

Certificate of Compliance

for the FCC Declaration of Conformity Procedure from the

Conformity Assessment Body

Hong Kong Standards and Testing Centre **Designation Number: HK0001**

on the basis of Asia-Pacific Economic Cooperation (APEC) economies' Mutual Recognition Arrangement for Conformity Assessment of Telecommunications Equipment (APEC Tel MRA) scheme sanctioned by the Federal Communications Commission of the United States Government.

Certificate Number:

FCC002340

Test Laboratory:

The Hong Kong Standards and Testing Centre Ltd.

Test Report / Issued date:

MH190118 / 25 April 2014

Applicant:

I.R.I.S.S.A. Image Recognition Integrated Systems

Manufacturer:

Global Brands Manufacture Limited

Type of Equipment:

IRISPen

Brand Name:

N/A

Model Number:

IRISPen Executive 7

Additional Model Number(s): IRISPen Express 7

Rules and Regulations

United States CFR 47 FCC Part 15 Subpart B (Unintentional Radiators).

Standards

ANSI C63.4-2009, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9kHz to 40GHz.

Remark

This certificate shall be used in conjunction with the above mentioned test report.

ElectroMagnetic Compatibility Department

For and on behalf of

Signed by Dr. LEE Kam Chuen

The Hong Kong Standards and Testing Centre Ltd.

(Conformity Assessment Body CAB under the APEC Tel MRA)

Date: 2014-04-25



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Applicant(SZG003):

I.R.I.S.S.A. Image Recognition Integrated Systems

RUE DU BOSQUET 10 B-1348 LOUVAINE-LA-NEUVE,

BELGIUM

Manufacturer:

Global Brands Manufacture Limited

EMS Business Unit, Block F, Yue Yuen Industrial Estate, Huang Jiang Zhen, Dong Guan City, Guang Dong Province,

China

Description of Sample(s):

Submitted sample(s) said to be

Product:

IRISPen

Brand Name:

N/A

Model Number:

IRISPen Executive 7

Date Sample(s) Received:

2014-04-03

Date Tested:

2013-04-05 to 2014-04-10

Investigation Requested:

FCC Part 15 Subpart B

Conclusion(s):

The submitted product <u>COMPLIED</u> with the requirements of Federal Communications Commission [FCC] Rules and Regulations Part 15. The tests were performed in accordance with the standards described above and on Section 2.2 in this

Test Report.

Remark(s):

The EUT operating frequency provided by manufacturer is

4MHz.

For additional model number(s) details, see page

Dr. LEE Kam Chien
Authorized Signatory
ElectroMagnetic Compatibility Department

For and on behalf of The Hong Kong Standards and Testing Centre Ltd.

The Hong Kong Standards and Testing Centre Limited

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1.0 General Details

1.1 Equipment Under Test [EUT] Description of Sample(s)

Submitted sample(s) said to be

Product: IRISPen

Manufacturer: Global Brands Manufacture Limited

Brand Name: N/A

Model Number: IRISPen Executive 7
Additional Model Number(s): IRISPen Express 7

Rating: 5Vd.c. (Powered by PC USB port)

Remark: These models are identical in interior structure, electrical

circuits and components, and just appearance color is different

for the marketing requirement.

1.2 Description of EUT Operation

The Equipment Under Test (EUT) is a handheld scanner. The EUT was connected to the PC with the dedicated software (IRISPen) installed. Tests were performed under the scanning mode to simulate the normal operating condition.

1.3 Date of Order

2014-04-03

1.4 Submitted Sample(s):

1 Sample

1.5 Test Duration

2013-04-05 to 2014-04-10

1.6 Country of Origin

China



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<u>2.0</u> Technical Details

2.1 Investigations Requested

Perform ElectroMagnetic Interference measurement in accordance with FCC 47CFR [Codes of Federal Regulations] Part 15: 2012 and ANSI C63.4: 2009 for FCC DoC.

