

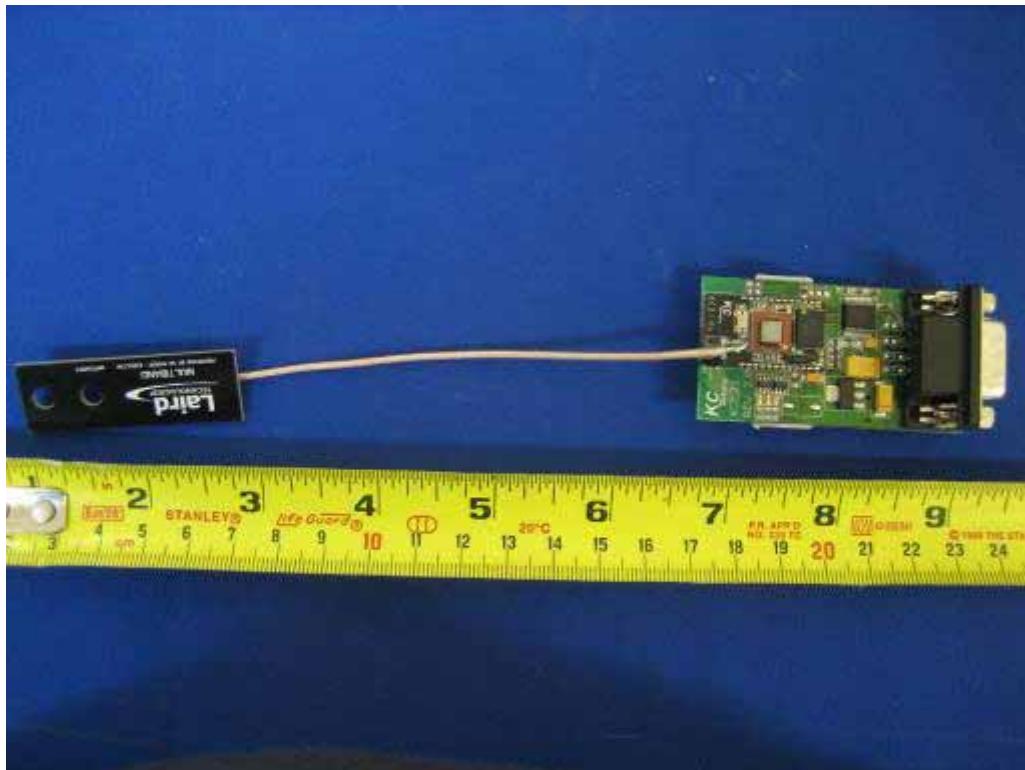
# KC WIREFREE LLC

## BLUETOOTH RADIO MODULE

Model: KC21

01 September 2009

Report No.: SL09072301-KCW-005 PCII  
(This report supersedes NONE)



Modifications made to the product : None

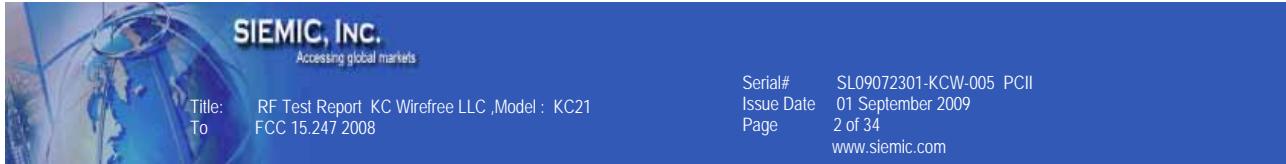
This Test Report is Issued Under the Authority of:

Choon Sian Ooi Test Engineer	Leslie Bai Engineering Reviewer

This test report may be reproduced in full only.  
Test result presented in this test report is applicable to the representative sample only.

