

FCC TEST REPORT
FCC ID: 2AVSB-IC-50CQ

On Behalf of

Shenzhen Mgctech Co.,Ltd.

Wireless Car Charger

Model No.: IC-50CQ, IC-31CQ

Prepared for : Shenzhen Mgctech Co.,Ltd.
Address : 401, Bld. 14, No. 48-12, Fuchengao Rd., Pinghu Street, Longgang District, Shenzhen, China

Prepared By : Shenzhen PSI Testing Co., Ltd.
Address : 1-2/F., Building 5, Yudafu Industrial Park, No.10, Xingye West Road, Shajing Subdistrict, Bao'an District, Shenzhen, Guangdong, China

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TEST REPORT DECLARATION

Applicant : Shenzhen Mgctech Co.,Ltd.
Address : 401, Bld. 14, No. 48-12, Fuchengao Rd., Pinghu Street, Longgang District,
Shenzhen, China
Manufacturer : Shenzhen Mgctech Co.,Ltd.
Address : 401, Bld. 14, No. 48-12, Fuchengao Rd., Pinghu Street, Longgang District,
Shenzhen, China
EUT Description : Wireless Car Charger
(A) Model No. : IC-50CQ
(B) Trademark : N/A

Measurement Standard Used:

FCC CFR 47 PART 1, FCC CFR 47 part1, 1.1307(b), 1.1310, 2.1091

KDB 680106 D01 Wireless Power Transfer v04

Test Result: PASS

The device described above is tested by Shenzhen PSI Testing Co., Ltd. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The test results are contained in this test report and Shenzhen PSI Testing Co., Ltd. is assumed full responsibility for the accuracy and completeness test. Also, this report shows that the EUT is technically compliant with the KDB 680106 D01 requirements.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Shenzhen PSI Testing Co., Ltd.

Tested by (name + signature).....: Felix Pang
Test Engineer 

Approved by (name + signature).....: Simple Guan
Project Manager 

Date of issue.....: July 23, 2025

Revision History

Revision	Issue Date	Revisions	Revised By
V0	July 23, 2025	Initial released Issue	Felix Pang

1. Test Result Summary

Requirement	CFR 47 Section	Result
RF EXPOSURE	§1.1307(b)(1), §1.1310& KDB680106	PASS

Note:

1. *PASS: Test item meets the requirement.*
2. *Fail: Test item does not meet the requirement.*
3. *N/A: Test case does not apply to the test object.*
4. *The test result judgment is decided by the limit of test standard.*
5. Decision rules for the conclusion of this test report: decision by actual test data without considering measurement uncertainty.

2. EUT Description

2.1. Description of Device (EUT)

EUT Name : Wireless Car Charger
Model No. : IC-50CQ
DIFF. : IC-50CQ is tested model, other models are derivative models .
The models are identical in circuit, only different on the model names.
So the test data of IC-50CQ can represent the remaining models.
Power supply : Input: 5 V $\overline{\text{---}}$ 2 A, 9 V $\overline{\text{---}}$ 2.5 A
Output power: 15W Max

Radio Technology : Wireless power transmission systems

Operation frequency : 111-205KHz, 360KHz

Modulation : ASK

Antenna Type : Coil Antenna

Connector cable loss : 0dB

Software version : V1.0

Hardware version : V1.0

Note : Antenna information is provided by applicant.
Testing lab is not responsible for the accuracy of the information.

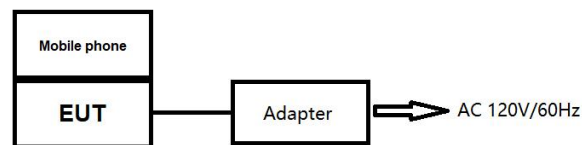
2.2. Accessories of Device (EUT)

Accessories	:	N/A
Manufacturer	:	N/A
Model	:	N/A
specifications	:	N/A

2.3. Tested Supporting System Details

No.	Description	Manufacturer	Model	Serial Number	Certification
1	AC Adapter	Huizhou Jinhui Industrial Development Co., Ltd.	VCBAJACH	/	/
2	Mobile phone	Xiaomi	Xiaomi 12S Pro	/	/
3	Mobile phone	Apple Inc.	iPhone 15 Pro	/	/

