

TEST REPORT

REPORT NUMBER: I09GE6624-FCC-PART15B

ON

Sort of equipment: GSM/GPRS/UMTS mobile phone
Type of designation: Sonim XP2.10 Spirit
Manufacturer: Sonim Technologies, Inc
Type name: P32B003AA

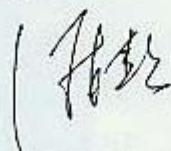
ACCORDING TO

Part 15B: Radio Frequency Devices, July 10, 2008

China Telecommunication Technology Labs.

Month date, year
Sep, 11, 2009

Signature



He Guili
Director

FCC ID: WYPP32B003AA
Report Date: 2009-9-11

Test Firm Name: China Telecommunication Technology Labs
Registration Number: 840587

Statement

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported tests were carried out on a sample equipment to demonstrate limited compliance with FCC CFR 47 Parts 15B. The sample tested was found to comply with the requirements defined in the applied rules.

CONTENTS

1 GENERAL INFORMATION	4
1.1 NOTES	4
1.2 TESTERS.....	5
1.3 TESTING LABORATORY INFORMATION	6
1.4 DETAILS OF APPLICANT OR MANUFACTURER	7
2 TEST ITEM	8
2.1 GENERAL INFORMATION	8
2.2 OUTLINE OF EUT.....	8
2.3 MODIFICATIONS INCORPORATED IN EUT.....	8
2.4 EQUIPMENT CONFIGURATION	8
2.5 OTHER INFORMATION	8
3 SUMMARY OF TEST RESULTS	9
4 TEST RESULTS	10
4.1 RADIATED EMISSION.....	10
4.2 CONDUCTED EMISSION.....	13
ANNEX A EXTERNAL PHOTOS.....	16
ANNEX B INTERNAL PHOTOS.....	19
ANNEX C DEVIATIONS FROM PRESCRIBED TEST METHODS	22

1 General Information

1.1 Notes

All reported tests were carried out on a sample equipment to demonstrate limited compliance with FCC CFR 47 Parts 15B.

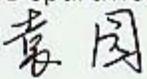
The test results of this test report relate exclusively to the item(s) tested as specified in section 2.

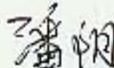
The following deviation from, additions to, or exclusions from the test specifications have been made. See Annex C.

China Telecommunication Technology Labs.(CTTL) authorizes the applicant or manufacturer (see section 1.4) to reproduce this report provided, and the test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written approval of CTTL Mr. He Guili.

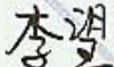
Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. CTTL accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

1.2 Testers

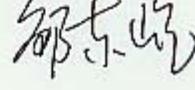
Name: Yuan Yuan
Position: Engineer
Department: Department of EMC test
Signature: 

Name: Pan Yang
Position: Engineer
Department: Department of EMC test
Signature: 

Editor of this test report:

Name: Li Wang
Position: Engineer
Department: Department of EMC test
Date: 2009-9-11
Signature: 

Technical responsibility for area of testing:

Name: Zou Dongyi
Position: Manager
Department: Department of EMC test
Date: 2009-9-11
Signature: 

1.3 Testing Laboratory information

1.3.1 Location

Name: China Telecommunication Technology Labs.
Address: No. 11, Yue Tan Nan Jie, Xi Cheng District
BEIJING
P. R. CHINA, 100083
Tel: +86 10 68094053
Fax: +86 10 68011404
Email: emc@chinattl.com

1.3.2 Details of accreditation status

Accredited by: China National Accreditation Service for Conformity
Assessment (CNAS)
Registration number: CNAS Registration No. CNAS L0570
Standard: ISO/IEC 17025:2005

1.3.3 Test location, where different from section 1.3.1

Name: -----
Street: -----
City: -----
Country: -----
Telephone: -----
Fax: -----
Postcode: -----

1.4 Details of applicant or manufacturer

1.4.1 Applicant

Name: Sonim Technologies, Inc
Address: 1875 S. Grant Street, Suite 620, San Mateo, CA 94402
Country: USA
Telephone: +1 650 504 4411
Fax: +1 650 378 8190
Contact: Jasen Kolev
Telephone: +1 650 504 4411
Email: jasen@sonimtech.com

1.4.2 Manufacturer (if different from applicant in section 1.4.1)

Name: -----
Address: -----

1.4.3 Manufactory (if different from applicant in section 1.4.1)

Name: -----
Address: -----

2 Test Item

2.1 General Information

Manufacturer: Sonim Technologies, Inc
 Name: GSM/GPRS/UMTS mobile phone
 Model Number: Sonim XP2.10 Spirit
 Serial Number: --
 Production Status: Product
 Receipt date of test item: 2009-7-9

2.2 Outline of EUT

EUT is a GSM/GPRS/UMTS mobile phone.

