

SOOLAI ELECTRONICS CO.,LTD

Wireless Tour Guide System

Model:SPL-32T

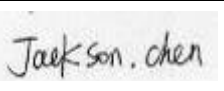
21 April, 2010
Report No.: 1002034

(This report supersedes NONE)



Modifications made to the product : None

This Test Report is Issued Under the Authority of:

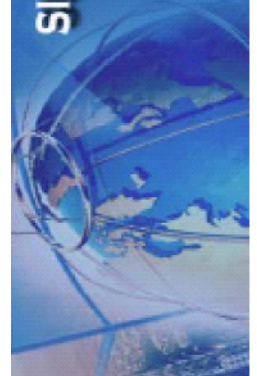
	
Peter Cai Compliance Engineer	Jackson Chen Technical Manager

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

FCC Test Report

TO:FCC Part 74,Subpart H

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CONTENTS

1	EXECUTIVE SUMMARY & EUT INFORMATION	4
2	TECHNICAL DETAILS	5
3	MODIFICATION	6
4	TEST SUMMARY	7
5	MEASUREMENTS, EXAMINATION AND DERIVED RESULTS	8
ANNEX A. TEST INSTRUMENTATION.....		18
ANNEX B. EUT AND TEST SETUP PHOTOGRAPHS		22
ANNEX C. TEST SETUP AND SUPPORTING EQUIPMENT.....		23
ANNEX D. USER MANUAL / BLOCK DIAGRAM / SCHEMATICS / PART LIST		27
ANNEX E. SIEMIC ACCREDITATION CERTIFICATES.....		28

1 Executive Summary & EUT Information

The purpose of this test program was to demonstrate compliance of the SOOLAI ELECTRONICS CO.,LTD Wireless Tour Guide System, against the current Stipulated Standards. The Wireless Tour Guide System has demonstrated compliance with the FCC Part 74 Subpart H: Jul. 2009.

EUT Information

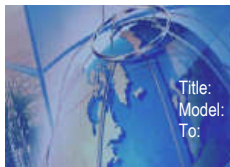
EUT Description	Wireless Tour Guide System
Model No	SPL-32T
Serial No	N/A
Input Power	3.6Vdc,50mA
Classification Per Stipulated Test Standard	Class B Emission Product

Note:

Only Model SPL-32T 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:

H-100T, SPL-79T, SPL-16T, PT-32

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Title: EMC Test Report for Wireless Tour Guide System
Model: SPL-32T
To: FCC Part 74 Subpart H: Jul. 2009 , ANSI C63.4:2009

Serial#: 1002034
Issue Date: 21 April, 2010
Page: 5 of 41
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2 TECHNICAL DETAILS

Purpose	Compliance testing of Wireless Tour Guide System with stipulated standards
Applicant / Client	SOOLAI ELECTRONICS CO.,LTD Xishanqiao,Yuhuatai Zone,Nanjing,China 210041
Manufacturer	SOOLAI ELECTRONICS CO.,LTD Xishanqiao,Yuhuatai Zone,Nanjing,China 210041
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	1002034
Date EUT received	March 19, 2010
Standard applied	FCC Part 74 Subpart H: Jul. 2009
Dates of test (from – to)	April 2 to April 21, 2010
No of Units	#1
Equipment Category	N/A
Trade Name	SOOLAI
Microprocessor (s)	Unidentified
RF Operating Frequency (ies)	614MHz-634MHz, 678MHz-698MHz
Clock/Oscillator Frequency (ies)	N/A
Rated Input Power	3.6Vdc, 50mA
Number of Channels :	32
Port/Connectors	N/A
FCC ID :	YCQ-SPL32T



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Serial#: 1002034
Issue Date: 21 April, 2010
Page: 6 of 41
www.siemic.com

3 MODIFICATION

NONE

4 TEST SUMMARY

The product was tested in accordance with the following specifications.

Test Results Summary

Test Standard	Description	Pass / Fail
§ 74.861(e)-1	Maximum Carrier Power	Pass
§ 74.861(e)-3	Modulation characteristics	Pass
§ 74.861(e)-4	Frequency Tolerance	Pass
§ 74.861(e)-5 & § 74.861(e)-6	Occupied Bandwidth	Pass
§ 74.861(d)-3	Unwanted Radiation	Pass

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

5 MEASUREMENTS, EXAMINATION AND DERIVED RESULTS

5.1 Maximum Carrier Power

1. Requirement(s): 47 CFR §74.861(e)-(1)
 The power of the measured unmodulated carrier power at the output of the transmitter power amplifier (antenna input power) may not exceed the following: 470MHz-608MHz and 614-806MHz bands-250mW.
2. Environmental Conditions

Temperature	16°C
Relative Humidity	53%
Atmospheric Pressure	1009mbar
3. Test Date: April 7, 2010
 Test By: Peter Cai

