

# TEST REPORT

**REPORT NUMBER: I09GE4084-FCC-PART15B**

**ON**

**Type of Equipment:** Mobile Phone  
**Type of Designation:** Sonim XP3.20-A Quest / Land Rover S1-A by Sonim  
**Type Number:** P23C001AA  
**Manufacturer:** SONIM TECHNOLOGIES INC.

**ACCORDING TO**

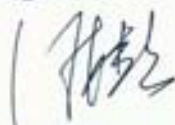
**Part 15B: Radio Frequency Devices, Sep 20, 2007**

**China Telecommunication Technology Labs.**

***Month date, year***

*Mar, 27, 2009*

***Signature***



**He Guili**  
**Director**

FCC Parts 15B  
Equipment: Sonim XP3.20-A Quest / Land Rover  
S1-A by Sonim

REPORT NO.: I09GE4084-FCC-PART15B

**FCC ID:** WYPP23C001AA

**Report Date:** 2009-2-10

**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.

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## 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.

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## 1.2 Testers

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

Editor of this test report:

Name: Li Guoqing  
Position: Engineer  
Department: Department of EMC test  
Date: 2009-3-27  
Signature: 

Technical responsibility for area of testing:

Name: Zou Dongyi  
Position: Manager  
Department: Department of EMC test  
Date: 2009-3-27  
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](mailto: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  
SAN MATEO, CA 94402, USA  
Country: USA  
Telephone: +1 650 704 4926  
Fax: +1 650 378 8109  
Contact: JASEN KOLEV  
Telephone: +1 650 704 4926  
Email: jasen@sonimtech.com

### 1.4.2 Manufacturer (if different from applicant in section 1.4.1)

Name: SONIM TECHNOLOGIES INC.  
Address: 1875 S.GRANT STREET  
SAN MATEO, CA 94402, USA

### 1.4.3 Manufactory (if different from applicant in section 1.4.1)

Name: Flextonics Industrial (Zhuhai)  
Address: Xin Qing Science & Technology Industrial Park, Jing An  
Town,  
DouMen, ZhuHai City, GuangDong, P.R. China,  
Zip Code: 519180

## 2 Test Item

### 2.1 General Information

Manufacturer: SONIM TECHNOLOGIES INC.  
Name: Mobile Phone  
Model Number: Sonim XP3.20-A Quest / Land Rover S1-A by Sonim  
Type Number: P 23C 001AA  
Serial Number: --  
Production Status: Production  
Receipt date of test item: 2009-1-8

### 2.2 Outline of EUT

E.U.T. is a GSM/GPRS 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 XP3.20-A Quest / Land Rover S1-A by Sonim	--	None
B	adapter	SONIM TECHNOLOGIES INC.	DSA-0051-05C FEU 51055F	--	None
C	battery	SONIM TECHNOLOGIES INC.	XP3.20-00011 00	--	None
D	Earphone	SONIM TECHNOLOGIES INC.	ME-848B14	--	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: 05.0.0-18.2-1



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### 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.		

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## 4 Test Results

### 4.1 Radiated Emission

Specifications:	15.109, ANSI C63.4-2003					
Date of Tests	2009-3-3					
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	2009-06-13	Normal