2.3 Modifications Incorporated in EUT

The EUT has not been modified from what is described by the brand name and unique type identification stated above.

2.4 Equipment Configuration

Equipment configuration list:

Item	Generic Description	Manufacturer	Type	Serial No.	Remarks
A	handset	Sonim Technologies, Inc	Sonim XP2.10 Spirit	--	None
B	adapter	Dee Van Enterprise Co.,LTD.	DSA-5W-05 FEU 051055	--	None
C	battery	XWODA Electronic Co., Ltd	XP2-0001100	--	None
D	Earphone	MINAMI ACOUSTICS LIMITED	ME-816B6	--	None

Cables:

Item	Cable Type	Manufacturer	Length	Shield	Quantity	Remarks
1	DC cable on Adapter	Unknown	1.0 m	No	1	None

2.5 Other Information

Hardware version: A

Software version: 7.0.0-07.0-1

3 Summary of Test Results

A brief summary of the tests carried out is shown as following.

Specification Clause	Name of Test	Result
15.109	Radiated Emission	Pass
15.107	Conducted Emission	Pass

Note: The EUT complies with the requirements of the Class B digital devices.

China Test Report

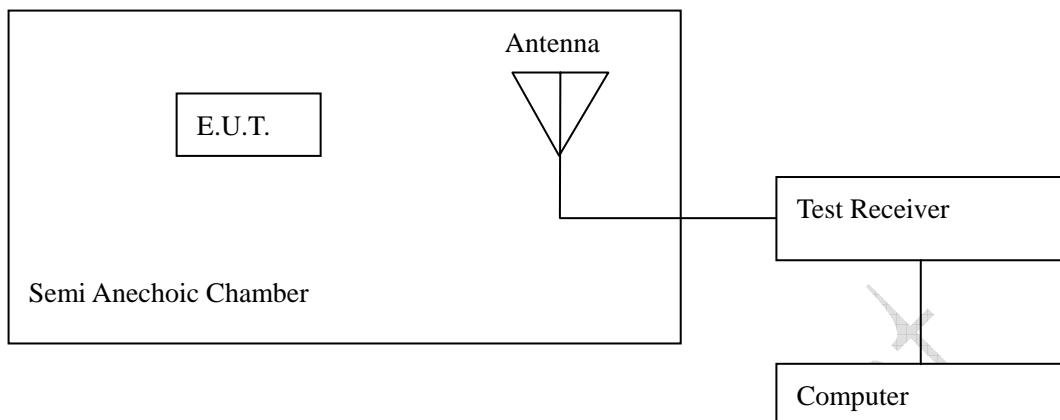
4 Test Results

4.1 Radiated Emission

Specifications:	15.109, ANSI C63.4-2003					
Date of Tests	2009-9-3					
Test conditions:	Ambient Temperature: 15°C-35°C Relative Humidity: 30%-60% Air pressure: 86-106kPa					
Operation Mode	TX on					
Test Results:	Pass					
Test equipment Used:						
Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
7805	EMI Test Receiver	R/S	ESI26	100211	2010-01-11	Normal
7330	Ultra Broadband Antenna	SCHWARZBECK	VULB 9160	--	2010-10-26	Normal
7330	Double-Ridged Horn Antenna	R/S	HF906	100037	2010-01-09	Normal
713	Fully-Anechoic Chamber	ETS	11.8m×6.5m×6.3m	--	2010-11-16	Normal
023	Wireless Communications Test Set	Agilent	8960(E5515C)	GB41450323	2010-06-09	Normal

Limit Level Construction: According to Part 15.109(a).			
Limits			
Frequency [MHz]	Field Strength [μ V/m]	Field Strength [dB μ V/m]	Measurement distance [m]
30 -88	100	40.0	3
88-216	150	43.5	3
216 – 960	200	46.0	3
Above 960	500	54.0	3
Note: The tighter limit applies at the band edges.			