Test Result: Pass

Low Channel – 614.25MHz

Freq. (MHz)	Polarity (H/V)	Height (cm)	Azimuth	SGO/P (dBm)	Factors (dB)	Corrected power (dBm)	Corrected power (w)	Limit (w)
614.25	V	260	2	8.3	5.1	13.6	0.0229	0.25
614.25	H	270	3	7.8	5.1	12.9	0.0195	0.25

Mid Channel – 633.625MHz

Freq. (MHz)	Polarity (H/V)	Height (cm)	Azimuth	SGO/P (dBm)	Factors (dB)	Corrected power (dBm)	Corrected power (w)	Limit (w)
633.625	V	260	9	8.5	5.2	13.7	0.0234	0.25
633.625	H	240	8	8.0	5.2	13.2	0.0209	0.25

High Channel – 697.625MHz

Freq. (MHz)	Polarity (H/V)	Height (cm)	Azimuth	SGO/P (dBm)	Factors (dB)	Corrected power (dBm)	Corrected power (w)	Limit (w)
697.625	V	380	11	8	5.3	13.3	0.0214	0.25
697.625	H	130	10	7.5	5.3	12.8	0.0191	0.25

Note: All 3 axes have been investigated. Only worst case is presented in the test report.

5.2 Modulation Characteristics

1. Requirement(s): 47 CFR §74.861(e)-(3)
 (e) For low power auxiliary stations operating in the bands allocated for TV broadcasting, the following technical requirements apply:
 (3) Any form of modulation may be used. A maximum deviation of $\pm 75\text{KHz}$ is permitted when frequency modulation is employed.
2. Environmental Conditions

Temperature	16°C
Relative Humidity	53%
Atmospheric Pressure	1009mbar
3. Test Date: April 7, 2010
 Test By: Peter Cai

Test Result: Pass

a) Modulation Limit:

Low Channel – 614.25MHz

Modulation Level(dB)	Peak Freq. Deviation At 100Hz(KHz)	Peak Freq. Deviation At 1000Hz(KHz)	Peak Freq. Deviation At 2500Hz(KHz)	Peak Freq. Deviation At 10000Hz(KHz)	Peak Freq. Deviation At 15000Hz(KHz)
-20	8.3	8.7	9.1	9.8	10.5
-15	13.5	14.2	14.8	15.1	16.2
-10	16.9	17.8	18.6	18.9	19.5
-5	21.3	22.5	24.3	23.7	24.6
0	24.6	24.9	25.8	26.4	27.8
5	25.8	25.6	26.8	27.9	28.1
10	27.6	26.2	28.4	29.4	29.8
15	28.4	28.8	29.1	29.5	29.9
20	28.8	29.5	30.5	31.0	35.4

Mid Channel – 633.625MHz

Modulation Level(dB)	Peak Freq. Deviation At 100Hz(KHz)	Peak Freq. Deviation At 1000Hz(KHz)	Peak Freq. Deviation At 2500Hz(KHz)	Peak Freq. Deviation At 10000Hz(KHz)	Peak Freq. Deviation At 15000Hz(KHz)
-20	8.8	9.2	9.4	9.8	10.5
-15	14.2	15.6	15.7	16.5	17.4
-10	17.6	18.2	19.7	20.1	20.6
-5	22.5	23.8	24.6	25.3	26.8
0	25.9	26.4	27.8	28.4	29.8
5	28.6	29.7	31.5	32.6	33.3
10	30.8	31.4	32.3	33.7	34.7
15	31.9	32.6	34.8	35.1	36.9
20	32.4	33.8	35.4	37.9	38.7

High Channel – 697.625MHz

Modulation Level(dB)	Peak Freq. Deviation At 100Hz(KHz)	Peak Freq. Deviation At 1000Hz(KHz)	Peak Freq. Deviation At 2500Hz(KHz)	Peak Freq. Deviation At 10000Hz(KHz)	Peak Freq. Deviation At 15000Hz(KHz)
-20	9.1	9.8	10.2	10.8	11.2
-15	15.2	16.6	16.9	17.3	17.9
-10	18.7	19.7	20.9	21.3	22.0
-5	23.5	24.6	25.7	26.8	27.6
0	26.7	27.0	28.6	29.7	30.2
5	28.7	29.5	30.2	31.6	32.3
10	31.6	32.8	33.3	34.2	35.4
15	32.8	34.9	35.6	36.3	36.9
20	33.9	35.1	36.5	37.2	38.1

b) Audio Frequency Response:

Low Channel – 614.25MHz

Frequency (Hz)	Deviation (KHz)
100	2.9
200	3.1
300	3.2
400	3.5
500	3.6
600	4.2
700	4.5
800	4.8
900	5.1
1000	5.3
1200	6.9
1400	7.2
1600	7.6
1800	8.3
2000	8.8
2400	9.2
2800	9.5
3200	9.8
3600	10.3
4000	10.8
4500	10.9
5000	11.0
5500	10.8
6000	10.6
6500	10.6
7000	10.2
8000	9.9
9000	9.5
10000	9.2
12000	8.9
14000	8.4
16000	8.1
18000	7.9
20000	7.6
25000	7.5
30000	7.2

