# **HID GLOBAL CORPORATION**

# **RFID READER, OPERATING ON 13.56 MHZ**

# Model: R10D

November 15 2010 Report No.: SL10071904-HID-012\_R10D (FCC,IC) (This report supersedes None)



Modifications made to the product : None	
This Test Report is Issued Under the Authority of:	
Alloreni	Bri
Dan Coronia	Leslie Bai
Compliance Engineer	Director of Certification

. **RSS-210** To: FCC Part 15.207, 15.209, 15.225, RSS-GEN

SIEMIC, INC

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



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Serial# SL10071904-HID-012\_R10D (FCC,IC) Issue Date November 15 2010 Page 3 of 54 www.siemic.com

# <u>CONTENTS</u>

1	EXECUTIVE SUMMARY & EUT INFORMATION
2	TECHNICAL DETAILS
3	MODIFICATION
4	TEST SUMMARY
5	MEASUREMENTS, EXAMINATION AND DERIVED RESULTS
ANNE	EX A. TEST INSTRUMENT & METHOD
ANNE	EX B. TEST SETUP PHOTOGRAPHS
ANNE	EX B. I. EUT INTERNAL PHOTOGRAPHS
ANNE	EX B. II. EUT EXTERNAL PHOTOGRAPHS
ANNE	X C. SUPPORTING EQUIPMENT DESCRIPTION
ANNE	X D. EUT OPERATING CONDITIONS
ANNE	EX E. USER MANUAL, BLOCK & CIRCUIT DIAGRAM
ANNE	EX F. SIEMIC ACCREDITATION CERTIFICATES



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 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 5 of 54

# 1 Executive Summary & EUT information

The purpose of this test programmed was to demonstrate compliance of the HID Global Corp., Model: R10D against the current Stipulated Standards.

The equipment under test radio operating frequency is 13.56 MHz.

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

	EUT Information						
EUT Description	:	The R10D is an inductive RFID card reader intended to be used in access control systems, parking systems and other applications using RFID readers. It is capable of reading 13.56 MHz inductive tags.					
Model No	:	R10D					
Serial No	:	N/A					
Input Power	:	12 VDC					
Classification Per Stipulated Test Standard	:	RFID Reader					



RF Test Report of HID Global Corporation Model : R10D FCC 15.225 2010, RSS-210 Issue 7: 2007

 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 6 of 54

#### TECHNICAL DETAILS 2

Purpose	Compliance testing of RFID Reader, Operating on 13.56 MHz 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
Test report reference number	SL10071904-HID-012_R10D (FCC,IC)
Date EUT received	November 8 2010
Standard applied	47 CFR §15.207, 15.209, 15.225: 2010 & Canadian Standards RSS-GEN Issue 2: 2007, RSS-210 Issue 7: 2007
Dates of test (from – to)	November 08 - 12 2010
No of Units:	2
Equipment Category:	DXX
Model :	R10D
RF Operating Frequency (ies)	13.56 MHz (RFID)
Number of Channels :	1
FCC ID :	JQ6-ICLASSR10D
IC ID :	2236B- ICLASSR10D



Serial# SL10071904-HID-012\_R10D (FCC,IC) Issue Date November 15 2010 Page 7 of 54 www.siemic.com

# 3 MODIFICATION

NONE



 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 8 of 54

# 4 TEST SUMMARY

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

### **RFID Reader**

### Test Results Summary

Test S	Standard	Description		
47 CFR Part 15.225: 2010	RSS 210 Issue 7: 2007	Description	Pass / Fail	
15.203		Antenna Requirement	Pass	
15.207(a)	RSS Gen(7.2.2)	Conducted Emissions Voltage	Pass	
15.225(a)	225(a) RSS210(A2.6) Limit in the band of 13.553 – 13.567 M		Pass	
15.225(b)	RSS210(A2.6)	Limit in the band of 13.410 – 13.553 MHz and 13.567 – 13.710 MHz		
15.225(c)	RSS210(A2.6)	Limit in the band of 13.110 – 13.410 MHz and 13.710 – 14.010 MHz	Pass	
15.225(d), 15.209	RSS210(A2.6)	Limit outside the band of 13.110 – 14.010 MHz	Pass	
15.225(e)	RSS210(A2.6)	Frequency Stability	Pass	
	RSS-210(5.9.1)	Occupied Bandwidth	Pass	
	RSS-310 (3.7)	Very Low Power Devices Operating Below 490 kHz	N/A	

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



 Serial#
 SL10071904-HID-012\_R10D (FCC,IC

 ssue Date
 November 15 2010

 vage
 9 of 54

# 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

Requirement(s): 47 CFR §15.207

Requirement:

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

\*Decreases with the logarithm of the frequency.

#### Procedures:

- 1. All possible modes of operation were investigated. Only the 6 worst case emissions measured, using the correct CISPR and Average detectors, are reported. All other emissions were relatively insignificant.
- 2. A "-ve" margin indicates a PASS as it refers to the margin present below the limit line at the particular frequency. 3. Conducted Emissions Measurement Uncertainty

All test measurements carried out are traceable to national standards. The uncertainty of the measurement at a confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2, in the range 9kHz - 30MHz (Average & Quasi-peak) is ±3.5dB.

4.	Environmental Conditions	Temperature	23°C
		Relative Humidity	50%
		Atmospheric Pressure	1019mbar
	Test Date : November 8-12 2010	·	

Tested By : Dan Coronia

Results: Pass



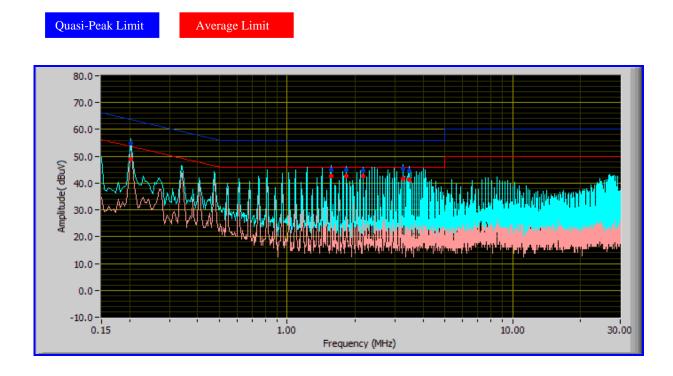
 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 11 of 54

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### Test Result - PoE AC adapter



