HID GLOBAL CORPORATION

NON-KEYPAD MULTICLASS REV E READER

Model: RP30E

Aug 23rd, 2012

Report No.: SL12061801-HID-018_multiClass RevE _RF_RP30E(FCC)

(This report supersedes NONE



Modifications made to the product: None

This Test Report is Issued Under the Authority of:

David Zhang
David Zhang
Choon Sian Ooi
Engineering Reviewer

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



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Accreditations for Conformity Assessment

Country/Region	Accreditation Body	Scope	
USA	FCC, A2LA	EMC , RF/Wireless , Telecom	
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
EU	NB	EMC & R&TTE Directive
Japan	MIC (RCB 208)	RF , Telecom
HongKong	OFTA (US002)	RF , Telecom

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Serial# SL12061801-HID-018_multiClass RevE_RF_RP30E(FCC) lssue Date Aug 23rd, 2012
Page 4 of 64
www.siemic.com

CONTENTS

1	EXECUTIVE SUMMARY & EUT INFORMATION	6
	TECHNICAL DETAILS	
3	MODIFICATION	8
4	TEST SUMMARY	9
5	MEASUREMENTS, EXAMINATION AND DERIVED RESULTS	10
ANN	EX A. TEST INSTRUMENT & METHOD	29
ANN	EX B. TEST SETUP PHOTOGRAPHS	30
ANN	EX B. I. EUT INTERNAL PHOTOGRAPHS	31
ANN	EX B. II. EUT EXTERNAL PHOTOGRAPHS	32
ANN	EX C. SUPPORTING EQUIPMENT DESCRIPTION	33
ANN	EX D. EUT OPERATING CONDITIONS	36
ANN	EX E SIEMIC ACCREDITATION	37



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Serial# SL12061801-HID-018_multiClass RevE_RF_RP30E(FCC)
Issue Date Aug 23rd, 2012
Page 6 of 64
www.siemic.com

1 Executive Summary & EUT information

The purpose of this test programmed was to demonstrate compliance of the HID Global Corp., Model: RP30E against the current Stipulated Standards for FCC 15.225 2011 and RSS-210 Issue 8: 2010.

The equipment under test radio operating frequency is 125KHz and 13.56 MHz.

The test has demonstrated that this unit complies with stipulated standards.

EUT Information

EUT

Description

Smart Card Readers

Model No : RP30E

Serial No : N/A

Input Power

12VDC

Classification

Per Stipulated

: RFID

Test Standard



Serial# SL12061801-HID-018_multiClass RevE_RF_RP30E(FCC) lssue Date Aug 23rd, 2012
Page 7 of 64 www.siemic.com

2 TECHNICAL DETAILS

2	TECHNICAL DETAILS
Purpose	Compliance testing of Non-Keypad multiClass Rev E Reader with stipulated standard
Applicant / Client	HID Global Corporation
Manufacturer	HID Global Corporation 15730 Barranca Parkway Irvine, CA 92618 USA
Laboratory performing the tests	SIEMIC Laboratories 775 Montague Expressway, Milpitas, CA 95035
Date EUT received	Aug 2nd, 2012
Dates of test (from – to)	Aug 3rd - Aug 15th, 2012
Equipment Category:	DXX & DCD
Trade Name:	HID
Model :	RP30E
RF Operating Frequency (ies)	125KHz, 13.56 MHz (RFID)
Number of Channels :	125 KHz (1), 13.56MHz (1)
Modulation :	N/A
FCC ID :	JQ6-MCLASSRP30E
IC ID:	2236B-MCLASSRP30E



Serial# SL12061801-HID-018_multiClass RevE _RF_RP30E(FCC) lssue Date Aug 23rd, 2012 Page 8 of 64

www.siemic.com

3 MODIFICATION

NONE

TEST SUMMARY

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

Smart Card Reader

Test Results Summary

Test	Standard			Deep /
47 CFR Part 15.225: 2011	RSS 210 Issue 8: 2010	Description	Test Date	Pass / Fail
15.203		Antenna Requirement	N/A	Pass
15.207(a)	RSS Gen(7.2.2)	Conducted Emissions Voltage	8/13/2012	Pass
15.225(a)	RSS210(A2.6)	Limit in the band of 13.553 – 13.567 MHz	8/03/2012	Pass
15.225(b)	RSS210(A2.6)	Limit in the band of 13.410 – 13.553 MHz and 13.567 – 13.710 MHz	8/03/2012	Pass
15.225(c)	RSS210(A2.6)	Limit in the band of 13.110 – 13.410 MHz and 13.710 – 14.010 MHz	8/03/2012	Pass
15.225(d), 15.209	RSS210(A2.6)	Limit outside the band of 13.110 – 14.010 MHz	8/03/2012	Pass
15.225(e)	RSS210(A2.6)	Frequency Stability	8/15/2012	Pass
	RSS-210(5.9.1)	Occupied Bandwidth	8/03/2012	Pass

ANSI C63.4: 2003/ RSS-Gen Issue 3: 2010

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

5 MEASUREMENTS, EXAMINATION AND DERIVED RESULTS

5.1 Antenna Requirement

Requirement(s): 47 CFR §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

Antenna requirement must meet at least one of the following:

- a) Antenna must be permanently attached to the device.
- b) Antenna must use a unique type of connector to attach to the device.
- c) Device must be professionally installed. Installer shall be responsible for ensuring that the correct antenna is employed with the device.
- 1) The RFID antenna is integral to the main board permanently to the device which meets the requirement (See Internal Photographs submitted as another Exhibit).

5.2 Conducted Emissions Voltage

Standard Requirement: 47 CFR §15.207

The frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 [mu]H/50 ohms line impedance stabilization network (LISN). The lower limit applies at the boundary between the frequencies ranges.

AC Line Limit

Frequency ranges	Limit (dBuV)		
(MHz)	QP	Average	
0.15 ~ 0.5	66 – 56	56 – 46	
0.5 ~ 5	56	46	
5 ~ 30	60	50	

Note:

1.	All possible modes of operation were investigated. Only the 6 worst case emissions measured, using the correct CISPR and Average detectors, are reported. All other emissions were relatively insignificant.
2.	A "-ve" margin indicates a PASS as it refers to the margin present below the limit line at the particular frequency.
3.	Conducted Emissions Measurement Uncertainty
	All test measurements carried out are traceable to national standards. The uncertainty of the measurement a=t a confidence level of approximately 95%
	(in the case where distributions are normal), with a coverage factor of 2, in the range 150kHz – 30MHz (Average & Quasi-peak) is ±3.5dB.

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 $50\Omega/50\mu$ 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.
- 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.
- Steps 2 to 4 were then repeated for the LIVE line (for AC mains) or DC line (for DC power).

Description of Conducted Emission Program

This EMC Measurement software run LabView automation software and offers a common user interface for electromagnetic interference (EMI) measurements. This software is a modern and powerful tool for controlling and monitoring EMI test receivers and EMC test systems. It guarantees reliable collection, evaluation, and documentation of measurement results. Basically, this program will run a pre-scan measurement before it proceeds with the final measurement. The pre-scan routine will run the common scan range from 15 kHz to 30 MHz; the program will first start a peak and average scan on selectable measurement time and step size. After the program complete the pre-scan, this program will perform the Quasi Peak and Average measurement, based on the pre-scan peak data reduction result.

Sample Calculation Example

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

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

Q-P reading obtained directly from EMI Receiver = 40.00 dBμV

(Calibrated for system losses)

Therefore, Q-P margin = 47.96 - 40.00 = 7.96

i.e. 7.96 dB below limit

Test Result: Pass

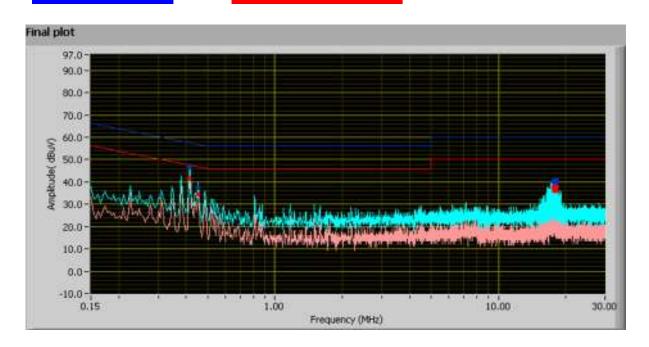


Test Result

Test specification:	Conducted E	mission (CE) per	FCC				
Environ Conditions: Voltage/Line & Phase		Temp:	23°C		Pass		
		Humidity:	43.20%				
		Atmospheric:	1019mbar	Decult			
		120VAC, 60Hz/ N	leutral	Result:			
Test Date	Test Date: Tested by:						
Tested by							
EUT Operating	Mode:	Normal operation					
EUT Configur	ation:	N/A					
Remarks	:	NONE					

Quasi-Peak Limit

Average Limit



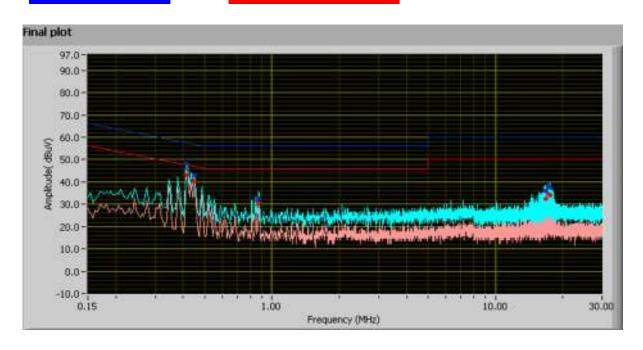
120V, 60Hz, Neutral

Frequency	QP Value	Class A Limit	Margin	Avg Value	Class A Limit	Margin
(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)
0.41	46.48	57.59	-11.11	41.40	47.59	-6.20
0.45	37.38	56.81	-19.43	34.54	46.81	-12.28
17.55	40.52	60.00	-19.48	37.79	50.00	-12.21
17.77	39.74	60.00	-20.26	35.98	50.00	-14.02
18.16	40.79	60.00	-19.21	37.84	50.00	-12.16
18.23	39.96	60.00	-20.04	36.20	50.00	-13.80