Mid Channel – 633.625MHz

Frequency (Hz)	Deviation (KHz)
100	2.5
200	2.7
300	3.1
400	3.6
500	4.2
600	4.5
700	4.8
800	5.1
900	5.3
1000	5.9
1200	6.4
1400	6.6
1600	7.9
1800	8.6
2000	8.8
2400	9.5
2800	9.8
3200	10.6
3600	10.7
4000	10.9
4500	11.2
5000	11.5
5500	11.8
6000	10.7
6500	10.6
7000	10.4
8000	10.2
9000	9.8
10000	9.6
12000	9.3
14000	9.1
16000	8.7
18000	8.5
20000	8.1
25000	7.9
30000	7.5

High Channel – 697.625MHz

Frequency (Hz)	Deviation (KHz)
100	3.0
200	3.3
300	3.6
400	3.8
500	4.2
600	4.5
700	4.9
800	5.3
900	5.7
1000	6.1
1200	6.5
1400	6.9
1600	7.5
1800	8.6
2000	8.9
2400	9.2
2800	9.6
3200	10.2
3600	10.6
4000	10.9
4500	11.2
5000	10.8
5500	10.6
6000	10.4
6500	10.0
7000	9.5
8000	9.3
9000	9.1
10000	8.8
12000	8.6
14000	8.3
16000	7.9
18000	7.6
20000	7.2
25000	7.0
30000	6.7

5.3 Frequency Tolerance

1. Requirement(s):
 - (1) According to 47 CFR §2.1055(a)(1), the frequency stability shall be measured with variation of ambient temperature from -30°C to +50°C.
 - (2) According to 47 CFR §2.1055(d)(2), for hand carried battery powered equipment, the frequency stability shall be measured with reducing primary supply voltage to the battery operating end point, which is specified by the manufacture.
 - (3) According to 47 CFR §74.861(e)-(4), the frequency tolerance must be maintained within 0.005%.
2. Environmental Conditions

Temperature	16°C
Relative Humidity	53%
Atmospheric Pressure	1009mbar
3. Test Date: April 9, 2010
 Test By: Peter Cai

Test Result: Pass

(a) Frequency Stability versus input voltage (battery operation end point voltage is 3V)

Low Channel – 614.25MHz

Frequency (MHz)	Ref Frequency (MHz)	Frequency Measured at end point voltage (MHz)	Frequency Error (%)	Limit (%)
614.25	614.25	614.234	-0.0026048	0.005

Mid Channel – 633.625MHz

Frequency (MHz)	Ref Frequency (MHz)	Frequency Measured at end point voltage (MHz)	Frequency Error (%)	Limit (%)
633.625	633.625	633.615	-0.0015782	0.005

High Channel – 697.625MHz

Frequency (MHz)	Ref Frequency (MHz)	Frequency Measured at end point voltage (MHz)	Frequency Error (%)	Limit (%)
697.625	697.625	697.616	-0.00129	0.005

(b) Frequency Stability versus ambient temperature

Low Channel – 614.25MHz

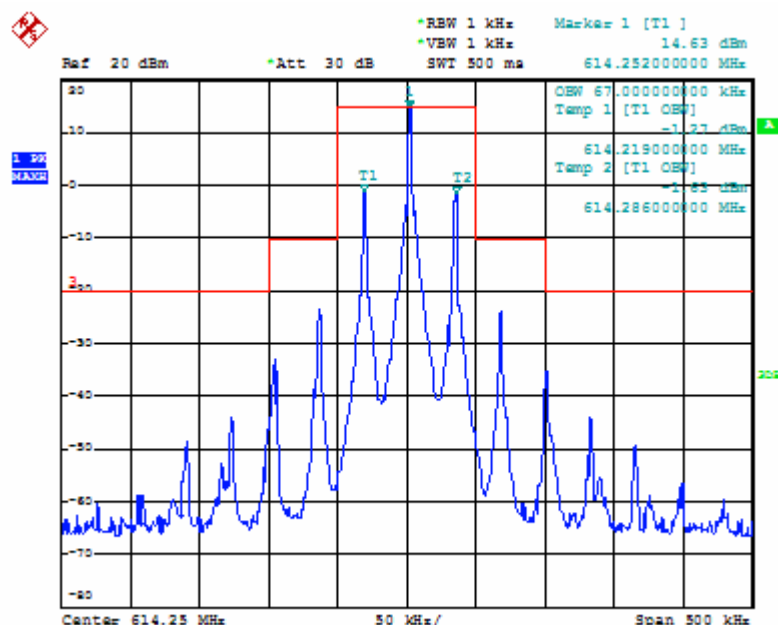
Reference Frequency: 614.25MHz		Limit(%) $\pm 0.005\%$	
Environment Temperature(oC)	Power Supply	Frequency deviation measured with time Elapse(30 minutes)	
		(MHz)	%
50	New Battery	614.243	-0.0011396
40	New Battery	614.237	-0.0021164
30	New Battery	614.240	-0.001628
20	New Battery	614.255	0.000814
10	New Battery	614.240	-0.001628
0	New Battery	614.237	-0.0021164
-10	New Battery	614.240	-0.001628
-20	New Battery	614.243	-0.0011396
-30	New Battery	614.237	-0.0021164