2.2 Test Standards and Results Summary Tables

EMISSION Results Summary								
Test Condition	Test Condition Test Requirement Test Method Class / Test Result							
			Severity	Pass	Failed			
Radiated Emissions	FCC 47CFR 15.109	ANSI C63.4:2009	Class B					
Conducted Emissions on AC, 0.15MHz to 30MHz	FCC 47CFR 15.107	ANSI C63.4:2009	Class B					



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3.0 Test Results

3.1 Emission

3.1.1 Radiated Emissions

Test Requirement: FCC 47CFR 15.109
Test Method: ANSI C63.4:2009
Test Date: 2013-04-05 to 2014-

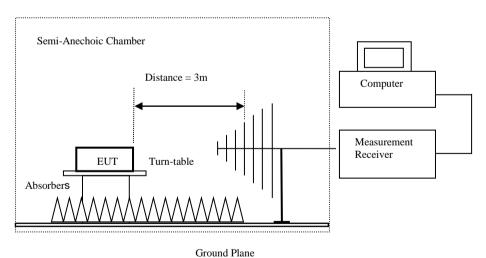
Test Date: 2013-04-05 to 2014-04-10 Mode of Operation: Scanning mode (Connected to PC)

Test Method:

The sample was placed 0.8m above the ground plane of Semi-Anechoic chamber*. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.

*: Semi-Anechoic chamber located on the G/F of The Hong Kong Standards and Testing Centre Ltd. with a metal ground plane filed with the FCC pursuant to section 2.948 of the FCC rules, with Registration Number: 607756.

Test Setup:



- Absorbers placed on top of the ground plane are for measurements above 1000MHz only.
- Measurements between 30MHz to 1000MHz made with Bi-log antennas, above 1000MHz horn antennas are used.

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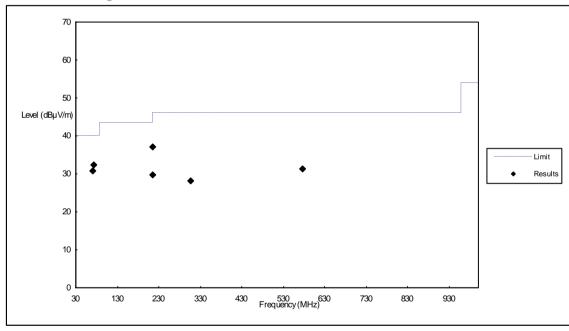
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Limits for Radiated Emissions [FCC 47 CFR 15.109 Class B]:

Frequency Range	Quasi-Peak Limits
[MHz]	$[\mu V/m]$
30-88	100
88-216	150
216-960	200
Above960	500

The emission limits shown in the above table are based on measurement employing a CISPR quasi-peak detector and above 1000MHz are based on measurements employing an average detector.

Results of Scanning mode (Connected to PC): PASS





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Results of Scanning mode (Connected to PC): PASS

Radiated Emissions								
	Quasi-Peak							
Emission	E-Field	Level	Limit	Level	Limit			
Frequency	Polarity	@3m	@3m	@3m	@3m			
MHz		dBμV/m	dBμV/m	$\mu V/m$	$\mu V/m$			
72.6	Horizontal	32.4	40.0	41.6	100			
216.0	Horizontal	37.0	46.0	70.6	200			
306.8	Horizontal	28.3	46.0	25.9	200			
71.8	Vertical	30.9	40.0	35.1	100			
216.0	Vertical	29.8	46.0	31.0	200			
576.6	Vertical	31.4	46.0	37.0	200			

Remark:

Calculated measurement uncertainty (30MHz – 1GHz): 4.9dB

Emissions in the vertical and horizontal polarizations have been investigated and the worst-case test results are recorded in this report.



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3.1.2 Conducted Emissions (0.15MHz to 30MHz)

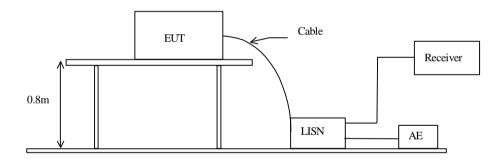
Test Requirement: FCC 47CFR 15.107
Test Method: ANSI C63.4:2009
Test Date: 2014-04-10

Mode of Operation: Scanning mode (Connected to PC)

Test Method:

The test was performed in accordance with ANSI C63.4: 2009, with the following: an initial measurement was performed in peak and average detectiScanning mode on the live line, any emissions recorded within 30dB of the relevant limit line were re-measured using quasi-peak and average detection on the live and neutral lines with the worst case recorded in the table of results.