Test Configuration



The measuring distance between E.U.T and antenna is 3m.

Test Setup:

The EUT was placed in an anechoic chamber, see figure RE. The EUT is tested as tabletop EUT. The EUT is positioned on an 80cm height wood table.

The EUT is used as the peripheral equipment of the PC.

The setup is according to Figure 11a of ANSI C63.4-2003.

The Wireless Communications Test Set (Test Simulator) was used to set the TX channel and power level and modulate the TX signal with different bit patterns.

The test was done using an automated test system, where all test equipments were controlled by a computer.



Figure RE

Test Method

During the test, the EUT was operating in its typical mode. The test method is according to ANSI C63.4-2003. The measurement was done by the automated test system.

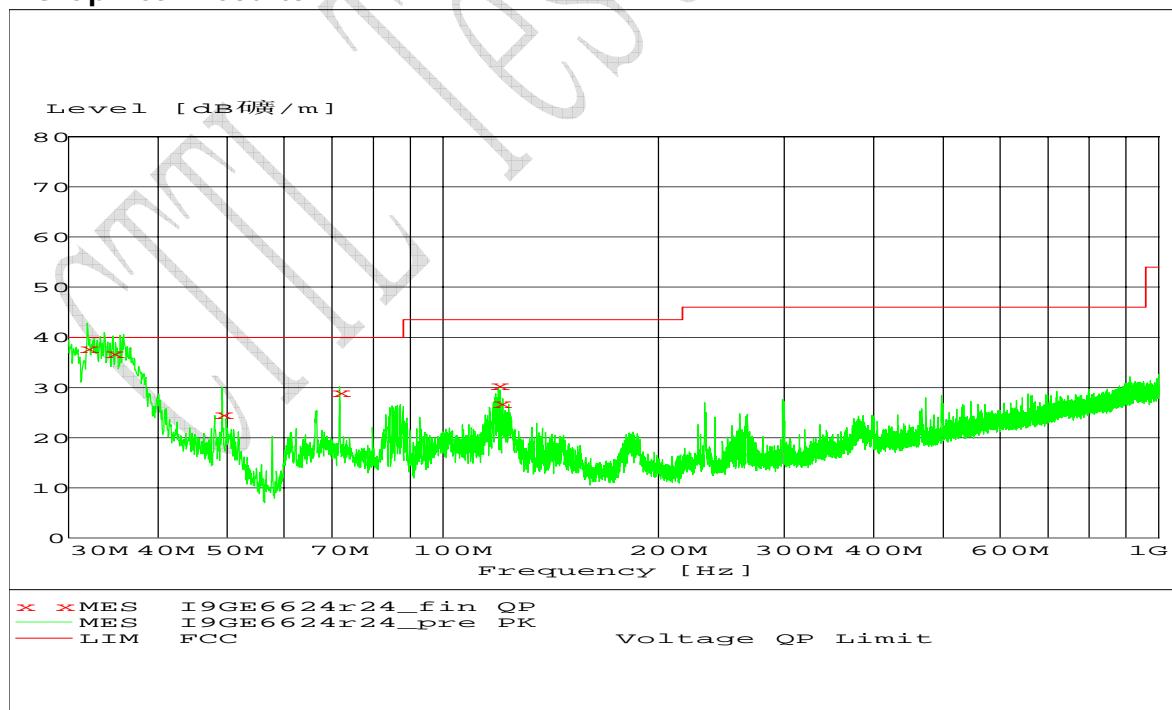
Note: --

Test Data:

Frequency [MHz]	Level [dB μ V/m]	Limit [dB μ V/m]	Antenna Height [cm]	Turntable Azimuth [degree]	Antenna Polarisation (V/H)
31.860000	37.8	40	100	154	VERTICAL
34.620000	36.9	40	138	141	VERTICAL
49.140000	24.7	40	110	255	VERTICAL
71.760000	29.0	40	112	181	VERTICAL
119.520000	30.5	43	100	242	HORIZONTAL
120.240000	26.8	43	120	72	HORIZONTAL

Remarks: --

Graphical Results:



4.2 Conducted Emission

Specifications:	15.107, ANSI C63.4-2003					
Date of Tests	2009-9-11					
Test conditions:	Ambient Temperature: 15°C-35°C Relative Humidity: 30%-60% Air pressure: 86-106kPa					
Operation Mode	TX on					
Test Results:	Pass					
Test equipment Used:						
Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
7330	EMI Test Receiver	R/S	ESI40	839283/007	2010-02-26	Normal
7330	Artificial Mains Network	R/S	ESH2-Z5	837480/002	2011-01-08	Normal
714	Shielding Room	ETS	--	19003	2010-11-16	Normal
023	Wireless Communications Test Set	Agilent	8960(E5515C)	GB41450323	2010-06-09	Normal

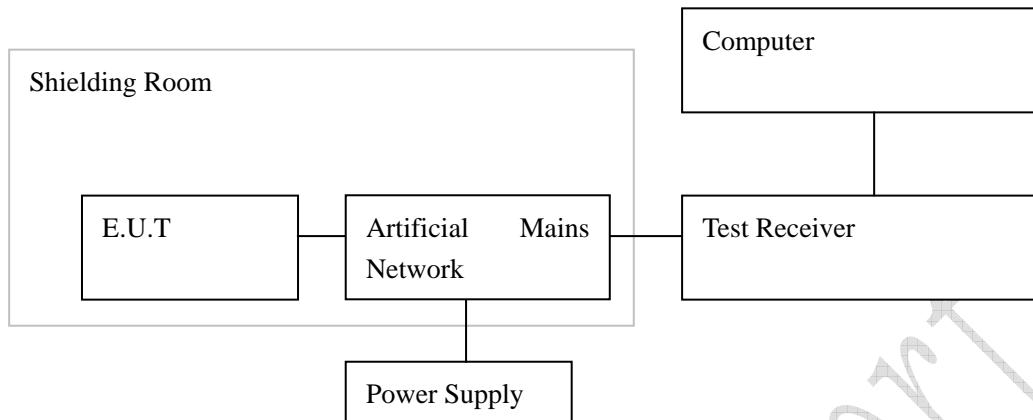
Limit Level Construction:

According to Part 15.107 (a)

Limits for Conducted Emission		
Frequency of Emission [MHz]	Conducted limit [dBμV]	
	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.

Test Configuration



Test Setup:

The EUT was placed in a shielding room, see figure CE. The EUT is positioned on an 80cm height wood table. The EUT is used as the peripheral equipment of the PC.

The setup is according to Figure 10a of ANSI C63.4-2003.

The Wireless Communications Test Set (Test Simulator) was used to set the TX channel and power level and modulate the TX signal with different bit patterns. The test was done using an automated test system, where all test equipments were controlled by a computer.