Mid Channel – 633.625MHz

Reference Frequency:633.625MHz		Limit(%) $\pm 0.005\%$	
Environment Temperature(oC)	Power Supply	Frequency deviation measured with time Elapse(30 minutes)	
		(MHz)	%
50	New Battery	633.618	-0.0011048
40	New Battery	633.625	0
30	New Battery	633.628	0.0015782
20	New Battery	633.618	-0.0011048
10	New Battery	633.615	-0.0015782
0	New Battery	633.618	-0.0011048
-10	New Battery	633.615	-0.0015782
-20	New Battery	633.618	-0.0011048
-30	New Battery	633.615	-0.0015782

High Channel – 697.625MHz

Reference Frequency:697.625MHz		Limit(%) $\pm 0.005\%$	
Environment Temperature(oC)	Power Supply	Frequency deviation measured with time Elapse(30 minutes)	
		(MHz)	%
50	New Battery	697.628	0.00043
40	New Battery	697.618	-0.001
30	New Battery	697.622	-0.00043
20	New Battery	697.617	-0.0011467
10	New Battery	697.625	0
0	New Battery	697.625	0
-10	New Battery	697.628	0.00043
-20	New Battery	697.628	0.00043
-30	New Battery	697.616	-0.00129





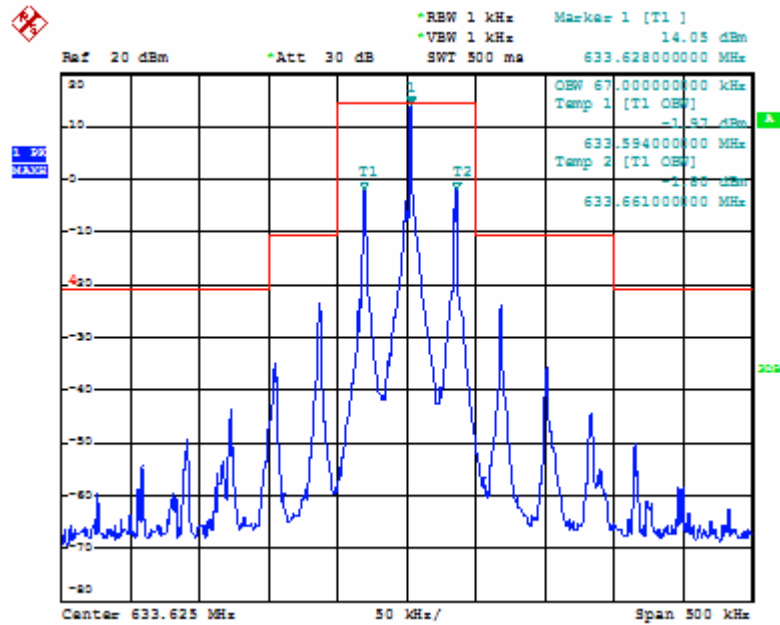
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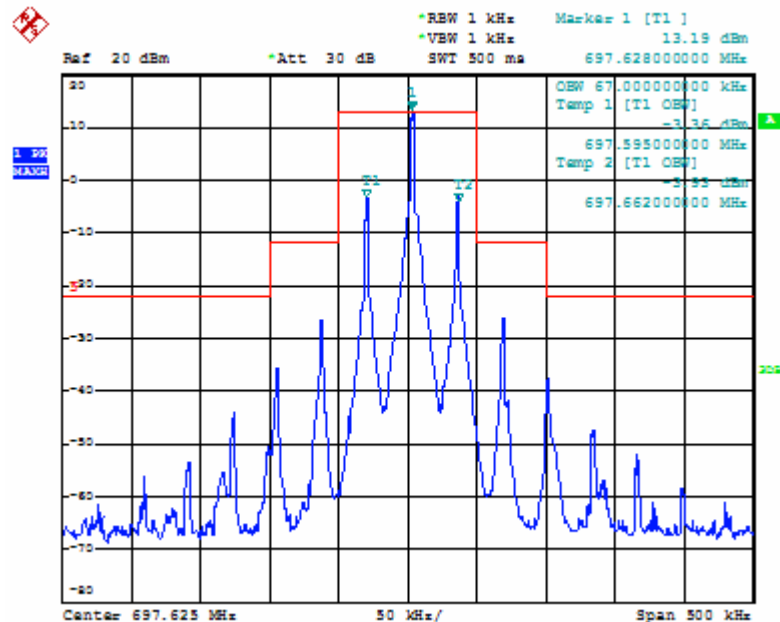
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Serial#: 1002034
Issue Date: 21 April, 2010
Page: 16 of 41
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Mid Channel – 633.625MHz