**EMC Test Report**  
To: FCC Part 15.247

**SIEMIC, INC.**  
Accessing global markets

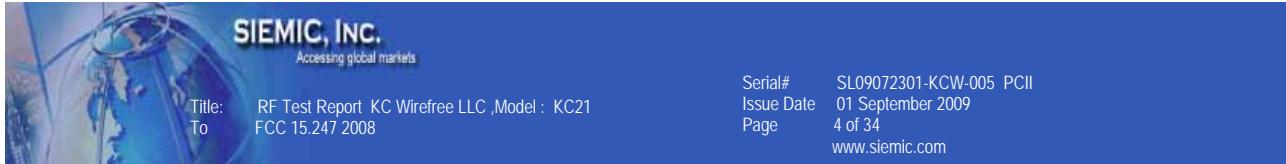


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## CONTENTS

1	EXECUTIVE SUMMARY & EUT INFORMATION.....	5
2	TECHNICAL DETAILS.....	6
3	MODIFICATION .....	7
4	TEST SUMMARY .....	8
5	MEASUREMENTS, EXAMINATION AND DERIVED RESULTS .....	9
	ANNEX A. TEST INSTRUMENT & METHOD .....	11
	ANNEX B EUT AND TEST SETUP PHOTOGRAPHS.....	15
	ANNEX C. TEST SETUP AND SUPPORTING EQUIPMENT .....	15
	ANNEX D USER MANUAL, BLOCK & CIRCUIT DIAGRAM .....	19
	ANNEX E SIEMIC ACCREDITATION .....	20



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## 1 Executive Summary & EUT information

The purpose of this test programme was PCII application and to demonstrate compliance of the KC Wirefree LLC , Bluetooth radio Module Model: KC21 against the current Stipulated Standards. The Bluetooth radio Module have demonstrated compliance with the FCC 15.247 2008 and RSS 210 Issue 7 2007.

### EUT Information

**EUT Description** : The test item is a frequency hopping spread spectrum transceiver used in vehicle Bluetooth applications. It transmits in the 2400.0MHz to 2483.5MHz band and uses an internal antenna

**Model No** : KC21

**Serial No** : Test sample without serial number

**Input Power** : 5VDC

## 2 TECHNICAL DETAILS

Purpose	Compliance testing of DSSS Radio Module with stipulated standard
Applicant / Client	KC Wirefree LLC
Manufacturer	KC Wirefree LLC 2640 W Medtronic Way. Tempe, AZ 85281
Laboratory performing the tests	SIEMIC Laboratories
Test report reference number	SL09072301-KCW-005 PCII
Date EUT received	August 21 2009
Standard applied	47 CFR §15.247 (2008)
Dates of test (from – to)	August 28 2009
No of Units:	1
Equipment Category:	DSSS
Trade Name:	KC Wirefree LLC
Model :	KC21
RF Operating Frequency (ies)	2402MHz to 2480MHz
Number of Channels :	N/A
Modulation :	GFSK
FCC ID :	S22BTMODULE-CL2



Title: RF Test Report KC Wirefree LLC ,Model : KC21  
To FCC 15.247 2008

Serial# SL09072301-KCW-005 PCII  
Issue Date 01 September 2009  
Page 7 of 34  
[www.siemic.com](http://www.siemic.com)

### **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:  
 Spread Spectrum System / Device

### Test Results Summary

Test Standard		Description	Pass / Fail
CFR 47 Part 15.247: 2008	RSS 210 Issue 7: 2007	-	-
15.203		Antenna Requirement	Pass - Refer to FCC ID: S22BTMODULE-CL2 Report
15.205	RSS210(A8.5)	Restricted Band of Operation	Pass
15.207(a)	RSSGen(7.2.2)	Conducted Emissions Voltage	Pass - Refer to FCC ID: S22BTMODULE-CL2 Report
15.247(a)(1)	RSS210(A8.1)	Channel Separation	Pass - Refer to FCC ID: S22BTMODULE-CL2 Report
15.247(a)(1)	RSS210(A8.1)	Occupied Bandwidth	Pass - Refer to FCC ID: S22BTMODULE-CL2 Report
15.247(a)(2)	RSS210 (A8.2)	Bandwidth	Pass - Refer to FCC ID: S22BTMODULE-CL2 Report
15.247(a)(1)	RSS210(A8.1)	Number of Hopping Channels	Pass - Refer to FCC ID: S22BTMODULE-CL2 Report
15.247(a)(1)	RSS210(A8.1)	Time of Occupancy	Pass - Refer to FCC ID: S22BTMODULE-CL2 Report
15.247(b)	RSS210(A8.4)	Output Power	Pass - Refer FCC ID: S22BTMODULE-CL2 Report
15.247(c)	RSS210(A8.4)	Antenna Gain > 6 dBi	N/A
15.247(d)	RSS210(A8.5)	Conducted Spurious Emissions	Pass - Refer to FCC ID: S22BTMODULE-CL2 Report
15.209; 15.247(d)	RSS210(A8.5)	Radiated Spurious Emissions	Pass
15.247(e)	RSS210(A8.3)	Power Spectral Density	N/A
15.247(f)	RSS210(A8.3)	Hybrid System Requirement	Pass - Refer to FCC ID: S22BTMODULE-CL2 Report
15.247(g)	RSS210(A8.1)	Hopping Capability	Pass - Refer to FCC ID: S22BTMODULE-CL2 Report
15.247(h)	RSS210(A8.1)	Hopping Coordination Requirement	Pass - Refer to FCC ID: S22BTMODULE-CL2 Report
15.247(i)	RSSGen(5.5)	RF Exposure requirement	Pass
	RSSGen(4.8)	Receiver Spurious Emissions	Pass