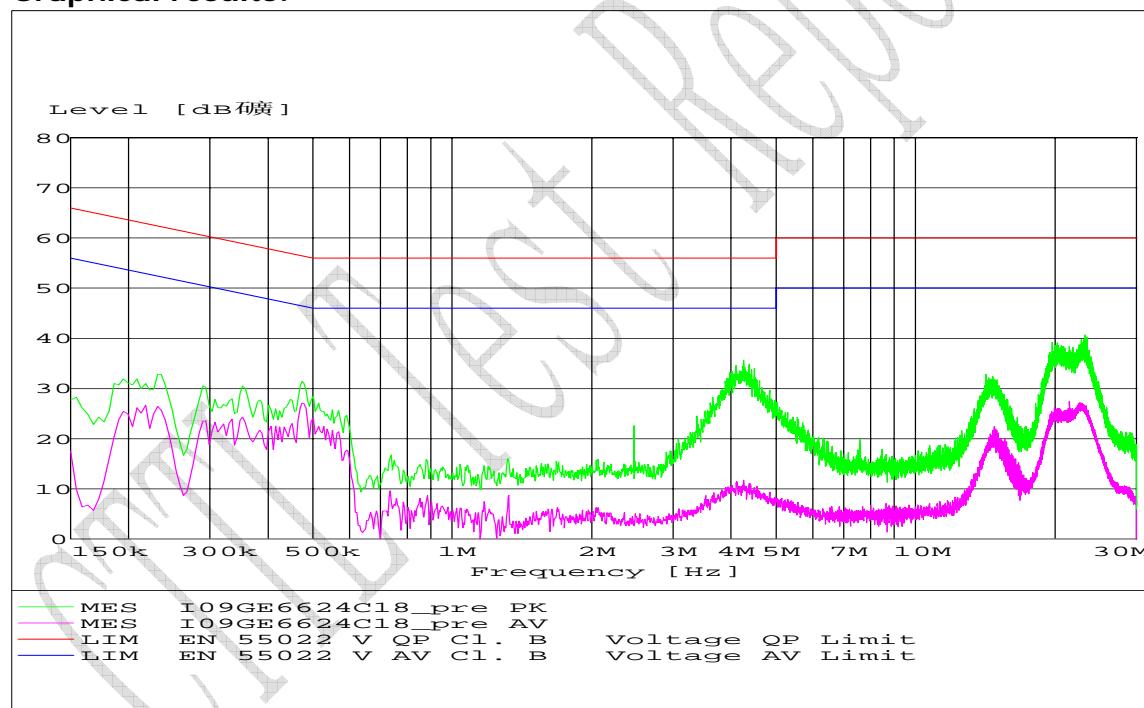
Figure CE

Test Method:

During the test, the EUT was operating in its typical mode. The test method is according to ANSI C63.4-2003. The AC power line of the Notebook was connected to the artificial mains network then to EMI receiver. The measurement was done by the automated test system.

Note: --**Test Data:**

Detector (QP/AV)	Frequency (MHz)	Level (dB μ V)	Limit (dB μ V)	Margin (dB)	Line	PE
--	--	--	--	--	--	--
Remarks: --						

Graphical results:

CE graphical results

Annex A External Photos



Face view



Back view



Battery



Adapter

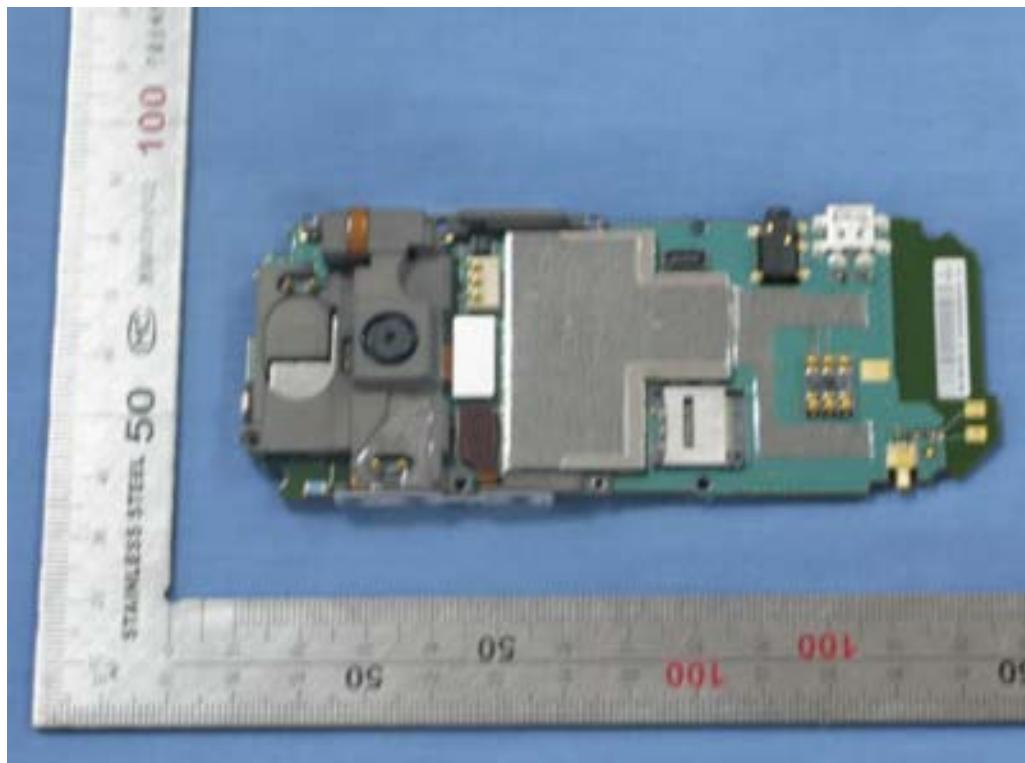


Earphone

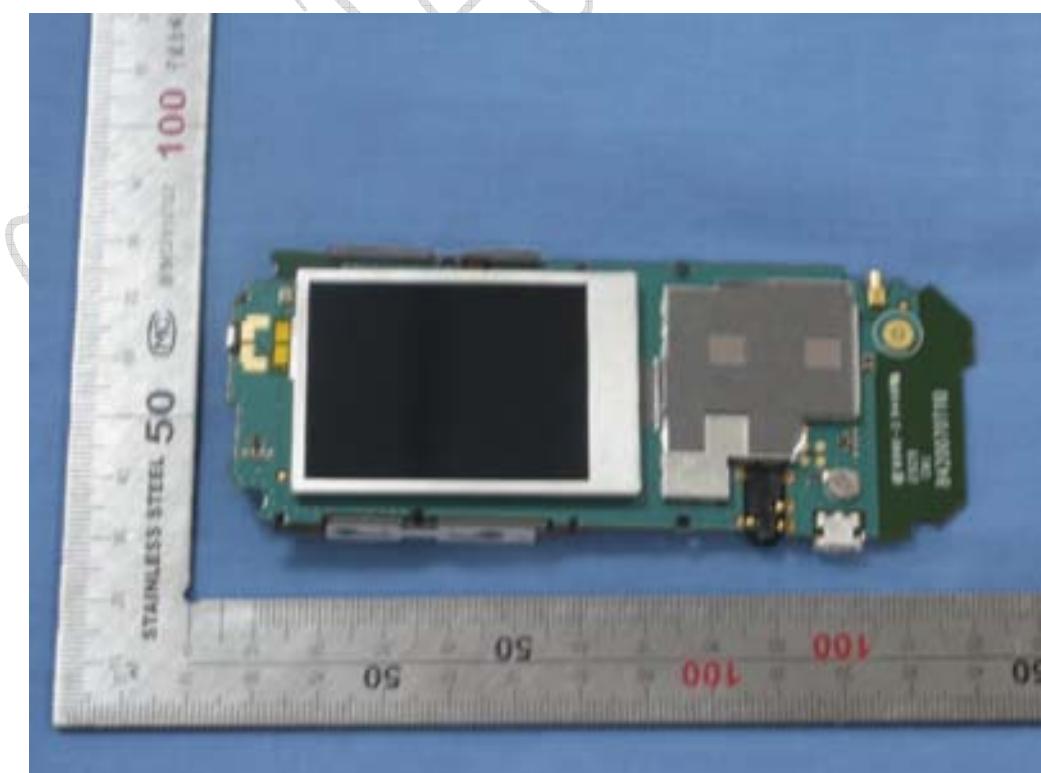