Test specification:	Conducted Em	nission (CE) per	FCC		
		Temp:	23°C		Deve
Environ Cond	Environ Conditions:		43.20%		
		Atmospheric:	1019mbar	Result:	
Voltage/Line &	Voltage/Line & Phase Test Date: Tested by:		120VAC, 60Hz/ Line 08/13/2012 David Zhang		Pass
Test Date					
Tested by					
EUT Operating	Mode:	Normal operation			
EUT Configur	ation:	N/A			
Remarks	:	NONE			

Ouasi-Peak Limit

Average Limit



120V, 60Hz, Line

Frequency	QP Value	Class A Limit	Margin	Avg Value	Class A Limit	Margin
(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)
0.41	48.25	57.59	-9.35	43.24	47.59	-4.35
0.45	43.14	56.89	-13.75	40.28	46.89	-6.60
0.87	32.53	56.00	-23.47	30.45	46.00	-15.55
16.78	36.02	60.00	-23.98	32.50	50.00	-17.50
17.32	38.01	60.00	-21.99	34.53	50.00	-15.47
17.55	37.44	60.00	-22.56	34.17	50.00	-15.83

5.3 Radiated Emission (9kHz - 30MHz, H-Field)(outside operation band)

Requirement(s): 47 CFR §15.225 & RSS-210 (A2.6) & RSS-310 (3.7)

- § 15.225 Operation within the band 13.110–14.010 MHz.
- (a) The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.
- (b) Within the bands 13.410–13.553 MHz and 13.567–13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.
- (c) Within the bands 13.110–13.410 MHz and 13.710–14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.
- (d) The field strength of any emissions appearing outside of the 13.110–14.010 MHz band shall not exceed the general radiated emission limits in §15.209.

Measurement uncertainty

All test measurements carried out are traceable to national standards. The uncertainty of the measurement at a confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2, is +/- 6dB.

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.
- The filtered power supply for the EUT and supporting equipment were tapped from the appropriate power sockets located on the turntable.
- 3. The relevant loop antenna was set at the required test distance away from the EUT and supporting equipment boundary.

Test Method:

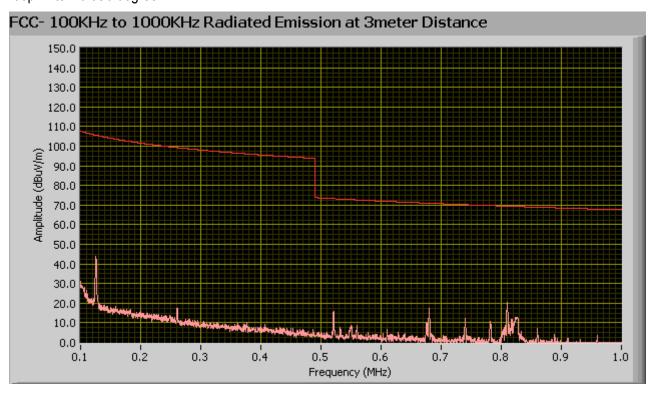
For < 30MHz, Radiated emissions were measured according to ANSI C63.4. The EUT was set to transmit at the highest output power. The EUT was set 10 meter away from the measuring antenna. The loop antenna was positioned 1 meter above the ground from the centre of the loop. The measuring bandwidth was set to 10 kHz. (Note: During testing the receive antenna was rotated about its axis to maximize the emission from the EUT.)

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

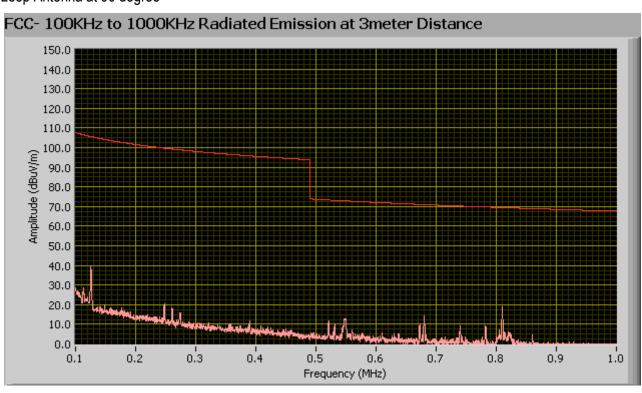
Sample Calculation: Corrected Amplitude = Raw Amplitude (dBµV/m) + ACF (dB) + Cable Loss (dB) – Distance Correction Factor

100 kHz ~ 1 MHz Loop Antenna at 0 degree

General Emission Limit @ 3 Meter

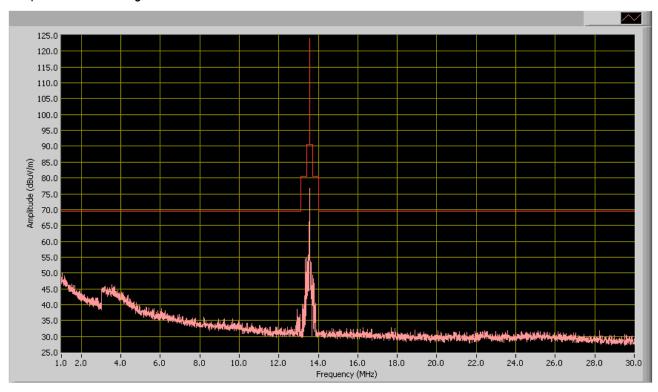


Loop Antenna at 90 degree

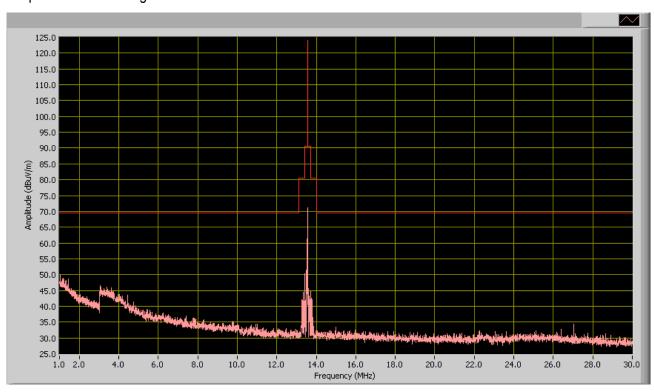


1MHz ~ 30MHz Loop Antenna at 0 degree

General Emission Limit @ 3 meter



Loop Antenna at 90 degree



5.4 Radiated Emissions > 30 MHz (30MHz – 1 GHz, E-Field)

Standard Requirement(s): 47 CFR §15.209; 47 CFR §15.225(d) & RSS-210 (A2.6)

- § 15.225 Operation within the band 13.110–14.010 MHz.
- (a) The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.
- (b) Within the bands 13.410–13.553 MHz and 13.567–13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.
- (c) Within the bands 13.110–13.410 MHz and 13.710–14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.
- (d) The field strength of any emissions appearing outside of the 13.110–14.010 MHz band shall not exceed the general radiated emission limits in §15.209.

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 (QP only @ 3m & 10m) is +6.0dB (for EUTs < 0.5m X 0.5m X 0.5m).

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.
- The filtered power supply for the EUT and supporting equipment were tapped from the appropriate power sockets located on the turntable.
- 3. The relevant broadband antenna was set at the required test distance away from the EUT and supporting equipment boundary.

Test Method

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

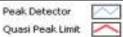
60.0 55.0 50.0 45.0

(m//mg (qgn//m) 35.0 35.0 25.0 20.0

15.0 10.0 5.0 0.0

30.00

Test specification:	Radiated Emission (RE)				
Environ Conditions:	Temp:	23°C			
	Humidity:	Humidity: 43.20%			
	Atmospheric:	1019mbar	D It.	Pass	
Mains Power:	12VDC		Result:		
Test Date:	8/3/2012				
Tested by:	David Zhang				
EUT Operating Mode:	125KHz and 13	125KHz and 13.56MHz			
EUT Configuration:	Transmittin	Transmitting			
Remarks:	NONE	NONE			





1000.00



Frequency	QP Value	Azimuth	Polarity	Height	Class B Limit	Margin
(MHz)	(dBuV/m)	(degree)	(H/V)	(cm)	(dBuV/m)	(dB)
189.86	37.33	137.00	V	118.00	43.52	-6.19
108.50	35.70	192.00	V	118.00	43.52	-7.82
135.56	36.06	203.00	V	100.00	43.52	-7.47
216.92	29.85	274.00	Н	159.00	46.00	-16.15
162.70	39.71	181.00	V	100.00	43.52	-3.81
181.95	40.04	279.00	Н	120.00	43.52	-3.48
941.87	30.32	129.00	Н	152.00	46.00	-15.68

Below 1GHz Emission Test Data @ 3M

5.5 Frequency Stability

Standard Requirement(s): 47 CFR §15.225(e) & RSS-210 (A2.6)

Limit:

The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency over a temperature variation of −20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

Test Set-up

- 1. The EUT was set up inside a semi-anechoic chamber in accordance with the standard.
- 2. The EUT was placed on top of a 0.8m high, non-metallic table in a typical configuration.

Test Method

Frequency Stability was measured according to 47 CFR §2.1055. Measurement was taken with spectrum analyzer. The spectrum analyzer bandwidth and span was set to read in hertz. A voltmeter was used to monitor when varying the voltage.

- 1. The EUT was switched on and allowed to warm up to its normal operating condition.
- 2. To measure conducted, a SMA cable was used to replace the EUT antenna. To measure radiated, an external antenna was used to detect EUT transmission signal.
- 3. Measurement of the frequency of EUT transmission signal and make record.

4.

Frequency Stability versus Temperature: The Frequency tolerance of the carrier signal shall be maintained within \pm 0.01% of the operating frequency over a temperature variation of -20°C to +50°C at normal supply voltage.