#### Limit Level Construction:

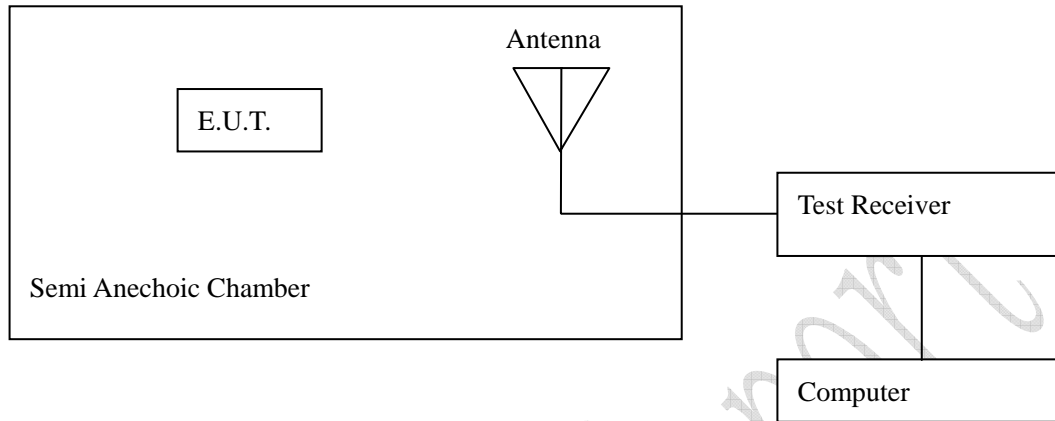
According to Part 15.109(a).

#### Limits

Frequency [MHz]	Field Strength [ $\mu$ V/m]	Field Strength [dB $\mu$ 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

FCC Parts 15B  
Equipment: Sonim XP3.20-A Quest / Land Rover  
S1-A by Sonim

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## Test Method

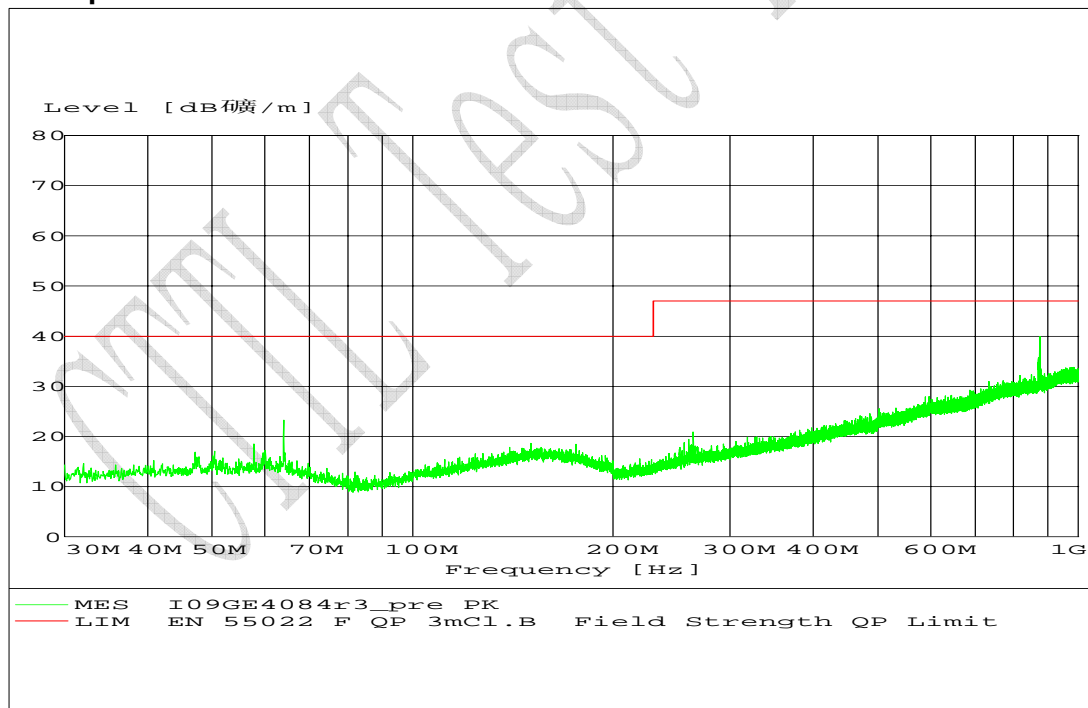
During the test, the EUT was operating in its typical mode. The test method is according to ANSI C63.4-2003. The measurement was done by the automated test system.

