

# Verification of Compliance

Product Name : **Smart Card Reader**  
Trade Name :   
Model Number : **SCR11**  
Applicant : **Singular Technology Co., Ltd.**  
Address : **7FL., NO. 31 Sec. 2, San Min Rd., Pan Chiao District, New Taipei City, Taiwan, 220, R.O.C.**  
Report Number : **F-U070-1210-096**  
Issue Date : **October 23, 2012**

Applicable Standards : **FCC Part 15, Subpart B Class B ITE**  
**ANSI C63.4:2009**  
**Industry Canada ICES-003 Issue 5**  
**CSA-IEC CISPR22-10 Class B ITE**

One sample of the designated product has been tested in our laboratory and found to be in compliance with the FCC rules cited above.



NVLAP LAB CODE 200575-0

TAF 0905

FCC CAB Code TW1053

IC Code 4699A

VCCI Accep. No. R-1527, C-1609, T-1441, G-10



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A handwritten signature in black ink, appearing to read 'J. Y. Shih', is written over a faint circular stamp.

(Tsun-Yu Shih/ General Manager)

Date: October 23, 2012

# FCC DoC Test Report

for

## Smart Card Reader

Trade Name :   
Model Number : SCR11  
Report Number : F-U070-1210-096  
Date of Receipt : October 5, 2012  
Date of Report : October 23, 2012

Prepared for

### Singular Technology Co., Ltd.

7FL., NO. 31 Sec. 2, San Min Rd., Pan Chiao District, New Taipei City, Taiwan, 220, R.O.C.

Prepared by



**Central Research Technology Co.**

**EMC Test Laboratory**

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NVLAP LAB CODE 200575-0

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# Verification of Compliance

**Equipment Under Test** : Smart Card Reader  
**Model No.** : SCR11  
**Applicant** : Singular Technology Co., Ltd.  
**Address** : 7FL., NO. 31 Sec. 2, San Min Rd., Pan Chiao District, New Taipei City, Taiwan, 220, R.O.C.  
**Applicable Standards** : **FCC Part 15, Subpart B Class B ITE**  
**ANSI C63.4:2009**  
**Industry Canada ICES-003 Issue 5**  
**CSA-IEC CISPR22-10 Class B ITE**

**Date of Testing** : October 9~15, 2012  
**Deviation** : N/A  
**Condition of Test Sample** : Engineering Sample



We, **Central Research Technology Co.**, hereby certify that one sample of the designated product was tested in our facility during the period mentioned above. The test records, data evaluation and Equipment Under Test (EUT) configurations shown in the present report are true and accurate representation of the measurements of the sample's EMC characteristics under the conditions herein specified.

The test results show that the EUT as described in the present report is in compliance with the requirements set forth in the standards mentioned above and apply to the tested sample identified in the present report only. The test report shall not be reproduced, except in its entirety, without the written approval of Central Research Technology Co.

**PREPARED BY** : Cathy Chen , **DATE** : Oct. 23, 2012  
(Cathy Chen/System Executive)

**APPROVED BY** : J. Y. Shih , **DATE** : Oct. 23, 2012  
(Tsun-Yu Shih/General Manager)

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## 1. General Description

### 1.1 General Description of EUT

Equipment Under Test : Smart Card Reader  
Model No. : SCR11  
Power in : Supplied by the connected PC.  
Highest Operating Frequency : 32MHz from the test specification  
Manufacturer : Singular Technology Co., Ltd.  
Function Description :

The EUT is an engineering sample of the Smart Card Reader. Please refer to the user's manual for the details.

The I/O ports of EUT are listed below:

No.	I/O Port Type	Quantity
1	USB port	1
2	IC card slot	1

## **1.2 Test Mode**

Normal operating as the specification of manufacturer.

**1.3 Applied standards**

According to the specifications of the manufacturer and the requirements set in 47CFR Part 15, the applied standards to evaluate the compliance of the EUT are as following, and the measurement procedures specified in ANSI C63.4: 2009 are performed.

According to 47CFR Part 15 Section 15.33(b), the test frequency range of radiated emission measurements are listed below and the EUT herein shall be tested as:

Type of EUT	Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
<input type="checkbox"/>	Below 1.705	30
<input checked="" type="checkbox"/>	1.705 - 108	1000
<input type="checkbox"/>	108 - 500	2000
<input type="checkbox"/>	500 - 1000	5000
<input type="checkbox"/>	Above 1000	5 <sup>th</sup> harmonic of the highest frequency or 40GHz, whichever is lower

All the test items are as following:

Applied Standards	Test Items	Results
FCC Part 15, Subpart B Class B ITE	<input checked="" type="checkbox"/> Conducted Emission Measurement	<u>PASS</u>
	<input checked="" type="checkbox"/> Radiated Emission Measurement	<u>PASS</u>

### 1.4 Test Setup for the EUT

The EUT is an unique unit connected with other necessary accessories and support units listed in the next section. It has been tested against each standard after the following setup steps:

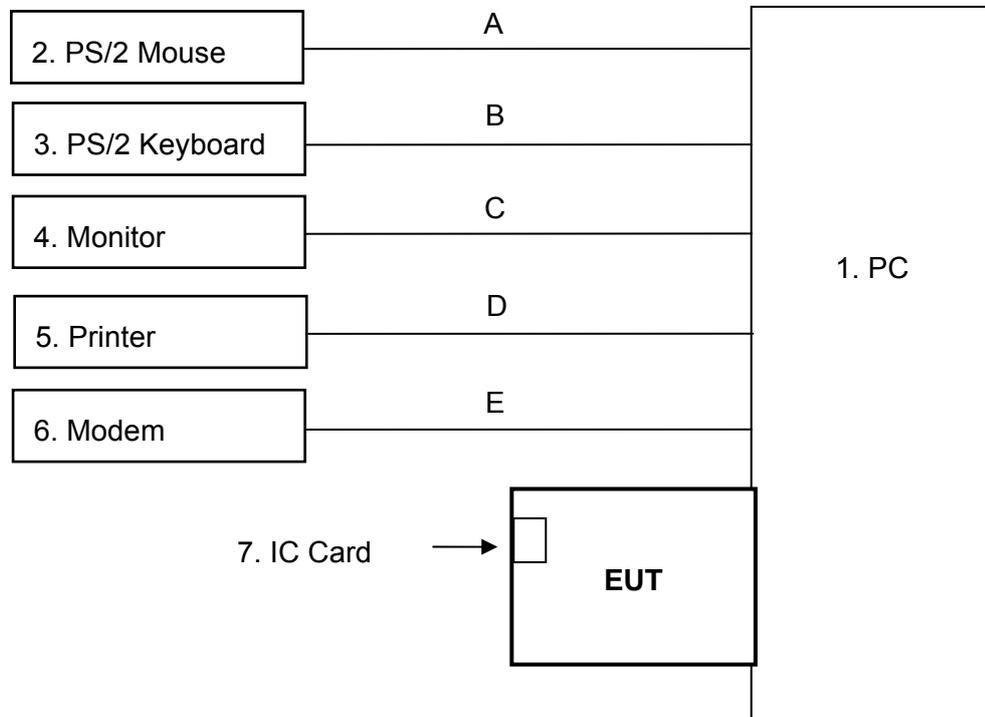
- a. Connect the EUT and all the support units to the appropriate power source.
- b. Turn on all the accessories and support units.
- c. Install an EMC test software into PC and execute it under the Windows environment.
- d. The PC sends “H” patterns to the monitor, which fills the whole screen of it.
- e. The PC reads messages from IC Card by the EUT.
- f. The PC sends messages to the modem.
- g. The PC sends “H” patterns to the printer, which prints them on paper.
- h. Repeat and keep setup steps listed above before and during all tests.

