RF Exposure Evaluation Report

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.:	X6710
Trade mark:	Infinix
FCC ID:	2AIZN-X6710
Applicable standards:	FCC CFR Title 47 Part 2 (§2.1091)
Date of sample receipt:	28 Dec., 2022
Date of Test:	29 Dec., 2022 to 13 Mar., 2023
Date of report issue:	16 Mar., 2023
Test Result:	PASS

Tested by:	Mike.ou ***Test Engineer***	***Date:***	*16 Mar., 2023*
Reviewed by:	Winner Zhang ***Project Engineer***	***Date:***	*16 Mar., 2023*
Approved by:	***Manager***	***Date:***	*16 Mar., 2023*

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.

1 Version

Version No.	Date	Description
00	*14 Mar., 2023*	*Original*
01	*16 Mar., 2023*	*1. Updated page 4.* *2. Add test data for other distances*

2 Contents

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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.:	X6710
Operation Frequency:	112.45kHz
Modulation technology:	ASK
Antenna Type:	Coil Antenna
Power supply (Wireless Charger):	Output Wireless: 5W
AC Adapter:	Model:U680XSA Input: AC100-240V, 50/60Hz, 2.0A Output: DC 5.0V, 2.0A or 11.0V, 6.2A or 4.0-21.0V, 3.25A 68.0W MAX
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

3.3 Operating Modes

Operating mode	Detail description
Full mode	Keep the EUT in Full mode
Remark: *1. No load, mid load , full load mode all have been tested , only worse case full load mode is reported.*	

3.4 Description of Support Units

Manufacturer	Description	Model	S/N	FCC ID/DoC
INFINIX	Mobile phone	X6710	N/A	N/A
HiDANCE ATORCH	Wireless charging Adapter	N/A	N/A	N/A

3.5 Measurement Uncertainty

Parameter	Expanded Uncertainty (Confidence of 95%)
Magentic(Mode A) fieid measurements (3kHz ~ 300KHz)	7.8% (k=2)
Magentic(Mode B) fieid measurements (30kHz ~ 30MHz)	3.5% (k=2)
Electric fieid measurements (3kHz ~ 30MHz)	7.8% (k=2)

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

Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
Electric and Magnetic field Probe - Analyzer	narda Safety Test Solutions S.r.l.	EHP-200AC	180ZX10203	01-27-2022	01-26-2024
EHP200-TS Software	narda Safety Test Solutions S.r.l.	EHP200-TS	Version: Rel 1.94	N.C.R	N.C.R

4 Technical Requirements Specification

4.1 Limits

Human exposure to RF Low frequency emissions from portable devices (47 CFR §2.1093) may be evaluated based on the MPE limits adopted by the FCC for electric and magnetic field strength and/or power density.
According to KDB 680106 D01 RF Exposure Wireless Charging App v03r01, TCB Workshop and combine the actual situation of the EUT, For the portable wireless charger, RF exposure evaluation should be made from all sides(six sides) of EUT, with the 0cm to 20cm measured from the center of the probe to the edge of the EUT, in 2cm minimum increment.
E and H field strength measurements or numerical modelling may be used to demonstrate compliance.

Limits For General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW /cm$_2$)	Averaging Time (minutes)
0.3 ~ 3.0	614	1.63	(100)*	30
3.0 ~ 30	824/f	2.19/f	(180/f$_2$)*	30
30 ~ 300	27.5	0.073	0.2	30
300~1500	-	-	f/1500	30
1500~100000	-	-	1.0	30