2.4. Block Diagram of connection between EUT and simulators



2.5. Description of Test Modes

Mode	Test mode description
1	AC Mains + Mobile phone EPP Protocol (Battery Status:≤1%)
2	AC Mains + Mobile phone EPP Protocol (Battery Status:50%)
3	AC Mains + Mobile phone EPP Protocol (Battery Status:≥98%)
4	AC Mains + Mobile phone MPP Protocol (Battery Status:≤1%)
5	AC Mains + Mobile phone MPP Protocol (Battery Status:50%)
6	AC Mains + Mobile phone MPP Protocol (Battery Status:≥98%)
7	Standby

Note: All modes of full load, half load, and no-load have also been tested, , only the worst-case was recorded in the report. Mode 1 is the worst mode.

2.6. Test Conditions

Items	Required
Temperature range:	15-35°C
Humidity range:	25-75%
Pressure range:	86-106kPa

2.7. Test Facility

Shenzhen PSI Testing Co., Ltd.

1-2/F., Building 5, Yudafu Industrial Park, No.10, Xingye West Road, Shajing Subdistrict, Bao'an District, Shenzhen, Guangdong, China

September 13, 2023 File on Federal Communication Commission

Registration Number: 916281

2.8. Measurement Uncertainty

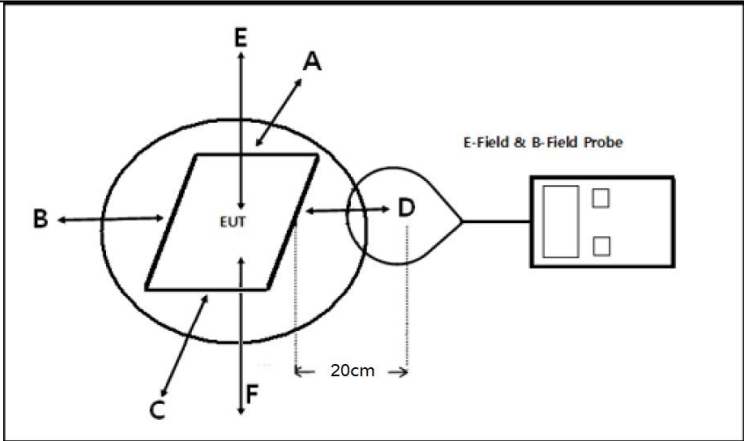
(95% confidence levels, k=2)

Item	Uncertainty
Uncertainty for H-Field	2.39dB
Uncertainty for E-Field	2.45dB
Uncertainty for conducted RF Power	0.65dB
Uncertainty for temperature	0.2°C
Uncertainty for humidity	1%
Uncertainty for DC and low frequency voltages	0.06%

3. Test Results and Measurement Data

3.1. RF EXPOSURE TEST

3.1.1. Test Specification

Test Requirement:	FCC Rules and Regulations KDB680106
Test Method:	§1.1307(b)(1) & KDB680106
Limits:	According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines. According to §1.1310 and §2.1091 RF exposure is calculated. According KDB 680106 D01 Wireless Power Transfer v04: RF Exposure Wireless Charging.
Test Setup:	 E to position is 20cm, F is the bottom of the product
Test Mode:	Transmitting Mode (Mobile phone will be charge at zero charge, intermediate charge, and full charge.)
Test Procedure:	1. The RF exposure test was carried out on a non-metallic table top 80cm high in the shielding darkroom. 2. The measurement probe was placed at test distance (20 cm for Top side) which is between the edge of the charger and the geometric centre of probe. 3. The test time is maintained for more than one minute. 4. The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E, F) were completed. 5. The EUT were measured according to the dictates of KDB 680106 D01 Wireless Power Transfer v04.
Test Result:	PASS

3.1.2. Test Instruments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Exposure Level Tester	narda	ELT-400	O-0729	2025.05.15	1 Year
2	Magnetic field probe 100cm2	narda	ELT probe 100cm2	M-2116	2025.05.15	1 Year

3.1.3. Test data

AC Mains + Mobile phone EPP Protocol (Battery Status: $\leq 1\%$) :

E-Field Strength at 20 cm for position A, B, C, D, E, F from the edges surrounding the EUT (V/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	Limits Test (V/m)
111-205	20.358	16.211	18.096	21.489	19.227	19.981	614