EUT I/O ports / Peripherals	Exerciser Program (software)	Version of Program
Monitor	BurnIn Test.exe	V6.0
Modem		
Printer		

## 1.5 The Support Units

No.	Unit	Model No.	FCC ID	Trade Name	Power Cord	Supported by lab.	Note
1	PC	9439-E44	DoC	Lenovo	1.8m	✓	
2	PS/2 Mouse	MO71KC	DoC	DELL	N/A	✓	
3	PS/2 Keyboard	SK-8110	DoC	DELL	N/A	✓	
4	Monitor	U2410	DoC	DELL	1.8m	✓	
5	Printer	LQ-300+	N/A	EPSON	1.8m	✓	
6	Modem	DM-1414	IFAXDM1414	ACEEX	1.9m	✓	
7	IC Card	N/A	N/A	N/A	N/A		

### 1.6 Layout of the Setup



#### Connecting Cables :

No.	Cable	Length	Shielded	Core	Shielded Backshell	Supported by lab.	Note
A	PS/2 Mouse Cable	1.8m	✓			✓	
B	PS/2 Keyboard Cable	2.0m	✓			✓	
C	VGA Cable	1.7m	✓	✓		✓	2 cores
D	Printer Cable	1.8m	✓	✓		✓	
E	Serial Cable	1.8m	✓	✓		✓	2 cores

**1.7 Test Capability**

**Test Facility**

The test facility used for evaluating the conformance of the EUT with each standard in the present report meets what required in CISPR16-1-4, CISPR16-2-3 and ANSI C63.4: 2009.

<b>Test Room</b>	<b>Type of Test Room</b>	<b>Descriptions</b>
TR1	10m semi-anechoic chamber (23m × 14m × 9m)	Complying with the NSA and the site VSWR requirements in documents CISPR 22 and ANSI C63.4: 2009. for the radiated emission measurement.
TR1	3m fully-anechoic chamber (23m × 14m × 9m)	
TR11	3m semi-anechoic chamber (9m × 6m × 6m)	Complying with the NSA requirements in documents CISPR 22 for the radiated emission measurement.
TR5	Shielding Room (8m × 5m × 4m)	For the conducted emission measurement.

**Test Laboratory Competence Information**

Central Research Technology Co. has been accredited / filed / authorized by the agencies listed in the following table.

<b>Certificate</b>	<b>Nation</b>	<b>Agency</b>	<b>Code</b>	<b>Mark</b>
Accreditation Certificate	USA	NVLAP	200575-0	ISO/IEC 17025
	R.O.C. (Taiwan)	TAF	0905	ISO/IEC 17025
	R.O.C. (Taiwan)	BSMI	SL2-IN-E-0033, SL2-IS-E-0033, SL2-R1/R2-E-0033, SL2-A1-E-0033 SL2-L1-E-0033	ISO/IEC 17025
Site Filing Document	USA	FCC	474046,TW1053	Test facility list & NSA Data
	Canada	IC	4699A-1,-3	Test facility list & NSA Data
	Japan	VCCI	R-1527,C-1609,T-1441,G-10	Test facility list & NSA Data
Authorization Certificate	Germany	TUV	10021687	ISO/IEC 17025
	Norway	Nemko	ELA 212	ISO/IEC 17025

The copy of each certificate can be downloaded from our web site: [www.crc-lab.com](http://www.crc-lab.com)

**2. Conducted Emission Measurement**

Test Result : PASS

**2.1 Limits for Emission Measurement**

**Limits for conducted disturbances at the power mains**

Frequency (MHz)	Class A Equipment		Class B Equipment	
	Quasi-peak (dBµV)	Average (dBµV)	Quasi-peak (dBµV)	Average (dBµV)
0.15 to 0.5	79	66	66 – 56	56 – 46
0.5 to 5	73	60	56	46
5 to 30	73	60	60	50

Note 1- The lower limit shall apply at the transition frequency.  
 Note 2- The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5MHz for Class B equipment.

## 2.2 Test Instruments

Test Site and Equipment	Manufacturer	Model No./ Serial No.	Last Calibration Date	Calibration Due Date
Test Receiver	R&S	ESCS 30/ 836858/021	Jan. 11, 2012	Jan. 11, 2013
LISN	R&S	ESH2-Z5/ 836613/001	June 5, 2012	June 5, 2013
2 <sup>nd</sup> LISN	R&S	ENV4200/ 833209/010	March 26, 2012	March 26, 2013
50Ω terminator	N/A	N/A/ 001	Aug. 20, 2012	Aug. 20, 2013
RF Switch	N/A	RSU28/ 338965/002	Aug. 20, 2012	Feb. 20, 2013
RF Cable	N/A	N/A/ C0052 ~ 56	Aug. 20, 2012	Feb. 20, 2013
Test Software	Audix	e3/ Ver. 5.2004-2-19k	NCR	NCR
TR5 shielded room	ETS LINDGREN	TR5/ 15353-F	NCR	NCR

Note:

1. The calibrations are traceable to NML/ROC.
2. NCR : No Calibration Required.

## Measurement Uncertainty

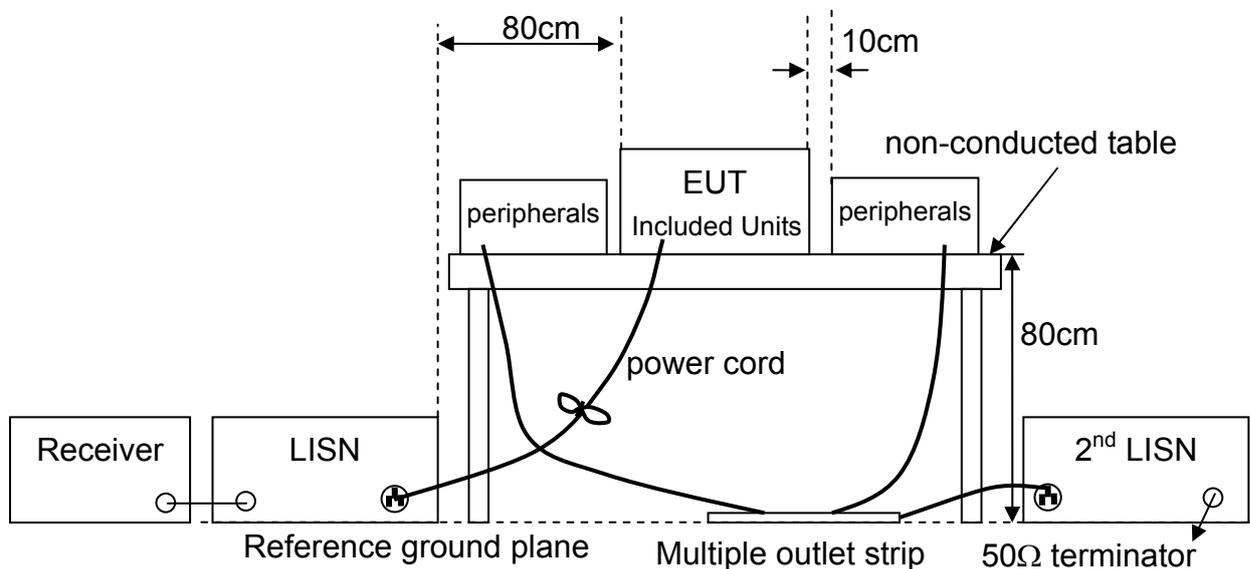
The assessed measurement uncertainty with a suitable coverage factor K to ensure 95% confidence level for the normal distribution are shown as below, the values are less than  $U_{CISPR}$  in table 1 of CISPR 16-4-2.

Equipment	Model Number	Uncertainty Value
LISN	ESH2-Z5	3.1dB
	ENV 4200	2.7dB

## 2.3 Test Procedures

- a. The EUT was set up per the test configuration figured in the next section of this chapter to simulate the typical usage per the user's manual.
- b. If the EUT is tabletop equipment, it was placed on a non-conducted table with a height of 0.8 meters above the reference ground plane and 0.4 meters from the conducting wall of the shielded room. Also if the EUT is floor-standing equipment, it was placed on a non-conducted support with a height of 12 millimeters above the reference ground plane.
- c. Connect the EUT's power source to the appropriate power mains through the LISN.
- d. All the other peripherals are connected to the 2<sup>nd</sup> LISN, if any.
- e. The LISN was placed 0.8 meters from the EUT and at least 0.8 meters from other units and other metal planes.
- f. Measure the conducted emissions on each power line (Neutral Line and Line 1 – Hot side) of the EUT's power source by using the test receiver connected to the coupling RF output port of LISN.
- g. Rapidly scan the signal from 150kHz to 30MHz by using the receiver through the Maximum-Peak detector to determine those frequencies associated with higher emission levels for each measured line.
- h. Then measure the maximum level of conducted disturbance for each frequency found from step g. by using the receiver through the Quasi-Peak and Average detectors per CISPR 16-1.
- i. Record the level for each frequency and compare with the required limit.