Frequency (MHz)	QP Value (dBµV)	Class B Limit (dB)	Pass / Fail	Margin (dB)	Avg Value (dBµV)	Class B Limit (dB)	Pass / Fail	Margin (dB)	Line
0.20	54.90	63.67	Pass	-8.77	48.86	53.67	Pass	-4.81	Neutral
3.26	45.38	56.00	Pass	-10.62	41.49	46.00	Pass	-4.51	Neutral
1.56	44.94	56.00	Pass	-11.06	42.76	46.00	Pass	-3.24	Neutral
1.83	45.02	56.00	Pass	-10.98	42.54	46.00	Pass	-3.46	Neutral
3.46	44.76	56.00	Pass	-11.24	41.27	46.00	Pass	-4.73	Neutral
2.17	44.71	56.00	Pass	-11.29	42.54	46.00	Pass	-3.46	Neutral

#### 110V, 60Hz, Neutral Line



 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

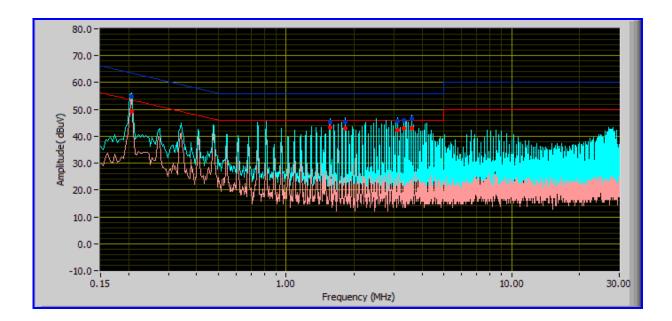
 Issue Date
 November 15 2010

 7: 2007
 Page
 12 of 54

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Quasi-Peak Limit

Average Limit

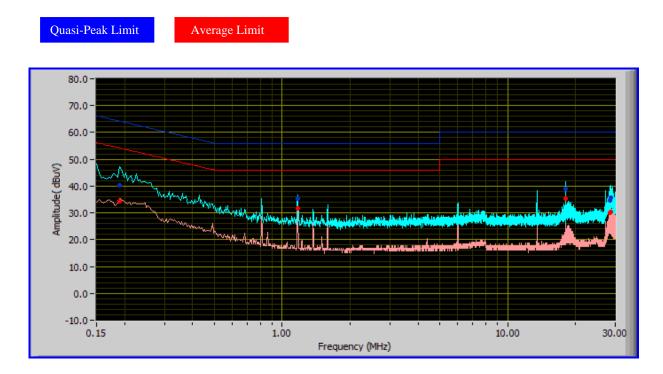


Frequency (MHz)	QP Value (dBµV)	Class B Limit (dB)	Pass / Fail	Margin (dB)	Avg Value (dBµV)	Class B Limit (dB)	Pass / Fail	Margin (dB)	Line
0.21	54.72	63.50	Pass	-8.78	49.13	53.50	Pass	-4.37	Phase
3.60	46.64	56.00	Pass	-9.36	42.79	46.00	Pass	-3.21	Phase
3.12	45.64	56.00	Pass	-10.36	42.13	46.00	Pass	-3.87	Phase
1.83	45.42	56.00	Pass	-10.58	43.05	46.00	Pass	-2.95	Phase
3.33	45.93	56.00	Pass	-10.07	42.88	46.00	Pass	-3.12	Phase
1.56	45.35	56.00	Pass	-10.65	43.13	46.00	Pass	-2.87	Phase

110V	60H7	Phase	l ine
TIUV,	OUNZ,	Flidse	LIIIE



### Test Result - DC Power Supply



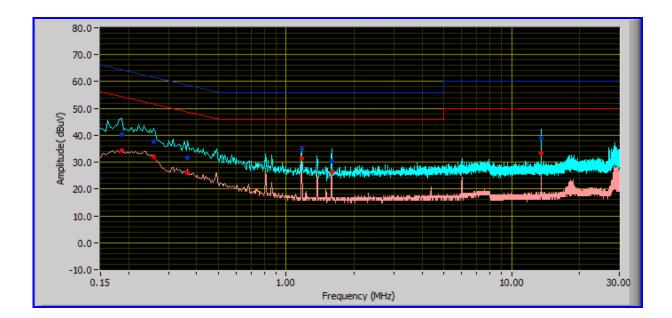
Frequency (MHz)	QP Value (dBµV)	Class B Limit (dB)	Pass / Fail	Margin (dB)	Avg Value (dBµV)	Class B Limit (dB)	Pass / Fail	Margin (dB)	Line
0.19	40.42	64.19	Pass	-23.77	34.24	54.19	Pass	-19.95	Positive
18.04	38.94	60.00	Pass	-21.06	35.46	50.00	Pass	-14.54	Positive
1.17	35.38	56.00	Pass	-20.62	31.70	46.00	Pass	-14.30	Positive
28.61	35.51	60.00	Pass	-24.49	30.31	50.00	Pass	-19.69	Positive
28.68	35.61	60.00	Pass	-24.39	30.31	50.00	Pass	-19.69	Positive
28.47	34.71	60.00	Pass	-25.29	29.91	50.00	Pass	-20.09	Positive

110 Vac, Positive Line



Quasi-Peak Limit

Average Limit



 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 14 of 54

Frequency (MHz)	QP Value (dBµV)	Class B Limit (dB)	Pass / Fail	Margin (dB)	Avg Value (dBµV)	Class B Limit (dB)	Pass / Fail	Margin (dB)	Line
13.56	38.98	60.00	Pass	-21.02	33.37	50.00	Pass	-16.63	Negative
0.19	40.36	64.37	Pass	-24.01	34.39	54.37	Pass	-19.98	Negative
0.26	37.65	61.60	Pass	-23.94	32.00	51.60	Pass	-19.60	Negative
0.37	31.59	58.64	Pass	-27.05	26.02	48.64	Pass	-22.62	Negative
1.59	30.35	56.00	Pass	-25.65	26.55	46.00	Pass	-19.45	Negative
1.17	35.08	56.00	Pass	-20.92	31.35	46.00	Pass	-14.65	Negative

 
 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 15 of 54 www.siemic.com

## 5.3 Radiated Emission < 30MHz (9kHz - 30MHz, H-Field)

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

Procedures: 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

- 1. All possible modes of operation were investigated. Only the 6 worst case emissions measured, using the correct CISPR detectors, are reported. All other emissions were relatively insignificant.
- 2. A "-ve" margin indicates a PASS as it refers to the margin present below the limit line at the particular frequency.
- 3. Radiated Emissions Measurement Uncertainty