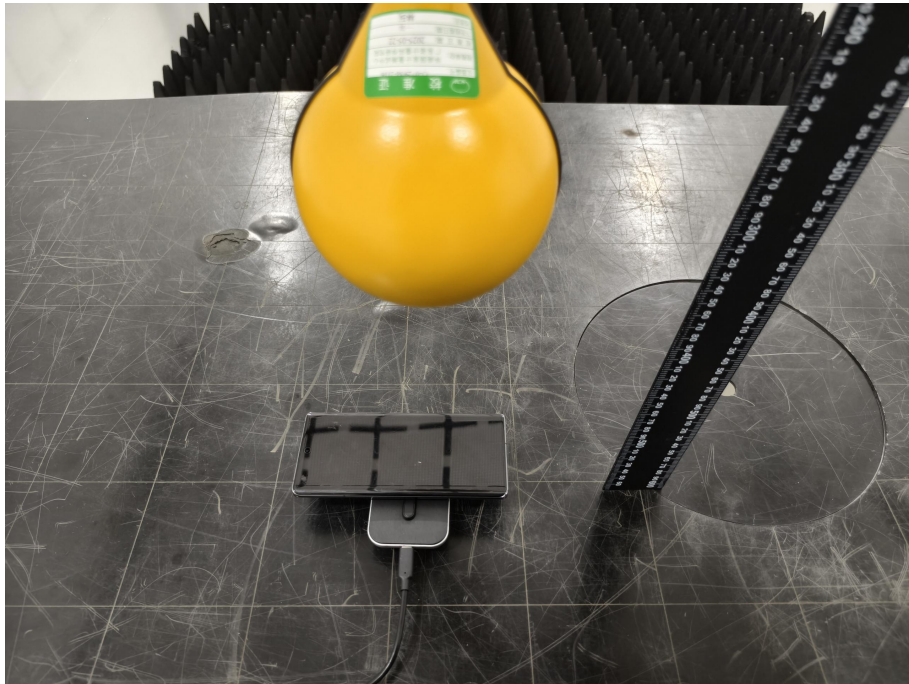
Note: $V/m = A/m \times 377$

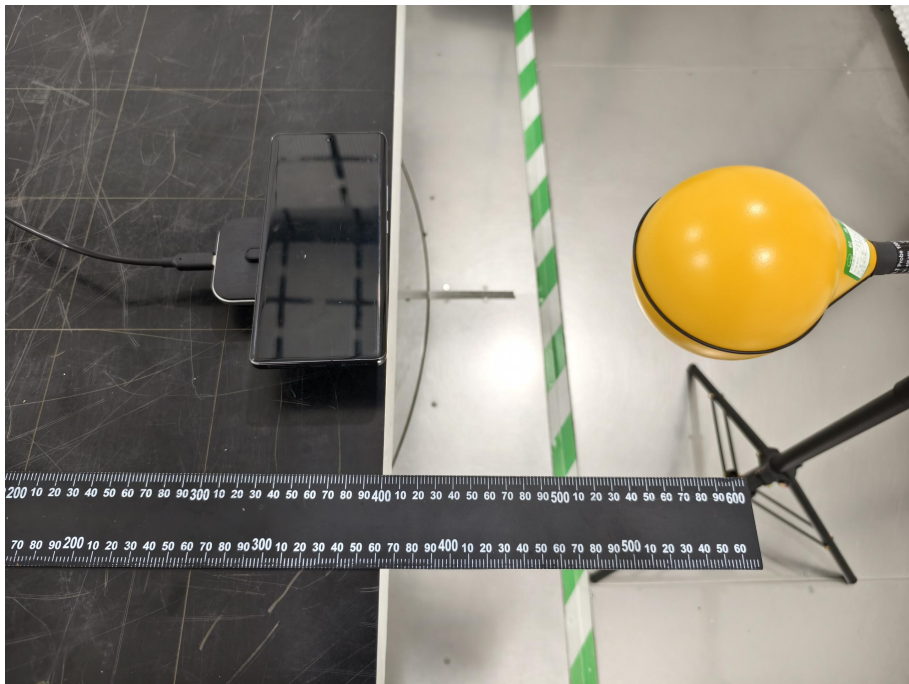
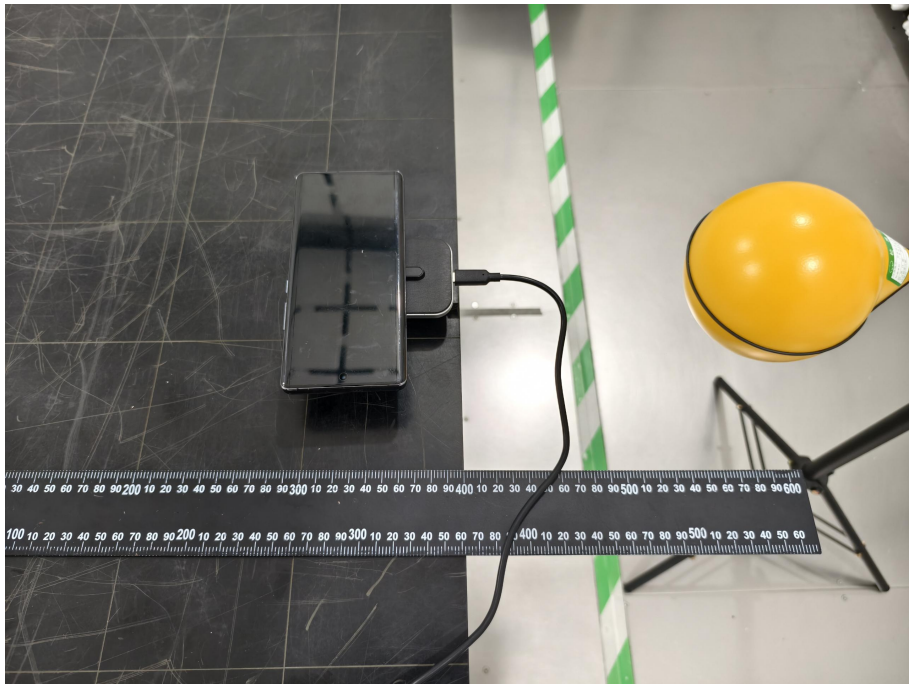
H-Filed Strength at 20 cm for position A, B, C, D, E, F from the edges surrounding the EUT (A/m)