## 2.4 Test Configurations

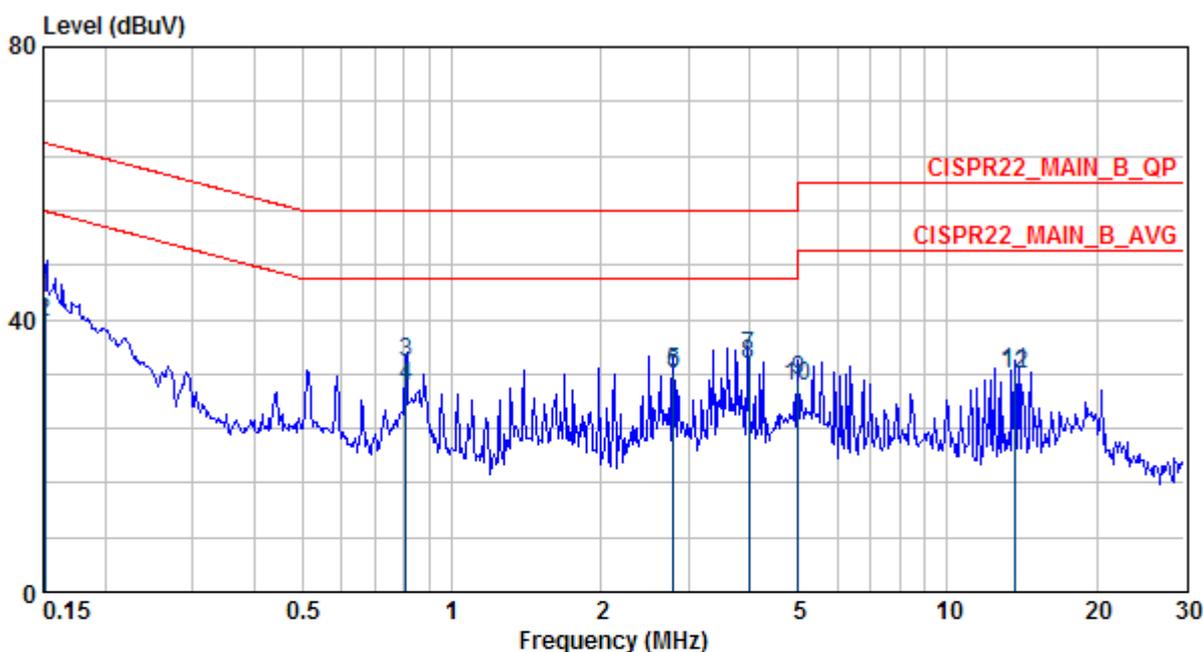


## 2.5 Photographs of the Test Configurations



## 2.6 Test Results

**Test Mode** : Normal  
**Test Voltage** : 120V/60Hz to the connected PC  
**Tester** : Mathew **Temperature** : 27°C  
**Humidity** : 59%RH **Frequency Range** : 150kHz~30MHz  
**IF Bandwidth** : 9kHz **Phase** : Line

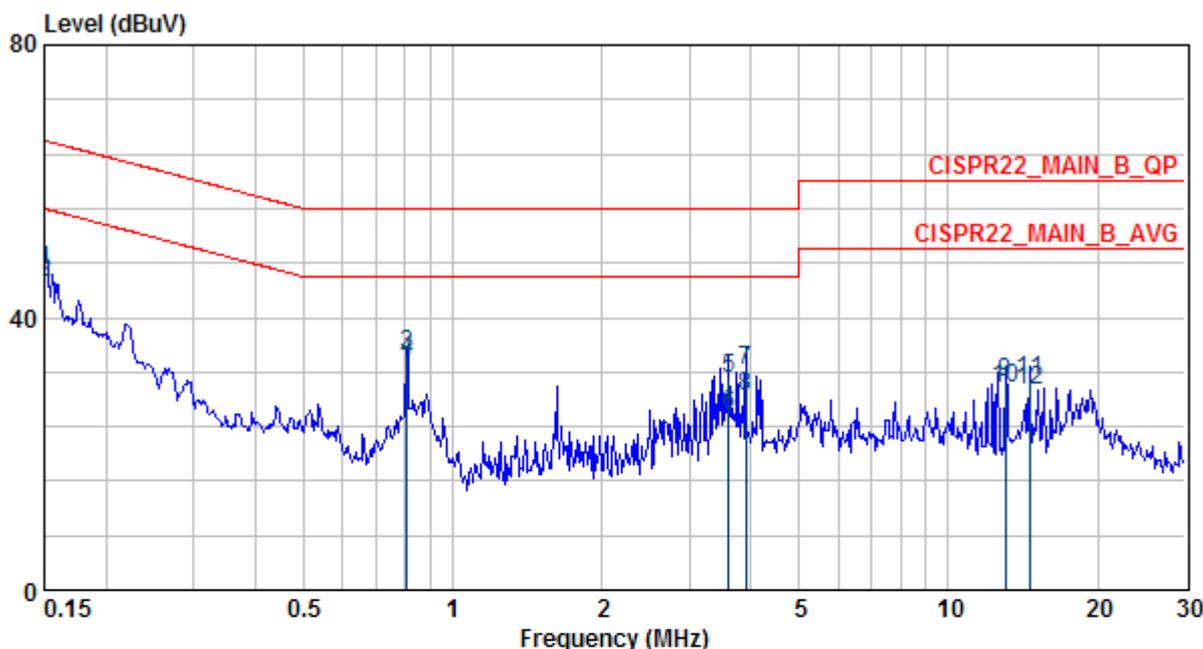


	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.151	43.20	0.26	42.94	65.92	-22.72	LINE	QP
2	0.151	39.51	0.26	39.25	55.92	-16.41	LINE	AVERAGE
3	0.809	33.60	0.33	33.27	56.00	-22.40	LINE	QP
4	0.809	30.10	0.33	29.77	46.00	-15.90	LINE	AVERAGE
5	2.796	32.25	0.44	31.81	56.00	-23.75	LINE	QP
6	2.796	31.89	0.44	31.45	46.00	-14.11	LINE	AVERAGE
7	3.974	34.69	0.48	34.21	56.00	-21.31	LINE	QP
8	3.974	33.40	0.48	32.92	46.00	-12.60	LINE	AVERAGE
9	5.005	31.19	0.51	30.68	60.00	-28.81	LINE	QP
10	5.005	30.07	0.51	29.56	50.00	-19.93	LINE	AVERAGE
11	13.692	32.20	0.68	31.52	60.00	-27.80	LINE	QP
12	13.692	32.07	0.68	31.39	50.00	-17.93	LINE	AVERAGE

**Note:**

1. Emission Level = reading value + correction factor.
2. Correction factor = cable loss + insertion loss of LISN.
3. Q.P. is abbreviation of quasi-peak.