High Channel – 697.625MHz



5.5 Unwanted Radiation

1. Requirement(s): 47 CFR §74.861(d)-(3)
 The occupied bandwidth shall not be greater than that necessary for satisfactory transmission and, in any event, an emission appearing on any discrete frequency outside the authorized band shall be attenuated, at least, $43+10\log_{10}(\text{mean output power, in watts})$ dB below the mean output power of the transmitting unit.
2. Environmental Conditions

Temperature	16°C
Relative Humidity	53%
Atmospheric Pressure	1009mbar
3. Test Date: April 15, 2010
 Test By: Peter Cai

Test Result: Pass

Low Channel – 614.25MHz

Frequency (MHz)	Antenna Polarization (V/H)	S.G (dBm)	Factor (dB)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
1228.5	V	-5.6	-23.24	-28.84	-27	-1.84
1228.5	H	-6.3	-23.51	-29.81	-27	-2.81
1842.7	V	-8.1	-22.10	-30.2	-27	-3.20
1842.7	H	-8.9	-22.53	-31.43	-27	-4.43

Mid Channel – 633.625MHz

Frequency (MHz)	Antenna Polarization (V/H)	S.G (dBm)	Factor (dB)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
1267.2	V	-6.9	-23.01	-29.91	-27	-2.91
1267.2	H	-7.8	-23.13	-30.93	-27	-3.93
1900.9	V	-9.5	-21.54	-31.04	-27	-4.04
1900.9	H	-10.1	-21.65	-31.75	-27	-4.75

High Channel – 697.625MHz

Frequency (MHz)	Antenna Polarization (V/H)	S.G (dBm)	Factor (dB)	Emission Level (dBm)	Limit (dBm)	Margin (dB)
1395.2	V	-8.5	-22.84	-31.34	-27	-4.34
1395.2	H	-9.0	-22.93	-31.93	-27	-4.93
2092.9	V	-11.3	-20.51	-31.81	-27	-4.81
2092.9	H	-12.0	-20.69	-32.69	-27	-5.69

Note: All 3 axes have been investigated. Only worst case is presented in the test report.
 The peak emission of other frequency in range from 30MHz up to 10 times harmonic were 10dB lower than the limit, hence no data was recorded in the report.

Annex A. TEST INSTRUMENTATION

Annex A.i. TEST INSTRUMENTATION & GENERAL PROCEDURES

Instrument	Manufacturer	Model	CAL Due Date
Spectrum Analyzer	HP	8564 E	2011.04.01
EMI Receiver	Rohde & Schwarz	ESPI 3	2011.02.19
Antenna (30MHz~2GHz)	Sunol Sciences	JB1	2010.10.04
Horn Antenna (1~18GHz)	A-INFOMW	JXTXLB-10180	2010.11.18
Horn Antenna (1~18GHz)	N/A	N/A	2010.10.04
Pre-Amplifier(0.01 ~ 1.3GHz)	HP	8447F	2011.04.01
Pre-Amplifier(0.1 ~ 18GHz)	MITEQ	AMF-7D-00101800-30-10P	2011.03.05
Log-Periodic Antenna	Com-Power AB-900	15298	2010.05.08
Pro.Temp.&Humi.Chamber	MENTEK MHP-150-1C	MHA090510A	2010.05.13
Attenuator	JFW INDUSTRIES 50FH-020-100	N/A	2011.04.01
Audio Signal Generator	HP	3325A	2011.04.01

Annex A.ii. FREQUENCY TOLERANCE TEST DESCRIPTION

Test procedure:

Frequency stability versus Environmental Temperature

The equipment under test was connected to an external DC power supply and the RF output was connected to a frequency counter via feed through attenuators. The EUT was placed inside the temperature chamber. After the temperature stabilized for approximately 20 minutes, the frequency of the output signal was recorded from the Spectrum Analyzer.

Frequency stability versus Input Voltage

At room temperature ($25 \pm 5^{\circ}\text{C}$), an external variable DC power supply was connected to the EUT. The frequency of the transmitter was measured for 115%, 100% and 85% of the nominal operating input voltage. For hand carried, battery powered equipment, reduce primary supply voltage to the battery operating end point which shall be specified by the manufacturer.

