

FCC RF Test Report

(NFC)

Report No.: JYTSZ-R12-2400059

Applicant: INFINIX MOBILITY LIMITED

Address of Applicant: FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE
19-25 SHAN MEI STREET FOTAN NT HONGKONG

Equipment Under Test (EUT)

Product Name: Mobile Phone

Model No.: X6851B

Trade Mark: Infinix

FCC ID: 2AIZN-X6851B

Applicable Standards: FCC CFR Title 47 Part 15C (§15.225)

Date of Sample Receipt: 11 Jan., 2024

Date of Test: 12 Jan., to 12 Mar., 2024

Date of Report Issue: 17 Mar., 2024

Test Result: PASS

Tested by: Janet Wei

Date: 17 Mar., 2024

Reviewed by: Janet Wei

Date: 17 Mar., 2024

Approved by: Janet Wei

Date: 17 Mar., 2024

Manager

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in above the application standard version. Test results reported herein relate only to the item(s) tested.

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1 Version

Version No.	Date	Description
00	17 Mar., 2024	Original

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3 General Information

3.1 Client Information

Applicant:	INFINIX MOBILITY LIMITED
Address:	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG
Manufacturer:	INFINIX MOBILITY LIMITED
Address:	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG
Factory:	SHENZHEN TECNO TECHNOLOGY CO., LTD.
Address:	101, Building 24, Waijing Industrial Park, Fumin Community, Fucheng Street, Longhua District, Shenzhen City, P.R.China

3.2 General Description of E.U.T.

Product Name:	Mobile Phone
Model No.:	X6851B
Operation Frequency:	13.56MHz
Channel Numbers:	1
Modulation Type:	ASK
Antenna Type:	Induction Coil Antenna
Power Supply:	Rechargeable Li-ion Polymer Battery DC3.91V, 4500mAh
AC Adapter:	Model: U1000XSA Input: AC100-240V, 50/60Hz, 2.3A Output: DC 5.0V, 3.0A 15.0W or DC 5.0V-11.0V, 9.1A or DC 4.0V-20.0V, 5.0A 100.0W MAX
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

3.3 Test Mode and Environment

Please refer to FCC ID: 2AIZN-X6851, report No.: JYTSZ-R12-2301785.

3.4 Description of Test Auxiliary Equipment

Please refer to FCC ID: 2AIZN-X6851, report No.: JYTSZ-R12-2301785.

3.5 Measurement Uncertainty

Please refer to FCC ID: 2AIZN-X6851, report No.: JYTSZ-R12-2301785.

3.6 Additions to, Deviations, or Exclusions From the Method

No

3.7 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

● **FCC - Designation No.: CN1211**

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

● **ISED – CAB identifier.: CN0021**

The 3m Semi-anechoic chamber and 10m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

● **CNAS - Registration No.: CNAS L15527**

JianYan Testing Group Shenzhen Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L15527.

● **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: <https://portal.a2la.org/scopepdf/4346-01.pdf>

3.8 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.

Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.

Tel: +86-755-23118282, Fax: +86-755-23116366

Email: info-JYTee@lets.com, Website: <http://jyt.lets.com>

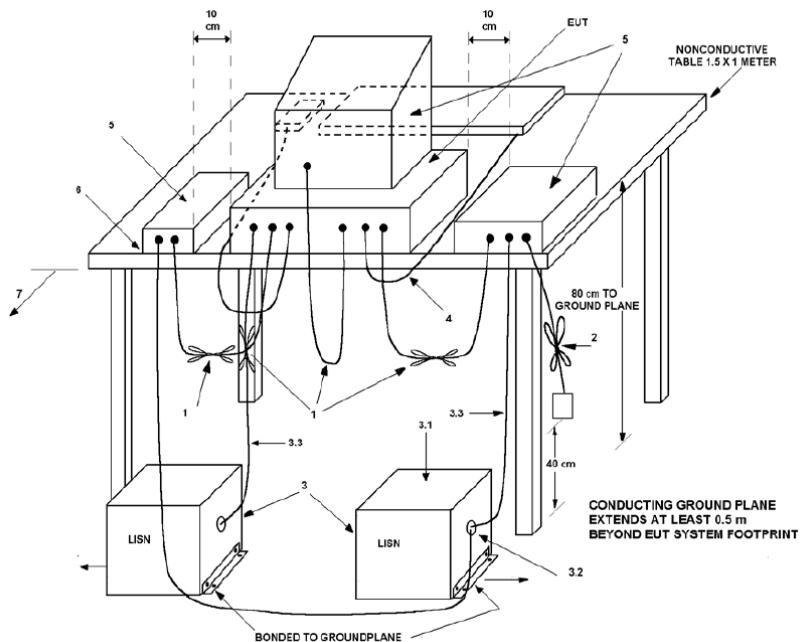
3.9 Test Instruments List

Please refer to FCC ID: 2AIZN-X6851, report No.: JYTSZ-R12-2301785.