vehicular charger

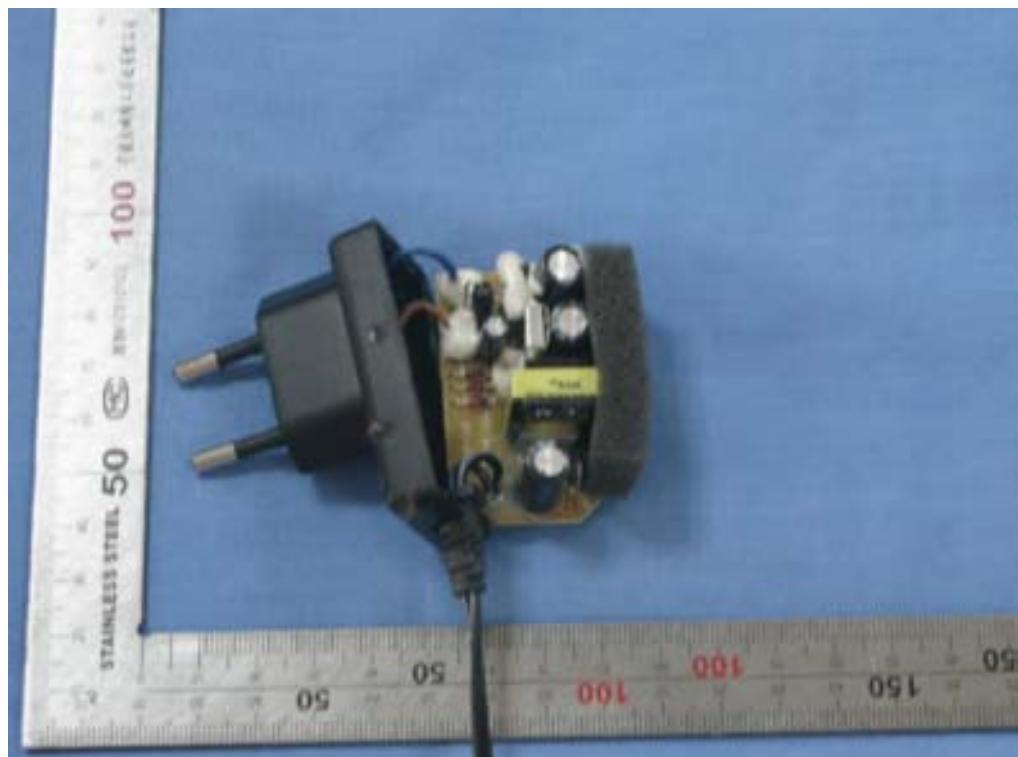
Annex B Internal Photos



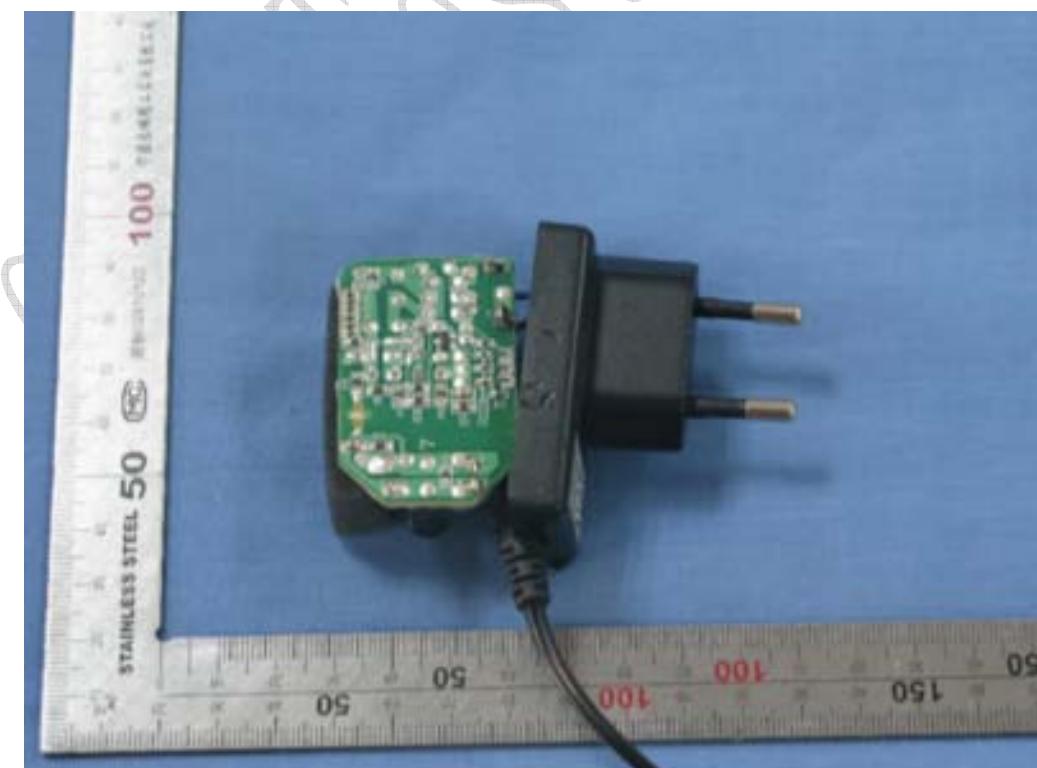
Main board (face)



