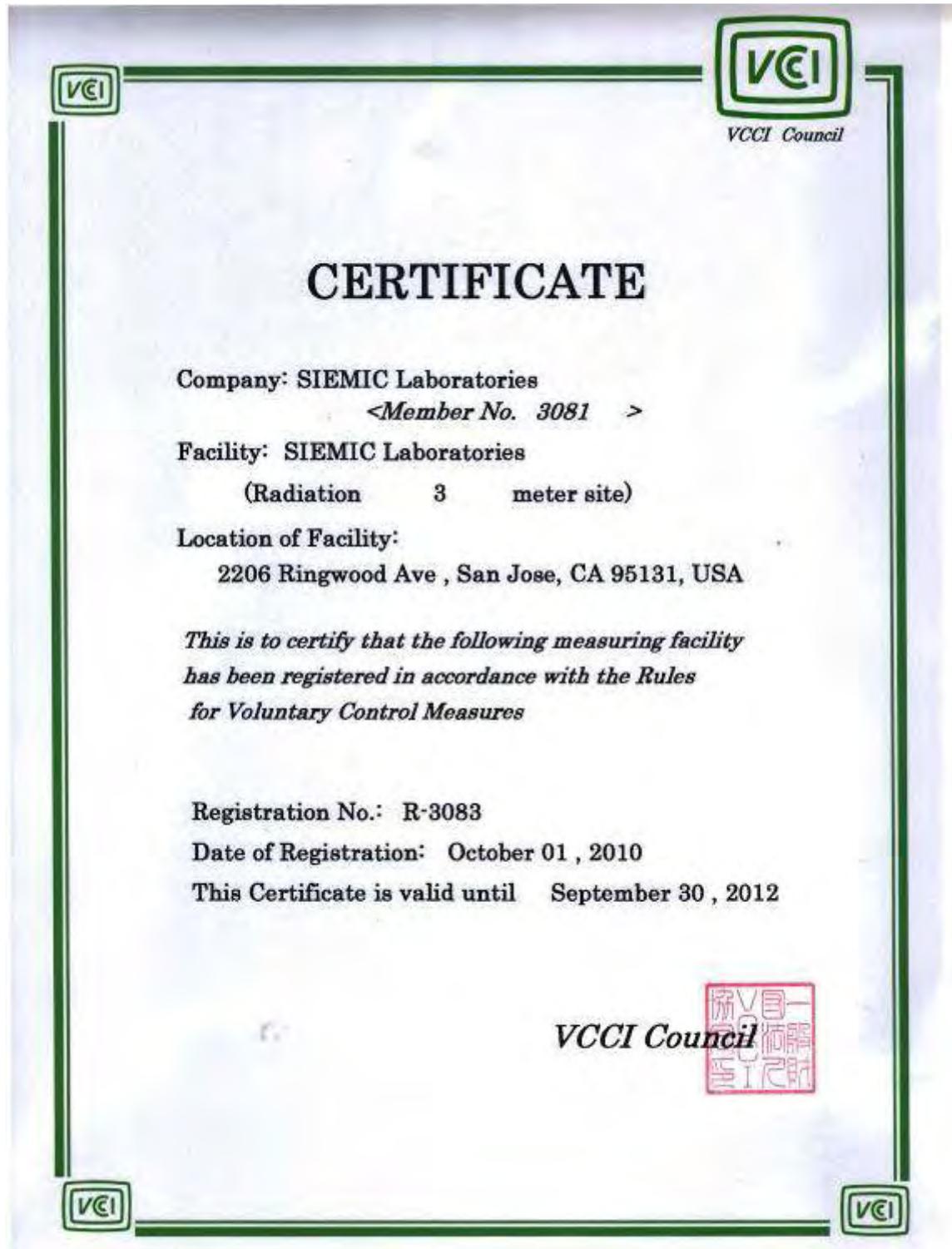
Current information on the Australian Communications and Media Authority and regulatory requirements for telecommunications products within Australia can be obtained from the ACMA's web-site at "<http://www.acma.gov.au>". Further information about NATA may be gained by visiting "<http://www.nata.asn.au>".

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: [Christopher.Norton@nata.asn.au](mailto:Christopher.Norton@nata.asn.au)  
Internet: [www.nata.asn.au](http://www.nata.asn.au)

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

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

# CERTIFICATE

**Company: SIEMIC Laboratories**

&lt;Member No. 3081 &gt;

**Facility: SIEMIC Laboratories**

(Main Ports Conducted Interference Measurement)

**Location of Facility:**

2206 Ringwood Ave 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: October 01 , 2010****This Certificate is valid until September 30 , 2012****VCCI Council**

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