

Dongguan kaiyun Electronic Co., Ltd
Dongguan Longgold Electronic Co., Ltd

WIRELESS OPTICAL MOUSE


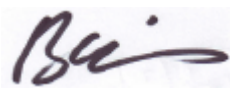
Model: WSS-WIR02

20 January 2010
Report No.: 1002032
(This report supersedes NONE)



Modifications made to the product : None

This Test Report is Issued Under the Authority of:

	
Peter Cai Compliance Engineer	Leslie Bai Director of Certification

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

RF Test Report

T0: FCC 15.227:2009

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Country/Region	Accreditation Body	Scope
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Canada	IC, A2LA, NIST	EMC, RF/Wireless , Telecom
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
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

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

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1 Executive Summary & EUT information

The purpose of this test programme was to demonstrate compliance of the Dongguan kaiyun Electronic Co., Ltd, Dongguan Longgold Electronic Co., Ltd WIRELESS OPTICAL MOUSE, and model: WSS-WIR02 against the current Stipulated Standards. The WIRELESS OPTICAL MOUSE has demonstrated compliance with the FCC 15.227:2009.

EUT Information

EUT : WIRELESS OPTICAL MOUSE
Description
Model No : WSS-WIR02 (Note)
Serial No : N/A
Input Power : 3Vdc(two new AAA alkaline batteries)
Classification
Per Stipulated : FCC 15.227: 2009
Test Standard

Note:

Only Model WSS-WIR02 was tested, since the electrical circuit design, layout, components used and internal wiring were identical for the following models. Only difference is appearance.

Listed models:

WSS-WIR01 WSS-WIR02 WSS-WIR03 WSS-WIR04 WSS-WIR05 WSS-WIR06 WSS-WIR07
 WSS-WIR08 WSS-WIR09 WSS-WIR10 WSS-WIR11 WSS-WIR12 WSS-WIR13 WSS-WIR14
 WSS-WIR15 WSS-WIR16 WSS-WIR17 WSS-WIR18 WSS-WIR19 WSS-WIR20 WSS-WIR21
 WSS-WIR22 WSS-WIR23 WSS-WIR24 WSS-WIR25 WSS-WIR26 WSS-WIR27 WSS-WIR28
 WSS-WIR29 WSS-WIR30 WSS-WIR31 WSS-WIR32 WSS-WIR33 WSS-WIR34 WSS-WIR35
 WSS-WIR36 WSS-WIR37 WSS-WIR38 WSS-WIR39 WSS-WIR40 WSS-WIR41 WSS-WIR42
 WSS-WIR43 WSS-WIR44 WSS-WIR45 WSS-WIR46 WSS-WIR47 WSS-WIR48 WSS-WIR49
 WSS-WIR50 WSS-WIR51 WSS-WIR52 WSS-WIR53 WSS-WIR54 WSS-WIR55 WSS-WIR56
 WSS-WIR57 WSS-WIR58 WSS-WIR59 WSS-WIR60 WSS-WIR61 WSS-WIR62 WSS-WIR63
 WSS-WIR64 WSS-WIR65 WSS-WIR66 WSS-WIR67 WSS-WIR68 WSS-WIR69 WSS-WIR70
 WSS-WIR71 WSS-WIR72 WSS-WIR73 WSS-WIR74 WSS-WIR75 WSS-WIR76 WSS-WIR77
 WSS-WIR78 WSS-WIR79 WSS-WIR80
 WSS-WL01 WSS-WL02 WSS-WL03 WSS-WL04 WSS-WL05 WSS-WL06 WSS-WL07
 WSS-WL08 WSS-WL09 WSS-WL10 WSS-WL11 WSS-WL12 WSS-WL13 WSS-WL14
 WSS-WL15 WSS-WL16 WSS-WL17 WSS-WL18 WSS-WL19 WSS-WL20 WSS-WL21
 WSS-WL22 WSS-WL23 WSS-WL24 WSS-WL25
 WSS-WIR09A WSS-WIR09B WSS-WIR11A WSS-WIR373 WSS-WIR33A WSS-MK368A

2 TECHNICAL DETAILS

Purpose	Compliance testing of WIRELESS OPTICAL MOUSE with stipulated standard
Applicant / Client	Dongguan kaiyun Electronic Co., Ltd Dongguan Longgold Electronic Co.,Ltd Dabandi Industrial Zone, Daning district Humen Town, Dongguan City, China
Manufacturer	Dongguan kaiyun Electronic Co., Ltd Dongguan Longgold Electronic Co.,Ltd Dabandi Industrial Zone, Daning district Humen Town, Dongguan City, China
Laboratory performing the tests	SIEMIC Nanjing (China) Laboratories NO.2-1,Longcang Dadao, Yuhua Economic Development Zone, Nanjing, China Tel:+86(25)86730128/86730129 Fax:+86(25)86730127 Email:info@siemic.com
Test report reference number	1002032
Date EUT received	12 January 2010
Standard applied	FCC 15.227:2009
Dates of test (from – to)	14 January to 18 January 2010
No of Units:	#1
Equipment Category:	DXX
Trade Name:	kaiyun longgao
Model :	WSS-WIR02
RF Operating Frequency (ies)	27.043MHz
Number of Channels :	1
Modulation :	N/A
FCC ID:	X33-WSS-WIR

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:

DXX

Test Results Summary

Test Standard	Description	Pass / Fail
CFR 47 Part 15.227: 2009		
15.203	Antenna Requirement	Pass
15.207(a)	Conducted Emissions Voltage	Pass
15.215	Occupied Bandwidth	Pass
15.227	Radiated Emissions	Pass
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.