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

4. Environmental Conditions

Temperature	
Relative Humidity	
Atmospheric Pressure	

23ºC 50% 1019mbar

Test Date : November 8-12 2010 Tested By : Dan Coronia

Results: Pass

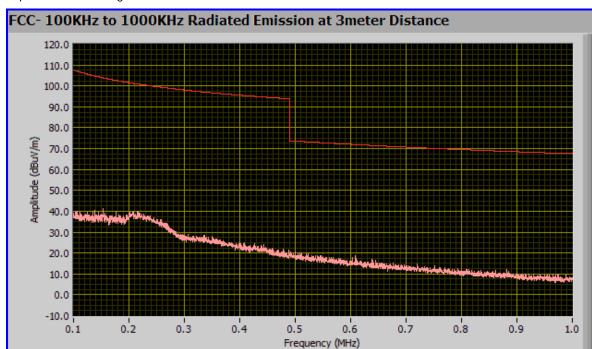


Serial# SL10071904-HID-012\_R10D (FCC,K ssue Date November 15 2010 Page 16 of 54

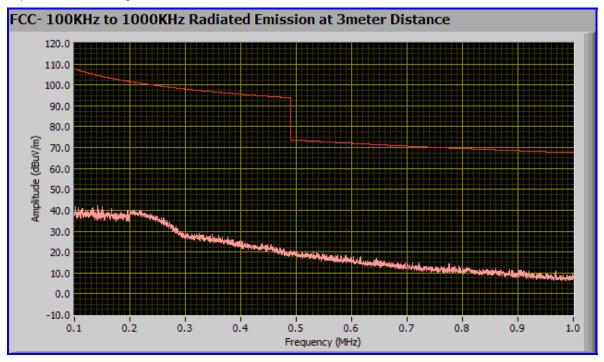
## 100 kHz ~ 1 MHz

Loop Antenna at 0 degree

General Emission Limit @ 3 Meter



## Loop Antenna at 90 degree





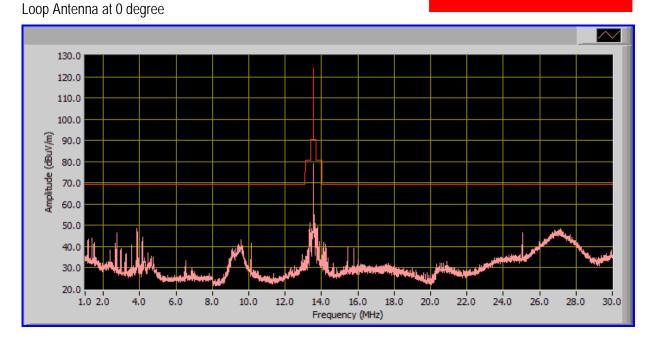
 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

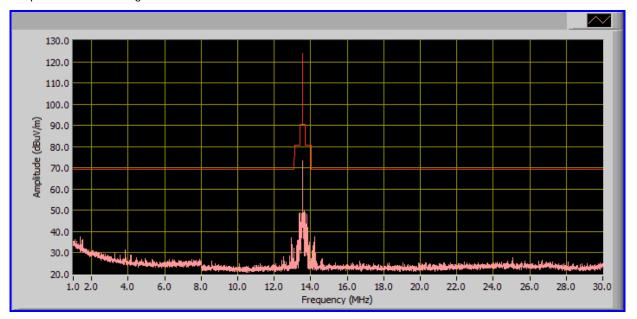
 Page
 17 of 54

1MHz ~ 30MHz

General Emission Limit @ 3 meter



## Loop Antenna at 90 degree





 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 18 of 54

 www.siemic.com

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

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

Procedures: 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 Log periodic antenna was positioned 1 meter above the ground from the centre of the antenna. The measuring bandwidth was set to 120 kHz. (Note: During testing the receive antenna was raise from 1~4 meters 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

- 1. All possible modes of operation were investigated. Only the 6 worst case emissions measured, using the correct CISPR detectors, are reported. All other emissions were relatively insignificant.
- 2. A "-ve" margin indicates a PASS as it refers to the margin present below the limit line at the particular frequency.
- 3. <u>Radiated Emissions Measurement Uncertainty</u>

Tested By : Dan Coronia

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

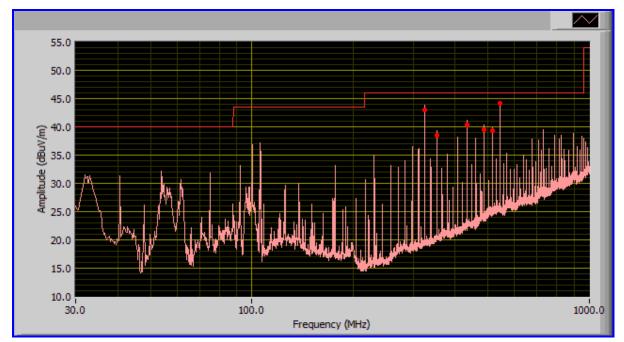
4.	Environmental Conditions	Temperature	23°C
		Relative Humidity	50%
		Atmospheric Pressure	1019mbar
	Test Date : November 8-12 2010		

Results: Pass



### General Emission Limit @ 3 meter

30MHz ~ 1000MHz



### Radiated Emission Test Table 30MHz ~ 1000MHz

Frequency (MHz)	Amplitude @ 3m	Azimuth (degree)	Antenna Polarity	Antenna Height (cm)	Limit @ 3 meter	Margin (dB)
352.43	38.54	136.00	Н	100.00	46.00	-7.46
325.41	43.02	141.00	Н	105.00	46.00	-2.98
542.40	44.19	209.00	Н	154.00	46.00	-1.81
433.92	40.39	164.00	V	100.00	46.00	-5.61
488.15	39.43	178.00	V	184.00	46.00	-6.57
515.28	39.26	180.00	V	176.00	46.00	-6.74



 Serial#
 SL10071904-HID-012\_R10D (FCC,IC

 Issue Date
 November 15 2010

 Page
 20 of 54

## 5.5 Frequency Stability

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

Procedures: 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.

Limit: ±0.01% of 13.56 MHz = 1356 Hz

Environmental Conditions	Temperature Relative Humidity Atmospheric Pressure	23°C 50% 1019mbar
Test Date : November 8-12 2010 Tested By : Dan Coronia	Almospheric Pressure	TOTATION

Results: Pass

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.