Test Setup:





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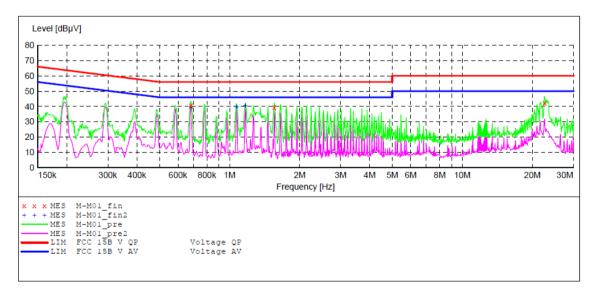
Limit for Conducted Emissions (FCC 47 CFR 15.107):

Frequency Range	Quasi-Peak Limits	Average
[MHz]	$[dB\mu V]$	$[\mathrm{dB}\mu\mathrm{V}]$
0.15-0.5	66 to 56*	56 to 46*
0.5-5.0	56	46
5.0-30.0	60	50

^{*} Decreases with the logarithm of the frequency.

Limits for Conducted Emissions Test, please refer to limit lines (Quasi-Peak and Average) in the following diagram.

Results of Scanning mode (Connected to PC) (L): PASS



		Quasi-peak		Ave	rage
Conductor	Frequency	Level	Limit	Level	Limit
Live or Neutral	MHz	$dB\mu V$	dΒμV	dΒμV	dΒμV
Live	0.681	40.6	56.0	_*_	_*_
Live	1.556	39.3	56.0	_*_	_*_
Live	22.575	42.3	60.0	_*_	_*_
Live	0.681	_*_	_*_	39.8	46.0
Live	1.074	_*_	_*_	39.7	46.0
Live	1.167	_*_	_*_	40.5	46.0



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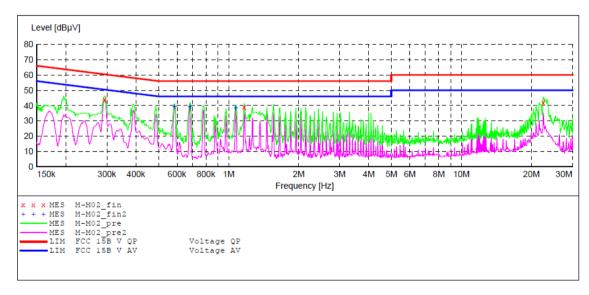
Limit for Conducted Emissions (FCC 47 CFR 15.107):

Frequency Range	Quasi-Peak Limits	Average
[MHz]	$[dB\mu V]$	$[\mathrm{dB}\mu\mathrm{V}]$
0.15-0.5	66 to 56*	56 to 46*
0.5-5.0	56	46
5.0-30.0	60	50

^{*} Decreases with the logarithm of the frequency.

Limits for Conducted Emissions Test, please refer to limit lines (Quasi-Peak and Average) in the following diagram.

Results of Scanning mode (Connected to PC) (N): PASS



		Quasi-peak		Ave	rage
Conductor	Frequency	Level	Limit	Level	Limit
Live or Neutral	MHz	dΒμV	$dB\mu V$	$d \mathrm{B} \mu \mathrm{V}$	$dB\mu V$
Neutral	0.293	44.0	60.0	_*_	_*_
Neutral	1.167	39.0	56.0	_*_	_*_
Neutral	22.485	41.8	60.0	_*_	_*_
Neutral	0.585	_*_	_*_	39.5	46.0
Neutral	0.681	_*_	_*_	39.4	46.0
Neutral	1.074	_*_	_*_	38.8	46.0

Remarks

Calculated measurement uncertainty (0.15MHz - 30MHz): 3.25dB

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^{-*-} Emission(s) that is far below the corresponding limit line.