EUT antenna is PCB antenna. It is compliance with the requirement of permanently attached to the device..

5.2 Conducted Emissions Voltage

Requirement:

Frequency of emission (MHz)	Conducted limit (dBμV)	
	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.

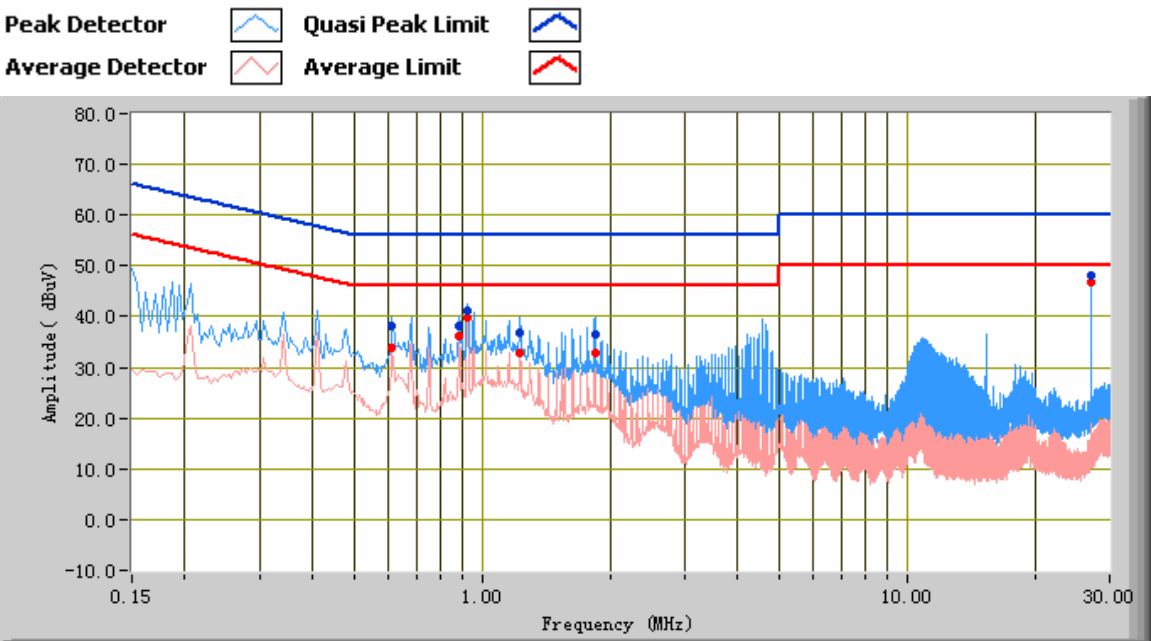
Procedures:

- 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.
- A "-ve" margin indicates a PASS as it refers to the margin present below the limit line at the particular frequency.
- 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 ±3.5dB.
- | | | |
|--------------------------|----------------------|----------|
| Environmental Conditions | Temperature | 15°C |
| | Relative Humidity | 50% |
| | Atmospheric Pressure | 1019mbar |
- Test date : 14 January to 18 January 2010

Tested By : Peter Cai

5.2.1 Test Result Complying For 47 CFR §15.207(a)



Test Data

Line

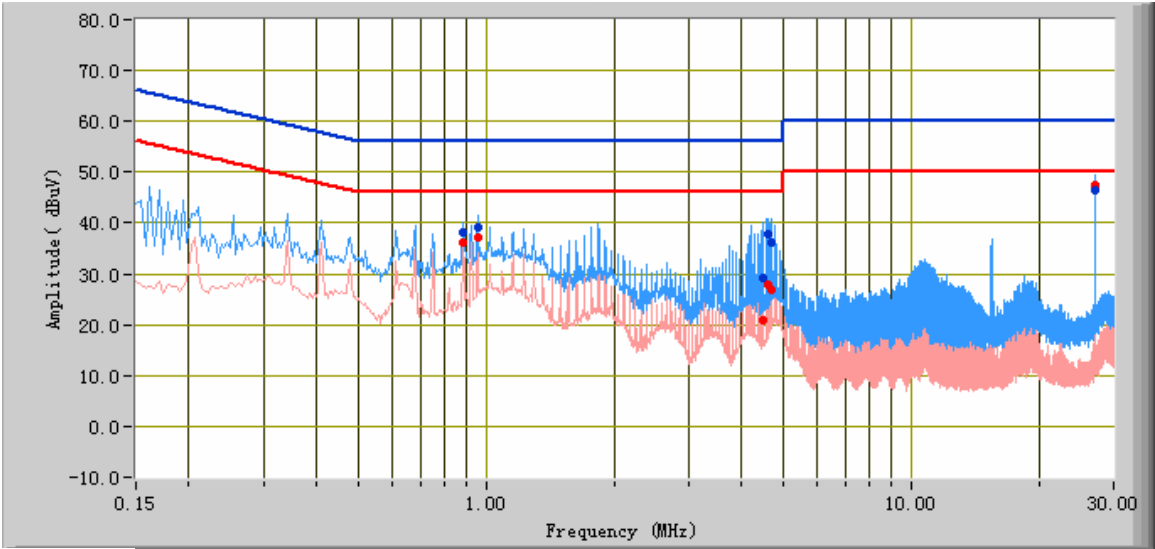
Frequency (MHz)	Quasi Peak (dBuV)	Limit (dBuV)	Margin (dB)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Factors (dB)
27.04	48.17	60.00	-11.83	46.94	50.00	-3.06	11.06
0.92	41.09	56.00	-14.91	39.92	46.00	-6.08	10.17
0.89	38.14	56.00	-17.86	36.19	46.00	-9.81	10.17
1.84	36.60	56.00	-19.40	32.75	46.00	-13.25	10.19
1.23	36.81	56.00	-19.19	32.95	46.00	-13.05	10.17
0.61	38.31	56.00	-17.69	33.81	46.00	-12.19	10.14