Temperature	Measured Freq.	Freq. Drift	Freq. Deviation	Pass/Fail
(°C)	(MHz)	(Hz)	(Limit: 0.01%)	Pass/Fall
50	13.560370	40	<0.01	Pass
40	13.560390	20	<0.01	Pass
30	13.560390	20	<0.01	Pass
20	Reference (13.560410 MHz)			
10	13.560410	0	<0.01	Pass
0	13.560390	20	<0.01	Pass
-10	13.560350	60	<0.01	Pass
-20	13.560290	120	<0.01	Pass

Reference Frequency: 13.560410 MHz at -20°C and +50°C

**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.

Measured Voltage ±15% of nominal (DC)	Measured Freq. (MHz)	Freq. Drift (Hz)	Freq. Deviation (Limit: 0.01%)	Pass/Fail
10.2	13.560400	10	<0.01	Pass
13.8	13.560382	28	<0.01	Pass

#### Carrier Frequency: 13.560410 MHz at 20°C at 12VDC



 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 21 of 54

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1019mbar

## 5.6 Fundamental Field Strength Test Result

- 1. All possible modes of operation were investigated. Only the 6 worst case emissions measured, using the correct CISPR detectors, are reported. All other emissions were relatively insignificant.
- A "-ve" margin indicates a PASS as it refers to the margin present below the limit line at the particular frequency.
   <u>Radiated Emissions Measurement Uncertainty</u> 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.
   Environmental Conditions Temperature 23°C Relative Humidity 50%

Atmospheric Pressure

Test Date : November 8-12 2010 Tested By : Dan Coronia

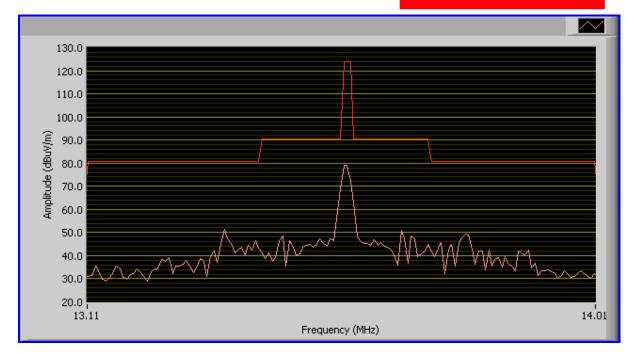
## **Test Requirement:**

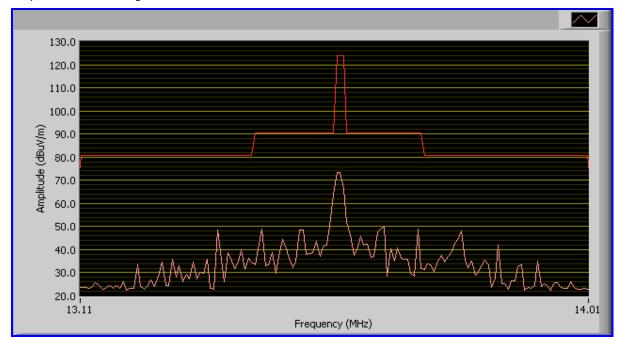
13.56 MHz ---The field strength of any emissions within allowed operating band shall not exceed 10mV/m at 30 meters.



## Loop Antenna at 0 degree

## General Emission Limit @ 3 meter





## Loop Antenna at 90 degree



 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 23 of 54

 Unsure simple comp

# 5.7 Occupied Bandwidth

Requirement(s): RSS-210 (5.9.1)

**Procedures:** Occupied Bandwidth was measured according to RSS-210 (5.9.1). Measurement was taken with spectrum analyzer. The spectrum analyzer bandwidth and span was set to read in hertz.

Environmental Conditions	Temperature	23°C
	Relative Humidity	50%
	Atmospheric Pressure	1019mbar
Tast Data - November 9 12 2010	·	

Test Date : November 8-12 2010 Tested By : Dan Coronia

Results: Pass

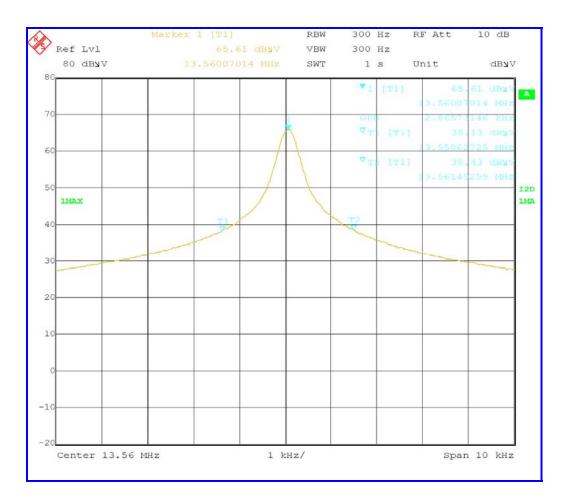


 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 24 of 54

#### Plots: 13.56 MHz





RF Test Report of HID Global Corporation Model : R10D FCC 15.225 2010, RSS-210 Issue 7: 2007

 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 25 of 54

## Annex A. TEST INSTRUMENT & METHOD

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

Instrument	Model	Calibration Due
AC Conducted Emissions		
R&S EMI Test Receiver	ESIB40	04/25/2011
R&S LISN	ESH2-Z5	04/24/2011
CHASE LISN	MN2050B	04/24/2011
Sekonic Hygro Hermograph	ST-50	06/04/2012
Radiated Emissions		
Spectrum Analyzer	8564E	04/26/2011
EMI Receiver	ESIB 40	04/25/2011
R&S LISN	ESH2-Z5	04/24/2011
CHASE LISN	MN2050B	04/24/2011
Horn Antenna (1 ~18GHz)	3115	06/02/2011
Biconlog Antenna (30MHz~2GHz)	JB1	06/01/2011
Passive Loop Antenna (10kHz-30MHz)	6512	08/31/2012
3 Meters SAC	3m	12/04/2010
Sekonic Hygro Hermograph	ST-50	06/04/2012
Pre-Amplifier(1 ~ 26GHz)	8449	04/24/2011
Horn Antenna (18~40GHz)	AH-840	03/19/2011
Microwave Pre-Amp (18~40GHz)	PA-840	03/19/2011*



RF Test Report of HID Global Corporation

SL10071904-HID-012\_R10D (FCC,IC) Serial# Issue Date November 15 2010 Page www.siemic.com

#### Annex A.ii. CONDUCTED EMISSIONS TEST DESCRIPTION

#### Test Set-up

- 1. The EUT and supporting equipment were set up in accordance with the requirements of the standard on top of a 1.5m x 1m x 0.8m high, non-metallic table, as shown in Annex B.
- 2. The power supply for the EUT was fed through a  $50\Omega/50\mu$ 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.
- All other supporting equipments were powered separately from another main supply. 4.