Note: --

## Test Data:

Frequency [MHz]	Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Antenna Height [cm]	Turntable Azimuth [degree]	Antenna Polarisation (V/H)
--	--	--	--	--	--
Remarks: --					

## Graphical Results:



Graphical results

FCC Parts 15B  
Equipment: Sonim XP3.20-A Quest / Land Rover  
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## 4.2 Conducted Emission

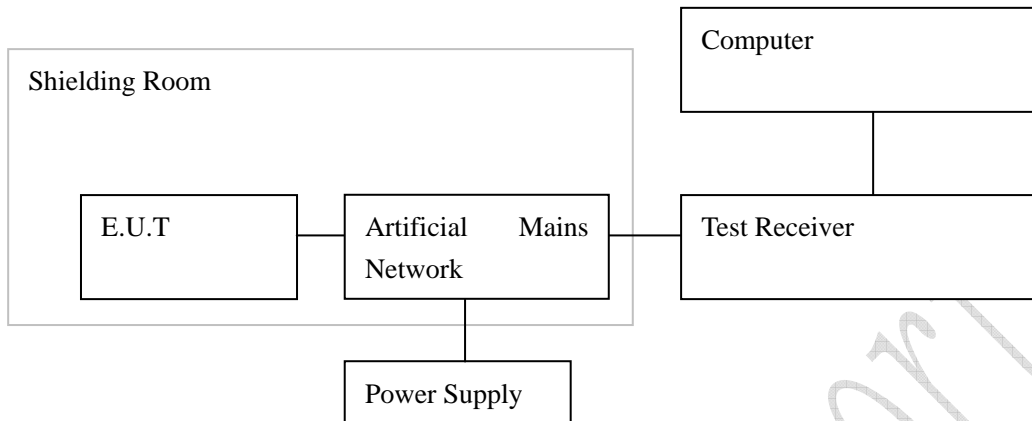
Specifications:	15.107, ANSI C63.4-2003					
Date of Tests	2009-3-3					
Test conditions:	Ambient Temperature: 15°C-35°C Relative Humidity: 30%-60% Air pressure: 86-106kPa					
Operation Mode	TX on					
Test Results:	Pass					
Test equipment Used:						
Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
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	2009-06-13	Normal

**Limit Level Construction:**  
According to Part 15.107 (a)

Limits for Conducted Emission		
Frequency of Emission [MHz]	Conducted limit [dB $\mu$ V]	
	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

FCC Parts 15B  
Equipment: Sonim XP3.20-A Quest / Land Rover  
S1-A by Sonim

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Test Method:

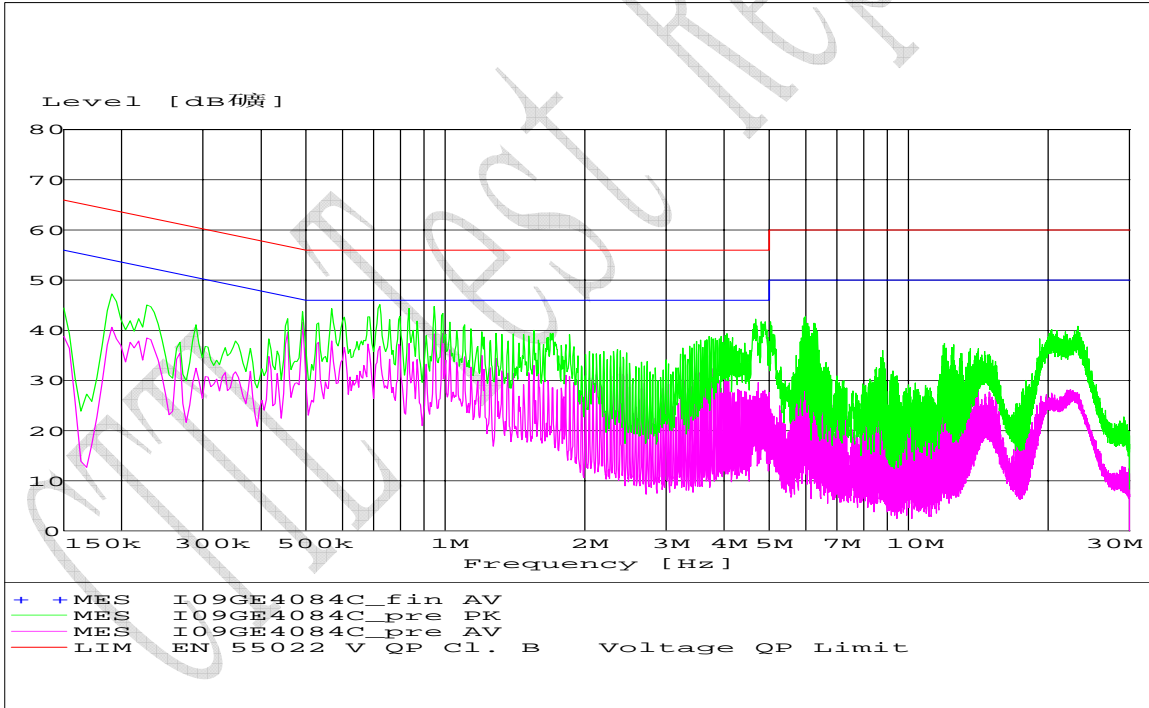
During the test, the EUT was operating in its typical mode. The test method is according to ANSI C63.4-2003. The AC power line of the Notebook was connected to the artificial mains network then to EMI receiver. The measurement was done by the automated test system.