ANSI C63.4: 2003/ RSS-Gen Issue 2: 2008

PS: All measurement uncertainties are not taken into consideration for all presented test result.

## 5 MEASUREMENTS, EXAMINATION AND DERIVED RESULTS

## 5.10 Radiated Spurious Emissions > 1GHz

Test Date : August 28 2009  
Tested By :Choon Sian Ooi

Standard Requirement: 47 CFR §15.247(d)

**Procedures:** Equipment was setup in a semi-anechoic chamber. For measurements above 1 GHz an average measurement was taken with a 10Hz video bandwidth. The EUT was tested at low, mid and high with the highest output power. Investigated up to 10<sup>th</sup> harmonic of the operating frequency.

### Sample Calculation:

EUT Field Strength = Raw Amplitude(dB $\mu$ V/m) – Amplifier Gain(dB) + Antenna Factor(dB) + Cable Loss(dB) + Filter Attenuation(dB, if used)

### Test Result:

### Low Channel

Frequency	Reading	Direction	Height	Polar	Antenna Loss	Cable loss	Amplifier	Corrected Reading	15.247/15.209	15.247/15.209	
GHz	(dBuV/m)	Degree	Meter	H / V	(dB)	(dB)	(dB)	(dBuV/m)	Limit (dBuV/m)	Margin	Comments
4.804	41.3	160	1	v	32.2	4.125	32.49	45.135	74	-28.87	Peak
4.804	41.46	178	1.3	h	32.2	4.125	32.49	45.295	74	-28.71	Peak
4.804	28.01	160	1	v	32.2	4.125	32.49	31.845	54	-22.16	Ave
4.804	28.34	178	1.3	h	32.2	4.125	32.49	32.175	54	-21.83	Ave

Emission was scanned up to 25GHz.

### Mid Channel

Frequency	Reading	Direction	Height	Polar	Antenna Loss	Cable loss	Amplifier	Corrected Reading	15.247/15.209	15.247/15.209	
GHz	(dBuV/m)	Degree	Meter	H / V	(dB)	(dB)	(dB)	(dBuV/m)	Limit (dBuV/m)	Margin	Comments
4.882	42.85	200	1	v	32.2	4.125	32.49	46.685	74	-27.315	Peak
4.882	42.02	187	1.2	h	32.2	4.125	32.49	45.855	74	-28.145	Peak
4.882	28.32	200	1	v	32.2	4.125	32.49	32.155	54	-21.845	Ave
4.882	28.024	187	1.2	h	32.2	4.125	32.49	31.859	54	-22.141	Ave

Emission was scanned up to 25GHz.

### High Channel

Frequency	Reading	Direction	Height	Polar	Antenna Loss	Cable loss	Amplifier	Corrected Reading	15.247/15.209	15.247/15.209	
GHz	(dBuV/m)	Degree	Meter	H / V	(dB)	(dB)	(dB)	(dBuV/m)	Limit (dBuV/m)	Margin	Comments
4.960	42.49	24	1	v	32.2	4.125	32.49	46.325	74	-27.675	Peak
4.960	41.05	102	1	h	32.2	4.125	32.49	44.885	74	-29.115	Peak
4.960	28.43	24	1	v	32.2	4.125	32.49	32.265	54	-21.735	Ave
4.960	28.08	180	1.3	h	32.2	4.125	32.49	31.915	54	-22.085	Ave

Emission was scanned up to 25GHz.