Serial# SL12061801-HID-018_multiClass RevE_RF_RP30E(FCC)
Issue Date Aug 23rd, 2012
Page 21 of 64
www.siemic.com

Test specification: Freque	ncy Stability				
	Temp:	23°C			
Environ Conditions:	Humidity:	43.20%			
	Atmospheric:	1019mbar	Result:	Dana	
Mains Power:	12VDC	12VDC		Pass	
Test Date:	8/15/2012				
Tested by:	David Zhang	David Zhang			
EUT Operating Mode:	125kHz and 13.50	6MHz			
EUT Configuration:	Transmitting				
Remarks:	NONE				

Test Result for 125 KHz radio

Reference Frequency: 125.0612515 kHz at -20°C and +50°C

Temperature	Measured Freq.	Freq. Drift	Freq. Deviation	Pass/Fail
(°C)	(KHz)	(Hz)	(Limit: 0.01%)	
50	125.0776553	16.40381	<0.01	Pass
20	Reference	125.0612515	KHz	
-20	125.0043838	-56.86773	<0.01	Pass

Note: The EUT met the applicable requirement throughout the temperature range. Only the extremes are reported

Frequency Stability versus Input Voltage: The Frequency tolerance of the carrier signal shall be maintained within \pm 0.01%, the frequency of the transmitter was measured at 85% and at 115% of the rated power supply voltage at 20°C environmental temperature.

Carrier Frequency: 125.0612515 kHz at 20°C at 12VDC

Measured Voltage ±15% of nominal (DC)	Measured Freq. (KHz)	Freq. Drift (Hz)	Freq. Deviation (Limit: 0.01%)	Pass/Fail
10.2	125.0612515	+0	<0.01	Pass
13.8	125.0612515	+0	<0.01	Pass

Test Result for 13.56 MHz radio

Frequency Stability versus Temperature: The Frequency tolerance of the carrier signal shall be maintained within \pm 0.01% of the operating frequency over a temperature variation of -20°C to +50°C at normal supply voltage.

Reference Frequency: 13.561058 MHz at -20°C and +50°C

Temperature	Measured Freq.	Freq. Drift	Freq. Deviation	Pass/Fail
(°C)	(MHz)	(Hz)	(Limit: 0.01%)	
50	13.561037	-21	<0.01	Pass
40	13.561042	-16	<0.01	Pass
30	13.560967	-91	<0.01	Pass
20	Reference	13.561058	MHz	
10	13.561033	-25	<0.01	Pass
0	13.561008	-50	<0.01	Pass
-10	13.561	-58	<0.01	Pass
-20	13.560917	-141	<0.01	Pass

Frequency Stability versus Input Voltage: The Frequency tolerance of the carrier signal shall be maintained within ± 0.01%, the frequency of the transmitter was measured at 85% and at 115% of the rated power supply voltage at 20°C environmental temperature.

Carrier Frequency: 13.561058 MHz at 20°C at 12VDC

Measured Voltage ±15% of nominal (DC)	Measured Freq. (MHz)	Freq. Drift (Hz)	Freq. Deviation (Limit: 0.01%)	Pass/Fail
10.2	13.561058	0	<0.01	Pass
13.8	13.561058	0	<0.01	Pass

5.6 Fundamental Field Strength Test Result

Standard Requirement:

- § 15.225 Operation within the band 13.110-14.010 MHz.
- (a) The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.
- (b) Within the bands 13.410–13.553 MHz and 13.567–13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.
- (c) Within the bands 13.110–13.410 MHz and 13.710–14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.
- (d) The field strength of any emissions appearing outside of the 13.110–14.010 MHz band shall not exceed the general radiated emission limits in §15.209.

Measurement uncertainty

All test measurements carried out are traceable to national standards. The uncertainty of the measurement at a confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2, is +/-6dB.

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.
- The filtered power supply for the EUT and supporting equipment were tapped from the appropriate power sockets located on the turntable.
- 3. The relevant loop antenna was set at the required test distance away from the EUT and supporting equipment boundary.

Test Method:

For < 30MHz, Radiated emissions were measured according to ANSI C63.4. The EUT was set to transmit at the highest output power. The EUT was set 10 meter away from the measuring antenna. The loop antenna was positioned 1 meter above the ground from the centre of the loop. The measuring bandwidth was set to 10 kHz. (Note: During testing the receive antenna was rotated about its axis to maximize the emission from the EUT.)

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

Sample Calculation: Corrected Amplitude = Raw Amplitude (dBµV/m) + ACF (dB) + Cable Loss (dB) - Distance Correction Factor



Test Result

Test specification: Channel Separation	n Per	47CFR15.247	Test Method	FCC	
Environ Conditions:	Temp:	23°C			
	Humidity:	43.20%			
	Atmospheric:	1019mbar	Result:	Davis	
Mains Power:	12VDC	-		Pass	
Test Date:	8/03/2012				
Tested by:	David Zhang				
EUT Operating Mode:	Transmitting				
EUT Configuration:	13.56MHz				
Remarks:	NONE				

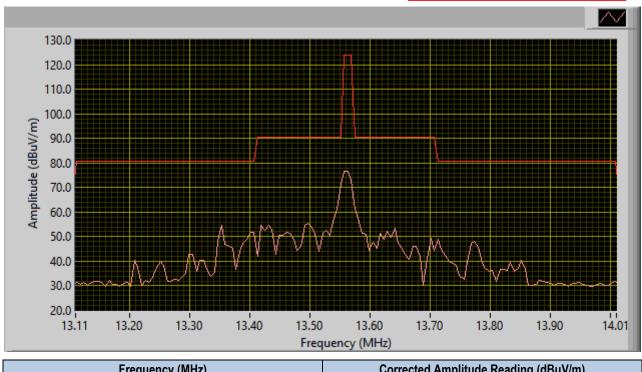
Index	Radio	Frequency (MHz)	Antenna Deg	Measured (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1	RP30E	0.125	0deg	44.00	105.67	Pass
2	RP30E	0.125	90deg	40.11	105.07	F d 5 5
3	RP30E	13.56	0deg	77.57	124.00	Pass
4	RP30E	13.56	90deg	71.76	124.00	r a55

| Serial# | SL12061801-HID-018_multiClass RevE_RF_RP30E(FCC) | Issue Date | Aug 23rd, 2012 | Page | 25 of 64 | |

Loop Antenna at 0 degree

General Emission Limit @ 3 meter

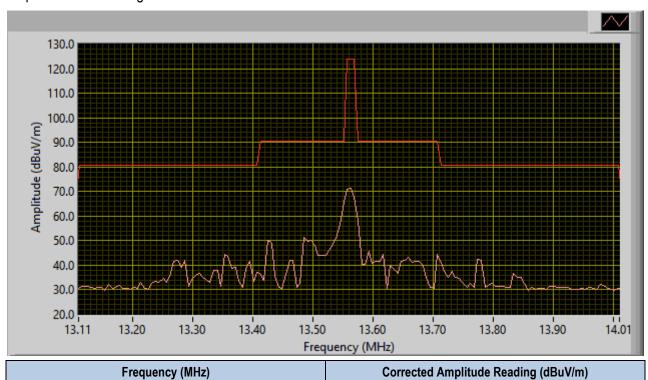
71.76



Frequency (MHz)	Corrected Amplitude Reading (dBuV/m)
13.56	77.57

Loop Antenna at 90 degree

13.56



5.7 Occupied Bandwidth

Standard Requirement: RSS-210 (5.9.1)

Measurement uncertainty

All test measurements carried out are traceable to national standards. The uncertainty of the measurement at a confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2, in the range 30MHz – 40GHz is ±1.5dB

Test Set-up

- 1. The EUT was set up inside a semi-anechoic chamber in accordance with the standard.
- 2. The EUT was placed on top of a 0.8m high, non-metallic table in a typical configuration.

Test Method

- 1. The EUT was switched on and allowed to warm up to its normal operating condition.
- 2. To measure conducted, a SMA cable was used to replace the EUT antenna. To measure radiated, an external antenna was used to detect EUT transmission signal.
- 3. Measurement of the 99% Occupied Bandwidth of EUT transmission signal and make record.

Test Result: Pass

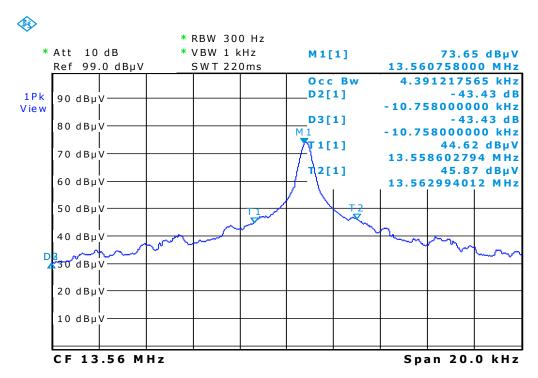
Test specification:	99% Occupied Band	99% Occupied Bandwidth				
	Temp:	23°C				
Environ Conditions:	Humidity:	43.2%				
	Atmospheric: 1019mbar		Result:	NI/A		
Voltage/Line & Phase	N/A		Result:	N/A		
Test Date:	8/3/2012					
Tested by:	David					
Remarks:	RP30E		•			

Test Result

Radio	Channel Frequency (MHz)	99% Occupied BW (KHz)	Limit (MHz)
13.56MHz Radio	13.56	4.391	N/A
125KHz Radio	0.125	2.435	N/A