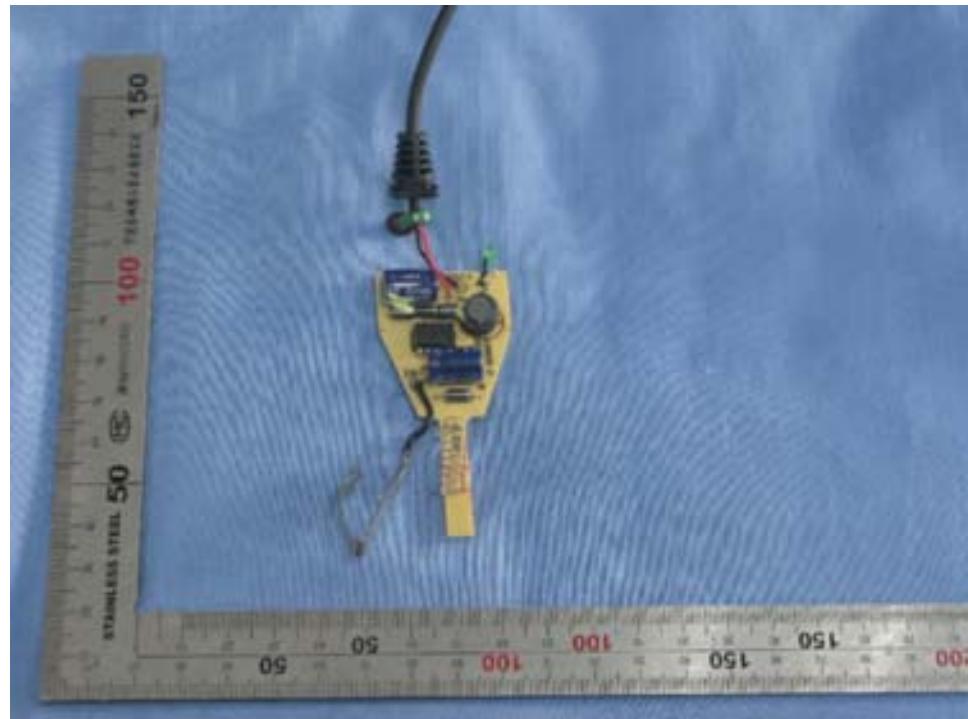
Main board (back)



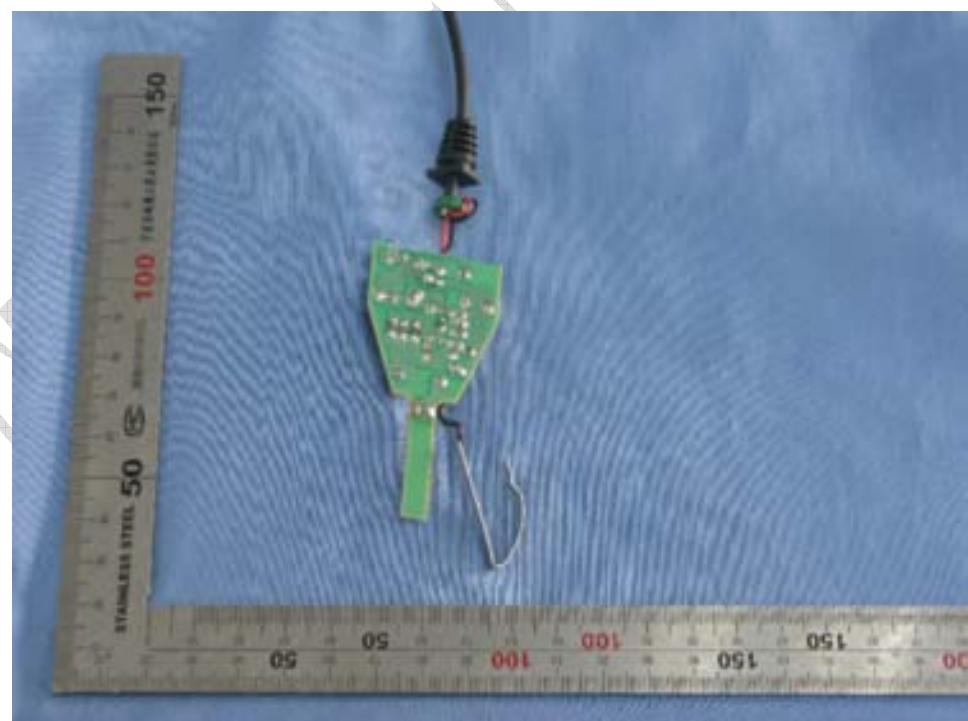
Mainboard of Adapter (face)



Mainboard of Adapter (inverse)



Mainboard of vehicular charger (face)



Mainboard of vehicular charger (inverse)

ANNEX C Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

_____ The End of this Report _____

CTTLL Test Report