Annex A. iii RADIATED EMISSIONS TEST DESCRIPTION

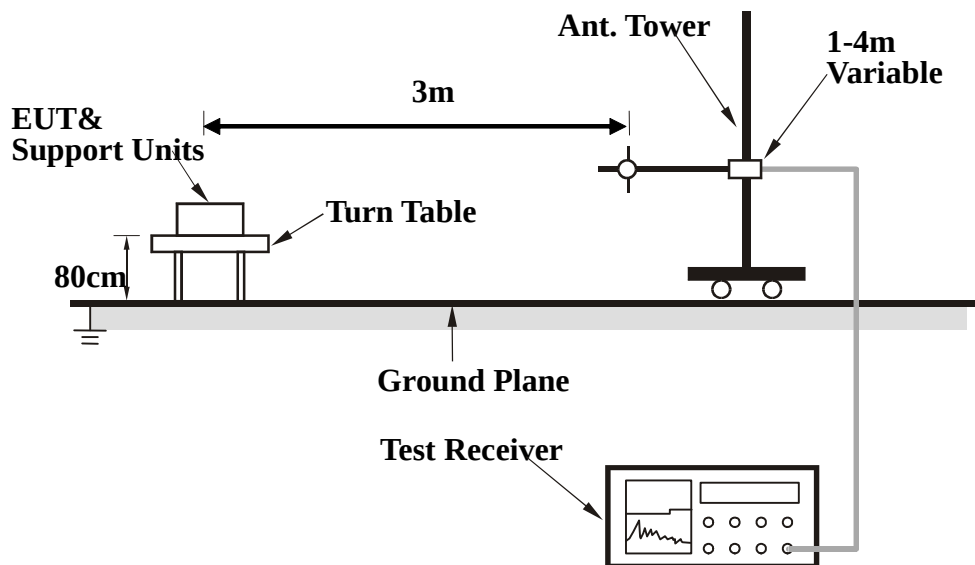
EUT Characterisation

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:

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

where

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

And the average value is

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

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

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 attachment

Annex C. TEST SETUP AND SUPPORTING EQUIPMENT

EUT TEST CONDITIONS

Annex C. i. SUPPORTING EQUIPMENT DESCRIPTION

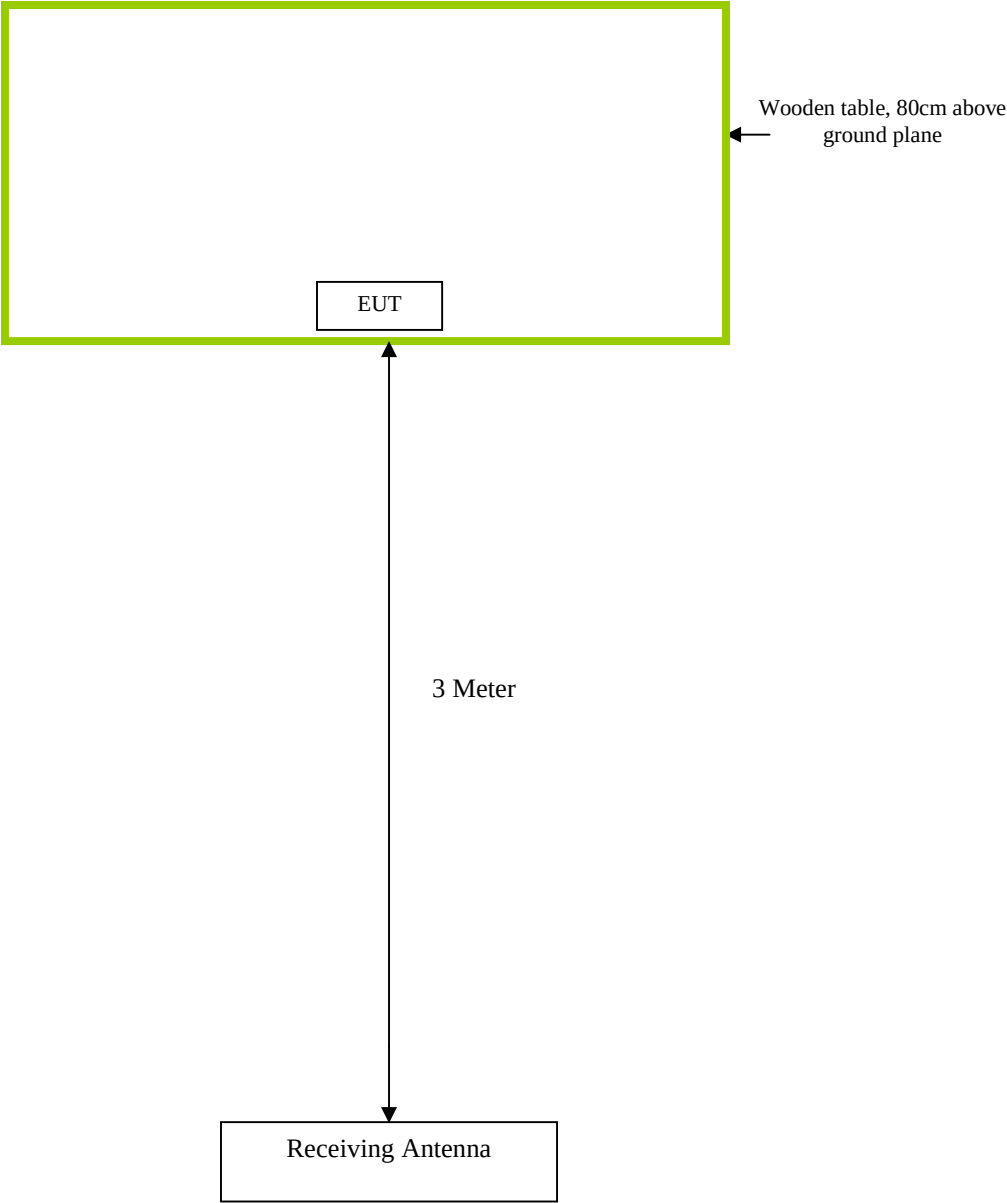
The following is a description of supporting equipment and details of cables used with the EUT.