**Test Mode** : Normal  
**Test Voltage** : 120V/60Hz to the connected PC  
**Tester** : Mathew **Temperature** : 27°C  
**Humidity** : 59%RH **Frequency Range** : 150kHz~30MHz  
**IF Bandwidth** : 9kHz **Phase** : Neutral



	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.150	46.94	0.16	46.78	66.00	-19.06	NEUTRAL	QP
2	0.150	45.22	0.16	45.06	56.00	-10.78	NEUTRAL	AVERAGE
3	0.810	34.44	0.21	34.23	56.00	-21.56	NEUTRAL	QP
4	0.810	33.74	0.21	33.53	46.00	-12.26	NEUTRAL	AVERAGE
5	3.611	31.14	0.36	30.78	56.00	-24.86	NEUTRAL	QP
6	3.611	25.73	0.36	25.37	46.00	-20.27	NEUTRAL	AVERAGE
7	3.906	32.15	0.37	31.78	56.00	-23.85	NEUTRAL	QP
8	3.906	28.31	0.37	27.94	46.00	-17.69	NEUTRAL	AVERAGE
9	13.045	30.51	0.83	29.68	60.00	-29.49	NEUTRAL	QP
10	13.045	29.60	0.83	28.77	50.00	-20.40	NEUTRAL	AVERAGE
11	14.594	30.70	0.92	29.78	60.00	-29.30	NEUTRAL	QP
12	14.594	29.37	0.92	28.45	50.00	-20.63	NEUTRAL	AVERAGE

Note:

1. Emission Level = reading value + correction factor.
2. Correction factor = cable loss + insertion loss of LISN.
3. Q.P. is abbreviation of quasi-peak.

### 3. Radiated Emission Measurement

Test Result : PASS

#### 3.1 Limits for Emission Measurement

Limits for radiated disturbances below 1000MHz

Frequency (MHz)	Class A Equipment (10m distance)		Class B Equipment (3m distance)	
	Quasi-peak (dBµV/m)		Quasi-peak (dBµV/m)	
30 to 88	39.1		40	
88 to 216	43.5		43.5	
216 to 960	46.4		46	
960 to 1000	49.5		54	

Note 1- The lower limit shall apply at the transition frequency.  
 Note 2- Additional provisions may be required for cases where interference occurs.  
 Note 3- According to 15.109(g), as an alternative to the radiated emission limits shown above, digital devices may be shown to comply with the standards (CISPR), Pub. 22 shown as below.

30 to 230	40	30
230 to 1000	47	37

Limits for radiated disturbances above 1000MHz at a measuring distance of 3m

Frequency (GHz)	Class A Equipment		Class B Equipment	
	Peak (dBµV/m)	Average (dBµV/m)	Peak (dBµV/m)	Average (dBµV/m)
1 to 40	80	60	74	54

### 3.2 Test Instruments

For Measurement at the distance of 10m

Test Site and Equipment	Manufacturer	Model No./ Serial No.	Last Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESCS 30/ 836858/020	Sept. 10, 2012	Sept. 10, 2013
Broadband Antenna	R&S	HL-562/ 360543/007	March 23, 2012	March 23, 2013
Broadband Antenna	R&S	HL-562/ 830547/010	May 2, 2012	May 2, 2013
Pre-Amplifier	Mini Circuit	ZKL-2/ 001	July 16, 2012	Jan. 16, 2013
Pre-Amplifier	Mini Circuit	ZKL-2/ 002	July 16, 2012	Jan. 16, 2013
Spectrum	R&S	FSP7/ 100108	June 13, 2012	June 13, 2013
Spectrum	R&S	FSP7/ 100384	Jan. 3, 2012	Jan. 3, 2013
RF Cable	JYEBAO	0214/ C0049	July 16, 2012	Jan. 16, 2013
RF Cable	JYEBAO	0214/ C0050	July 16, 2012	Jan. 16, 2013
Test Software	Audix	e3/ Ver. 4.3.714.e	NCR	NCR
TR1 Semi - anechoic Chamber	ETS. LINDGREN	TR1/ 17627-B	April 21, 2012	April 21, 2013

Note:

1. The calibrations are traceable to NML/ROC.
2. NCR : No Calibration Required.
3. The calibration date of the semi-anechoic chamber listed above is the date of NSA measurement.

**Measurement Uncertainty**

The assessed measurement uncertainty with a suitable coverage factor K to ensure 95% confidence level for the normal distribution are shown as below, the values are less than  $U_{cispr}$  in table 1 of CISPR 16-4-2.

Test Site (Measuring distance)	Polarization	Frequency Range	
		30MHz ~200MHz	200MHz ~1000MHz
TR1(10m)	Horizontal	3.2dB	3.5dB
	Vertical	3.3dB	3.6dB
TR11(3m)	Horizontal	3.8dB	4.1dB
	Vertical	3.3dB	3.7dB

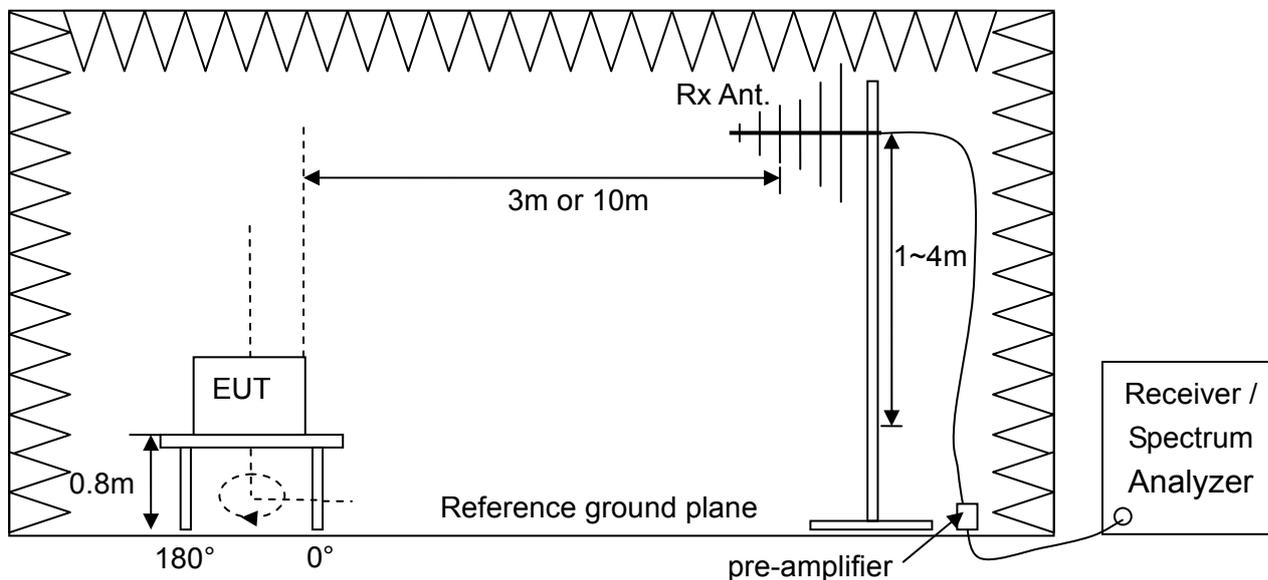
Test Site (Measuring distance)	Polarization	Frequency Range
		1GHz ~18GHz
TR1(3m)	Horizontal	4.0dB
	Vertical	3.9dB