#### **Test Method**

- The EUT was switched on and allowed to warm up to its normal operating condition. 1.
- 2. A scan was made on the NEUTRAL line (for AC mains) or Earth line (for DC power) over the required frequency range using an EMI test receiver.
- 3. High peaks, relative to the limit line, were then selected.
- 4. The EMI test receiver was then tuned to the selected frequencies and the necessary measurements made with a receiver bandwidth setting of 10 KHz. For FCC tests, only Quasi-peak measurements were made; while for CISPR/EN tests, both Quasi-peak and Average measurements were made.
- 5. Steps 2 to 4 were then repeated for the LIVE line (for AC mains) or DC line (for DC power).

#### **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 prescan peak data reduction result.

## Sample Calculation Example

At 20 MHz	limit = 250 μV = 47.96 dBμV
Transducer factor of LISN, pulse limiter & cable loss at 20 MHz = 11.20	dB
Q-P reading obtained directly from EMI Receiver = 40.00 dB $\mu$ V (Calibrate	ed for system losses)
Therefore, Q-P margin = 47.96 – 40.00 = 7.96	i.e. 7.96 dB below limit



 
 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 27 of 54 www.siemic.com

## Annex A. iii RADIATED EMISSIONS TEST DESCRIPTION

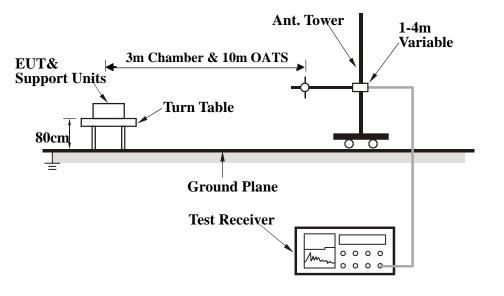
### **EUT Characterisation**

EUT characterisation, over the frequency range from 100kHz – 1GHz 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) at 10m distance.

#### 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.
- The relevant broadband antenna was set at the required test distance away from the EUT and supporting equipment boundary.





 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 28 of 54

 www.siemic.com

### 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 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

#### **Description of Radiated 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 scan on four different antenna heights, 2 antenna polarity, and 360 degrees table rotation. For example, the program was set to run 30 MHz to 1 GHz scan; the program will first start from a meter antenna height and divide the 30 MHz to 1 GHz into 10 separate parts of maximum hold sweeps. Each parts of maximum hold sweep, the program will collect the data from 0 degree to 360 degrees table rotation. After the program complete the 1m scan, the antenna continues to rise to 2m and continue the scan. The step will repeated for all specified antenna height and polarity. This program will perform the Quasi Peak measurement after the signal maximization process and pre-scan routine. The final measurement will be base on the pre-scan data reduction result.

#### Sample Calculation Example

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

Where:

Corr. Factor = Antenna Factor + Cable Factor - Amplifier Gain (if any) And the average value is

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

Note:

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



Serial# SL10071904-HID-012\_R10D (FCC,IC) Issue Date November 15 2010 Page 29 of 54 www.siemic.com

Annex B. TEST SETUP PHOTOGRAPHS

Please See Attachment



Serial# SL10071904-HID-012\_R10D (FCC,IC) Issue Date November 15 2010 Page 30 of 54 www.siemic.com

Annex B. i. EUT INTERNAL PHOTOGRAPHS

Please see attachment



 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 31 of 54

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# Annex B. ii. EUT EXTERNAL PHOTOGRAPHS

Please see attachment



 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 32 of 54

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## Annex C. SUPPORTING EQUIPMENT DESCRIPTION

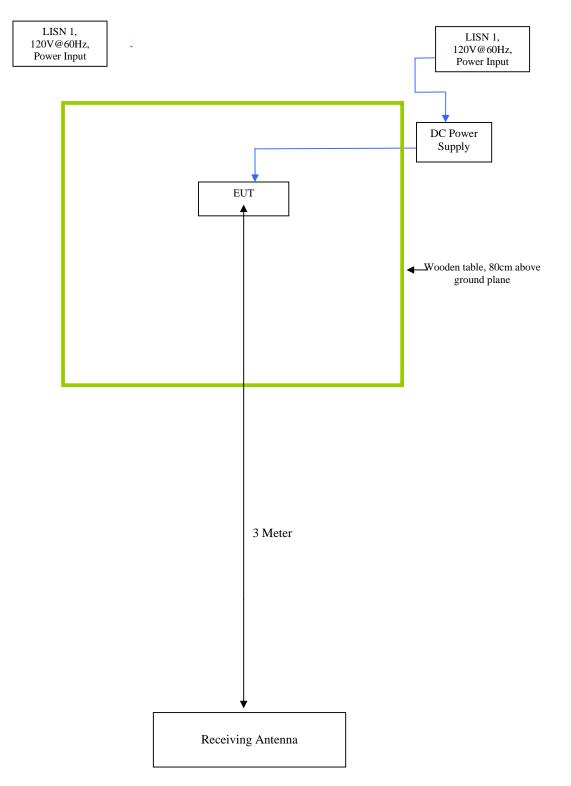
The following is a description of supporting equipment and details of cables used with the EUT.

Equipment Description (Including Brand Name)	Model & Serial Number	Cable Description (List Length, Type & Purpose)
POE Injector /Planet	POE-151/AF00107300297(000)	Ethernet Cable , 2m
Laptop/IBM	R32	-
RFID Controller/HIC	E400	Ethernet Cable, 2m