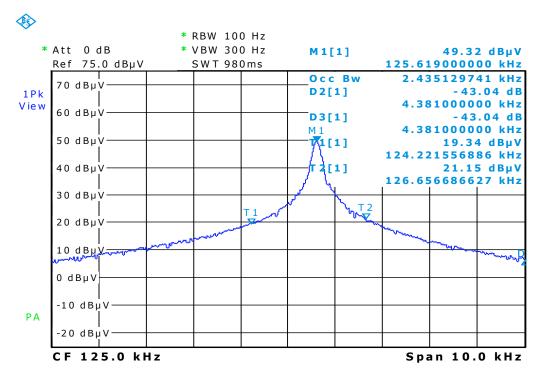
Plots

Plots: 13.56 MHz



Date: 3.AUG.2012 01:30:34

Plots: 125KHz



Date: 3.AUG.2012 01:36:50

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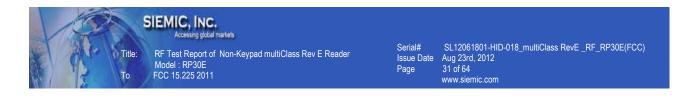
Annex A. TEST INSTRUMENT & METHOD

Annex A.i. TEST INSTRUMENTATION & GENERAL PROCEDURES

Instrument	Model	Serial #	Cal Date	Cal Cycle	Cal Due	In use
Conducted Emissions						
R & S Receiver	ESIB 40	100179	04/20/2012	1 Year	04/20/2013	V
R&S LISN	ESH2-Z5	861741/013	05/18/2012	1 Year	05/18/2013	>
CHASE LISN	MN2050B	1018	07/24/2012	1 Year	07/24/2013	>
Sekonic Hygro Hermograph	ST-50	HE01-000092	05/25/2012	1 Year	05/25/2013	>
Radiated Emissions		l	<u> </u>	<u> </u>	l	
R & S Receiver	ESL6	100178	03/01/2012	1 Year	03/01/2013	<u><</u>
R & S Receiver	ESIB 40	100179	04/20/2012	1 Year	04/20/2013	
Spectrum Analyzer	E4407B	US88441016	5/31/2012	1 Year	05/31/2013	>
Passive Loop Antenna (10k-30MHz)	6512	49120	5/22/2012	1 Year	5/22/2013	>
Bi-Log antenna (30MHz~2GHz)	JB1	A030702	02/09/2012	1 Year	02/09/2013	>
Horn Antenna (1-26.5GHz)	3115	10SL0059	04/26/2012	1 Year	04/26/2013	
Horn Antenna (18-40 GHz)	AH-840	101013	04/23/2012	1 Year	04/23/2013	
Pre-Amplifier (1-26.5GHz)	8449B	3008A00715	05/30/2012	1 Year	05/30/2013	
Microwave Preamplifier (18-40GHz)	PA-840	181251	05/30/2012	1 Year	05/30/2013	
3 Meters SAC	3M	N/A	10/13/2011	1 Year	10/13/2012	
10 Meters SAC	10M	N/A	06/05/2012	1 Year	06/05/2013	>
Sekonic Hygro Hermograph	ST-50	HE01-000092	05/25/2012	1 Year	05/25/2013	>
Radio Communication Tester	CMU200	111078	11/30/2011	1 Year	11/30/2012	
Permitted Freq Range			<u>'</u>			
R & S Receiver	ESIB 40	100179	4/20/2012	1 Year	4/20/2013	
Spectrum Analyzer	E4407B	US88441016	5/31/2012	1 Year	05/31/2013	
Spectrum Analyzer	8564E	3738A00962	5/14/2012	1 Year	05/14/2013	>
TestEquity Environment Chamber	1007H	61201	07/05/2012	1 Year	07/05/2013	>
Signal Analyzer	FSIQ7	825555/013	5/10/2012	1 Year	5/10/2013	

Annex B. TEST SETUP PHOTOGRAPHS

Please See Attachment



Annex B. i. EUT INTERNAL PHOTOGRAPHS

Please see attachment

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Annex B. ii. EUT EXTERNAL PHOTOGRAPHS

Please see attachment

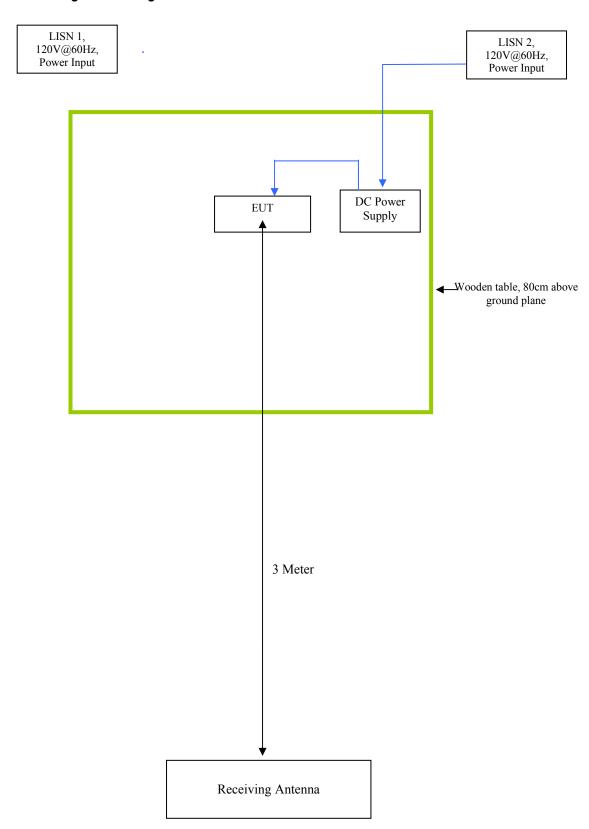
Annex C. SUPPORTING EQUIPMENT DESCRIPTION

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

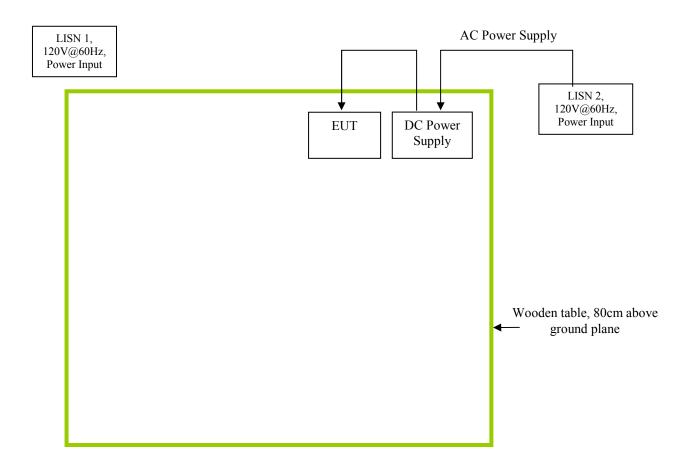
Equipment Description (Including Brand Name)	Model & Serial Number	Cable Description (List Length, Type & Purpose)
Laptop/IBM	R51	Ethernet Cable , 2m

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

Block Configuration Diagram for Radiated Emission



Block Configuration Diagram for AC Conducted Emission



Serial# SL12061801-HID-018_multiClass RevE _RF_RP30E(FCC)
Issue Date Aug 23rd, 2012
Page 36 of 64

www.siemic.com

Annex D. 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 transmitting once it's powered on.	
Others Testing	The EUT was transmitting once it's powered on.	

Serial#

SL12061801-HID-018_multiClass RevE _RF_RP30E(FCC)

Issue Date Aug 23rd, 2012
Page 37 of 64 www.siemic.com

Annex E SIEMIC ACCREDITATION

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



The American Association for Laboratory Accreditation

Accredited Laboratory

A2I.A has accredited

SIEMIC, INC. dba SIEMIC LABORATORIES

Milpitas, 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 8 January 2009).



Presented this 23rd day of November 2010.

President & CEO 0 For the Accreditation Council Certificate Number 2742.01 Valid to September 30, 2012 Revised August 2, 2012

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

SL12061801-HID-018_multiClass RevE _RF_RP30E(FCC) Serial# Issue Date Aug 23rd, 2012
Page 38 of 64 www.siemic.com



American Association for Laboratory Accreditation

SCOPE OF ACCREDITATION TO ISO/IEC 17025;2005

SIEMIC, INC. 1 dba SIEMIC LABORATORIES 775 Montague Expressway Milpitas, CA 95035

Mr. Leslie Bai Phone: 408 526 1188 Email: leslie.bai@siemic.com Mr. Snell Leong Phone: 408 526 1188 Email: snell.leong@siemic.com www.siemic.com

ELECTRICAL

Valid to: September 30, 2012 Certificate Number: 2742.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following EMC, Product Safety, Radio and Telecommunication tests:

Test Description:	Test Method:
EN & IEC – Emissions & Immunity	IEC/CISPR 11; IEC/CISPR 12; EN 55011; IEC/CISPR 22; EN 55022; IEC/CISPR 20; EN 55020; EN 61000-6-1; EN 61000-6-2; EN 61000-6-3; EN 61000-6-4; EN 61204-3; EN 61326, EN 61326-1; EN 61000-3-2; EN 61000-3-3; EN 50081-1, EN 50081-2; EN 50082-1; IEC 61000-4-2; EN 61000-4-2; IEC 61000-4-3 (limited up to 2.7 GHz and 3V/m); IEC 61000-4-4; EN 61000-4-3; (limited up to 2.7 GHz and 3V/m); IEC 61000-4-4; EN 61000-4-5; EN 61000-4-5; EN 61000-4-6; EN 61000-4-6; IEC 61000-4-8; EN 61000-4-8; IEC 61000-4-11; EN 61000-4-11; IEC/CISPR 24; EN 55024; EN 50412-2-1; EN 50083-2; EN 50090-2-2; EN 50091-2; EN 50130-4; EN 50130-4 +A12; IEC 60601-1-2; EN 12184; EN 55015; EN 61547; CISPR 16-1-4
Korea – Emissions & Immunity	RRA Public Notification 2011-18; RRA Announce 2010-5; Annex 2(KN 11); Annex 3(KN 13); Annex 4(KN 14-1); Annex 5(KN 22); Annex 6(KN 41); Annex 7(KN 50); Annex 9(KN 15); Annex 10(KN 19); Annex 11(KN 60); Annex 1-1(KN 16-1-1); Annex 1-2(KN 16-1-2); Annex 1-3(KN 16-1-3); Annex 1-4(KN 16-1-4); Annex 1-5(KN 16-1-5); Annex 1-6(KN 16-2-1); Annex 1-7(KN 16-2-2); Annex 1-8(KN 16-2-3); Annex 1-9(KN 16-2-4); RRA Public Notification 2011-17; RRA Announce 2010-6; Annex 1-1(KN 61000-4-2); Annex 1-2(KN 61000-4-3); Annex 1-3(KN 61000-4-4); Annex 1-4(KN 61000-4-5); Annex 1-5(KN 61000-4-6); Annex 1-6(KN 61000-4-8); Annex 1-7(KN 61000-4-11); Annex 2(KN 60601-1-2); Annex 3(KN 20); Annex 5(KN 24); Annex 6(KN 41); Annex 7(KN 51) Annex 8-1(KN 301-489-01); Annex 8-2(KN 301-489-07); Annex 8-3(KN 301-489-17); Annex 8-4(KN 301-489-24)

