

FCC TEST REPORT

FCC ID: 2APDM-B5

On Behalf of

ShangXing Technology (ShenZhen) Co.,Ltd.

Switch Power Bank with Magnetic Clip

Model No.:B5

B06, SD10, SD11, SD12, SD13, B05Q, B05Q1, B05Q2, B05Q3

Prepared for : ShangXing Technology (ShenZhen) Co.,Ltd.
Address : Room 408, 4th Floor, Building 30.Wisdomland Business Park, Guankou
2nd road, Nantou, Nanshan, Shenzhen China

Prepared By : Shenzhen PSI Testing Co., Ltd.
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Shajing Subdistrict, Bao'an District, Shenzhen, Guangdong, China

Report Number : psi2505183-C01-R02
Date of Receipt : May 21, 2025
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TEST REPORT DECLARATION

Applicant : ShangXing Technology (ShenZhen) Co.,Ltd.
Address : Room 408, 4th Floor, Building 30.Wisdomland Business Park, Guankou2nd road, Nantou, Nanshan, Shenzhen, China
Manufacturer : ShangXing Technology (ShenZhen) Co.,Ltd.
Address : Room 408, 4th Floor, Building 30.Wisdomland Business Park, Guankou2nd road, Nantou, Nanshan, Shenzhen, China
EUT Description : Switch Power Bank with Magnetic Clip
(A) Model No. : B5
B06, SD10, SD11, SD12, SD13, B05Q, B05Q1, B05Q2, B05Q3
(B) Trademark : /

Measurement Standard Used:

FCC CFR 47 PART 1, FCC CFR 47 part1, 1.1307(b), 1.1310, 2.1093

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.....:

June 12, 2025

Revision History

Revision	Issue Date	Revisions	Revised By
V0	June 12, 2025	Initial released Issue	Felix Pang

1. Test Result Summary

Requirement	CFR 47 Section	Result
RF EXPOSURE	§1.1307(b)(1), §1.1310, §2.1093 & KDB680106 D01	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	: Switch Power Bank with Magnetic Clip
Model No.	: B5
DIFF.	: B5 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 B5 can represent the remaining models.
Power supply	: USB-C Input: 5 V $\overline{=}$ 3 A, 9 V $\overline{=}$ 3 A, 15 V $\overline{=}$ 2 A USB-C Output: 5 V $\overline{=}$ 3 A, 9 V $\overline{=}$ 3 A, 12 V $\overline{=}$ 2.5 A, 15 V $\overline{=}$ 2 A Wireless output: 5 W / 10 W / 15 W Capacity: DC 3.85 V/5000 mAh/38.5 Wh
Radio Technology	: Wireless power transmission systems
Operation frequency	: 110.1KHz -205KHz
Modulation	: ASK
Antenna Type	: Coil Antenna
Connector cable loss	: 0dBi
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)

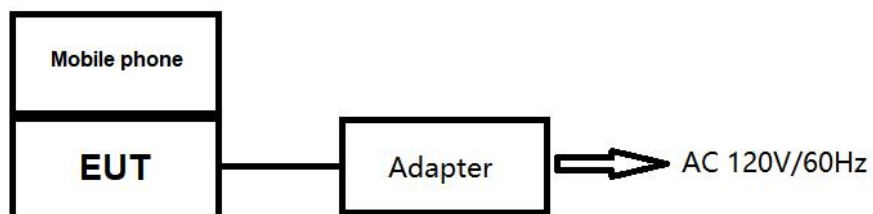
Accessories	:	N/A
Manufacturer	:	N/A
Model	:	N/A
specifications	:	N/A

2.3. Tested Supporting System Details

No.	Description	Manufacturer	Model	Serial Number	Certification
1	Adapter	Xiaomi	MDY-08-EH	N/A	N/A
2	Mobile phone	iQOO	iQOO 12 Pro	N/A	N/A
3	N/A	N/A	N/A	N/A	N/A

2.4. Block Diagram of connection between EUT and simulators

Mode1:



Mode2:



2.5. Equipment Approval Considerations

The EUT does comply with KDB 680106 D01 as follow table.

