TEST REPORT

Applicant:	INFINIX MOBILITY LIMITED
Address:	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG
Equipment Type:	Mobile phone
Model Name:	X6850B
Brand Name:	Infinix
FCC ID:	2AIZN-X6850B
Test Standard:	47 CFR Part 1.1310 (refer to section 3.1)
Sample Arrival Date:	Feb. 01, 2024
Test Date:	Mar. 09, 2024
Date of Issue:	Mar. 29, 2024

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Xu Rui **Checked by:** Liyao Zong **Approved by:** Tolan Tu (Testing Director)

Revision History

Version	Issue Date	Revisions Content
Rev. 01	Mar. 29, 2024	Initial Issue

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1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☑ Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☐ 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China

2 PRODUCT INFORMATION

2.1 Applicant Information

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

2.2 Manufacturer Information

Manufacturer	INFINIX MOBILITY LIMITED
Address	FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG

2.3 General Description for Equipment under Test (EUT)

EUT Name	Mobile phone
Model Name Under Test	X6850B
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	N/A
Software Version	N/A
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS/EDGE 850/1900 MHz 3G Network WCDMA/HSDPA/HSUPA Band 2/4/5 4G Network LTE FDD Band 2/4/5/7 LTE TDD Band 38/41 Bluetooth (BR+EDR+BLE) 2.4G WIFI 802.11b, 802.11g, 802.11n(HT20) 5G WIFI 802.11a, 802.11n(HT20/40), 802.11ac(VHT20/40/80) U-NII-1/2A/2C/3, GPS, GLONASS, BDS, Galileo, FM Receiver, NFC, WPT

The requirement for the following technical information of the EUT was tested in this report:

Operating Frequency	ASK	
Antenna Type	110KHz -148KHz	
About Product	Coil Antenna	
Exposure Category	Portable Device	
EUT Type	☒ Production unit	☐ Identical prototype
Note: Only WPT RF exposure was tested in this report.		

3 SUMMARY OF TEST RESULT

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 1.1310	Radiofrequency radiation exposure limits
2	47 CFR Part 2.1093	Radiofrequency radiation exposure evaluation: portable devices
3	KDB 680106 D01 v04	Equipment Authorization of Wireless Power Transfer Devices

3.2 Radiofrequency Radiation Exposure Limit

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW / cm ^{2})	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f^2	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f^2	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30
*f = frequency in MHz * = Plane-wave equivalent power density*				

NOTE:

Limits: According KDB 680106 D01, emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m.

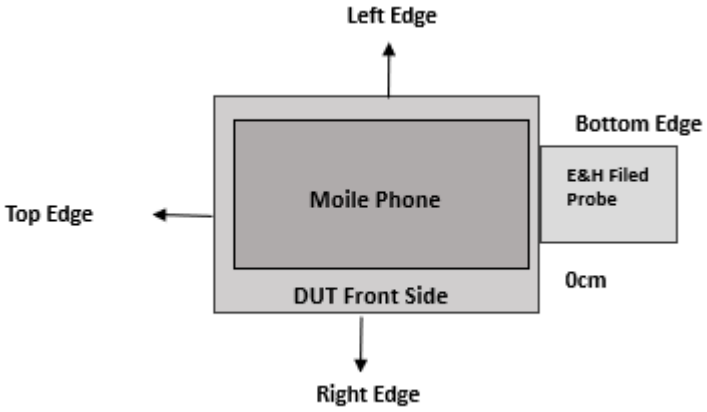
General Population/Uncontrolled Exposure: Locations where there is the exposure of individuals who have no knowledge or control of their exposure. General population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

Occupational/Controlled Exposure: Locations where there is exposure that may be incurred by persons who are aware of the potential for exposure. In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

4 DEVICE CATEGORY AND LEVELS LIMITS

4.1 Test Setup Photo

Maximum H-field and E-filed measurements were made on each of five sides of the EUT that could come in contact with a user. The six sides are defined as follows: Front, Back, Left, Right, Top and Bottom. Refer to the test position diagram below.



4.2 Measurement procedure

1. The RF exposure test was performed in anechoic chamber.
2. The measurement probe was placed at test distance 0 mm for Front, Back, Left, Right, Top and Bottom which is between the edge of the charger and the outer edge of probe.
3. The highest emission level was recorded and compared with limit as soon as measurement of each points were completed.
4. The EUT was measured according the dictates of KDB 680106 D01v04.

4.3 Mobile Condition

Probe	Condition	Test Distance (mm) Front, Back, Left, Right, Top, Bottom
E&H-field	Portable	0

4.4 Equipment Approval Considerations KDB 680106 D01 v04.

1. The EUT comply with KDB 680106 D01 Wireless Power Transfer v041. Power transfer frequency is less than 1 MHz.
   - Yes, The device operates at a frequency 110 kHz ~ 148 kHz

2. The output power from each transmitting element (e.g., coil) is less than or equal to 15 watts.
   - Yes, The maximum output power of coil is 4 watts.

3. The client device providing the maximum permitted load is placed in physical contact with the transmitter(i.., the surfaces of the transmitter and client device enclosures need to be in physical contact).
   - Yes, The transfer system including a charging system with one coils that is able to detect receiver device.