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

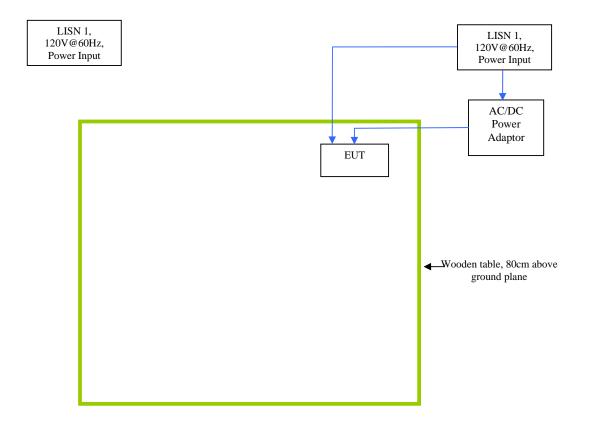


## Block Configuration Diagram for Radiated Emission



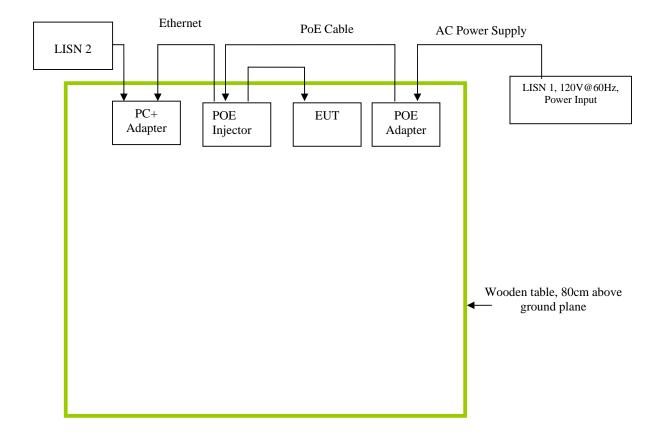


## Block Configuration Diagram for DC Conducted Emission





## Block Configuration Diagram for AC Conducted Emission





 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 36 of 54

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## 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 controlled by itself.
Others Testing	The EUT was controlled by itself.



Serial# SL10071904-HID-012\_R10D (FCC,IC) Issue Date November 15 2010 Page 37 of 54

# Annex E. USER MANUAL, BLOCK & CIRCUIT DIAGRAM

Please see attachment



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 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 38 of 54

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# Annex F. SIEMIC ACCREDITATION CERTIFICATES

## SIEMIC ACREDITATION DETAILS: A2LA Certificate Number: 2742.01

THE AMERICAN ASSOCIATION FOR LABORATORY ACCREDITATION ACCREDITED LABORATORY A2LA has accredited SIEMIC LABORATORIES
ACCREDITED LABORATORY A2LA has accredited SIEMIC LABORATORIES
A2LA has accredited SIEMIC LABORATORIES
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).
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 <i>General requirements for bodies operating product certification systems</i> . 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.
Body (TCB) meeting FCC (U.S.), IDA (Singapore) and IC (Canada) requirements. Presented this 9 <sup>th</sup> day of January 2009.
President     President       Image: State of the state of th



 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 39 of 54

 www.siemic.com

### SCOPE OF ACCREDITATION TO ISO/IEC GUIDE 65:1996 SIEMIC INC. 2206 Ringwood Ave. San Jose, CA 95131 Mr. Snell Leong (Authorized Representative) Phone: 408 526 1188 www.siemic.com PRODUCT CERTIFICATION CONFORMITY ASSESSMENT BODY (CAB) Valid to: September 30, 2010 Certificate Number: 2742.02 In recognition of the successful completion of the A2LA Certification Body Accreditation Program evaluation, including the US Federal Communications Commission (FCC), Industry Canada (IC) and Singapore (IDA) requirements for the indicated types of product certifications, accreditation is granted to this organization to perform the following product certification schemes: Economy Scope Federal Communication Commission - (FCC) Unlicensed Radio Frequency Devices A1, A2, A3, A4 Licensed Radio Frequency Devices B1, B2, B3, B4 Telephone Terminal Equipment C \*Please refer to FCC TCB Program Roles and Responsibilities, v04, released February 14, 2008 detailing scopes, roles and responsibilities. http://www.fcc.gov/oet/ea/FCC-Overview-TCB-Program.pdf Industry Canada - (IC) Radio All Radio Standards Specifications (RSS) in Category I Equipment Standards List Radio \*Please refer to Industry Canada (IC) website at: http://www.ic.gc.ca/epic/site/smt-gst.nsf/en/h\_sf01342e.html IDA – Singapore Line Terminal Equipment All Technical Specifications for Line Terminal Equipment - Table 1 of IDA MRA Recognition Scheme: 2008, Annex 2 Radio-Communication Equipment All Technical Specifications for Radio-Communication Equipment - Table 2 of IDA MRA Recognition Scheme: 2008, Annex 2 \*Please refer to Info-Communication Development Authority (iDA) Singapore website at: http://www.ida.gov.sg/doc/Policies%20and%20Regulation/Policies and Regulation Level2/20060609145118/MRA

(A2LA Cert. No. 2742.02) 01/09/09

RecScheme.pdf

Page 1 of 1



RF Test Report of HID Global Corporation Model : R10D

SL10071904-HID-012\_R10D (FCC,IC) Serial# Issue Date November 15 2010 Page www.siemic.com

#### SIEMIC ACREDITATION DETAILS: FCC Test Site Registration No. 783147

#### FEDERAL COMMUNICATIONS COMMISSION

Laboratory Division 7435 Oakland Mills Road Columbia, MD 21046

December 20, 2007

Registration Number: 783147

SIEMIC Laboratories 2206 Ringwood Avenue, San Jose, CA 95131

Leslie Bai Attention:

> Measurement facility located at San Jose 3 & 10 meter site Date of Renewal: December 20, 2007

Dear Sir or Madam:

Re:

Your request for renewal of the registration of the subject measurement facility has been received. The information submitted has been placed in your file and the registration has been renewed. The name of your organization will remain on the list of facilities whose measurement data will be accepted in conjunction with applications for Certification under Parts 15 or 18 of the Commission's Rules. Please note that the file must be updated for any changes made to the facility and the registration must be renewed at least every three years.

Measurement facilities that have indicated that they are available to the public to perform measurement services on a fee basis may be found on the FCC website www.fcc.gov under E-Filing, OET Equipment Authorization Electronic Filing, Test Firms.

Sincerely,

Phyllis Parrish Industry Analyst



Accessing global markets RF Test Report of HID Global Corporation Model : R10D

 
 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 41 of 54 www.siemic.com

#### SIEMIC ACREDITATION DETAILS: Industry of Canada CAB ID : US0160



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

March 4, 2009

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

Dear Mr. Bai:

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

CAB Name:SIEMIC, Inc.Physical Location:2206 Ringwood Avenue, San Jose, CA 95131 USAIdentification No.:US0160Recognized 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 <u>ramona.saar@nist.gov</u> if you have any questions.