Peak Detector 

Average Detector 

Quasi Peak Limit 

Average Limit 



Test Data

Neutral

Frequency (MHz)	Quasi Peak (dBuV)	Limit (dBuV)	Margin (dB)	Average (dBuV)	Limit (dBuV)	Margin (dB)	Factors (dB)
27.04	46.54	60.00	-13.46	47.45	50.00	-2.55	11.06
0.95	39.14	56.00	-16.86	37.28	46.00	-8.72	10.16
4.63	37.77	56.00	-18.23	27.80	46.00	-18.20	10.40
4.70	36.26	56.00	-19.74	26.88	46.00	-19.12	10.38
4.49	29.03	56.00	-26.97	20.94	46.00	-25.06	10.42
0.89	38.19	56.00	-17.81	36.32	46.00	-9.68	10.17

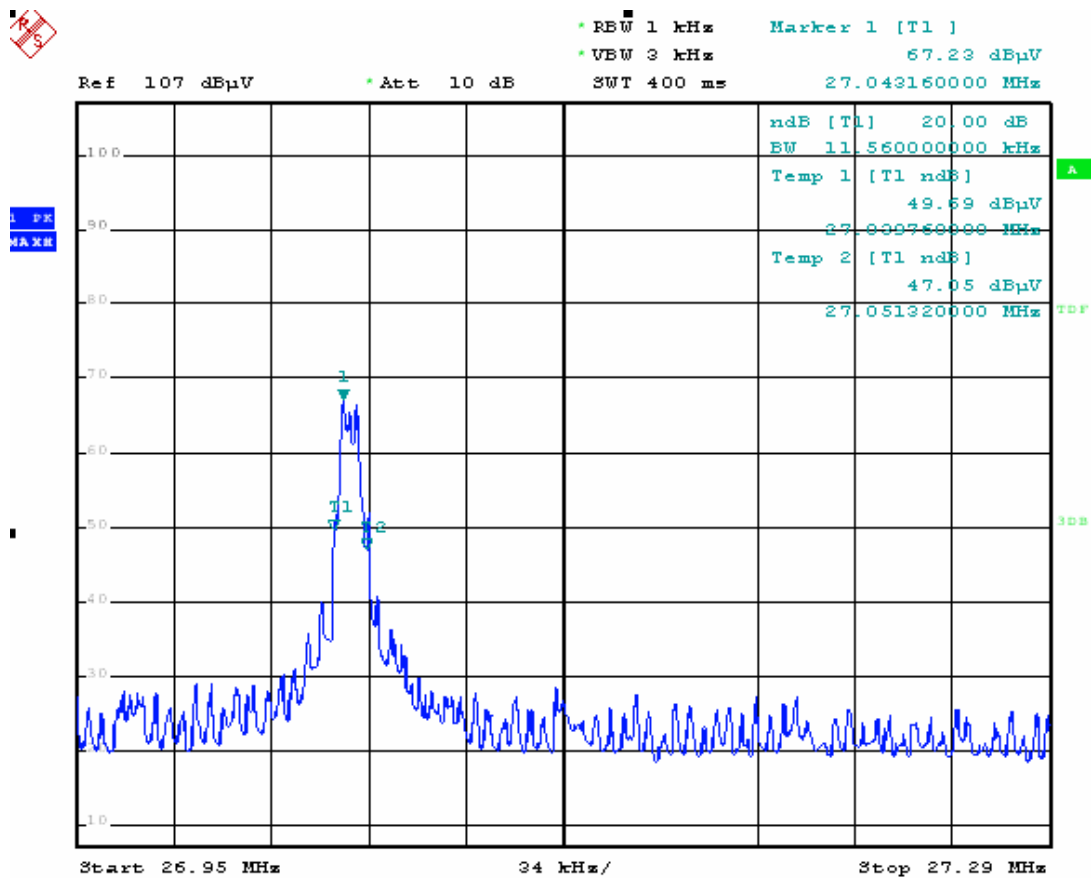
5.3 Occupied Bandwidth

1. Environmental Conditions

Temperature15°CRelative Humidity50%Atmospheric Pressure1019mbar
2. Test date : 14 January to 18 January 2010Tested By : Peter Cai

Requirement(s): 47 CFR §15.215(C)
Intentional radiators operating under the alternative provisions to the general emission limits, as contained in § § 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment is operated.. The requirement to contain the designed bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.

Test Result: Pass



5.4 Radiated Emissions

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, in the range 30MHz – 1GHz & 1GHz above (3m & 10m) is +5.6/-4.5dB.
4. Environmental Conditions Temperature 15°C
Relative Humidity 50%
Atmospheric Pressure 1019mbar
5. Test date : 14 January to 18 January 2010
Tested By : Peter Cai

Requirement(s): 47 CFR §15.227


- (a) The field strength of any emission within this band shall not exceed 10000 microvolts/meter at 3 meters. The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in Section 15.35 for limiting peak emissions apply.
- (b) The field strength of any emissions which appear outside of this band shall not exceed the general radiated emission limits in Section 15.209.