(A2LA Certificate No. 2742.01) revised 08/02/2012

leter Maye Page 1 of 8

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US / FCC - Emissions	SAE J1113-11, SAE J1113-12; SAE J1113-41; SAE J1113-4;
DOTTEC Emissions	SAE J1113-13; FCC Method 47 CFR Part 18, FCC Report and Order ET Docket 98-153 (FCC 02-48); FCC Method 47 CFR Parts15, including
	Subpart G, using FCC Order 04-425
	ANSI C63.4(2009); ANSI C63.10(2009); ANSI C63.4:2003 ANSI C63.4(2003) with FCC Method 47 CFR Part 11;
	ANSI C63.4(2003) with FCC Method 47 CFR Part 15, Subpart E;
	ANSI C63.4(2003) with FCC Method 47 CFR Part 15, Subpart C;
	ANSI C63.4(2003) and DA 02-2138;
	ANSI C63.4(2003) with FCC Method 47 CFR Part 15, Subpart B
Canada – Emissions	ICES-001; ICES-002; ICES-003 Issue 4; ICES-003 Issue 4 (2004); ICES-006 Issue 1
Vietnam – Emission &	TCN 68-193:2003; TCN 68-196:2001; TCVN 7189:2002;
Immunity	TCVN 7189:2009 (CISPR 22:2006)
Australia / New Zealand –	AS/NZS 1044; AS/NZS 4251.1; AS/NZS 4251.2; AS/NZS CISPR 22;
Emissions and Immunity	AS/NZS 3548; AS/NZS 2279.3; AS/NZS 61000-3-3; AS/NZS CISPR 11;
	AS/NZS CISPR 24; AS/NZS 61000.6.3; AS/NZS 61000.6.4;
111111111111111111111111111111111111111	AS/NZS CISPR 14.1; AS/NZS 61000.3.2
Japan – Emissions	JEITA IT-3001; VCCI-V-3:2010.4 (up to 6 GHz)
China – Emissions	GB9254; GB17625.1
Taiwan – Emissions	CNS 13438 (up to 6 GHz); CNS 13783-1; CNS 13803; CNS 13439
Singapore – Emissions &	IDA TS EMC; CISPR 22; IEC 61000-4-2; IEC 61000-4-3;
Immunity	IEC 61000-4-4; IEC 61000-4-5; IEC 61000-4-6
FCC – Unlicensed Radio	A1: 47 CFR Parts 11 (Emergency Alert System (EAS)), 15 (Radio
A1 to A4	Frequency Devices) and 18 (Industrial, Scientific, and Medical Equipment) FCC OST/MP-5(1986); ANSI C63.4(2003); ANSI C63.4(2009); ANSI C63.10(2009)
	A2: 47 CFR Part 15 (Radio Frequency Devices); ANSI C63.4(2003);
	ANSI C63.4(2009); ANSI C63.10(2009)
	A3: 47 CFR Part 15 (Radio Frequency Devices); ANSI C63.17:2006;
	ANSI C63.10(2009); IEEE Std 1528:2003 + Ad1; Std IEEE 1528A:2005
	A4: 47 CFR Part 15 (Radio Frequency Devices); ANSI C63.10(2009);
	IEEE Std 1528:2003 + Ad1; Std IEEE 1528A:2005
FCC – Licensed Radio	B1: 47 CFR Parts 2 (Frequency Allocations and Radio Treaty Matters;
B1 to B4	General Rules and Regulations), 22 (Public Mobile Services), 24 (Personal
	Communications Services), 25 (Satellite Communications), and 27 (Miscellaneous Wireless Communications Services);
	ANSI/TIA-603-C (2004), Land Mobile FM or PM Coppingunications

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FCC – Licensed Radio (continued) B1 to B4	Equipment Measurement and Performance Standard; IEEE Std 1528:2003 + Ad1; Std IEEE 1528A:2005 B2: 47 CFR Parts 2 (Frequency Allocations and Radio Treaty Matters; General Rules and Regulations), 22 (Public Mobile Services), 74 (Experimental Radio Auxiliary, Special Broadcast and Other Program Distributional Services), 90 (Private Land Mobile Radio Services), 95 (Personal Radio Services), and 97 (Amateur Radio Services); ANSI/TIA-603-C (2004), Land Mobile FM or PM Communications Equipment Measurement and Performance Standard B3: 47 CFR Parts 2 (Frequency Allocations and Radio Treaty Matters; General Rules and Regulations); 80 (Stations in the Maritime Services), 87 (Aviation Services); ANSI/TIA-603-C (2004), Land Mobile FM or PM
	Communications Equipment Measurement and Performance Standard B4: 47 CFR Parts 2 (Frequency Allocations and Radio Treaty Matters; General Rules and Regulations); 27 (Broadband Radio Services (BRS) and Educational Broadband Services (EBS)), 74 (Experimental Radio Auxiliary Special Broadcast and Other Program Distributional Services), and 101 (Fixed Microwave Services); ANSI/TIA-603-C (2004), Land Mobile FM or PM Communications Equipment Measurement and Performance Standard
Canada – Radio	RSS 102; RSS 111; RSS 112; RSS 117; RSS 118; RSS 119; RSS 123; RSS 125; RSS 127; RSS 128; RSS 129; RSS 131; RSS 132; RSS 133; RSS 134; RSS 135; RSS 136; RSS 137; RSS 138; RSS 139; RSS 141; RSS 142; RSS 170; RSS 181; RSS 182; RSS 191; RSS 192; RSS 193; RSS 194; RSS 195; RSS 196; RSS 197; RSS 198; RSS 199; RSS 210; RSS 220; RSS 213; RSS 215; RSS 243; RSS 287; RSS 288; RSS 310; RSS Gen
CE – Radio	EN 301 502; EN 301 511; EN 301 526; EN 301 681; EN 301 721; EN 301 751; EN 301 753; EN 301 783-2; EN 301 796; EN 301 797; EN 301 840-2; EN 301 843-1; EN 301 843-4; EN 301 843-5; EN 301 893; EN 301 908-01; EN 301 908-02; EN 301 908-03; EN 301 908-04; EN 301 908-05; EN 301 908-06; EN 301 908-07; EN 301 908-08; EN 301 908-09; EN 301 908-10; EN 301 908-11; EN 301 929-2; EN 301 997-2; EN 302 018-2; EN 302 054-2; EN 302 064-2; EN 302 066-2; EN 302 077-2; EN 302 186; EN 302 195-2; EN 302 217-3; EN 302 245-2; EN 302 288-2; EN 302 291-2; EN 302 296; EN 302 297; EN 302 326-2; EN 302 326-3; EN 302 340; EN 302 372-2; EN 302 426; EN 302 454-2; EN 302 480; EN 302 502; EN 302 510-2; EN 302 217-4-2; EN 300 224-1; EN 300 279; EN 300 339; EN 300 385; EN 301 839-2; EN 301 843-6; EN 302 017-2; EN 302 208-2;
	EN 301 839-2; EN 301 843-6; EN 302 017-2; EN 302 208-2; EN 302 217-2-2; ETS 300 329; ETS 300 445; ETS 300 446; ETS 300 683; ETS 300 826; ETS EN 300 328; ETSI EN 300 086-2; EN 302217-1; EN 302217-2-1; EN 302217-4-1; EN 302288-1; EN 302908-12; EN 302326-1; EN 301929-1; EN 301997-1; EN 300224-2; EN 301839-1; EN 301843-1; EN 301843-2; EN 301843-3; EN 301843-4; EN 301843-5; EN 302017-1; EN 302208-1; EN 300086-1; EN 300113-1; EN 300224-1; EN 300341-1; EN 302291-1; EN 302500-1; EN 302500-2; ETSI EN 300 113-2; ETSI EN 300 197; ETSI EN 300 198;