### 3.3 Test Procedures

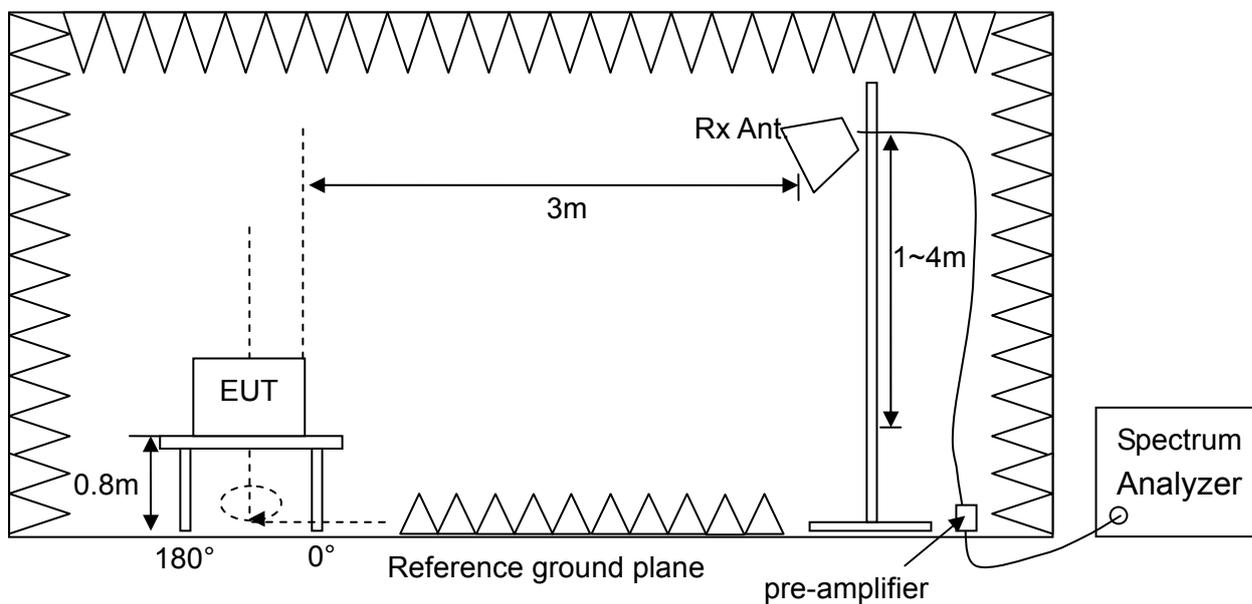
- a. The EUT was set up per the test configuration figured in the next section of this chapter to simulate the typical usage per the user's manual.
- b. If the EUT is tabletop equipment, it was placed on a non-conducted table with a height of 0.8 meters above the reference ground plane in the semi-anechoic chamber. If the EUT is floor-standing equipment, it was placed on a non-conducted support with a height of 12 millimeters above the reference ground plane in the semi-anechoic chamber.
- c. For the measurement of frequency below 1000MHz, the EUT was set 10m away from the interference receiving antenna for the limit of Class A equipment or CISPR 22. For Class B equipment and the measurement of frequency above 1000MHz, the EUT was set 3m away from the interference receiving antenna.
- d. Rapidly sweep the signal in the test frequency range by using the spectrum through the Maximum-peak detector.
- e. Rotate the EUT from 0° to 360° and position the receiving antenna at heights from 1 to 4 meters above the reference ground plane continuously to determine at least six frequencies associated with higher emission levels and record them.
- f. For measurement of frequency above 1000MHz, the beamwidth of receiving horn antenna should keep covering EUT when the receiving horn antenna height varied.
- g. Then measure each frequency found from step e. by using the spectrum with rotating the EUT and positioning the receiving antenna height to determine the maximum level.
- h. Finely tune the antenna and turntable around the recorded position of each frequency found from step f.
- i. For measurement of frequency below 1000MHz, set the receiver detector to be Quasi-Peak per CISPR 16-1 to find out the maximum level occurred.
- j. For measurement of frequency above 1000MHz, set the spectrum detector to be Peak or Average to find out the maximum level occurred, if any.
- k. Record frequency, azimuth angle of the turntable, height, and polarization of the receiving antenna and compare the maximum level with the required limit.
- l. Change the receiving antenna to another polarization to measure radiated emission by following step d. to k. again.
- m. If the peak emission level measured from step e. is 4dB lower than the limit specified, then the emission values presented will be the peak value only. Otherwise, accurate Q.P. value will be measured and presented.

### 3.4 Test Configurations

#### Radiated Emission Measurement below 1000MHz



#### Radiated Emission Measurement above 1000MHz (if any)



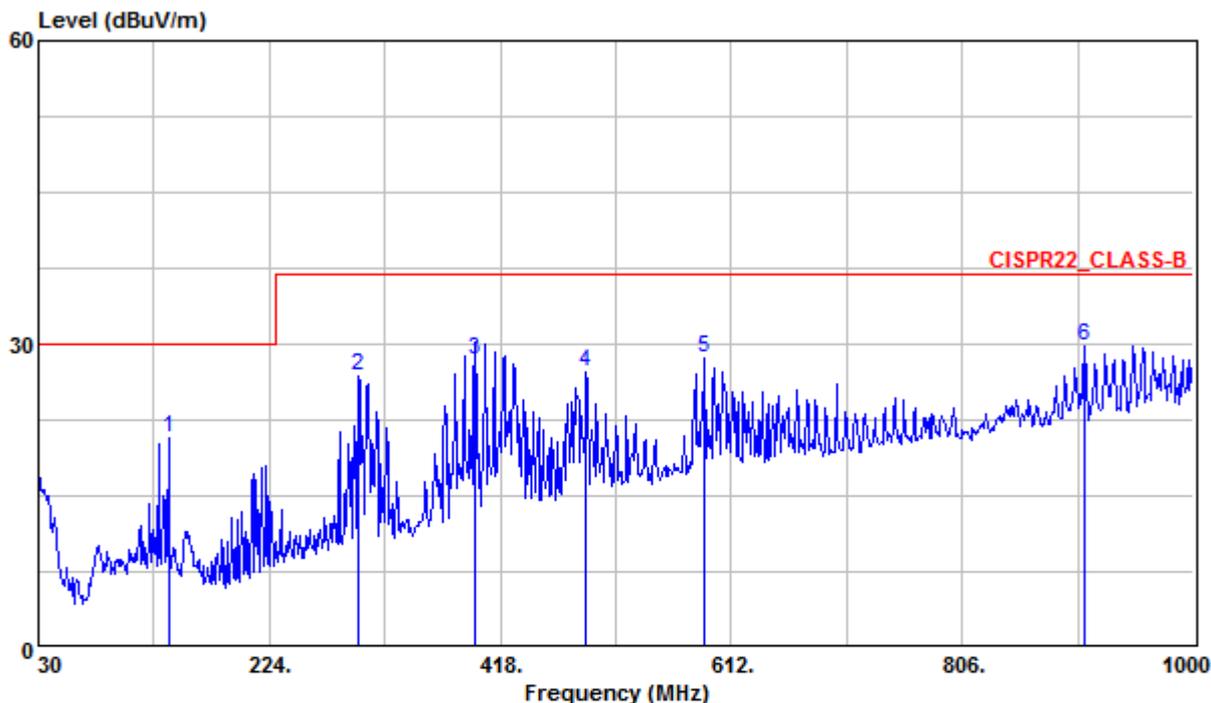
### 3.5 Photographs of the Test Configurations



### 3.6 Test Results

#### Radiated Emission Measurement below 1000MHz

**Test Mode** : Normal  
**Test Voltage** : 120V/60Hz to the connected PC  
**Tester** : Carl                      **Temperature** : 26°C  
**Humidity** : 70%RH              **Frequency Range** : 30MHz~1GHz  
**IF Bandwidth** : 120kHz              **Polarization** : Vertical