4 Measurement Setup and Procedure

4.1 Test Setup

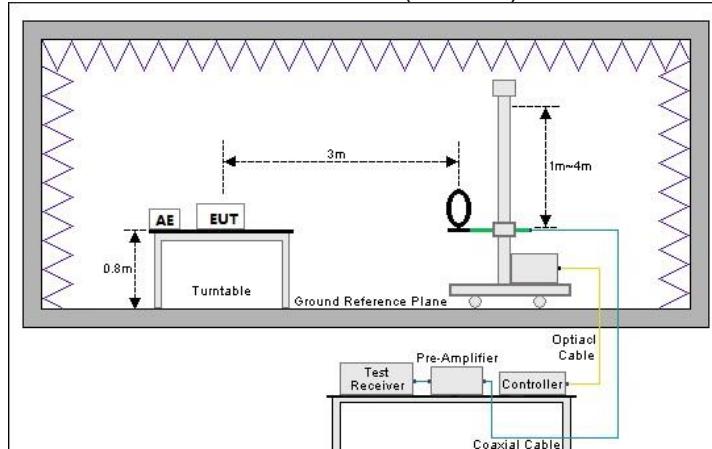
1) Conducted emission measurement:



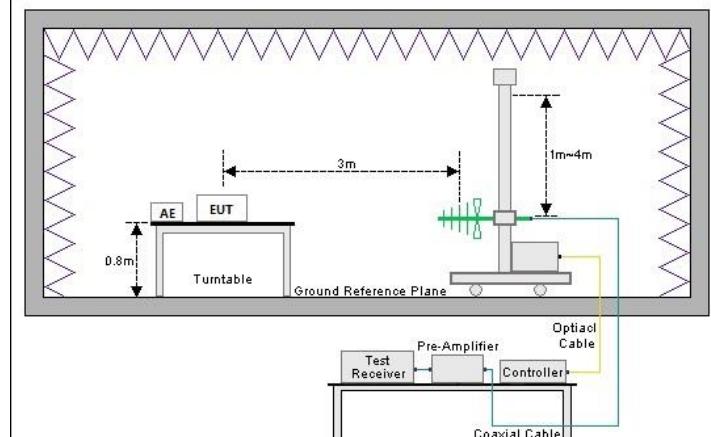
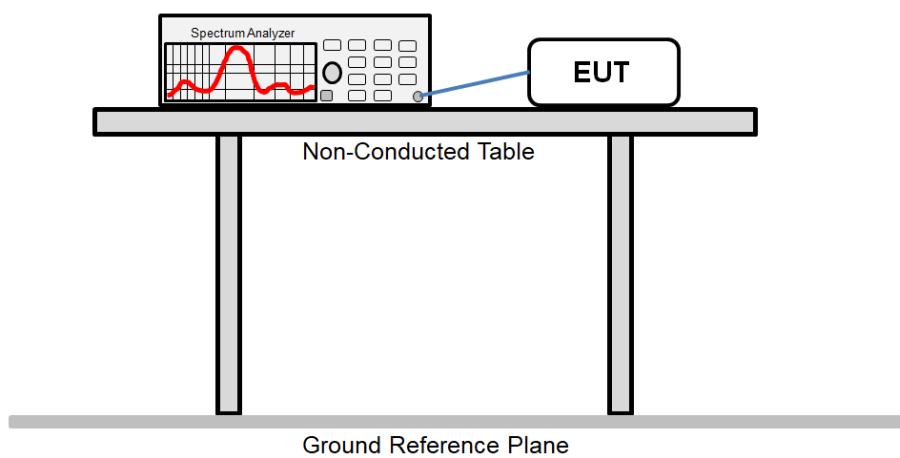
Note: The detailed descriptions please refer to Figure 8 of ANSI C63.4:2014.

2) Radiated emission measurement:

9kHz ~ 30 MHz (3m SAC)



30 MHz ~ 1GHz (3m SAC)

**Conducted test method:**

4.2 Test Procedure

Test method	Test step
Conducted emission	<ol style="list-style-type: none">1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment.2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs).3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.
Radiated emission	<ol style="list-style-type: none">1. The EUT was placed on the tabletop of a rotating table 0.8 m the ground at a 3 m semi anechoic chamber. The measurement distance from the EUT to the receiving antenna is 3 m.2. EUT works in each mode of operation that needs to be tested, and having the EUT continuously working, respectively on 3 axis (X, Y & Z) and considered typical configuration to obtain worst position. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations.3. Open the test software to control the test antenna and test turntable. Perform the test, save the test results, and export the test data.
Conducted test method	<ol style="list-style-type: none">1. The antenna port of EUT was connected to the RF port of the spectrum analyzer through an RF cable.2. The EUT is keeping in continuous transmission mode and tested in all modulation modes.3. The test data is saved by the screenshot function of the spectrum analyzer.