Sincerely,

David In Alda

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

Enclosure

cc: CAB Program Manager





RF Test Report of HID Global Corporation

SL10071904-HID-012\_R10D (FCC,IC) Serial# Issue Date November 15 2010 42 of 54 Page www.siemic.com

OUR FILE: 46405-4842 Submission No: 126429

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

Industry Industrie Canada Canada

May 23rd, 2008

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

Attention: Leslie Bai

Dear Sir/Madame:

The Bureau has received your application for the registration / renewal of a 3/10m OATS. Be advised that the information received was satisfactory to Industry Canada. The following number(s) is now associated to the site(s) for which registration / renewal was sought (4842A-1). Please reference the appropriate site number in the body of test reports containing measurements performed on the site. In addition, please be informed that the Bureau is now utilizing a new site numbering scheme in order to simplify the electronic filing process. Our goal is to reduce the number of secondary codes associated to one particular company. The following changes have been made to your record.

- Your primary code is: 4842

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

- The table below is a summary of the changes made to the unique site registration number(s):

New Site	Obsolete Site	Description of Site	Expiry Date
Number	Number		(YYYY-MM-DD)
4842A-1	4842-1	3m Chamber	2010-05-23

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

The frequency for re-validation of the test site and the information that is required to be filed or retained by the testing party shall comply with the requirements established by the accrediting organization. However, in all cases, test site re-validation shall occur on an interval not to exceed two years. There is no fee or form associated with an OATS filing. OATS submissions are encouraged to be submitted electronically to the Bureau using the following URL; http://strategis.ic.gc.ca/epic/internet/inceb-bhst.nsf/en/h tt00052e.html.

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

Yours sincerely.

2 / 20

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



Serial# SL10071904-HID-012\_R10D (FCC,IC) Issue Date November 15 2010 Page 43 of 54 www.siemic.com

# SIEMIC ACREDITATION DETAILS: FCC DOC CAB Recognition : US1109

FEDERAL COMMUNICATIONS COMMISSION Laboratory Division				
	7435 Oakland Mills Road			
	Columbia, MD 21046			
	August 28, 2008			
Siemic Labora 2206 Ringwoo San Jose, CA	od Ave.,			
San Joac, CA	75151			
Attention:	Leslie Bai			
Re:	Accreditation of Siemic Laboratories			
	Designation Number: US1109 Test Firm Registration #: 540430			
Dear Sir or M	adam:			
	notified by American Association for Laboratory Accreditation that Siemic Laboratories has been a Conformity Assessment Body (CAB).			
	iemic Laboratories is hereby designated to perform compliance testing on equipment subject to of Conformity (DOC) and Certification under Parts 15 and 18 of the Commission's Rules.			
This designati	ion will expire upon expiration of the accreditation or notification of withdrawal of designation.			
	Sincerely,			
	George Tannahill			
	George Tannahill			

Electronics Engineer



Accessing global markets RF Test Report of HID Global Corporation Model - R10D

FCC 15.225 2010, RSS-210 Issue 7: 2007

 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 44 of 54

 www.siemic.com

#### SIEMIC ACREDITATION DETAILS: Australia CAB ID : US0160



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

November 20, 2008

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

Dear Mr. Bai:

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

CAB Name: Siemic, Inc. Physical Location: 2206 Ringwood Avenue, San Jose, CA 95131 Identification No.: US0160 EMC: AS/NZS 4251.1 (until 5/31/2009), AS/NZS 4251.2 (until 5/31/2009), Recognized Scope: 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,

Daniel I. alder

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

Enclosure

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





RF Test Report of HID Global Corporation Model : R10D

 
 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 45 of 54 www.siemic.com

#### SIEMIC ACREDITATION DETAILS: Korea CAB ID: US0160



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

October 1, 2008

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

Dear Mr. Bai:

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

CAB Name: Physical Location: Identification No.: Recognized Scope: SIEMIC, Inc.
2206 Ringwood Avenue, San Jose, CA 95131
US0160
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,

Paris In alde

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

Enclosure

cc: Ramona Saar





SIEMIC, INC. Accessing global markets RF Test Report of HID Global Corporation Model : R10D FCC 15.225 2010, RSS-210 Issue 7: 2007

 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 46 of 54

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

		UNITED STATES DEPARTMENT OF COMMERCE National Institute of Standards and Technology Gethersburg, Maryland 20899-
May 3, 2006		
Mr. Leslie Bai		
SIEMIC Laboratories 2206 Ringwood Avenue San Jose, CA 95131		
Dear Mr. Bai:		
Bureau of Standards, Metro Cooperation (APEC) Mutur designated to act as a Confo Procedures, of the APEC To equipment to be imported in designation of your organiz	logy, and Inspection ( al Recognition Arrange emity Assessment Bo el MRA. You may su no Chinese Taipei sati ation will remain in fe alid and comply with t	as been recognized by the Chinese Taipei's BSMI) under the Asia Pacific Economic ement (MRA). Your laboratory is now dy (CAB) under Appendix B, <b>Phase 1</b> bmit test data to BSMI to verify that the isfies the applicable requirements. The wree as long as its accreditation for the the designation requirements. The pertinent
<ul> <li>BSMI number:</li> <li>U.S Identification No:</li> <li>Scope of Designation:</li> </ul>	SL2-IN-E-1130R US0160 CNS 13438	(Must be applied to the test reports)
<ul> <li>Authorized signatory:</li> </ul>	Mr. Leslie Bai	
The names of all recognized If you have any questions, p continued interest in our int	dease contact Mr. Dhi	on the NIST website at http://ts.nist.gov/mra. llon at 301-975-5521. We appreciate your assessment activities.
Sincerely,		
Pand 2 a	let	
David F. Alderman Group Leader, Standards Co	oordination and Confe	armity Group
ee: Jogindar Dhillon		
		NIST



Accessing global markets RF Test Report of HID Global Corporation

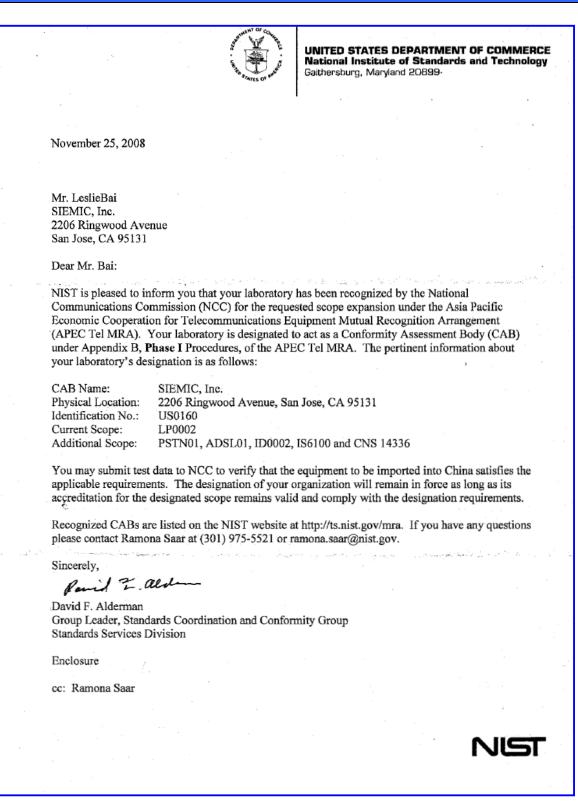
Model : R10D FCC 15.225 2010, RSS-210 Issue 7: 2007 
 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 47 of 54