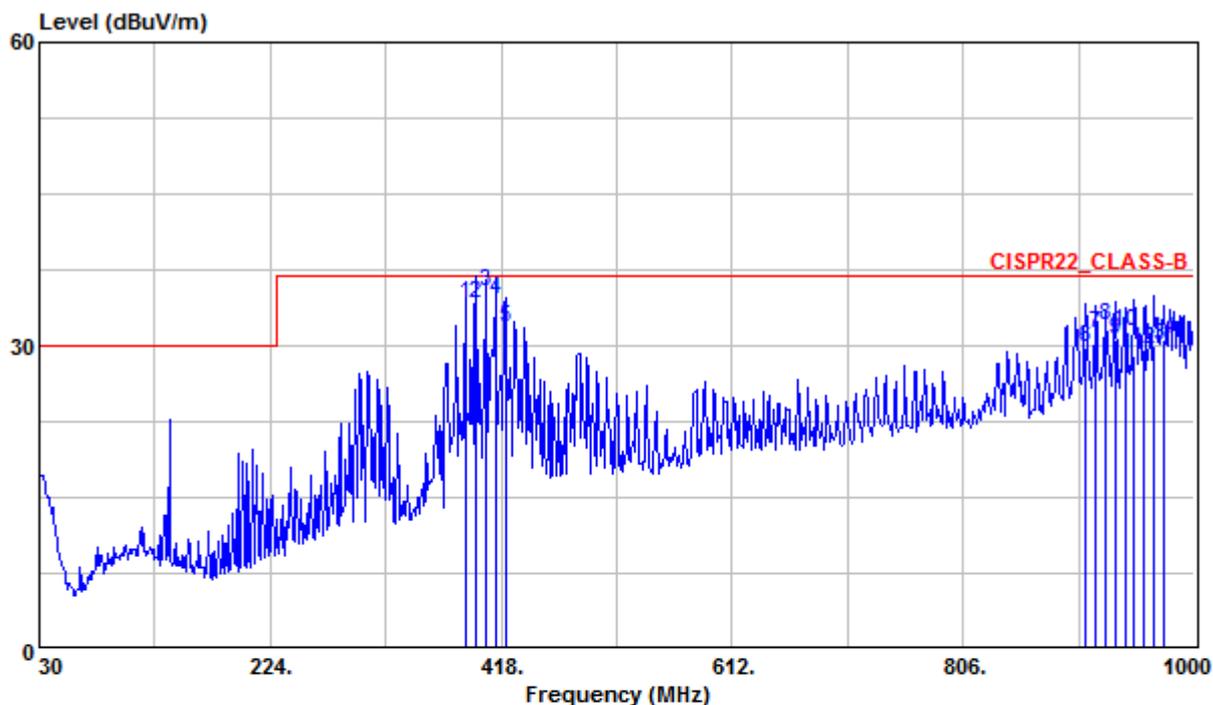


	Freq	Level	Read	Factor	Limit	Over	Ant	Table		
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg	Pol/Phase	Remark
1	139.610	20.64	41.17	-20.53	30.00	-9.36	---	---	VERTICAL	Peak
2	298.690	26.87	43.44	-16.57	37.00	-10.13	---	---	VERTICAL	Peak
3	397.320	28.52	41.87	-13.35	37.00	-8.48	111	30	VERTICAL	QP
4	489.780	27.31	37.81	-10.50	37.00	-9.69	---	---	VERTICAL	Peak
5	589.690	28.64	37.01	-8.37	37.00	-8.36	---	---	VERTICAL	Peak
6 @	908.820	29.83	32.68	-2.85	37.00	-7.17	---	---	VERTICAL	Peak

**Note:**

1. Emission Level = reading value + correction factor.
2. Correction factor = cable loss + antenna factor – gain of pre-amplifier.
3. Q.P is abbreviation of quasi-peak.

**Test Mode** : Normal  
**Test Voltage** : 120V/60Hz to the connected PC  
**Tester** : Carl      **Temperature** : 26°C  
**Humidity** : 70%RH      **Frequency Range** : 30MHz~1GHz  
**IF Bandwidth** : 120kHz      **Polarization** : Horizontal



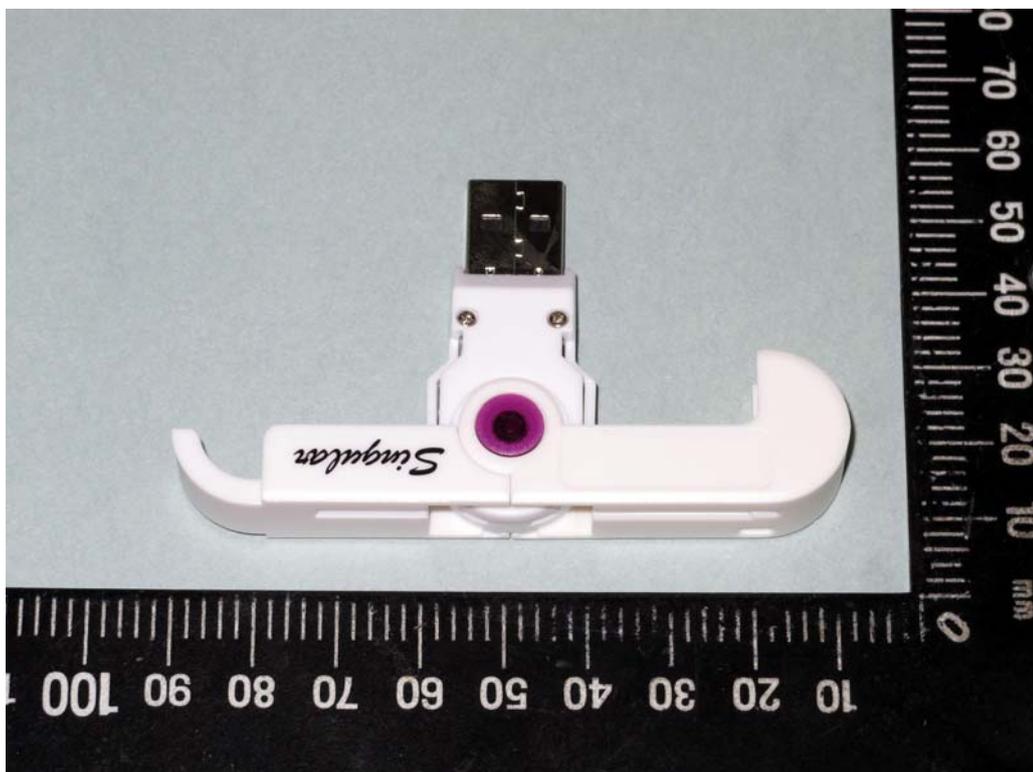
	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Ant Pos	Table Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1 @	388.920	34.07	47.57	-13.50	37.00	-2.93	293	327	HORIZONTAL	QP
2 @	397.076	34.23	47.52	-13.29	37.00	-2.77	280	75	HORIZONTAL	QP
3 @	405.338	35.37	48.38	-13.01	37.00	-1.63	296	63	HORIZONTAL	QP
4 @	413.480	34.47	47.16	-12.69	37.00	-2.53	311	68	HORIZONTAL	QP
5 @	421.700	31.74	44.11	-12.37	37.00	-5.26	305	56	HORIZONTAL	QP
6	909.140	29.78	33.40	-3.62	37.00	-7.22	239	99	HORIZONTAL	QP
7 @	917.550	31.14	34.74	-3.60	37.00	-5.86	195	74	HORIZONTAL	QP
8 @	925.560	31.88	35.46	-3.58	37.00	-5.12	223	61	HORIZONTAL	QP
9 @	933.700	30.59	34.15	-3.56	37.00	-6.41	228	93	HORIZONTAL	QP
10 @	942.770	31.47	35.00	-3.53	37.00	-5.53	172	42	HORIZONTAL	QP
11	949.810	29.07	32.58	-3.51	37.00	-7.93	215	80	HORIZONTAL	QP
12	958.040	29.51	32.89	-3.38	37.00	-7.49	151	79	HORIZONTAL	QP
13 @	966.330	30.03	33.28	-3.25	37.00	-6.97	208	87	HORIZONTAL	QP
14 @	974.690	30.62	33.74	-3.12	37.00	-6.38	141	63	HORIZONTAL	QP