Test Result: Pass

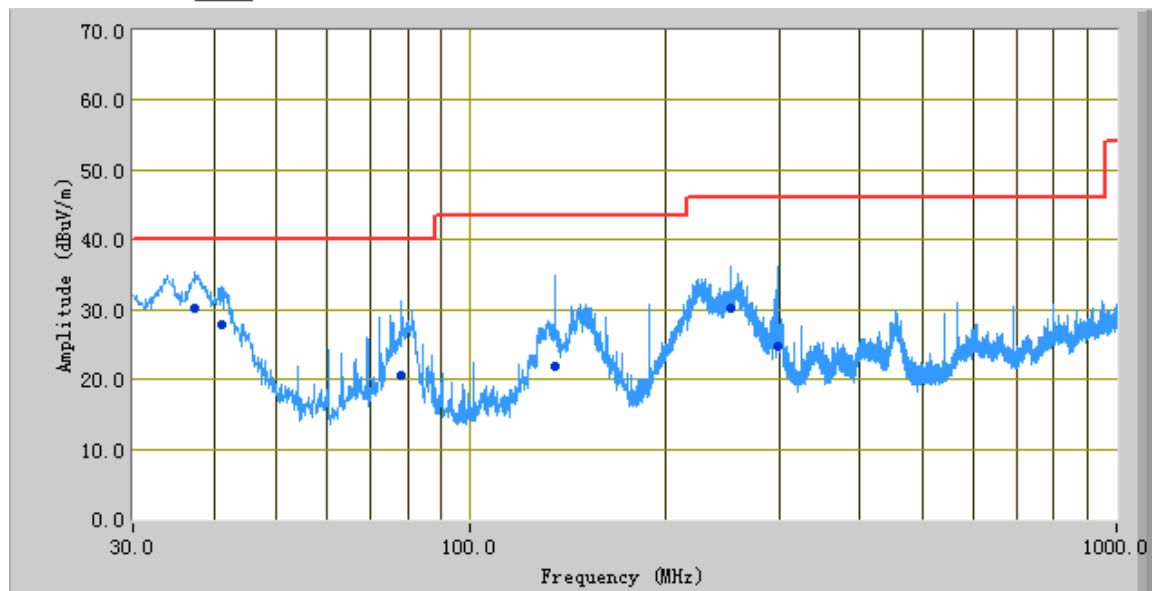
Fundamental Emission Test Data

Frequency (MHz)	Azimuth (degree)	Antenna Polarity	Antenna Height(m)	Pre-Amplifier (dB)	ACF (dB)	CBL Loss(dB)	Corrected Amplitude @3m	Limit @3m	Detector
27.043	0	V	1	48	41	1.1	63.59	100	PK
27.043	90	V	1	48	41	1.1	67.23	100	PK
27.043	0	V	1	48	41	1.1	60.06	80	AV
27.043	90	V	1	48	41	1.1	64.98	80	AV

Spurious Emissions



Peak Detector 

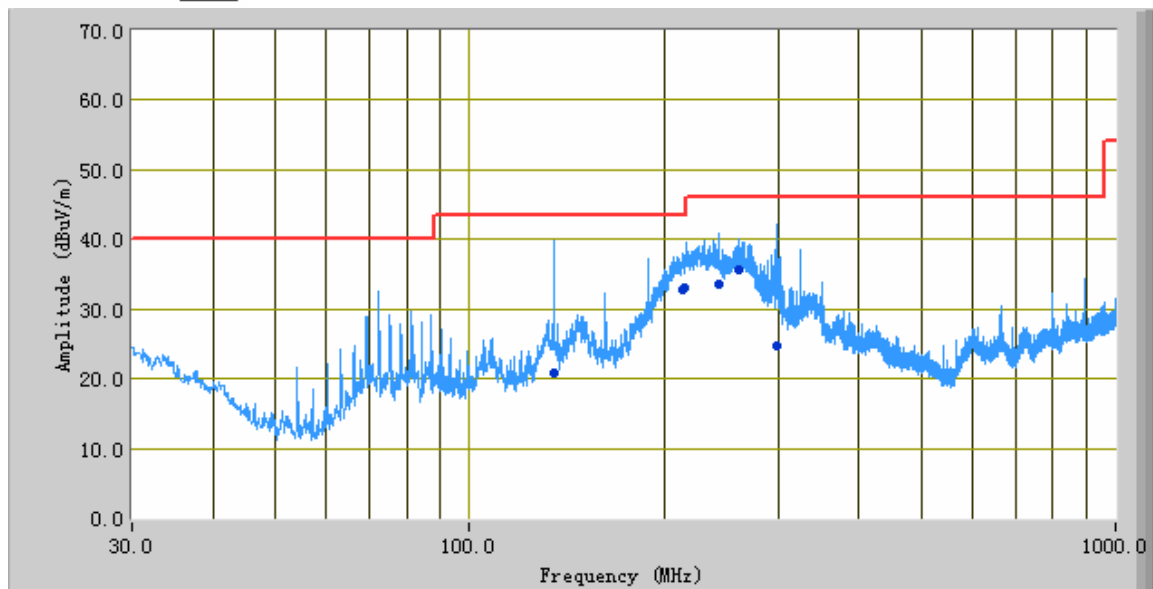
Quasi Peak Limit 



Test Data

Frequency (MHz)	Quasi Peak (dBuV/m)	Azimuth	Polarity(H/V)	Height (cm)	Factors (dB)	Limit (dBuV/m)	Margin (dB)
37.41	30.19	41.00	V	113.00	-28.34	40.00	-9.81
41.22	27.94	9.00	V	102.00	-30.99	40.00	-12.06
135.07	21.83	129.00	V	138.00	-32.24	43.50	-21.67
78.26	20.67	173.00	V	164.00	-38.48	40.00	-19.33
298.88	24.61	147.00	V	175.00	-31.26	46.00	-21.39
253.15	30.15	166.00	V	208.00	-30.51	46.00	-15.85