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Appendix A

List of Measurement Equipment

Radiated Emission

EQP NO.	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	LAST CAL	DUE CAL
EM215	MULTIDEVICE CONTROLLER	EMCO	2090	00024676	N/A	N/A
EM216	MINI MAST SYSTEM	EMCO	2075	00026842	N/A	N/A
EM217	ELECTRIC POWERED TURNTABLE	EMCO	2088	00029144	N/A	N/A
EM218	ANECHOIC CHAMBER	ETS-LINDGREN	FACT-3	-	2013/10/02	2014/10/02
EM174	BICONILOG ANTENNA	EMCO	3142B	1671	2012/05/31	2014/05/31
EM229	EMI TEST RECEIVER	R&S	ESIB40	100248	2013/05/07	2014/05/07

Line Conducted

EQP NO.	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	LAST CAL	DUE CAL
EM232	LISN	SCHAFFNER	NNB41	04/100082	2013/04/15	2014/05/07
EM145	EMI TEST RECEIVER	R & S	ESCS 30	830245/021	2013/05/07	2014/05/07
EM179	IMPULSE LIMITER	ROHDE & SCHWARZ	ESH3-Z2	357-8810.52/54	2013/01/27	2014/01/27
EM154	SHIELDING ROOM	SIEMENS MATSUSHITA COMPONENTS	N/A	803-740-057- 99A	2012/02/03	2017/02/03

Remarks:-

CM Corrective Maintenance

N/A Not Applicable or Not Available

TBD To Be Determined



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Appendix B

Ancillary Equipment

ITEM NO.	DESCRIPTION	MODEL NO.	FCC ID	REMARK
1	DELL COMPUTER	DMC	N/A	N/A
2	DELL MONITOR	E177FPB	ARSCM356N	RESOLUTION 1024*768 (DURING TESTING) 1.0M UNSHIEDED POWER VORD CONNECTED TO THE COMPUTER 1.5M SHIELDED CABLE CONNECTED TO THE COMPUTER
3	DELL KEYBOARD	SK-8110	N/A	1.8M SHIELDED COILED CABLE CONNECTED TO THE COMPUTER
4	DELL MOUSE	N/A	N/A	2.4M UNSHIELDED CABLE CONNECTED TO THE COMPUTER
5	LASER PRINTER	HP LASERJET 1020 PLUS	N/A	1.8M UNSHIELDED POWER CORD 2.8M SHIELDED CABLE (BUNDLED TO 1M) CONNECTED TO THE COMPUTER



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Appendix C

Photographs of EUT

Front View of the product



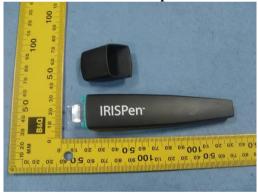
Inside View of the product



Rear View of the product



Inside View of the product



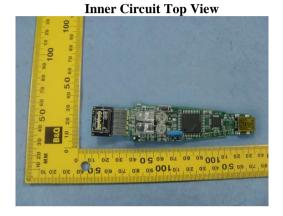


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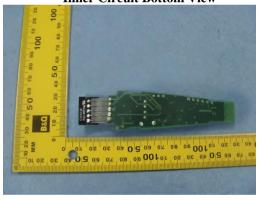
Photographs of EUT

Inner Circuit Top View





Inner Circuit Bottom View





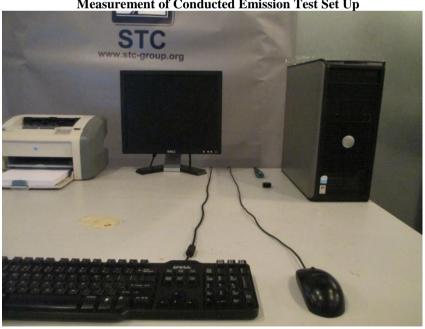
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Photographs of EUT

Measurement of Radiated Emission Test Set Up



Measurement of Conducted Emission Test Set Up



***** End of Test Report *****

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