Note: --

Test Data:

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

Graphical results:



CE graphical results



FCC Parts 15B  
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## Annex A External Photos



Front view



Back view



FCC Parts 15B  
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Adaptor and Cable



Battery

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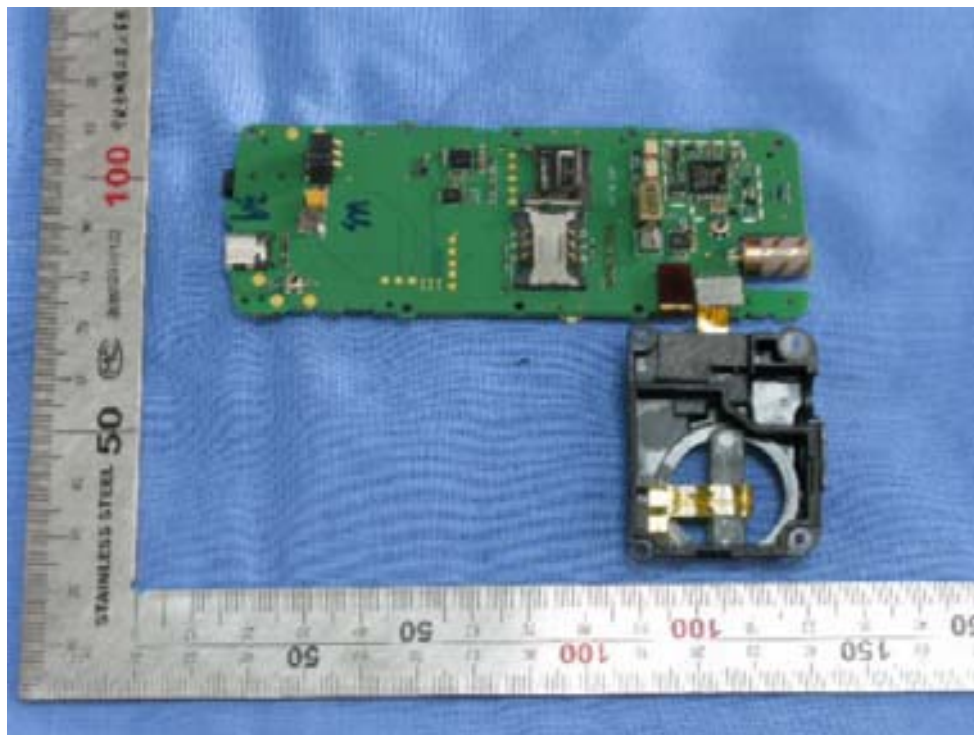