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SMI 99 III 17 - 241 - 37	ETSI EN 300 219-1; ETSI EN 300 219-2;
CE – Radio (continued)	ETSI EN 300 220-1; ETSI EN 300 220-2; ETSI EN 300 220-3;
	ETSI EN 300 224-2; ETSI EN 300 296-1; ETSI EN 300 296-2;
	ETSI EN 300 328-1; ETSI EN 300 328-2;
	ETSI EN 300 330; ETSI EN 300 330-1; ETSI EN 300 330-2;
	ETSI EN 300 341-2; ETSI EN 300 373-1; ETSI EN 300 373-2;
	ETSI EN 300 373-3; ETSI EN 300 390-1; ETSI EN 300 390-2;
	ETSI EN 300 422-1; ETSI EN 300 422-2; ETSI EN 300 431;
	ETSI EN 300 440-1; ETSI EN 300 440-2; ETSI EN 300 454-1;
	ETSI EN 300 454-2; ETSI EN 300 718-2; ETSI EN 301 021;
	ETSI EN 301 166-1; ETSI EN 301 166-2; ETSI EN 301 178-2;
	ETSI EN 301 213-1; ETSI EN 301 213-2; ETSI EN 301 213-3;
	ETSI EN 301 213-4; ETSI EN 301 213-5; ETSI EN 301 357-1;
	ETSI EN 301 357-2; ETSI EN 301 390; ETSI EN 301 459;
	ETSI EN 301 489-01 (excluding section 9.6); ETSI EN 301 489-02;
	ETSLEN 301 489-03; ETSLEN 301 489-04; ETSLEN 301 489-05;
	ETSI EN 301 489-06; ETSI EN 301 489-07; ETSI EN 301 489-08;
	ETSI EN 301 489-09; ETSI EN 301 489-10; ETSI EN 301 489-11;
	ETSI EN 301 489-12; ETSI EN 301 489-13; ETSI EN 301 489-14;
	ETSI EN 301 489-15; ETSI EN 301 489-16; ETSI EN 301 489-17;
	ETSI EN 301 489-18; ETSI EN 301 489-19; ETSI EN 301 489-20;
	ETSI EN 301 489-22; ETSI EN 301 489-23; ETSI EN 301 489-24;
	ETSI EN 301 489-25; ETSI EN 301 489-26; ETSI EN 301 489-27;
	ETSI EN 301 489-28; ETSI EN 301 489-31; ETSI EN 301 489-32;
	IEC 60945
IDA – Radio	IDA TS AR; IDA TS CT-CTS; IDA TS GMPCS; IDA TS LMR;
	IDA TS RPG; IDA TS SRD; IDA TS UWB; IDA TS WBA;
	IDA TS CMT; IDA TA CBS
Vietnam – Radio	QCVN 54:2011/BTTTT; TCN 68-242:2006; QCVN 11:2010/BTTTT;
	TCN 68-243:2006; QCVN 17:2010/BTTTT; TCN 68-246:2006
Korea – Radio	Annex 8-1(KN 301-489-01); Annex 8-2(KN 301-489-07);
	Annex 8-3(KN 301-489-17); Annex 8-4(KN 301-489-24);
	KCC Public Notification 2011-31; RRA Announce 2011-10;
	RRA Public Notification 2010-46
Taiwan – Radio	LP0002; PLMN07; PLMN01; PLMN08
Australia - New Zealand -	AS 2772.2; AS/NZS 4281; AS/NZS 4268; AS/NZS 4280.1; AS/NZS 4583;
Radio	AS/NZS 4280.2; AS/NZS 4281; AS/NZS 4295; AS/NZS 4582;
	AS/NZS 4769.1; AS/NZS 4769.2; AS/NZS 4770; AS/NZS 4771
Hong Kong – Radio	HKCA 1002; HKCA 1007; HKCA 1008; HKCA 1010; HKCA 1015;
(a) 30	HKCA 1016; HKCA 1020; HKCA 1022; HKCA 1026; HKCA 1027;
	HKCA 1033; HKCA 1034; HKCA 1035; HKCA 1036; HKCA 1037;
	HKCA 1039; HKCA 1041; HKCA 1042; HKCA 1043; HKCA 1044;
	HKCA 1046; HKCA 1047; HKCA 1048; HKCA 1049; HKCA1052;
	HKCA1053; HKCA 1054
	2.01) revised 08/02/2012 Page 4 of
= 34-C	2.01) revised 08/02/2012 Liter Marye Page 4 of

FCC Telephone Terminal Equipment Scope C1 FCC Telephone Terminal Equipment Scope C1 (continued)	ANSI/TIA-968-A:03; ANSI/TIA-968-A-1:03; ANSI/TIA-968-A-2:04; ANSI/TIA-968-A-3:05; ANSI/TIA-968-A-4:07; ANSI/TIA-968-A-5:07; TIA-968-B; FCC Rule Part 68; 47 CFR Part 68.316; 47 CFR Part 68.317; ANSI/TIA/EIA-464-C; TIA-810-B; T1.TRQ6 (2002); TCB-31-B (1998); TIA-470.110-C; TIA-810-B; TIA-920
Canada – Telecom	CS-03 Part V Issue 9:2009 Amendment 1; CS-03 Part VIII Issue 9:2009 Amendment 4; CS-03 Part I Issue 9:2006 Amendment 3; CS-03 Part II Issue 9:2004; CS-03 Part III Issue 9:2004; CS-03 Part V Issue 9:2004 ; CS-03 Part VI Issue 9:2004; CS-03 Part VII Issue 9:2006 Amendment 3; CS-03 Part VIII Issue 9:2007 Amendment 3; CS-03 Issue 9:04 + A2(06) + A3(06)
Europe — Telecom	TBR 2; 01-1997; TBR 004 Ed.1,95 + A1 (97); TBR 1; TBR 3; TBR 12:A1 01-1996; TBR 013 ed.1; TBR 024 ed.1; TBR 25; TBR 38 ed.1; ETSI ES 203 021-05; ETSI ES 203 021-2; ETSI ES 021-3; TBR 021; ETSI EG 201 121; ETSI EN 301 437; ETSI TS 101 270-1; ITU-T Recommendation Q.920; ITU-T Recommendation Q.920 – Amendment 1; ITU-T Recommendation Q.921; ITU-T Recommendation Q.921 – Amendment 1; ITU-T Recommendation Q.931; ITU-T Recommendation Q.931 – Amendment 1; Erratum 1 (02/2003) ITU-T Recommendation Q.931 (05/1998); ISDN User Network Interface Layer 3 Specification for Basic Call Control; ITU-T Recommendation P.300
Australia –Telecom	AS/CA S003.1:2010; AS/CA S003.2:2010; AS/CA S003.3:2010; AS/CA S004:2010; AS/ACIF S006:2008; AS/ACIF S041.1:2009 AS/ACIF S041.2:2009; AS/ACIF S041.3:2009; AS/ACIF S042.1:2008; AS/ACIF S043.2:2008; AS/ACIF S043.3:2008; 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 ACIF S042.1
New Zealand – Telecom	PTC200;2006; PTC200 Issue No.2;97 + A1(980); PTC220; PTC273;2007; TNA 115; TNA 117
Singapore - Telecom	IDA TS ADSL; IDA TS DLCN; IDA TS ISDN BA; IDA TS ISDN PRA; IDA TS ISDN 3; IDA TS-PSTN; IDA TS ACLIP
Hong Kong – Telecom	HKCA 2011; HKCA 2012; HKCA 2013; HKCA 2014; HKCA 2015; HKCA 2017; HKCA 2018; HKCA 2019; HKCA 2022; HKCA 2023; HKCA 2024; HKCA 2026; HKCA 2027; HKCA 2028; HKCA 2029; HKCA 2030; HKCA 2031; HKCA 2032; HKCA 2033

Peter Mbrye Page 5 of 8

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Vietnam – Telecom	QCVN 10:2010/BTTTT; TCN 68-143:2003; QCVN 19:2010/BTTTT; TCN 68-188:2000; TCN 68-189:2000; QCVN 18:2010/BTTTT;
	TCN 68-192:2003; TCN 68-193:2003; TCVN 7317:2003 (CISPR 24: 1997)
	TCN 68-196:2001; QCVN 12:2010/BTTTT; TCN 68-221:2004;
	QCVN 13:2010/BTTTT; TCN 68-222:2004; QCVN 55:2011/BTTTT; TCN 68-223:2004; QCVN 15:2010/BTTTT; TCN 68-245:2004
Korea – Telecom	Presidential Decree 21098; RRA Public Notification 2010-36;
Korea – Telecom	RRA Public Notification 2009-38; RRA Announce 2011-2;
	Annex 1(RRA Announce 2011-2); Annex 3(RRA Announce 2011-2);
	Annex 5(RRA Announce 2011-2); Annex 6(RRA Announce 2011-2)
China – Telecom	YD/T 514-1:98; YD/T 1277.1-2003; GB/T 17904.1-1999;
	GB/T 17904.2-1999; GB/T 17154.1-1997; GB/T 17154.2-1997;
	YD/T1091-2000; YD/T1006-1999; GB/T 17789-1999
Taiwan – Telecom	PSTN01:03; ADSL01:08; ID0002; IS6100: 93
Japan – Telecom	JATE Blue Book, Green Book;
	Ministerial Ordinance of the Ministry of Posts and Telecommunications No.
	31 of April 1, 1985 (last amended on March 22 2004);
	Ordinance Concerning Technical Conditions Compliance Approval etc. of
	Terminal Equipment
South Africa – Telecom	DPT-TE-001; TE-002; TE-003; TE-004; TE-005; TE-006; TE-007;
	TE-008; TE-009; TE-010; TE-012 (telephone interface);
	TE-013 (telephone interface); TE-014; TE-015; TE-018; SWS-001;
	SWS-002; SWS-003; SWS-004; SWS-005; SWS-006; SWS-007;
	SWS-008; SWS-009; SWS-010
Israel – Telecom	Israel MoC Spe. 23/96
Mexico – Telecom	NOM-151-SCT1-1999; NOM-152-SCT1-1999
Argentina – Telecom	CNC-ST2-44-01
Brazil – Telecom	Resolution 392-2005
International Telecom Union	ITU-T-G.703:01; ITU-T-G.823:93; ITU-T G.824;
	ITU-T G.825; ITU-T-G.991.2; ITU-T-G.992.1;
	ITU-T-G.992.3; ITU-T-G.992.5; ITU-T-G.993.1
Product Safety	IEC 60950-1; EN 60950-1; UL 60950-1; IEC 60601-1-1;
850	CAN/CSA 22.2 NO. 60950-1-03; SS-EN 60950-1; AS/NZ 60950-1,
	(voltage surge testing up to 6kV, excluding Annex A and H);
	CNS 14336, CNS 14408; GB4943;
	President Notice 20664; RRA Public Notification 2011-14;
	RRA Announce 2011-3; Annex 1(RRA Announce 2011-3);
	QCVN 22:2010/BTTTT; TCN 68-190:2003; SABS IEC 60950;
	IEC/EN 61558; IEC/EN 61558-2-7; EN 62115; IEC 60215; EN 60958;
	EN 60598; IEC 215 (1987) + A1 (1992) + A2 (1994)