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

Block Configuration Diagram for Conducted Emissions

N/A

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	The EUT is continuously transmitting.

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

Please see attachment



Title: EMC Test Report for Wireless Tour Guide System
Model: SPL-32T
To: FCC Part 74 Subpart H: Jul. 2009 , ANSI C63.4:2009

Serial#: 1002034
Issue Date: 21 April, 2010
Page: 28 of 41
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Annex E. SIEMIC ACCREDITATION CERTIFICATES

SIEMIC ACREDITATION DETAILS: A2LA Certificate Number: 2742.01



THE AMERICAN ASSOCIATION FOR
LABORATORY ACCREDITATION

ACCREDITED LABORATORY

A2LA has accredited

SIEMIC LABORATORIES

San Jose, CA

for technical competence in the field of

Electrical Testing

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

Presented this 11th day of July 2008.

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



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



THE AMERICAN ASSOCIATION FOR
LABORATORY ACCREDITATION

ACCREDITED PRODUCT CERTIFICATION BODY

A2LA has accredited

SIEMIC INC.

San Jose, CA

for technical competence as a

Product Certification Body

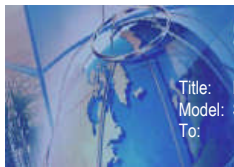
This product certification body is accredited in accordance with the recognized International Standard ISO/IEC Guide 65:1996 *General requirements for bodies operating product certification systems*. This accreditation demonstrates technical competence for a defined scope and the operation of a quality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

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, INC.

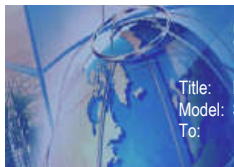
Accessing global markets

Title: EMC Test Report for Wireless Tour Guide System
Model: SPL-32T
To: FCC Part 74 Subpart H: Jul. 2009 , ANSI C63.4:2009

Serial#: 1002034
Issue Date: 21 April, 2010
Page: 29 of 41
www.sieminc.com

SIEMIC ACCREDITATION DETAILS: FCC Registration NO:986914





SIEMIC, Inc.

Accessing global markets

Title: EMC Test Report for Wireless Tour Guide System
Model: SPL-32T
To: FCC Part 74 Subpart H: Jul. 2009 , ANSI C63.4:2009

Serial#: 1002034
Issue Date: 21 April, 2010
Page: 30 of 41
www.siemic.com

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

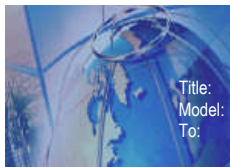
Dear Sir or Madam:

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, INC.

Accessing global markets

Title: EMC Test Report for Wireless Tour Guide System
Model: SPL-32T
To: FCC Part 74 Subpart H: Jul. 2009 , ANSI C63.4:2009

Serial#: 1002034
Issue Date: 21 April, 2010
Page: 31 of 41
www.sieminc.com

SIEMIC ACCREDITATION DETAILS: Industry of Canada Registration No. 4842



Industry
Canada

February 19, 2009

OUR FILE: 46405-4842
Submission No: 131645

SIEMIC NANJING (CHINA) LABORATORIES

2-1 Longchang 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.

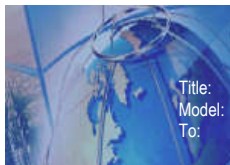
The frequency for re-validation of the test site and the information that is required to be filed or retained by the testing party shall comply with the requirements established by the accrediting organization. However, in all cases, test site re-validation shall occur on an interval not to exceed two 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, INC.

Accessing global markets

Title: EMC Test Report for Wireless Tour Guide System
Model: SPL-32T
To: FCC Part 74 Subpart H: Jul. 2009 , ANSI C63.4:2009

Serial#: 1002034
Issue Date: 21 April, 2010
Page: 32 of 41
www.sieminc.com

SIEMIC ACCREDITATION DETAILS: Japan VCCI Accreditation No. 3081



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*

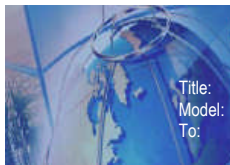
Registration No.: C-3421

Date of Registration: June 12 , 2009

This Certificate is valid until September 30 , 2010

VCCI Council





SIEMIC, INC.

Accessing global markets

Title: EMC Test Report for Wireless Tour Guide System
Model: SPL-32T
To: FCC Part 74 Subpart H: Jul. 2009 , ANSI C63.4:2009

Serial#: 1002034
Issue Date: 21 April, 2010
Page: 33 of 41
www.siemic.com

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*

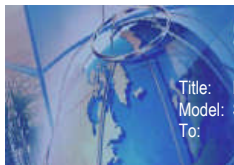
Registration No.: R-3083

Date of Registration: June 12 , 2009

This Certificate is valid until September 30 , 2010

VCCI Council





SIEMIC, INC.