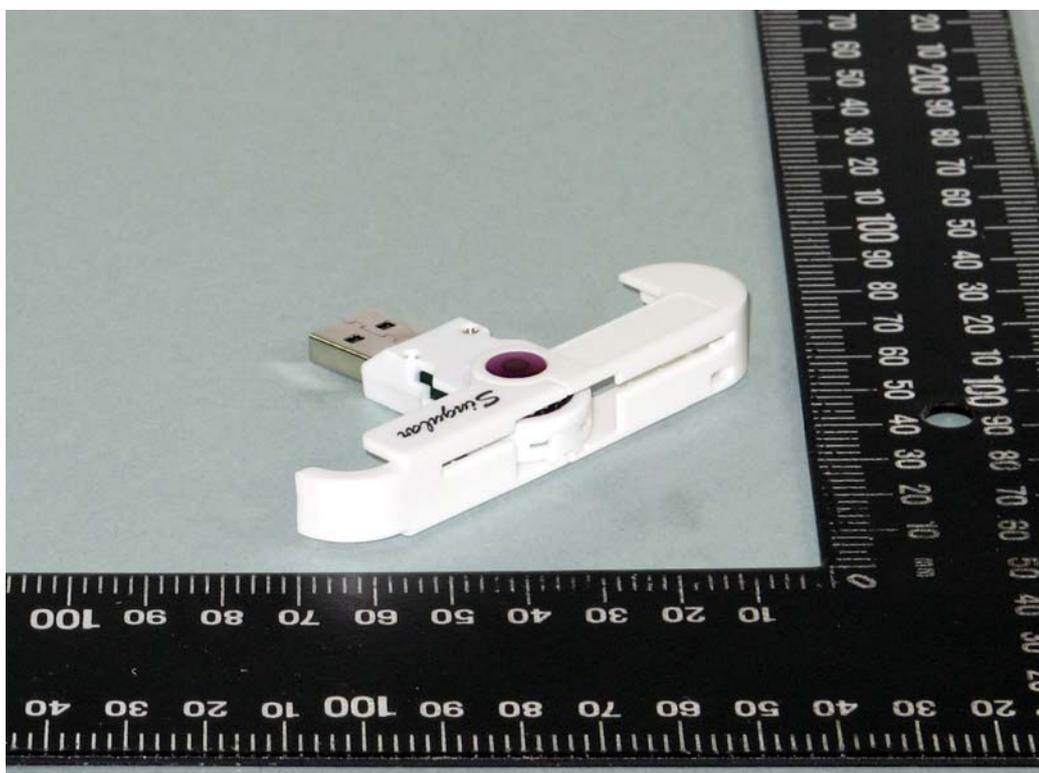
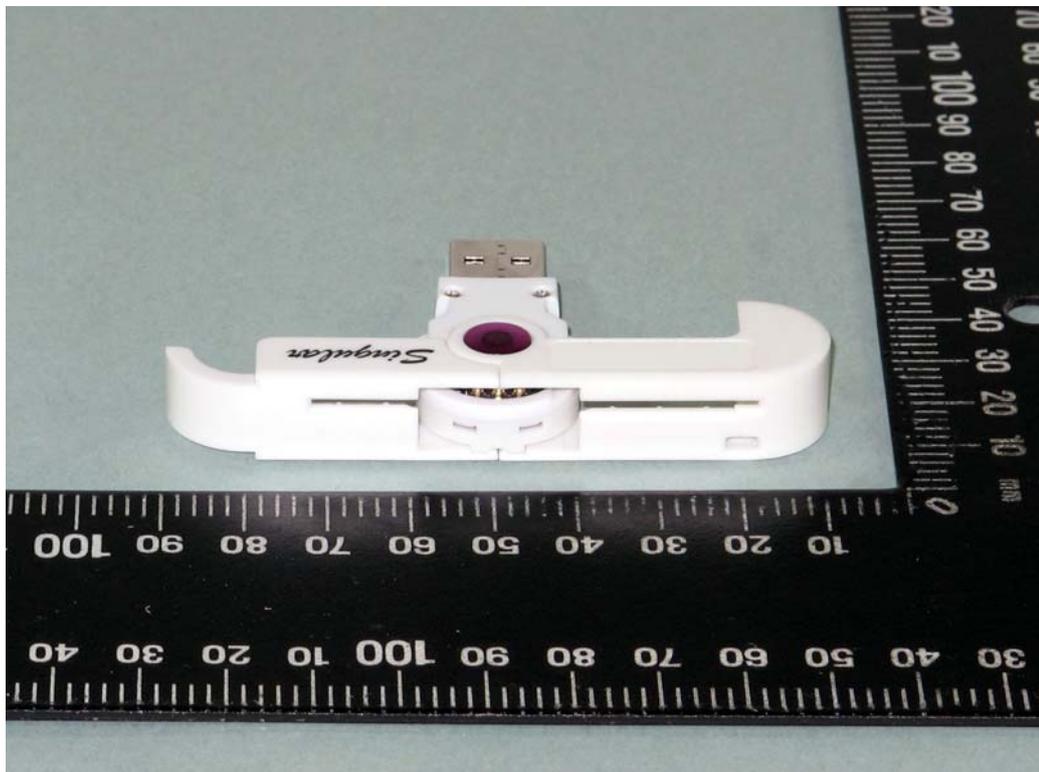
Note:

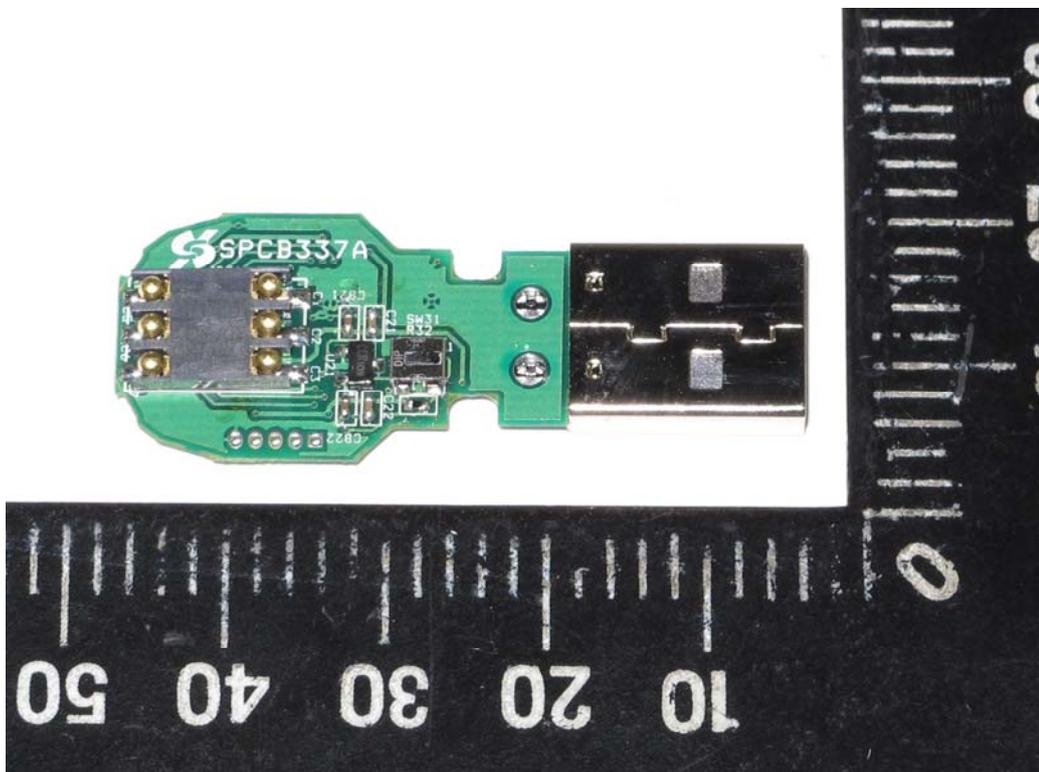
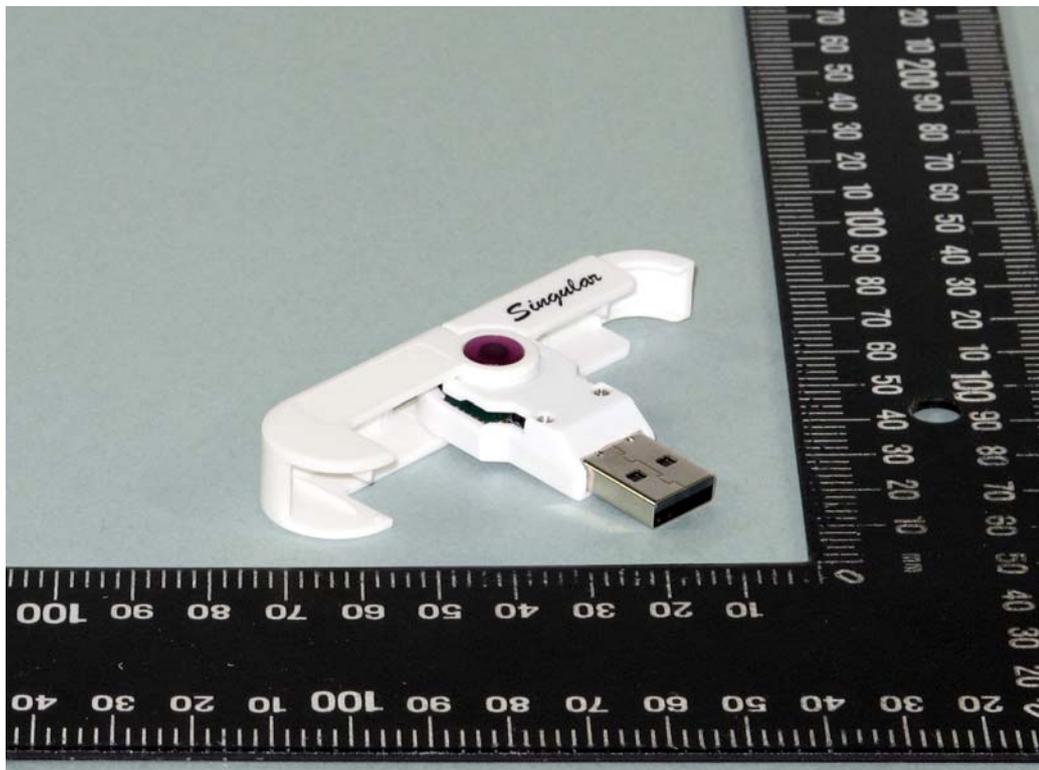
1. Emission Level = reading value + correction factor.
2. Correction factor = cable loss + antenna factor – gain of pre-amplifier.
3. Q.P is abbreviation of quasi-peak.