4. Only S 2.1091-Mobile exposure conditions apply (i.e., this provision does not cover S 2.1093-Portableexposure conditions).
   - No, The EUT has portable exposure conditions.

5. The E-field and H-field strengths, at and beyond 20 cm surrounding the device surface, are demonstrated to beless than 50% of the applicable MPE limit, per KDB 447498, Table 1.
   - No, The EUT's field strength levels are larger than 50% of the MPE limit.

6. For systems with more than one radiating structure, the conditions specified in (5) must be met when thesystem is fully loaded (i.e., clients absorbing maximum power available), and with all the radiating structures operating at maximum power at the same time, as per design conditions.
   -Yes, the EUT has only one coil. all test modes met the conditions specified in (5).

4.5 Test Equipment

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
E-filed/H-Filed Test Probe	Speag	MAGPy-8H3D+E3D V2	3061	2023/4/13	2024/4/12
Anechoic Chamber	YiHeng	9m*6m*6m	142	2022/2/19	2025/2/18
Mobile Phone	Apple	iPhone14 Pro	J2H7GDDPK7	N/A	N/A

4.6 Test Configuration

To check all kinds of possible modes, the EUT was support reverse charging function, so the EUT was evaluated in reverse charge mode with appropriate client and under each charging condition as the below table:

Test Mode No.	Description		Test Position	Note
1	Charging Mode	EUT + Mobile Phone which has Less than 10 % of battery	Front Side	Note1
2	Charging Mode	EUT + Mobile Phone which has Less than 50 % of battery		
3	Charging Mode	EUT + Mobile Phone which has 90% of battery		
4	Charging Mode	EUT + Mobile Phone which has Less than 10 % of battery	Back Side	/
5	Charging Mode	EUT + Mobile Phone which has Less than 10 % of battery	Left Edge	/
6	Charging Mode	EUT + Mobile Phone which has Less than 10 % of battery	Right Edge	/
7	Charging Mode	EUT + Mobile Phone which has Less than 10 % of battery	Top Edge	/
8	Charging Mode	EUT + Mobile Phone which has Less than 10 % of battery	Bottom Edge	/
9	Charging Mode	EUT + Mobile Phone which has Less than 10 % of battery	Front Side	/
10	Charging Mode	EUT + Mobile Phone which has Less than 10 % of battery	Back Side	/
11	Charging Mode	EUT + Mobile Phone which has Less than 10 % of battery	Left Edge	/
12	Charging Mode	EUT + Mobile Phone which has Less than 10 % of battery	Right Edge	/
13	Charging Mode	EUT + Mobile Phone which has Less than 10 % of battery	Top Edge	/
14	Charging Mode	EUT + Mobile Phone which has Less than 10 % of battery	Bottom Edge	/
Note1: After pre-test for mode 1 to 3, the mode1 was the worse case mode, so the mode 4 to 14 only test worse case battery(10%) mode.				

5 TEST RESULT

5.1 E -field

Distance(cm)	Test Mode	EUT Edges						Max. (V/m)	Limit (V/m)
		Front Side (V/m)	Back Side (Screen) (V/m)	Left Edge (V/m)	Right Edge (V/m)	Bottom Edge (V/m)	Top Edge (V/m)		
0	1	36.70	/	/	/	/	/	36.700	614.00
0	2	35.10	/	/	/	/	/	35.100	614.00
0	3	34.20	/	/	/	/	/	34.200	614.00
0	4	/	51.30	/	/	/	/	51.300	614.00
0	5	/	/	26.80	/	/	/	26.800	614.00
0	6	/	/	/	12.90	/	/	12.900	614.00
0	7	/	/	/	/	22.80	/	22.800	614.00
0	8	/	/	/	/	/	43.60	43.600	614.00

5.2 H-field

Distance(cm)	Test Mode	EUT Edges						Max. (A/m)	Limit (A/m)
		Front Side (A/m)	Back Side (Screen) (A/m)	Left Edge (A/m)	Right Edge (A/m)	Bottom Edge (A/m)	Top Edge (A/m)		
0	9	1.49	/	/	/	/	/	1.490	1.63
0	10	/	0.84	/	/	/	/	0.840	1.63
0	11	/	/	1.32	/	/	/	1.320	1.63
0	12	/	/	/	1.25	/	/	1.250	1.63
0	13	/	/	/	/	0.89	/	0.000	1.63
0	14	/	/	/	/	/	0.15	0.000	1.63

6 Test Conclusion

6.1 E-field

Distance (cm)	Worst-case Test Mode	EUT Edge Back (V/m)	Limit (V/m)	Verdict
0	4	51.30	614	Pass

6.2 H-field

Distance (cm)	Worst-case Test Mode	EUT Edge Front (A/m)	Limit (A/m)	Verdict
0	9	1.49	1.63	Pass

Note1: According KDB 680106 D01v04, the EUT is compliant with the MPE limits.
Note2: The WPT can't ransmit simultaneously with WWAN or WLAN at same.
Note3: Test setup photos please refer the document “BL-SZ2420033-AS-2 SAR test setup photo.pdf”.

Statement

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--END OF REPORT--