Peak Detector 
 Quasi Peak Limit 



Test Data

Frequency (MHz)	Quasi Peak (dBuV/m)	Azimuth	Polarity(H /V)	Height (cm)	Factors (dB)	Limit (dBuV/m)	Margin (dB)
135.33	20.86	88.00	H	211.00	-31.80	43.50	-22.64
298.64	24.67	301.00	H	174.00	-28.76	46.00	-21.33
243.35	33.51	356.00	H	113.00	-31.62	46.00	-12.49
213.07	32.73	255.00	H	164.00	-32.56	43.50	-10.77
215.53	33.07	38.00	H	145.00	-32.71	43.50	-10.43
260.71	35.59	20.00	H	106.00	-29.36	46.00	-10.41

Annex A. TEST INSTRUMENT & METHOD

Annex A.i. TEST INSTRUMENTATION & GENERAL PROCEDURES

Instrument	Model	Serial #	Calibration Due
Conducted Emissions			
R&S Receiver	ESPI 3	101216	02/19/2010
Com-Power LISN	LI 115	241090	05/02/2010
Com-Power LISN	LI 115	241091	05/02/2010
Com-Power LIMITER	LIT-153	531021	N/A
Schwarzbeck LISN	NNLK 8129	8129-190	03/27/2010
Radiated Emissions			
R&S Receiver	ESPI 3	101216	02/19/2010
Sunol Sciences, Inc. Antenna (30MHz~2GHz)	JB1	A112107	10/04/2010
HP Pre-Amplifier	8447F	1937A01160	04/24/2010
EMCO Loop Antenna	6509	9909-1469	05/29/2010

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 50Ω/50μH 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 μV = 47.96 dBμV
Transducer factor of LISN, pulse limiter & cable loss at 20 MHz = 11.20 dB	
Q-P reading obtained directly from EMI Receiver = 40.00 dBμV (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

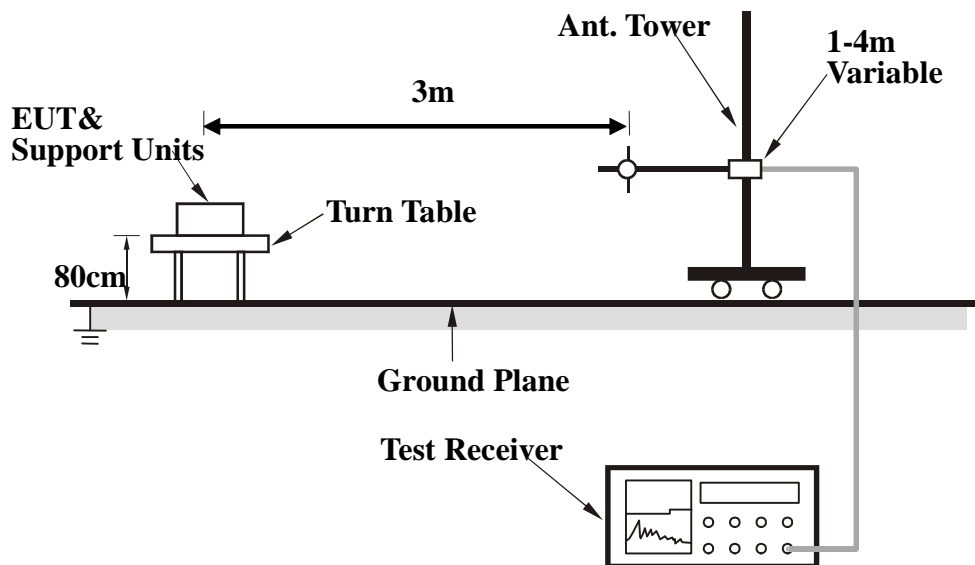
EUT Characterisation

EUT characterisation, over the frequency range from 30MHz to 10th 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:

Peak = Reading + Corrected Factor

where

Corr. Factor = Antenna Factor + Cable Factor - Amplifier Gain (if any)

And the average value is

Average = Peak Value + Duty Factor or
Set RBW = 1MHz, VBW = 10Hz.