Accessing global markets

Title: EMC Test Report for Wireless Tour Guide System
Model: SPL-32T
To: FCC Part 74 Subpart H: Jul. 2009 , ANSI C63.4:2009

Serial#: 1002034
Issue Date: 21 April, 2010
Page: 34 of 41
www.siemic.com

SIEMIC ACCREDITATION DETAILS: Japan VCCI Accreditation No. 3081



VCCI Council

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*

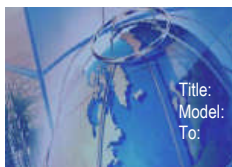
Registration No.: T-1597

Date of Registration: June 12 , 2009

This Certificate is valid until September 30 , 2010

VCCI Council





SIEMIC, Inc.

Accessing global markets

Title: EMC Test Report for Wireless Tour Guide System
Model: SPL-32T
To: FCC Part 74 Subpart H: Jul. 2009, ANSI C63.4:2009

Serial#: 1002034
Issue Date: 21 April, 2010
Page: 35 of 41
www.siemic.com

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.

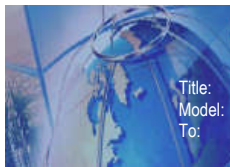
Sincerely,

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

Enclosure

cc: Ramona Saar

NIST



SIEMIC, INC.

Accessing global markets

Title: EMC Test Report for Wireless Tour Guide System
Model: SPL-32T
To: FCC Part 74 Subpart H: Jul. 2009 , ANSI C63.4:2009

Serial#: 1002034
Issue Date: 21 April, 2010
Page: 36 of 41
www.siemic.com

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**

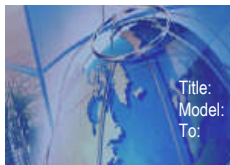
The names of all recognized CABs will be posted on the NIST website at <http://ts.nist.gov/mra>. If you have any questions, please contact Mr. Dhillon at 301-975-5521. We appreciate your continued interest in our international conformity assessment activities.

Sincerely,

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

cc: Jogindar Dhillon

NIST



SIEMIC, Inc.

Accessing global markets

Title: EMC Test Report for Wireless Tour Guide System
Model: SPL-32T
To: FCC Part 74 Subpart H: Jul. 2009 , ANSI C63.4:2009

Serial#: 1002034
Issue Date: 21 April, 2010
Page: 37 of 41
www.siemic.com

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.

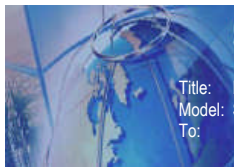
Sincerely,

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

Enclosure

cc: Ramona Saar

NIST



SIEMIC, Inc.

Accessing global markets

Title: EMC Test Report for Wireless Tour Guide System
Model: SPL-32T
To: FCC Part 74 Subpart H: Jul. 2009 , ANSI C63.4:2009

Serial#: 1002034
Issue Date: 21 April, 2010
Page: 38 of 41
www.siemic.com

SIEMIC ACCREDITATION DETAILS: Mexico NOM Recognition



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 prefrendado 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 vista bueno y así poder ejercer dicho acuerdo.

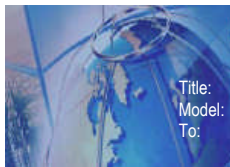
Aprovecho este escrito para mencionarle que nuestro intermediario gestor será la empresa Isotel de México, S. A. de C. V., empresa que ha colaborado durante mucho tiempo con nosotros en lo relacionado a la evaluación de la conformidad y que cuenta con amplia experiencia en la gestoría de la certificación 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 Independencia
Código Postal 40100, D.F.
Tel: 5284-0000 con 12 líneas
Fax: 5284-0000
www.canietl.org



SIEMIC, INC.

Accessing global markets

Title: EMC Test Report for Wireless Tour Guide System
Model: SPL-32T
To: FCC Part 74 Subpart H: Jul. 2009, ANSI C63.4:2009

Serial#: 1002034
Issue Date: 21 April, 2010
Page: 39 of 41
www.siemic.com

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>.

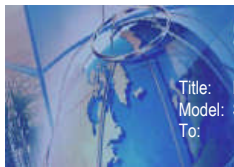
If you have any queries, please do not hesitate to contact me.

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, Inc.

Accessing global markets

Title: EMC Test Report for Wireless Tour Guide System
Model: SPL-32T
To: FCC Part 74 Subpart H: Jul. 2009 , ANSI C63.4:2009

Serial#: 1002034
Issue Date: 21 April, 2010
Page: 40 of 41
www.siemic.com

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.

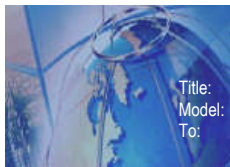
Sincerely,

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

Enclosure

cc: Ramona Saar

NIST



SIEMIC, Inc.

Accessing global markets

Title: EMC Test Report for Wireless Tour Guide System
Model: SPL-32T
To: FCC Part 74 Subpart H: Jul. 2009 , ANSI C63.4:2009

Serial#: 1002034
Issue Date: 21 April, 2010
Page: 41 of 41
www.siemic.com

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