Japan - Radio	ARIB STD-T81; ARIB STD-T66; RCR STD-1; RCR STD-29;
	ARIB STD-T94 Fascicle 1; ARIB STD-T90; ARIB STD-T89; RCR STD-33
SAR & HAC	IEEE P1528:2003 + Ad1; IEEE 1528A:2005;
	FCC OET Bulletin 65 Supplement C; FCC OET Bulletin 65; ANSI C95;
	ANSI C63.19; FCC 47 CFR 20.19; H46-2/99-273E; EN 50360;
	EN 50361; IEC62209-1; IEC 62209-2; EN 50371; EN 50383; EN 50357;
	EN 50364; KCC Public Notification 2009-27; RRA Public Notification 2010-45; KCC Public Notification 2011-10;
	CNS 14958-1; CNS 14959; NZS 2772.1; NZS 6609.2; Resolution N 533
Japan – Notification No. 88 o MIC 2004	
Table No 13	CB Radio
Table No 21	Cordless Telephone
Table Nos 22-1 thru 22-17	Low Power Radio Equipment
Table No 36	Low Power Security System
Table No 43	Low Power Data Communication in the 2.4 GHz Band
Table No 44	Low Power Data Communication in the 2.4 GHz Band
Table No 45	Low Power Data Communication in the 5.2, 5.3, 5.6 GHz Bands
Table No 46	Low Power Data Communication in the 25 and 27 GHz Bands
Table No 47	Base Station for 5 GHz Band Wireless Access System
Table No 47	Base Station for 5 GHz Band Wireless Access System (low spurious type)
Table No 47	Land Mobile Relay for 5 GHz Band Wireless Access System (limited for use in special zones)
Table No 47	Land Mobile Relay for 5 GHz Band Wireless Access System (limited for use in special zones, low spurious type)
Table No 47	Land Mobile Relay for 5 GHz Band Wireless Access System
Table No 47	Land Mobile Relay for 5 GHz Band Wireless Access System (low spurious type)
Table No 47	Land Mobile Relay for 5 GHz Band Wireless Access System (low power type)
Table No 50	Digital Cordless Telephone
Table No 50	PHS Base Station
Table No 50	PHS Land Mobile Station
Table No 50	PHS Relay Station
Table No 50	PHS Test Station
Table No 64	Mobile Station for Dedicated Short Range Communication Systems

(A2LA Certificate No. 2742.01) revised 08/02/2012

Peter Mhye Page 7 of 8

Japan – Notification N MIC 2004 (cont.)	o. 88 of
Table No 64	Base Station for Dedicated Short Range Communication Systems
Table No 64	Test Station for Dedicated Short Range Communication Systems
Table No 70	UWB (Ultra Wide Band) Radio System

^{*}Limitations for listed standards are indicated by italics and Scope excludes protocol sections of applicable

Peter Mbye Page 8 of 8

Serial# SL12061801-H Issue Date Aug 23rd, 2012 Page 46 of 64

SL12061801-HID-018_multiClass RevE _RF_RP30E(FCC) Aug 23rd, 2012 46 of 64





The American Association for Laboratory Accreditation

Accredited Product Certification Body

A2LA has accredited

SIEMIC, INC.

Milpitas, 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.

Presented this 23rd day of November 2010.

A2LA

President & CEO

For the Accreditation Council Certificate Number 2742.02 Valid to September 30, 2012 Revised August 2, 2012

For the product certification schemes to which this accreditation applies, please refer to the organization's Product Certification Scope of Accreditation

SL12061801-HID-018 multiClass RevE RF RP30E(FCC) Issue Date Aug 23rd, 2012 47 of 64 Page www.siemic.com

Serial#



American Association for Laboratory Accreditation

SCOPE OF ACCREDITATION TO ISO/IEC GUIDE 65:1996

SIEMIC, INC. 775 Montague Expressway Milpitas, CA 95035

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

PRODUCT CERTIFICATION CONFORMITY ASSESSMENT BODY (CAB)

Valid to: September 30, 2012 Certificate Number: 2742.02

In recognition of the successful completion of the A2LA Certification Body Accreditation Program evaluation, including the US Federal Communications Commission (FCC), Industry Canada (IC), Singapore (IDA), Hong Kong (OFCA) and Japan (MIC) 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 C Telephone Terminal Equipment

Industry Canada - (IC)

Radio Scope 1-Licence-Exempt Radio Frequency Devices;

Scope 2-Licensed Personal Mobile Radio Services;

Scope 3-Licensed General Mobile & Fixed Radio Services; Scope 4-Licensed Maritime & Aviation Radio Services; Scope 5-Licensed Fixed Microwave Radio Services;

IDA - Singapore

Line Terminal Equipment All Technical Specifications for Line Terminal

Equipment - Table 1 of IDA MRA Recognition

Scheme: 2011, Annex 2

Radio-Communication Equipment All Technical Specifications for Radio-Communication

Equipment - Table 2 of IDA MRA Recognition

Scheme: 2011, 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/MRARecSc heme.pdf Peter Alnye

(A2LA Cert. No. 2742.02) Revised 07/17/2012

Page 1 of 2

^{*}Please refer to FCC TCB Program Roles and Responsibilities, released July 22, 2010 detailing scopes, roles and responsibilities, http://fiallfoss.fcc.gov/oetcf/kdb/forms/FTSSearchResultPage.cfm?id=44683&switch=P

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

Serial# Issue Date Aug 23rd, 2012
Page 48 of 64 Page

SL12061801-HID-018_multiClass RevE _RF_RP30E(FCC)

www.siemic.com

OFCA - Hong Kong

Radio Equipment HKCA 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008,

1009, 1010, 1015, 1016, 1019, 1020, 1022, 1026, 1027, 1033, 1034, 1035, 1036, 1037, 1038, 1039, 1041, 1042, 1043, 1044, 1045, 1046, 1047, 1048, 1049, 1050,

1052, 1053, 1054

*Please refer to the Office of the Communications Authority's website at: Radio Equipment Specifications (HKCA 10XX)

HKCA 2001, 2005, 2011, 2012, 2013, 2014, 2015, 2016, Fixed Network Equipment

> 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034,

2035, 2036, 2037, 2040, 2041, 2102, 2103, 2104, 2108, 2201, 2202, 2203, 2204

*Please refer to the Office of the Communications Authority's website at: Fixed Network Equipment Specifications (HKCA 2XXX)

MIC - Japan

Telecommunications Business Law

(Terminal Equipment)

Scope A1 - Terminal Equipment for the Purpose of Calls

Radio Law (Radio Equipment) Scope B1 - Specified Radio Equipment specified in, Article 38-2-2, paragraph 1, item 1 of the Radio

Law

(A2LA Cert. No. 2742.02) Revised 07/17/2012

Peter Alnye

Page 2 of 2

SL12061801-HID-018_multiClass RevE _RF_RP30E(FCC) Serial# Issue Date Aug 23rd, 2012
Page 49 of 64

www.siemic.com

SIEMIC ACCREDITATION DETAILS: FCC Test Site Registration No. 881796

FEDERAL COMMUNICATIONS COMMISSION

Laboratory Division 7435 Oakland Mills Road Columbia, MD 21046

August 03, 2012

Registration Number: 881796

SIEMIC Labs 775 Montague Expressway,

Milpitas, CA 95035

Leslie BAI Attention:

Re: Measurement facility located at 775 Montague Expressway, Milpitas, CA 95035

> Anechoic chamber (10 meters) Date of Listing: August 03, 2012

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

 Serial#
 \$\$L12061801-HID-018_multiClass RevE_RF_RP30E(FCC)\$

 Issue Date
 Aug 23rd, 2012

 Page
 50 of 64

SIEMIC ACCREDITATION 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 if you have any questions.

Sincerely,

David F. Alderman

Group Leader, Standards Coordination and Conformity Group

Standards Services Division

Paris I ald

Enclosure

cc: CAB Program Manager



SL12061801-HID-018 multiClass RevE RF RP30E(FCC) Serial# Issue Date Aug 23rd, 2012 Page

51 of 64 www.siemic.com

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



Industrie Canada

July 03, 2012

OUR FILE: 46405-4842 Submission No: 157820

Siemic Inc. 775 Montague Expressway Milpitas, CA, 95035 United States

Attention:

Dear Sir/Madame: Snell Leong

The Bureau has received your application for the renewal of 3/10m 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 (Site# 4842D-2). 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;

- The company address code associated to the site(s) located at the above address is: 4842D

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

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

Dalwinder Gill

For: Wireless Laboratory Manager Certification and Engineering Bureau 3701 Carling Ave., Building 94 P.O. Box 11490, Station "H" Ottawa, Ontario K2H 882

Email: dalwinder.gill@ic.gc.ca Tel. No. (613) 998-8363 Fax. No. (613) 990-4752

Serial# SL12061801-HID-018_multiClass RevE_RF_RP30E(FCC) Issue Date Aug 23rd, 2012
Page 52 of 64

SIEMIC ACCREDITATION DETAILS: FCC DOC CAB Recognition: US1109

FEDERAL COMMUNICATIONS COMMISSION

Laboratory Division 7435 Oakland Mills Road Columbia, MD 21046

August 28, 2008

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

Attention:

Leslie Bai

Re:

Accreditation of Siemic Laboratories

Designation Number: US1109 Test Firm Registration #: 540430

Dear Sir or Madam:

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

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

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

Sincerely,

George Tannahill
Electronics Engineer

Serial# Page

SL12061801-HID-018 multiClass RevE RF RP30E(FCC) Issue Date Aug 23rd, 2012

53 of 64 www.siemic.com

SIEMIC ACCREDITATION 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 if you have questions.

Sincerely.