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 attachment

Annex C. TEST SETUP AND SUPPORTING EQUIPMENT

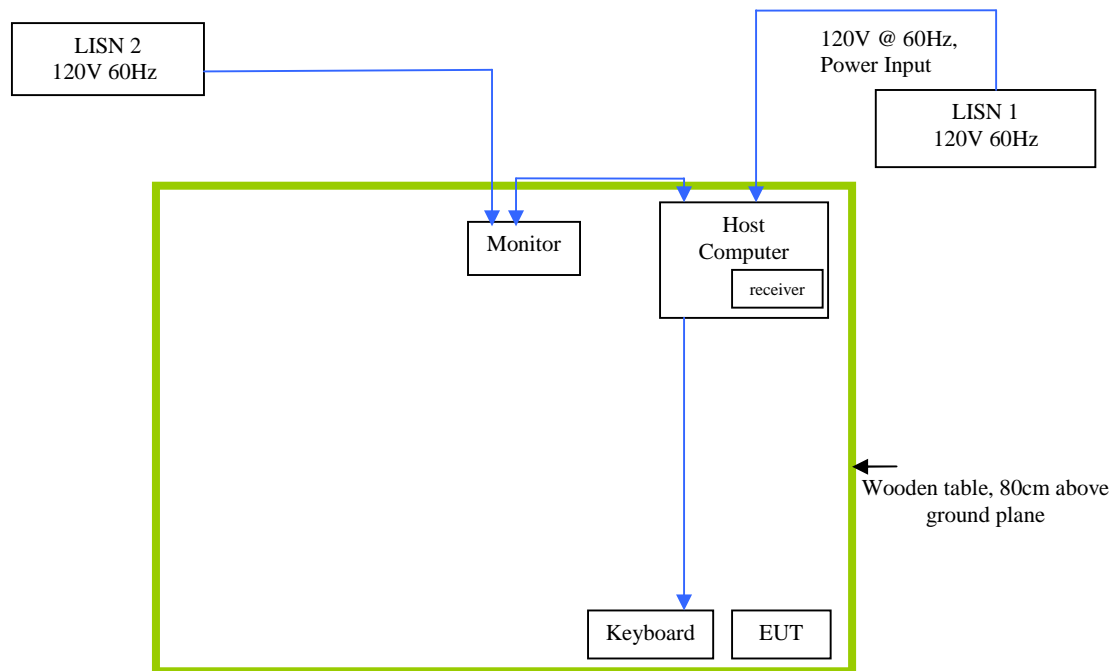
EUT TEST CONDITIONS

Annex C. i. SUPPORTING EQUIPMENT DESCRIPTION

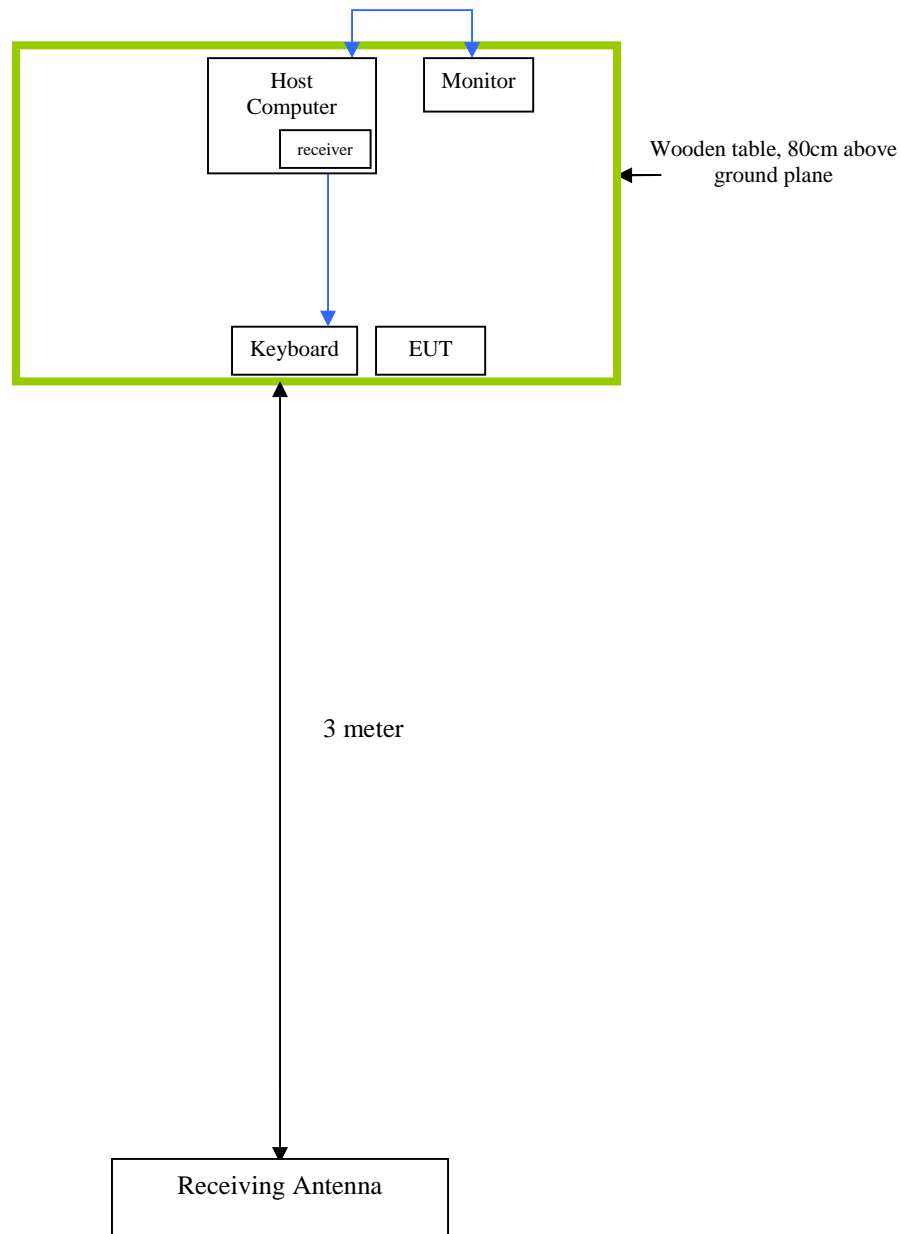
The following is a description of supporting equipment and details of cables used with the EUT.

Equipment Description (Including Brand Name)	Model & Serial Number	Cable Description (List Length, Type & Purpose)
Dell Computer	INSPIRON 531 & 5N48F2X	N/A
Dell Monitor	SE198WFPf & N/A	2m VGA Cable
Dell Keyboard	SK-8115 & N/A	2m USB Cable

Block Configuration Diagram for Conducted Emissions



Block Configuration Diagram for Radiated Emissions



Annex C.ii. EUT OPERATING CONDITIONS

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

Test	Description Of Operation
Emissions Testing	The EUT was continuously working to stimulate the worst case.

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

Please see attachment

Annex E. SIEMIC ACCREDITATION CERTIFICATES

SIEMIC ACREDITATION DETAILS: A2LA Certificate Number: 2742.01




THE AMERICAN ASSOCIATION FOR
LABORATORY ACCREDITATION

ACCREDITED LABORATORY

A2LA has accredited

SIEMIC LABORATORIES
San Jose, CA

for technical competence in the field of

Electrical Testing

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



Presented this 11th day of July 2008.