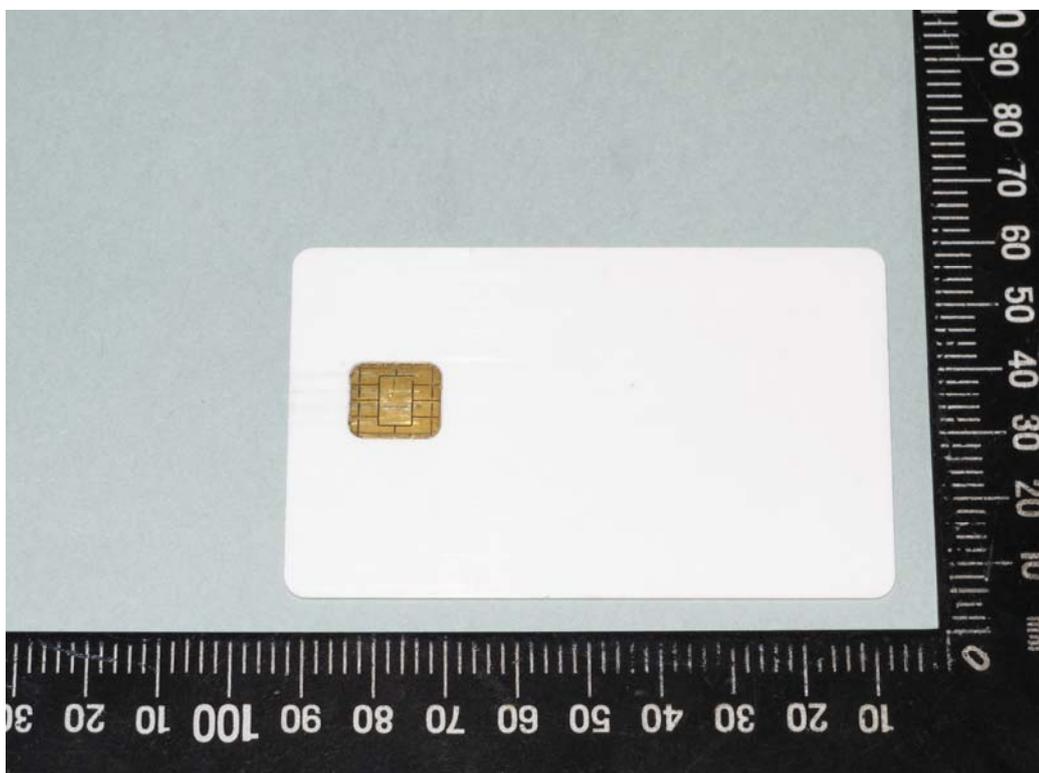
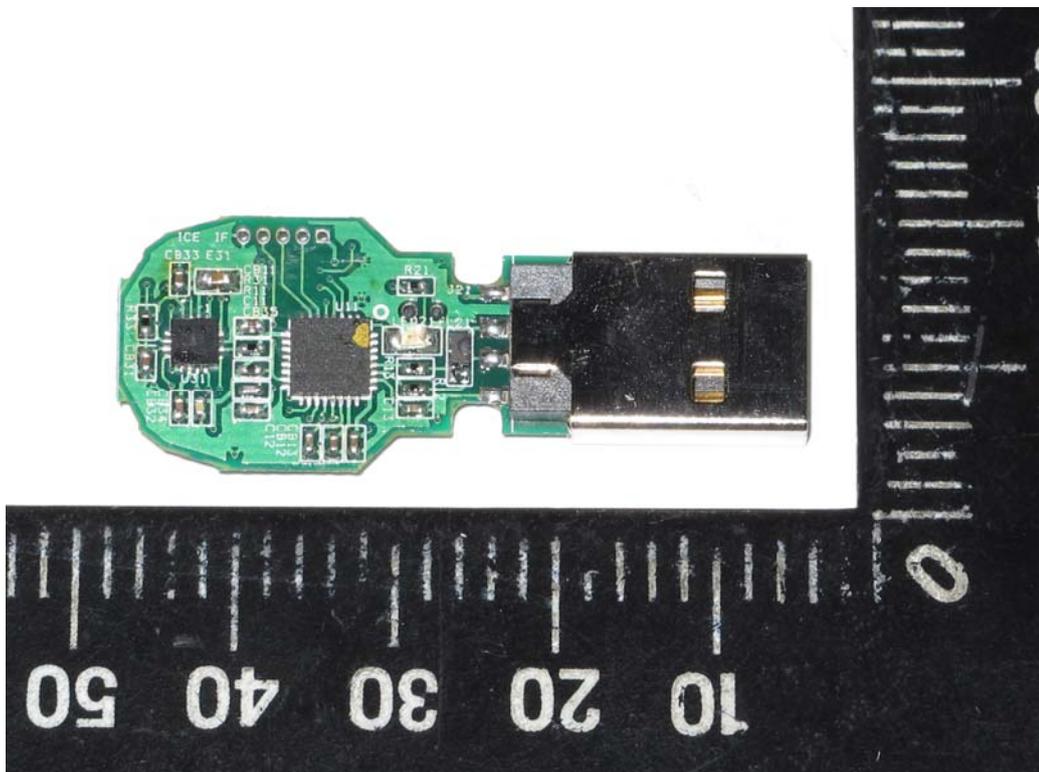
# **Attachment 1**

## **Photographs of EUT**









## **Attachment 2**

# **Modifications of EUT**

## Statement of the EUT Modifications

According to the rules of ANSI C63.4-2009 clause 10.2.13, the following equipment (EUT):

**Product** : Smart Card Reader  
**Model No.** : SCR11  
**Manufacturer** : Singular Technology Co., Ltd.  
**Address** : 7FL., NO. 31 Sec. 2, San Min Rd., Pan Chiao District, New Taipei City, Taiwan, 220, R.O.C.

- should be **without** any modifications made
- should be **with** some modifications made

to bring the EUT into compliance with the appropriate specifications (47CFR Part 15, Subpart B). If any, the details of the modifications including the complete descriptions, reasons and so on are described in next page of this report.

**We**, **Singular Technology Co., Ltd.** hereby ensure that the product specified above will have all of the modifications incorporated in the product when manufactured and placed on the market.

The following importer or manufacturer is responsible for this statement:

Company Name : \_\_\_\_\_

Company Address : \_\_\_\_\_

Telephone : \_\_\_\_\_ E-mail : \_\_\_\_\_

Legal Signature of the responsible personal:

\_\_\_\_\_  
 Title / Name (full name)

\_\_\_\_\_  
 Date

The details of the modifications:

<b>Item</b>	<b>Solution Component</b>	<b>Specifications</b>	<b>Manufacturer</b>	<b>Quantity</b>	<b>Reasons</b>
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

If needed, some modification items are shown in the photographs in the following.