## Annex A. TEST INSTRUMENT & METHOD

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

Instrument	Manufacturer	Model	CAL Due Date
Spectrum Analyzer	HP	8564E	04/26/2010
EMI Receiver	Rohde & Schwarz	ESIB 40	4/25/2010
R&S LISN	R&S	ESH2-Z5	04/24/2010
CHASE LISN	Chase	MN2050B	04/24/2010
Antenna(1 ~18GHz)	Emco	3115	01/04/2010
Antenna (30MHz~2GHz)	Sunol Sciences	JB1	01/04/2010
Chamber	Lingren	3m	04/18/2010
Pre-Amplifier(1 ~ 26GHz)	HP	8449	04/24/2010
Horn Antenna (18~40GHz)	Com Power	AH-840	03/19/2010
Microwave Pre-Amp (18~40GHz)	Com Power	PA-840	03/19/2010*

Note: No calibration required.

## 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. **7.96 dB below limit**

## Annex A. iii RADIATED EMISSIONS TEST DESCRIPTION

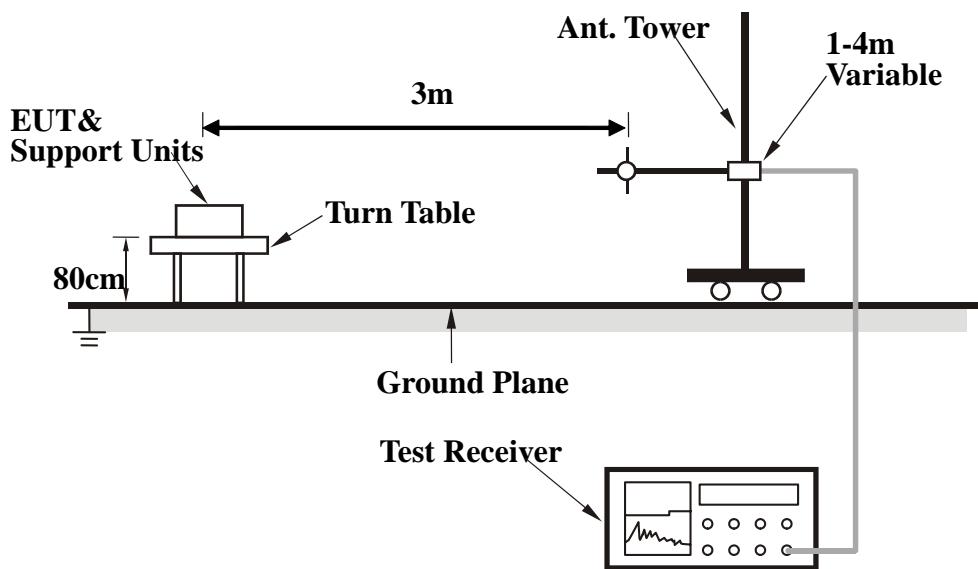
### EUT Characterisation

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

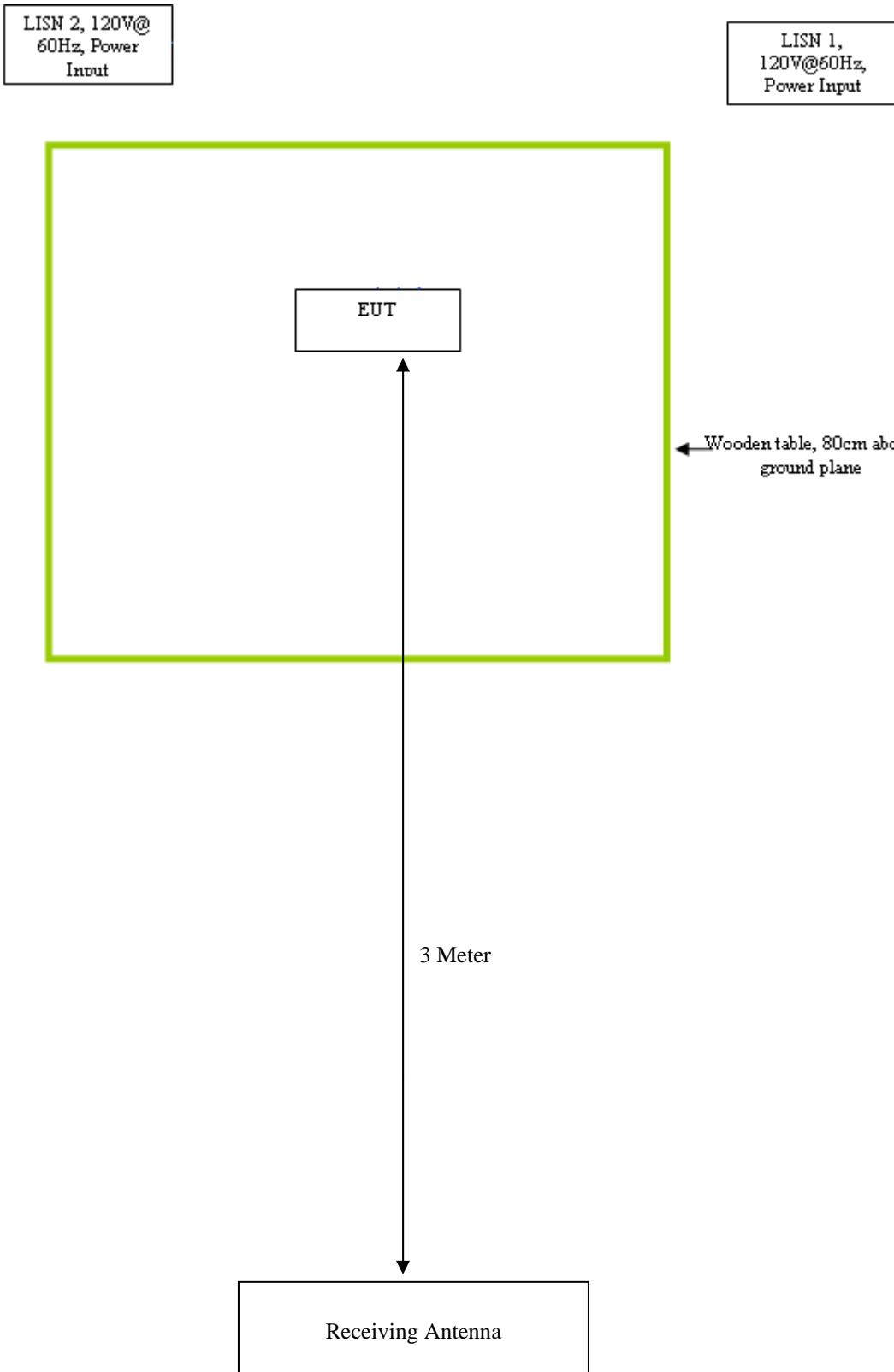
### EUT TEST CONDITIONS

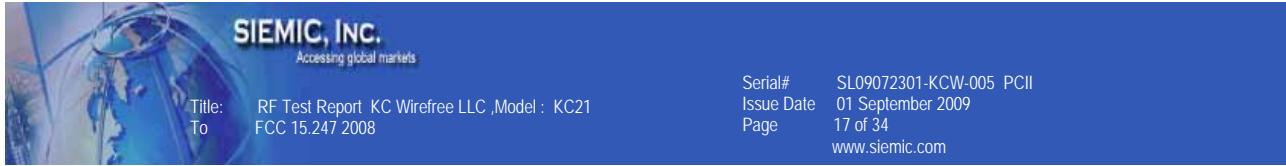
#### Annex C. i. SUPPORTING EQUIPMENT DESCRIPTION

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)
N/A	N/A	N/A

## Block Configuration Diagram for Radiated Emission





## Block Configuration Diagram for Conducted Emission

N/A

## Annex C.ii. EUT OPERATING CONDITIONS

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

Test	Description Of Operation
Emissions Testing	The EUT was configured using manufacturer's program to simulate the worst case.
Others Testing	The EUT was configured using manufacturer's program to simulate the worst case.



Title: RF Test Report KC Wirefree LLC ,Model : KC21  
To FCC 15.247 2008

Serial# SL09072301-KCW-005 PCII  
Issue Date 01 September 2009  
Page 19 of 34  
[www.siemic.com](http://www.siemic.com)

## Annex D USER MANUAL, BLOCK & CIRCUIT DIAGRAM

Please see attachment

## Annex E SIEMIC ACCREDITATION

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



THE AMERICAN ASSOCIATION FOR  
LABORATORY ACCREDITATION

### ACCREDITED LABORATORY

A2LA has accredited

### SIEMIC LABORATORIES

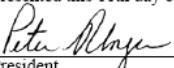
San Jose, CA

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

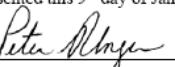
### SIEMIC INC.

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.

Presented this 9<sup>th</sup> 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.