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

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



THE AMERICAN ASSOCIATION FOR
LABORATORY ACCREDITATION

ACCREDITED PRODUCT CERTIFICATION BODY

A2LA has accredited

SIEMIC INC.
San Jose, CA

for technical competence as a

Product Certification Body

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



Presented this 9th day of January 2009.



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

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

SIEMIC ACCREDITATION DETAILS: FCC Registration NO:986914



SIEMIC ACCREDITATION DETAILS: FCC Listing, Registration NO:986914

FEDERAL COMMUNICATIONS COMMISSION

Laboratory Division
7435 Oakland Mills Road
Columbia, MD 21046

April 25, 2008

Registration Number: 986914

SIEMIC Nanjing (China) Laboratories
2-1 Longcang Avenue,
Yuhua Economic and Technology Development Park,
Nanjing, 210039
China

Attention: Leslie Bai

Re: Measurement facility located at 2-1 Longcang Avenue, Nanjing, China
Anechoic chamber (3 meters) and 3&10 meter OATS
Date of Listing: April 25, 2008

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.

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 under E-Filing, OET Equipment Authorization Electronic Filing, Test Firms.

Sincerely,

Katie Hawkins
Electronics Engineer

SIEMIC ACCREDITATION DETAILS: Industry of Canada Registration No. 4842



February 19, 2009

OUR FILE: 46405-4842
Submission No: 131645

SIEMIC NANJING (CHINA) LABORATORIES

2-1 Longcang Avenue
Yuhua Economic & Technology Dev. Park
Nanjing
China

Attention: Leslie Bai

Dear Sir/Madame:

The Bureau has received your application for the registration of a 3m/10m 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 (4842B-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: 4842B

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

The frequency for re-validation of the test site and the information that is required to be filed or retained by the testing party shall comply with the requirements established by the accrediting organization. However, in all cases, test site re-validation shall occur on an interval not to exceed two years. There is no fee or form associated with an OATS filing. OATS submissions are encouraged to be submitted electronically to the Bureau using the following URL;

http://strategis.ic.gc.ca/epic/internet/inceb-bhst.nsf/en/h_tt00052e.html

If you have any questions, you may contact the Bureau by e-mail at certification_bureau@ic.gc.ca Please reference our file and submission number above for all correspondence.

Yours sincerely,



Joshua Laviolette
For: Wireless Laboratory Manager
Certification and Engineering Bureau
3701 Carling Ave., Building 94
P.O. Box 11490, Station "H"
Ottawa, Ontario K2H 1S2
Email: joshua.laviolette@ic.gc.ca
Tel. No. (613) 990-2681
Fax. No. (613) 990-4752

SIEMIC ACCREDITATION DETAILS: Japan VCCI Accreditation No. 3081

	 <i>VCCI Council</i>
<h1 style="text-align: center;">CERTIFICATE</h1>	
<p>Company: SIEMIC Inc. <i><Member No. 3081 ></i></p>	
<p>Facility: SIEMIC Inc. (Main Ports Conducted Interference Measurement)</p>	
<p>Location of Facility: 2206 Ringwood Avenue, San Jose, CA 95131 USA</p>	
<p><i>This is to certify that the following measuring facility has been registered in accordance with the Rules for Voluntary Control Measures</i></p>	
<p>Registration No.: C-3421 Date of Registration: June 12 , 2009 This Certificate is valid until September 30 , 2010</p>	
	<p style="text-align: right;"><i>VCCI Council</i> </p> 

SIEMIC ACCREDITATION DETAILS: Japan VCCI Accreditation No. 3081



VCCI Council

CERTIFICATE

Company: SIEMIC Inc.
<Member No. 3081 >

Facility: SIEMIC Inc.
(Radiation 3 meter site)

Location of Facility:
2206 Ringwood Avenue, San Jose, CA 95131 USA

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

Registration No.: R-3083
Date of Registration: June 12 , 2009
This Certificate is valid until September 30 , 2010

VCCI Council





SIEMIC ACCREDITATION DETAILS: Japan VCCI Accreditation No. 3081



CERTIFICATE

Company: SIEMIC Inc.

<Member No. 3081 >

Facility: SIEMIC Inc.

(Telecommunication 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



SIEMIC ACCREDITATION DETAILS: Korea CAB from NIST: US0160

	UNITED STATES DEPARTMENT OF COMMERCE National Institute of Standards and Technology Gaithersburg, Maryland 20899
October 1, 2008	
Mr. Leslie Bai SIEMIC, Inc. 2206 Ringwood Avenue San Jose, CA 95131	
Dear Mr. Bai:	
NIST is pleased to inform you that your laboratory has been recognized by the Radio Research Agency (RRA) Korea Communications Commission (KCC) under the Asia Pacific Economic Cooperation for Telecommunications Equipment Mutual Recognition Arrangement (APEC Tel MRA). Your laboratory is now designated to act as a Conformity Assessment Body (CAB) under Appendix B, Phase I Procedures, of the APEC Tel MRA. The pertinent information about your laboratory's designation is as follows:	
CAB Name:	SIEMIC, Inc.
Physical Location:	2206 Ringwood Avenue, San Jose, CA 95131
Identification No.:	US0160
Recognized Scope:	EMI: KCC Notice 2008-39, RRL Notice 2008-3: CA Procedures for EMI KN22: Test Method for EMI EMS: KCC Notice 2008-38, RRL Notice 2008-4: CA Procedures for EMS KN24, KN-61000-4-2, -4-3, -4-4, -4-5, -4-6, -4-8, -4-11: Test Method for EMS Wireless: RRL Notice 2008-26, RRL Notice 2008-2, RRL Notice 2008-10, RRL Notice 2007-49, RRL Notice 2007-20, RRL Notice 2007-21, RRL Notice 2007-80, RRL Notice 2004-68 Wired: President Notice 20664, RRL Notice 2007-30, RRL Notice 2008-7 with attachments 1, 3, 5, 6 President Notice 20664, RRL Notice 2008-7 with attachment 4
You may submit test data to RRA/KCC to verify that the equipment to be imported into Korea satisfies the applicable requirements. The designation of your organization will remain in force as long as its accreditation for the designated scope remains valid and comply with the designation requirements.	
Recognized CABs are listed on the NIST website at http://ts.nist.gov/mra . If you have any questions please contact Ramona Saar at (301) 975-5521 or ramona.saar@nist.gov .	
Sincerely,  David F. Alderman Group Leader, Standards Coordination and Conformity Group Standards Services Division	
Enclosure	
cc: Ramona Saar	