5 Test Results

5.1 Summary

5.1.1 Clause and Data Summary

This report is revised according to the JYTSZ-R12-2301785 report, FCC ID: 2AIZN-X6851 issued by JianYan Testing Group Shenzhen Co., Ltd. Differences: The X6851B has one more HL3179 fast charge chip and peripheral devices than the X6851. The X6851B and X6851 battery connectors are different. The X6851 charges 45W and the X6851B charges 100W. The appearance of the prototype is different in color. And model update, so no need to retest.

Test items	Standard clause	Test data	Result
Antenna Requirement	15.203	Please refer to report No.: JYTSZ-R12-2301785.	Please refer to report No.: JYTSZ-R12-2301785
AC Power Line Conducted Emission	15.207	Please refer to report No.: JYTSZ-R12-2301785.	Please refer to report No.: JYTSZ-R12-2301785
20dB Bandwidth	15.215(c)	Please refer to report No.: JYTSZ-R12-2301785.	Please refer to report No.: JYTSZ-R12-2301785
Field Strength of Fundamental	15.225 (a)(b)(c)	Please refer to report No.: JYTSZ-R12-2301785.	Please refer to report No.: JYTSZ-R12-2301785
Field Strength of Spurious Emissions	15.209 15.225 (d)	Please refer to report No.: JYTSZ-R12-2301785.	Please refer to report No.: JYTSZ-R12-2301785
Frequency Tolerance	15.225 (e)	Please refer to report No.: JYTSZ-R12-2301785.	Please refer to report No.: JYTSZ-R12-2301785
Remark: 1. Please refer to FCC ID: 2AIZN-X6851, report No.: JYTSZ-R12-2301785 issue by JianYan Testing Group Shenzhen Co., Ltd.			
Test Method:	ANSI C63.4-2014 ANSI C63.10-2013		

5.1.2 Test Limit

Items	Limit																									
AC Power Line Conducted Emission	Frequency (MHz)	Limit (dB μ V)																								
		Quasi-Peak	Average																							
	0.15 – 0.5	66 to 56 Note 1	56 to 46 Note 1																							
	0.5 – 5	56	46																							
	5 – 30	60	50																							
Note 1: The limit level in dB μ V decreases linearly with the logarithm of frequency. Note 2: The more stringent limit applies at transition frequencies.																										
20dB Bandwidth	N/A																									
Field Strength of Fundamental	(a) The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters. (b) Within the bands 13.410-13.553 MHz and 13.567-13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters. (c) Within the bands 13.110-13.410 MHz and 13.710-14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters. (d) The field strength of any emissions appearing outside of the 13.110-14.010 MHz band shall not exceed the general radiated emission limits in § 15.209.																									
	<table border="1"> <thead> <tr> <th>Frequency (MHz)</th> <th>Field strength (microvolts/meter)</th> <th>Measurement distance (meters)</th> </tr> </thead> <tbody> <tr> <td>0.009 – 0.490</td> <td>2400/F(kHz)</td> <td>300</td> </tr> <tr> <td>0.490 – 1.705</td> <td>24000/F(kHz)</td> <td>30</td> </tr> <tr> <td>1.705 – 30.0</td> <td>30</td> <td>30</td> </tr> <tr> <td>30 – 88</td> <td>100**</td> <td>3</td> </tr> <tr> <td>88 – 216</td> <td>150**</td> <td>3</td> </tr> <tr> <td>216 – 960</td> <td>200**</td> <td>3</td> </tr> <tr> <td>Above 960</td> <td>500</td> <td>3</td> </tr> </tbody> </table> ** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.			Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)	0.009 – 0.490	2400/F(kHz)	300	0.490 – 1.705	24000/F(kHz)	30	1.705 – 30.0	30	30	30 – 88	100**	3	88 – 216	150**	3	216 – 960	200**	3	Above 960	500
Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)																								
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1.705 – 30.0	30	30																								
30 – 88	100**	3																								
88 – 216	150**	3																								
216 – 960	200**	3																								
Above 960	500	3																								
Frequency Tolerance	The frequency tolerance of the carrier signal shall be maintained within $\pm 0.01\%$ of the operating frequency over a temperature variation of $?20$ degrees to $+ 50$ degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.																									

6 Test Setup Photo

Please refer to FCC ID: 2AIZN-X6851, report No.: JYTSZ-R12-2301785.

-----End of report-----