**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, 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

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

**Industry Canada - (IC)**

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](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

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



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Title: RF Test Report KC Wirefree LLC ,Model : KC21  
To FCC 15.247 2008

Serial# SL09072301-KCW-005 PCII  
Issue Date 01 September 2009  
Page 22 of 34  
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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

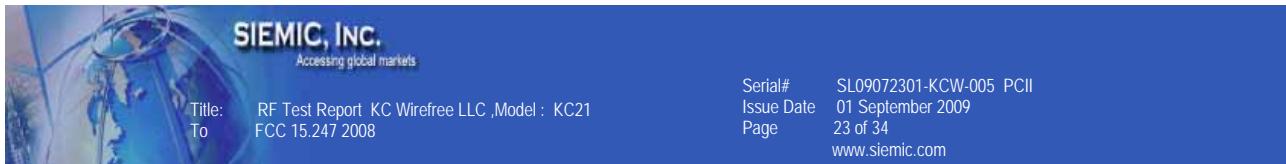
Dear Sir or Madam:

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

Sincerely,

Phyllis Parrish  
Industry Analyst



## 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.

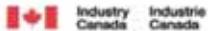
Recognized CABs are listed on the NIST website at <http://ts.nist.gov/mra>. Please contact Ms. Ramona Saar at (301) 975-5521 or [ramona.saar@nist.gov](mailto:ramona.saar@nist.gov) if you have any questions.

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 23rd, 2008

 OUR FILE: 46405-4842  
 Submission No: 126429

 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 Number	Obsolete Site Number	Description of Site	Expiry Date (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\\_1t00052e.html](http://strategis.ic.gc.ca/epic/internet/inceb-bhst.nsf/en/h_1t00052e.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,

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

**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

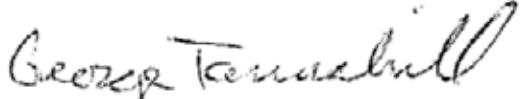
Dear Sir or Madam:

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



**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](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

**NIST**

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



UNITED STATES DEPARTMENT OF COMMERCE  
National Institute of Standards and Technology  
Gaithersburg, Maryland 20889

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

**NIST**

## 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](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: Mexico NOM Recognition**



CAMARA NACIONAL  
DE LA INDUSTRIA  
ELECTRONICA DE  
TELECOMUNICACIONES  
E INFORMATICA

**Laboratorio Valentín V. Rivero**

Méjico D.F. a 16 de octubre de 2009.

LESLIE BAI  
DIRECTOR OF CERTIFICATION  
SIEMIC LABORATORIES, INC.  
ACCESSING 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 comentó que estamos muy interesados en su intención de firmar un Acuerdo de Reconocimiento Mutuo, para lo cual adjunto a este escrito encontrarás el Acuerdo en idioma inglés y español prellenado de los cuales le pido sea revisado y en su caso corregido, para que si este de acuerdo poder firmarlo para mandarlo con las autoridades Mexicanas para su visto bueno y así poder ejercer dicho acuerdo.

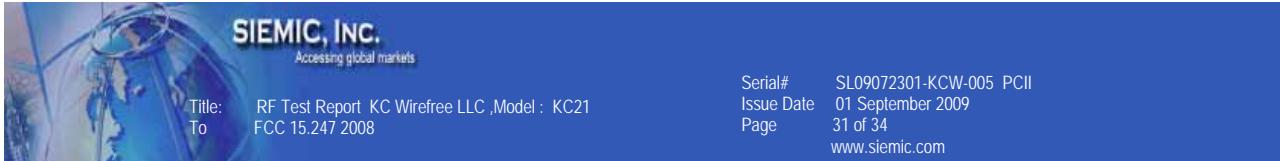
Aprovecha este escrito para mencionarte que nuestro intermediano gestor será la empresa Isobel de México, S.A. de C.V., empresa que ha colaborado durante mucho tiempo con nosotros en lo relacionado a la evaluación de la conformidad y que cuenta con amplia experiencia en la gestoría de la certificación de cumplimiento con Normas Oficiales Mexicanas de producto en México.

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

Atentamente:

Ing. Faustino Gómez González  
Gerente Técnico del Laboratorio de  
CANIETI

Callejas 31  
Hacienda la Cangreja  
09100 México, D.F.  
Tel: 5554-0000 con 12 líneas  
Fax: 5554-1344  
www.canieti.org



## 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,

A handwritten signature in black ink that appears to read "David F. Alderman".

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

Enclosure

cc: Ramona Saar

The NIST logo, consisting of the letters "NIST" in a bold, sans-serif font.

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



# 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

*VCCI Council*



**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

*VCCI Council*



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



# 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

*VCCI Council*