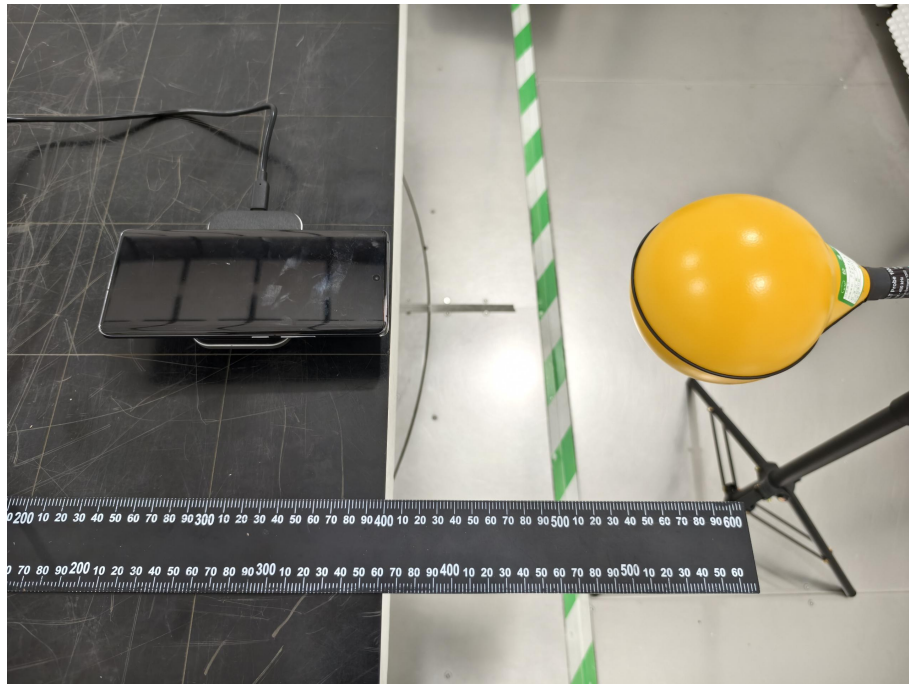
Frequency Range (MHz)	Unit	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	Limits Test (A/m)
111-205	(A/m)	0.054	0.043	0.048	0.057	0.051	0.053	1.63
	A (uT)	0.067	0.054	0.06	0.071	0.063	0.066	/

Note: uT to A/m: $A/m = uT/1.25$

4. Photos of test setup







-----END OF REPORT-----