Earphone

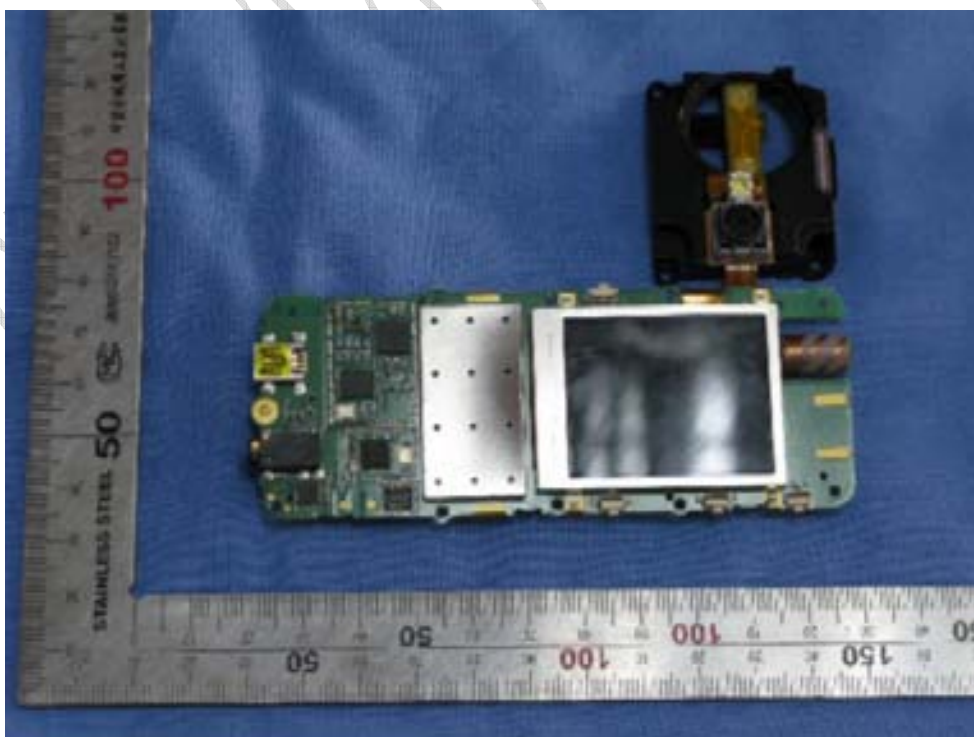
FCC Parts 15B  
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## Annex B Internal Photos



Main board (face)