4.2 Test Setup Block

Figure 1: 0cm test setup

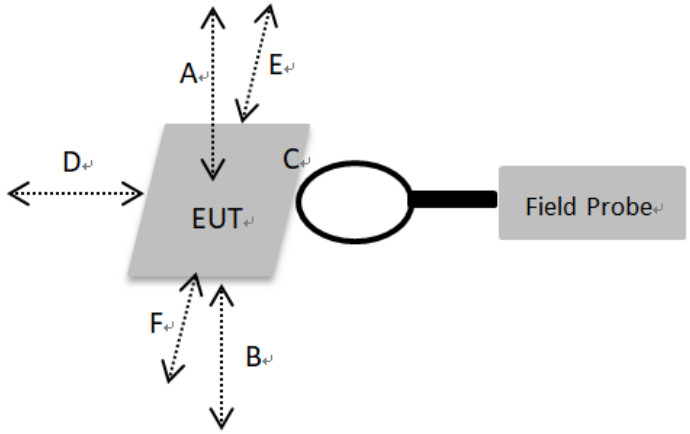
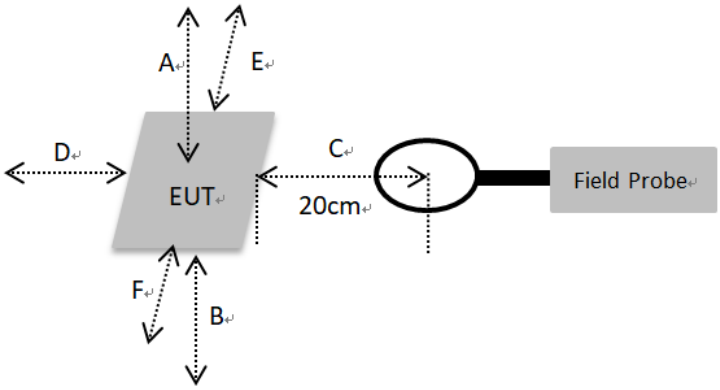


Figure 2: 20cm test setup



Remrak:

1. The EHP 200AC probe antenna diameter is 8.8cm.
2. A is Front side, B is Back side, C is Left side, D is Right side, E is Top side, F is Bottom side.
3. The test distance of A, B, C, D, E, F side is 0cm to 20cm.

4.3 Test Procedure

1. Installing the probe and turn on the EHP 200AC power switch, in the testing software, select the magnetic field test mode and the A/m unit, select the peak detection mode, select the Max-Hold display.
2. Check the background noise.
3. Make DUT work at maximum transmit power.
4. During the measurement, the probe centre of the EHP 200AC is kept in 0cm to 20cm distance from each test surface of the wireless charging base, and recorded the measured values of the A, B, C, D, E, F side are separately.
5. In the testing software, Select the electric field test mode and the V/m unit, select the peak detection mode, select the Max-Hold display.
6. Repeat step 2 to 4 and then get the strength of the electric field.
7. Desktop device should be installed on the edge.(table : 0.8 m (H) high table structure of nonmetallic materials).

4.4 Result

Empty load, half load and full load have been tested, all distances have been tested, found the full load mode with 0cm test distance is the worst.

0cm(worst):

a) Magnetic Field Strength Measurement

Measured Side	Distance (cm)	Measured Value (A/m)	Limit (A/m)
A	0	1.163	1.63
B	0	0.928	1.63
C	0	1.030	1.63
D	0	1.040	1.63
E	0	1.130	1.63
F	0	1.140	1.63

b) Electric Field Strength Measurement

Measured Side	Distance (cm)	Measured Value (V/m)	Limit (V/m)
A	0	6.013	614
B	0	5.036	614
C	0	1.344	614
D	0	1.141	614
E	0	1.531	614
F	0	1.681	614

2cm:

c) Magnetic Field Strength Measurement

Measured Side	Distance (cm)	Measured Value (A/m)	Limit (A/m)
A	2	1.004	1.63
B	2	0.913	1.63
C	2	0.937	1.63
D	2	0.982	1.63
E	2	1.050	1.63
F	2	1.050	1.63

d) Electric Field Strength Measurement

Measured Side	Distance (cm)	Measured Value (V/m)	Limit (V/m)
A	2	5.444	614
B	2	4.596	614
C	2	1.113	614
D	2	0.834	614
E	2	1.147	614
F	2	1.146	614

4cm:

e) Magnetic Field Strength Measurement

Measured Side	Distance (cm)	Measured Value (A/m)	Limit (A/m)
A	4	0.895	1.63
B	4	0.742	1.63
C	4	0.682	1.63
D	4	0.671	1.63
E	4	0.832	1.63
F	4	0.875	1.63

f) Electric Field Strength Measurement

Measured Side	Distance (cm)	Measured Value (V/m)	Limit (V/m)
A	4	4.315	614
B	4	3.798	614
C	4	0.851	614
D	4	0.795	614
E	4	0.847	614
F	4	0.881	614

6cm:

g) Magnetic Field Strength Measurement

Measured Side	Distance (cm)	Measured Value (A/m)	Limit (A/m)
A	6	0.621	1.63
B	6	0.642	1.63
C	6	0.489	1.63
D	6	0.524	1.63
E	6	0.510	1.63
F	6	0.493	1.63

h) Electric Field Strength Measurement

Measured Side	Distance (cm)	Measured Value (V/m)	Limit (V/m)
A	6	1.875	614
B	6	1.619	614
C	6	0.624	614
D	6	0.608	614
E	6	0.632	614
F	6	0.629	614