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





SIEMIC, INC. Accessing global markets

RF Test Report of HID Global Corporation Model : R10D FCC 15.225 2010, RSS-210 Issue 7: 2007 
 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 48 of 54

 www.witering.com

#### SIEMIC ACREDITATION DETAILS: Mexico NOM Recognition

Laboratorio Valentín V. Rivero CANIETI CAMARA NACIONAL BE LA INDUSTRIA ELECTRONICA, DE TEL ECOMUNICACIONES E INFORMETICA México D.F. a 16 de octubre de 2006. LESLIE BAI 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 Acuardo en idioma ingles y español pretenado de los cuales le pido sea revisado y en su caso corregido, para que si esta de acuerdo poder firmarlo para mandarlo con las autoridades Mexicanas para su visto bueno y así poder ejercer dicho acuerdo. Aprovecho este escrito para mencionarle que nuestro intermediario gestor será la empresa Isatel 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 gestoria de la certificación de cumplimiento con Normas Oficiales Mexicanas de producto en México. Me despido de ustad enviandole un contial saludo y esperando sus comentarios al Acuerdo que nos ocupa Atentamente: Ing. Fausting Bornez González Gerente-Terrico del Laboratorio de GANIER. Cullarite 77 Haderone Condesa Se too Maxim, D.F. W. 5204-6338 con 12 liness Fax 5264-648 and Children of Long



Accessing gkcal markets RF Test Report of HID Global Corporation Model : R10D

Model : R10D FCC 15.225 2010, RSS-210 Issue 7: 2007 
 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 49 of 54

 www.siemic.com

#### SIEMIC ACREDITATION DETAILS: Hong Kong OFTA CAB ID : US0160



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

December 8, 2008

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

Dear Mr. Bai:

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

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

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

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

Sincerely,

Pavid I. alden

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

Enclosure

cc: Ramona Saar





Accessing global markets RF Test Report of HID Global Corporation Model : R10D

CC 15.225 2010, RSS-210 Issue 7: 2007

 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 50 of 54

 www.siemic.com

SIEMIC ACREDITATION DETAILS: Australia ACMA CAB ID: US0160



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

November 20, 2008

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

Dear Mr. Bai:

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

CAB Name: Siemic, Inc. Physical Location: 2206 Ringwood Avenue, San Jose, CA 95131 Identification No.: US0160 Recognized Scope: EMC: AS/NZS 4251.1 (until 5/31/2009), AS/NZS 4251.2 (until 5/31/2009), AS/NZS CISPR 11, AS/NZS CISPR 14.1, AS/NZS CISPR 22, AS/NZS 61000.6.3, AS/NZS 61000.6.4 Radiocommunications: AS/NZS 4281, AS/NZS 4268, AS/NZS 4280.1, AS/NZS 4280.2, AS/NZS 4295, AS/NZS 4582, AS/NZS 4583, AS/NZS 4769.1, AS/NZS 4769.2, AS/NZS 4770, AS/NZS 4771 Telecommunications: AS/ACIF S002:05, AS/ACIF S003:06, AS/ACIF S004:06, AS/ACIF S006:01, AS/ACIF S016:01, AS/ACIF S031:01, AS/ACIF S038:01, AS/ACIF S040:01, AS/ACIF S041:05, AS/ACIF S043.2:06, AS/NZS 60950.1

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

Sincerely,

Daniel I. alder

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

Enclosure

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

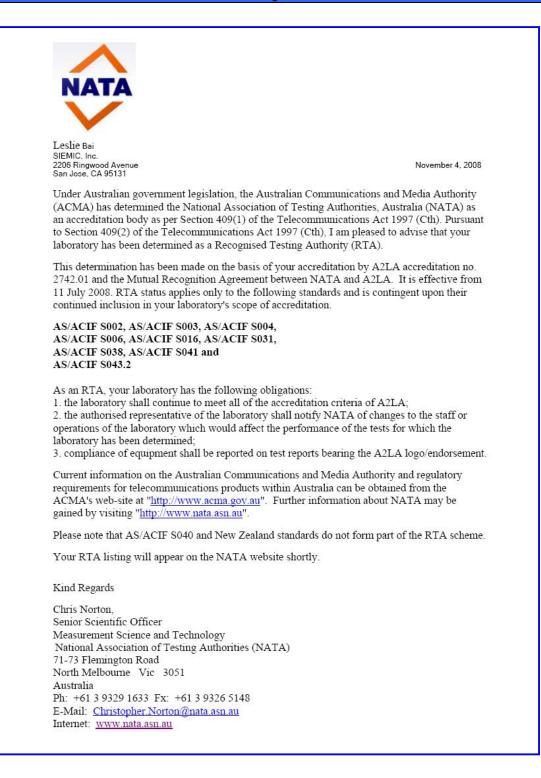




RF Test Report of HID Global Corporation

SL10071904-HID-012\_R10D (FCC,IC) Serial# Issue Date November 15 2010 Page 51 of 54 www.siemic.com

#### SIEMIC ACREDITATION DETAILS: Australia NATA Recognition





Accessing global markets RF Test Report of HID Global Corporatio Model : R10D FCC 15 225 2010 RSS-210 Issue 7: 200

 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 52 07 54

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# Page FCC 15.225 2010, RSS-210 Issue 7: 2007 SIEMIC ACREDITATION DETAILS: VCCI Radiated Test Site Registration No. R-3083 VCI 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 Coul VCI VE



Accessing global markets RF Test Report of HID Global Corporatio Model : R10D FCC 15 225 2010 RSS-210 ISSUE 7: 200

 
 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 53 of 54 www.siemic.com

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





Accessing gibbal markets RF Test Report of HID Global Corporation Model : R10D FCC 15 225 2010, RSS-210 Issue 7: 2007

 
 Serial#
 SL10071904-HID-012\_R10D (FCC,IC)

 Issue Date
 November 15 2010

 Page
 54 of 54 www.siemic.com

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