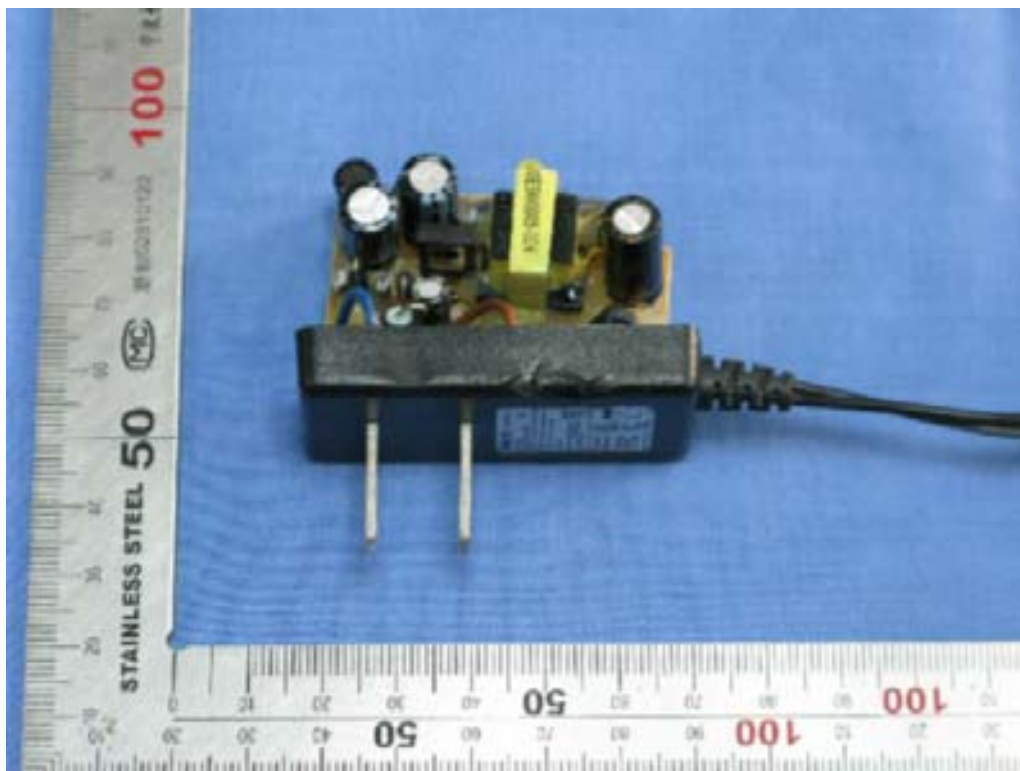


Main board (back)

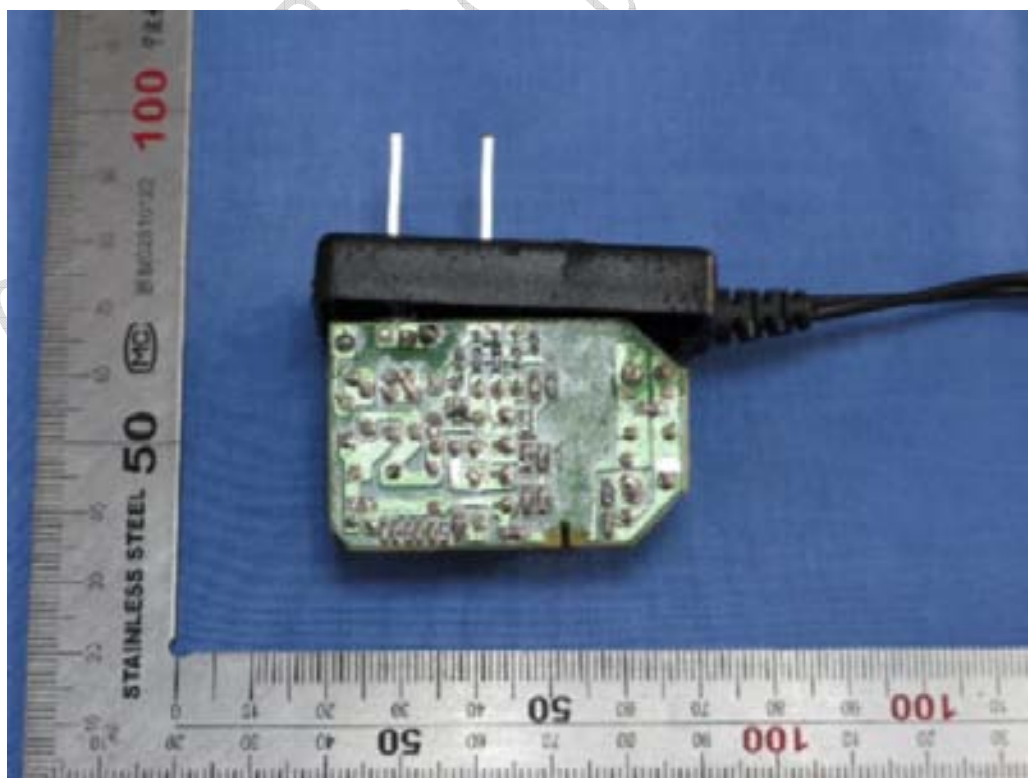


FCC Parts 15B  
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S1-A by Sonim

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Adaptor (face)



Adaptor (back)

## ANNEX C Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

————— The End of this Report —————

China Test Report