SIEMIC ACCREDITATION DETAILS: Taiwan BSMI CAB Accreditation No. SL2-IN-E-1130R



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

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: Jogindar Dhillon

NIST



SIEMIC, Inc.

Accessing global markets

Title: RF Test Report for WIRELESS OPTICAL MOUSE
Model: WSS-WIR02
To: FCC 15.227.2009

Serial#: 1002032
Issue Date: 20 January 2010
Page: 36 of 40
www.siemic.com.cn

SIEMIC ACCREDITATION 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.

Sincerely,

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

Enclosure

cc: Ramona Saar

NIST

SIEMIC ACCREDITATION DETAILS: Mexico NOM Recognition



CANIETI
CAMARA NACIONAL
DE LA INDUSTRIA
ELECTRONICA DE
TELECOMUNICACIONES
E INFORMACION

Laboratorio Valentín V. Rivero

México D.F. a 16 de octubre de 2006.

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 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 al este de acuerdo poder firmarlo para mandarlo con las autoridades Mexicanas para su visto bueno y así poder ejercer dicho acuerdo.

Aprovecho este escrito para mencionarle que nuestro intermediario 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 despido 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

Culiacán 71
Paseo de la Concordia
Culiacán, Sinaloa, D.F.
Tel: 5284-0000 con 12 líneas
Fax: 5284-0000
www.canietl.org

SIEMIC ACCREDITATION DETAILS: Hong Kong OFTA Recognition No. D23/16V

Your Ref 來函檔號 :
Our Ref 本局檔號 : D23/16 V

Telephone 電話 : (852) 2961 6320
Fax No 圖文傳真 : (852) 2838 5004
E-mail 電郵地址 : 20 July 2005

Mr. Leslie Bai
Director of Certification,
SIEMIC Laboratories
2206 Ringwood Avenue
San Jose, California 95131
USA

Dear Mr. Bai,

Application of Recognised Testing Agency (RTA)

Referring your submission of 28 June 2005 in relation to the application of RTA, I am pleased to inform you that OFTA has appointed SIEMIC Laboratories (SIEMIC) as a Recognised Testing Agency (RTA) :

Please note that, under the Hong Kong Telecommunications Equipment Evaluation and Certification (HKTEC) Scheme, SIEMIC is authorized to conduct evaluation tests on telecommunications equipment against the following HKTA specifications :

Scope of recognition (HKTA Specifications) :
1001, 1002, 1004, 1006, 1007, 1008
1010, 1015, 1016
1022, 1026, 1027, 1029
1030, 1031, 1032, 1033, 1034, 1035, 1039
1041, 1042, 1043, 1045, 1047, 1048
2001

You are requested to refer to and comply with the code of practice and guidelines for RTA as given in the Information Note OFTA I 411 "Recognised Testing Agency (RTA) for Conducting Evaluation Test of Telecommunications Equipment", which can be downloaded from OFTA's homepage at <http://www.ofta.gov.hk/tec/information-notes.html>.

If you have any queries, please do not hesitate to contact me.

Yours sincerely,



(K K Sin)
for Director-General
of Telecommunications

Office of the Telecommunications Authority
29/F Wu Chung House 213 Queen's Road East Wan Chai Hong Kong
電訊管理局
香港灣仔皇后大道東 213 號胡忠大廈 29 字樓

<http://www.ofta.gov.hk>

SIEMIC ACCREDITATION DETAILS: OFTA CAB from NIST: US0160



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

December 8, 2008

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

Dear Mr. Bai:

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

CAB Name: SIEMIC, Inc.
Physical Location: 2206 Ringwood Avenue, San Jose, California 95131 USA
Identification No.: US0160
Recognized Scope: **Radio:** HKTA 1002, 1007, 1008, 1010, 1015, 1016, 1020, 1022, 1026, 1027, 1029, 1030, 1031, 1032, 1033, 1034, 1035, 1036, 1037, 1039, 1041, 1042, 1043, 1044, 1046, 1047, 1048, 1049, 1051
Telecom: HKTA 2011, 2012, 2013, 2014, 2017, 2018, 2022, 2024, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033

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

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

Sincerely,



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

Enclosure

cc: Ramona Saar

NIST



Title: RF Test Report for WIRELESS OPTICAL MOUSE
Model: WSS-WIR02
To: FCC 15.227.2009

Serial#: 1002032
Issue Date: 20 January 2010
Page: 40 of 40
www.siemic.com.cn

SIEMIC ACCREDITATION DETAILS: Australia NATA Recognition



Leslie Bai
SIEMIC, Inc.
2208 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
Internet: www.nata.asn.au