8cm:

i) Magnetic Field Strength Measurement

Measured Side	Distance (cm)	Measured Value (A/m)	Limit (A/m)
A	8	0.521	1.63
B	8	0.532	1.63
C	8	0.485	1.63
D	8	0.457	1.63
E	8	0.357	1.63
F	8	0.361	1.63

j) Electric Field Strength Measurement

Measured Side	Distance (cm)	Measured Value (V/m)	Limit (V/m)
A	8	1.081	614
B	8	1.035	614
C	8	0.496	614
D	8	0.503	614
E	8	0.426	614
F	8	0.431	614

10cm:

k) Magnetic Field Strength Measurement

Measured Side	Distance (cm)	Measured Value (A/m)	Limit (A/m)
A	10	0.481	1.63
B	10	0.463	1.63
C	10	0.413	1.63
D	10	0.397	1.63
E	10	0.322	1.63
F	10	0.321	1.63

l) Electric Field Strength Measurement

Measured Side	Distance (cm)	Measured Value (V/m)	Limit (V/m)
A	10	0.875	614
B	10	0.982	614
C	10	0.481	614
D	10	0.498	614
E	10	0.418	614
F	10	0.425	614

12cm:

m) Magnetic Field Strength Measurement

Measured Side	Distance (cm)	Measured Value (A/m)	Limit (A/m)
A	12	0.462	1.63
B	12	0.433	1.63
C	12	0.375	1.63
D	12	0.362	1.63
E	12	0.327	1.63
F	12	0.301	1.63

n) Electric Field Strength Measurement

Measured Side	Distance (cm)	Measured Value (V/m)	Limit (V/m)
A	12	0.781	614
B	12	0.795	614
C	12	0.432	614
D	12	0.417	614
E	12	0.375	614
F	12	0.384	614

14cm:

o) Magnetic Field Strength Measurement

Measured Side	Distance (cm)	Measured Value (A/m)	Limit (A/m)
A	14	0.367	1.63
B	14	0.383	1.63
C	14	0.247	1.63
D	14	0.246	1.63
E	14	0.252	1.63
F	14	0.250	1.63

p) Electric Field Strength Measurement

Measured Side	Distance (cm)	Measured Value (V/m)	Limit (V/m)
A	14	0.453	614
B	14	0.452	614
C	14	0.420	614
D	14	0.411	614
E	14	0.342	614
F	14	0.328	614

16cm:

q) Magnetic Field Strength Measurement

Measured Side	Distance (cm)	Measured Value (A/m)	Limit (A/m)
A	16	0.289	1.63
B	16	0.264	1.63
C	16	0.254	1.63
D	16	0.241	1.63
E	16	0.259	1.63
F	16	0.233	1.63

r) Electric Field Strength Measurement

Measured Side	Distance (cm)	Measured Value (V/m)	Limit (V/m)
A	16	0.403	614
B	16	0.398	614
C	16	0.357	614
D	16	0.362	614
E	16	0.324	614
F	16	0.322	614

18cm:

s) Magnetic Field Strength Measurement

Measured Side	Distance (cm)	Measured Value (A/m)	Limit (A/m)
A	18	0.289	1.63
B	18	0.264	1.63
C	18	0.254	1.63
D	18	0.241	1.63
E	18	0.259	1.63
F	18	0.233	1.63

t) Electric Field Strength Measurement

Measured Side	Distance (cm)	Measured Value (V/m)	Limit (V/m)
A	18	0.403	614
B	18	0.398	614
C	18	0.357	614
D	18	0.362	614
E	18	0.324	614
F	18	0.322	614

20cm:

u) Magnetic Field Strength Measurement

Measured Side	Distance (cm)	Measured Value (A/m)	Limit (A/m)
A	20	0.264	1.63
B	20	0.353	1.63
C	20	0.245	1.63
D	20	0.239	1.63
E	20	0.241	1.63
F	20	0.232	1.63

v) Electric Field Strength Measurement

Measured Side	Distance (cm)	Measured Value (V/m)	Limit (V/m)
A	20	0.400	614
B	20	0.389	614
C	20	0.347	614
D	20	0.348	614
E	20	0.310	614
F	20	0.318	614

4.5 Conclusion

The Measured Value of Magnetic Field and Electric Field are separately Less than their Limit, so the SAR test is exclusion and satisfies RF exposure evaluation.

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