Requirements of KDB 680106 D01	Yes/ No	Description
Mobile Device and Portable Device Configurations	Yes	Portable Device
Equipment Authorization Procedures for Devices Operating at Frequencies Below 4 MHz	Yes	The device operate in the frequency range 110.1KHz~205KHz

2.6. Description of Test Modes

Mode	Test mode description
1	AC Mains + Phone charging port (Battery Status:≤1%)
2	AC Mains + Phone charging port (Battery Status:50%)
3	AC Mains + Phone charging port (Battery Status:≥98%)
4	Phone charging port (Battery Status:≤1%)
5	Phone charging port (Battery Status:50%)
6	Phone charging port (Battery Status:≥98%)
7	Standby

Note:1. All test modes has been tested, this report only reflected the Model 4 worst mode.

2.7. Test Conditions

Items	Required	Actual
Temperature range:	15-35℃	26℃
Humidity range:	25-75%	54%
Pressure range:	86-106kPa	101kPa

2.8. 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

2.9. Measurement Uncertainty

(95% confidence levels, k=2)

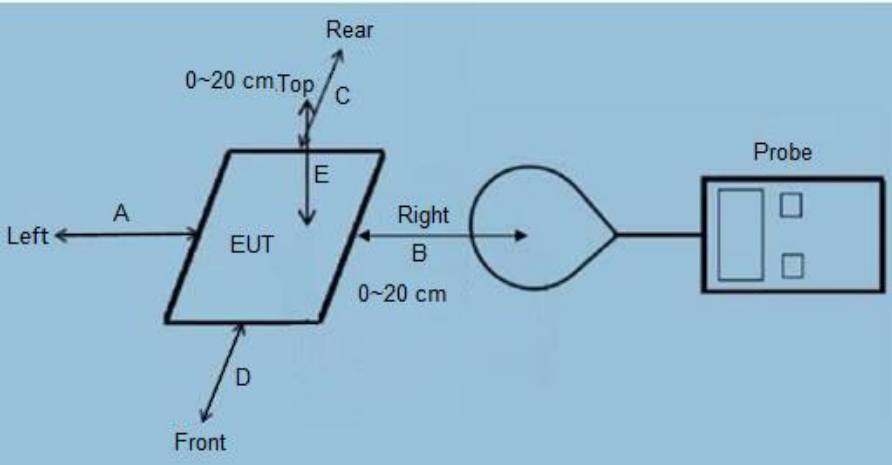
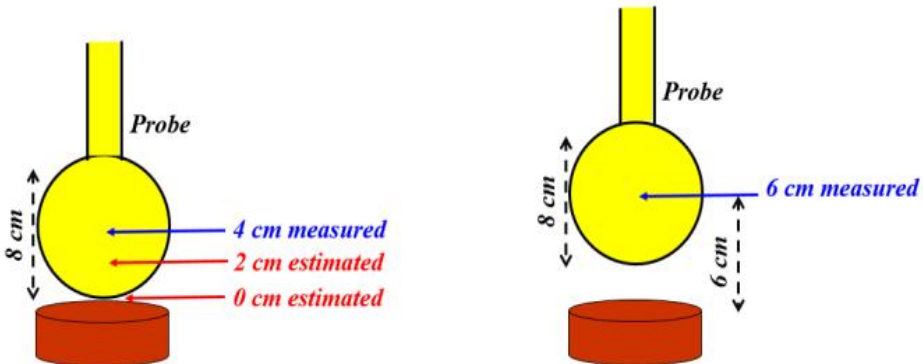
Item	Uncertainty
Uncertainty for H-Field	2.39dB
Uncertainty for E-Field	2.45dB
Uncertainty for conducted RF Power	0.65dB
Uncertainty for temperature	0.2℃
Uncertainty for humidity	1%
Uncertainty for DC and low frequency voltages	0.06%