David F. Alderman

Group Leader, Standards Coordination and Conformity Group

Standards Services Division

David T. alder

Enclosure

cc:

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



 Serial#
 \$\text{SL12061801-HID-018_multiClass RevE_RF_RP30E(FCC)}\$

 Issue Date
 Aug 23rd, 2012

 Page
 54 of 64

54 of 64 www.siemic.com

SIEMIC ACCREDITATION DETAILS: Korea CAB ID: US0160



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

December 6, 2011

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

Dear Mr. Bai:

NIST is pleased to inform you that your laboratory's recognition 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) has been updated. 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:

EMI: KCC Notice 2008-39; RRA Public Notification 2011-5; KN22

EMS: KCC Notice 2008-38; RRA Public Notification 2011-6, KN24

Updated Scope:

EMI: RRA Public Notification 2011-18; RRA Announce 2010-5; KN 11; KN 13; KN 14-1; KN 22; KN 41; KN50; KN15; KN19; KN60; KN16-1-1; KN16-1-2; KN16-1-3; KN16-1-4; KN16-1-5; KN16-2-1; KN16-2-2; KN 16-2-3; KN 16-2-4; EMS: RRA Public Notification 2011-17; RRA Announce 2010-6; KN24; KN 61000-4-2,

-4-3, -4-4, -4-5, -4-6, -4-8, -4-11; KN60101-1-2, KN20; KN41, KN51; RF: KCC Public Notification 2011-31; KCC Public Notification 2011-10;

RRA Public Notification 2010-46; KN301-489-1; KN301-489-07; KN301-489-17; KN

301-489-24

SAR: KCC Public Notification 2009-27; RRA Public Notification 2010-45; KCC

Public Notification 2011-10

TELECOM: RRA Public Notification 2010-36; RRA Public Notification 2009-38

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 the accreditation for the designated scope remains valid and complies 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 me at (301) 975-5521 or via email at ramona.saar@nist.gov.

Sincerely,

Ramona Saar

Standards Services Group

Kannona Jaan

Enclosure



 Serial#
 \$\text{SL12061801-HID-018_multiClass RevE_RF_RP30E(FCC)}\$

 Issue Date
 Aug 23rd, 2012

 Page
 55 of 64

55 of 64 www.siemic.com

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



UNITED STATES DEPARTMENT OF COMMERCE National Institute of Standards and Technology Gathersburg, Muryland 20898

May 3, 2006

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

Dear Mr. Buit

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

BSMI number: S1.2-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, Pund I acce

David F. Alderman

Group Leader, Standards Coordination and Conformity Group

ce: Jogindar Dhillon



 Serial#
 \$\text{SL12061801-HID-018_multiClass RevE_RF_RP30E(FCC)}\$

 Issue Date
 Aug 23rd, 2012

 Page
 56 of 64

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-

April 25, 2011

Mr. Leslie Bai SIEMIC, Inc. 2206 Ringwwod 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) 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 the laboratory's designation is as follows:

CAB Name: SIEMIC, Inc.

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

Identification No.: US0160

Previous Scope: LP0002, PSTN01, ADSL01, ID0002, IS6100, CNS 14336, PLMN07

Current Scope: LP0002, PSTN01, ADSL01, ID0002, IS6100, CNS 14336, PLMN07, PLMN01

and PLMN08

You may submit test data to NCC 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.

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 Standards Services Group

David To alderno

Enclosure

cc: Ramona Saar

NIST

Serial# Issue Date Aug 23rd, 2012 Page

SL12061801-HID-018 multiClass RevE RF RP30E(FCC)

57 of 64 www.siemic.com

SIEMIC ACCREDITATION DETAILS: Vietnam CAB ID: US0160



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

July 11, 2012

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

Dear Mr. Bai:

NIST is pleased to inform you that your laboratory continues to be recognized by Vietnam's Ministry of Information and Communication (MIC) under the Asia Pacific Economic Cooperation for Telecommunications Equipment Mutual Recognition Arrangement (APEC Tel MRA). MIC has updated your scope of recognition. The pertinent information about the continued recognition is as follows:

CAB Name:

SIEMIC, Inc.

Physical Location:

2206 Ringwood Avenue, San Jose, CA 95131

Identification No.:

Current Scope:

TCN68-188, TCN68-190, TCN68-193, TCN68-196, TCN68-143, TCN68-192,

TCN68-189, TCN68-221, TCN68-222, TCN68-223, TCN68-245, TCN68-242,

TCN68-243, TCN68-246, TCVN 7189

Updated Scope:

QCVN 19:2010/BTTTT, QCVN 22:2010/BTTTT, TCVN 7189:2009, TCVN

7317:2003, QCVN 10:2010/BTTTT, QCVN 12:2010/BTTTT, QCVN 3:2010/BTTTT

QCVN 15:2010/BTTTT, QCVN 11:2010/BTTTT, QCVN 54:2011/BTTTT, QCVN 55:2011/BTTTT, QCVN 18:2010/BTTTT, QCVN 17:2010/BTTTT

You may submit test data to MIC to verify that the equipment to be imported into Vietnam satisfies the applicable requirements. Please note that your recognition from Vietnam will expire on September 30, 2012. To continue the recognition beyond this date, it will be necessary to submit to NIST the updated ISO/IEC 17025 Scope and Certification of Accreditation as soon as it is reissued during your next accreditation renewal period. NIST will then submit the updated information to MIC so that the recognition can be

Recognized CABs are listed on the NIST website at http://gsi.nist.gov/global/index.cfm/L1-4/L2-16/L3-90/A-380. If you have any questions please contact Ramona Saar via email at ramona.saar@nist.gov or phone at (301) 975-5521.

Sincerely,

David F. Alderman Standards Services Group

David T. alderna

Enclosure

cc: Ramona Saar

SL12061801-HID-018 multiClass RevE RF RP30E(FCC) Serial# Issue Date Aug 23rd, 2012 Page

58 of 64

SIEMIC ACCREDITATION DETAILS: Mexico NOM Recognition



Laboratorio Valentín V. Rivero

Maxico D.F. a 16 de octubre de 2006.

LESUIE BAL DIRECTOR OF CERTIFICATION SIEMIC LABORATORIES, INC. ACCESSING GLOBAL MARKETS PRESENTE

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

Aprovecho este escrito para mencionarie que nuestro intermediano gestor será la empresa Isatel de México. S. A. de C. V., ampresa que ha colaborado durante mucho tiempo con nosotros en lo relacionado a la evaluación de la conformidad y que quenta con amplia experiencia en la gastoria de la cartificación de cumplimiento con Normas Oficiales Mexicanas de producto en México.

Me despido de usted enviêndole un condial saludo y esperando sus comentanos al Acuerdo que nos ocupa-

Atentamente:

Ing. Fausting Cortex Conzález Gerente Terrico del Laboratorio de GAMEN.

Cultural ?? Plantiness Condina Drum Macon, D.F. Tar 526x 6908 con 12 store Par 50pt 6918 www.parlett.org

Serial# Page

SL12061801-HID-018 multiClass RevE RF RP30E(FCC) Issue Date Aug 23rd, 2012 59 of 64

SIEMIC ACCREDITATION DETAILS: Hong Kong OFTA CAB ID: US0160



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

December 8, 2008

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

Dear Mr. Bai:

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

CAB Name: SIEMIC, Inc.

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

Identification No.: US0160

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

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

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

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

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

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

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

Sincerely,

David F. Alderman

Group Leader, Standards Coordination and Conformity Group

Standards Services Division

David I alden

Enclosure

cc: Ramona Saar



 Serial#
 SL12061801-HID-018_multiClass RevE _RF_RP30E(FCC)

 Issue Date
 Aug 23rd, 2012

 Page
 60 of 64

SIEMIC ACCREDITATION DETAILS: Australia ACMA CAB ID: US0160



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

November 20, 2008

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

Dear Mr. Bai:

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

CAB Name: Siemic, Inc.

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

Identification No.: US0160

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

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

61000.6.3, AS/NZS 61000.6.4

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

4769.2, AS/NZS 4770, AS/NZS 4771

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

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

Sincerely,

David F. Alderman

Group Leader, Standards Coordination and Conformity Group

Standards Services Division

David T. alder

Enclosure

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



 Serial#
 \$\text{SL12061801-HID-018_multiClass RevE_RF_RP30E(FCC)}\$

 Issue Date
 Aug 23rd, 2012

 Page
 61 of 64

 www.siemic.com

SIEMIC ACCREDITATION DETAILS: Australia NATA Recognition



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

November 4, 2008

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

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

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

As an RTA, your laboratory has the following obligations:

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

Current information on the Australian Communications and Media Authority and regulatory requirements for telecommunications products within Australia can be obtained from the ACMA's web-site at "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: <u>Christopher.Norton@nata.asn.au</u>

Internet: www.nata.asn.au

Serial#

www.siemic.com

SL12061801-HID-018_multiClass RevE _RF_RP30E(FCC) Issue Date Aug 23rd, 2012
Page 62 of 64

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





CERTIFICATE

Company: SIEMIC Laboratories

<Member No. 3081

Facility: SIEMIC Laboratories

(Radiation

3

meter site)

Location of Facility:

2206 Ringwood Ave , San Jose, CA 95131, USA

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

Registration No.: R-3083

Date of Registration: October 01, 2010

This Certificate is valid until September 30, 2012



Serial#

SL12061801-HID-018_multiClass RevE _RF_RP30E(FCC) Issue Date Aug 23rd, 2012
Page 63 of 64

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





CERTIFICATE

Company: SIEMIC Laboratories

<Member No. 3081

Facility: SIEMIC Laboratories

(Main Ports Conducted Interference Measurement)

Location of Facility:

2206 Ringwood Ave San Jose, CA 95131, USA

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

Registration No.: C-3421

Date of Registration: October 01, 2010

This Certificate is valid until September 30, 2012



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Serial#

SL12061801-HID-018_multiClass RevE _RF_RP30E(FCC) Issue Date Aug 23rd, 2012
Page 64 of 64

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