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:	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 §2.1093 RF exposure is calculated. According KDB680106 D01: KDB 680106 D01 Wireless Power Transfer v04.																																																																				
Limits:	According to the item 3 of KDB 680106 D01v04: Inductive wireless power transfer applications that meet all of the following requirements are excluded from submitting an RF exposure evaluation. (1) Mobile Device and Portable Device Configurations (2) Equipment Authorization Procedures for Devices Operating at Frequencies Below 4 MHz (3) The aggregate H-field strengths anywhere at (0/2/4/6/8/10/12/14/16/18/20cm) surrounding the device six surfaces. The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b) Limits for Maximum Permissible Exposure (MPE) <table border="1"> <thead> <tr> <th>Frequency range (MHz)</th><th>Electric field strength (V/m)</th><th>Magnetic field strength (A/m)</th><th>Power density (mW/cm²)</th><th>Averaging time (minutes)</th></tr> </thead> <tbody> <tr> <td colspan="5">(A) Limits for Occupational/Controlled Exposures</td></tr> <tr> <td>0.3-3.0</td><td>614</td><td>1.63</td><td>*(100)</td><td>6</td></tr> <tr> <td>3.0-30</td><td>1842/f</td><td>4.89/f</td><td>*(900/f²)</td><td>6</td></tr> <tr> <td>30-300</td><td>61.4</td><td>0.163</td><td>1.0</td><td>6</td></tr> <tr> <td>300-1500</td><td>/</td><td>/</td><td>f/300</td><td>6</td></tr> <tr> <td>1500-100,000</td><td>/</td><td>/</td><td>5</td><td>6</td></tr> <tr> <td colspan="5">(B) Limits for General Population/Uncontrolled Exposure</td></tr> <tr> <td>0.3-1.34</td><td>614</td><td>1.63</td><td>*(100)</td><td>30</td></tr> <tr> <td>1.34-30</td><td>824/f</td><td>2.19/f</td><td>*(180/f²)</td><td>30</td></tr> <tr> <td>30-300</td><td>27.5</td><td>0.073</td><td>0.2</td><td>30</td></tr> <tr> <td>300-1500</td><td>/</td><td>/</td><td>f/1500</td><td>30</td></tr> <tr> <td>1500-100,000</td><td>/</td><td>/</td><td>1.0</td><td>30</td></tr> </tbody> </table> F=frequency in MHz *=Plane-wave equivalent power density RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).				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 Exposures					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	300-1500	/	/	f/300	6	1500-100,000	/	/	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	300-1500	/	/	f/1500	30	1500-100,000	/	/	1.0	30
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Test Setup:	 Figure 1  Figure 2
Test Mode:	Communication Mode (Mobile phone will be charge at zero charge, intermediate charge, and full charge.)
Test Procedure:	1) The RF exposure test was performed in anechoic chamber. 2) The measurement probe was placed at test distance (0/2/4/6/8/10/12/14/16/18/20cm) which is between the edge of the charger and the geometric center of probe. 3) 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. 4) The EUT was measured according to the dictates of KDB 680106 D01v04. 5) Large size probes may prevent the measurement of E- and/or H-fields near the surface of the radiating structure (e.g., a WPT source coil), as in the example shown in Figure 2. These estimates shall include points spaced no more than 2 cm from each other. Thus, in the example of Figure 2, at least the estimates at 0 cm and 2 cm are required, while only one point would not be sufficient. In addition, the model needs to be validated through the probe measurements for the two closest points to the device surface, and with 2-cm increments, as indicated in Figure 2. In that example, the same model must also be applied to the 4 cm and 6 cm positions, and then compared with the measured data, for validation purposes. The validation is considered sufficient if a 30% agreement between the model and the (E- and/or H-field) probe measurements is demonstrated. If such a level of agreement cannot be shown, a more accurate model (and/or a smaller probe) shall be used.
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	2025.05.22	1 Year
2	Magnetic field probe 100cm2	narda	ELT probe 100cm2	M-2116	2025.05.22	1 Year

Note: The probe radius is 8 cm

3.1.3. Test data

The probe radius is 8 cm.

E-Field Strength at 8/10/12/14/16/18/20cm from the edges surrounding the EUT

Charging Battery Level	Measured Distance (cm)	Measured E-Field Strength Values (V/m)						FCC E-Field Strength Limits (V/m)
		Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	
99%	8	21.821	15.716	15.786	19.287	19.746	21.184	614
50%	8	19.568	15.713	16.012	21.797	21.480	19.875	614
1%	8	18.766	16.881	20.138	20.138	20.038	21.969	614
99%	10	21.344	17.707	15.834	21.432	20.087	21.459	614
50%	10	19.287	17.239	17.671	20.904	18.874	20.819	614
1%	10	20.340	17.176	17.900	19.233	18.847	18.874	614
99%	12	18.763	15.762	18.741	18.901	21.498	20.684	614
50%	12	20.792	15.744	15.765	21.863	21.236	19.393	614
1%	12	19.152	17.758	18.057	21.025	18.977	19.990	614
99%	14	22.125	13.448	18.123	20.111	20.660	20.958	614
50%	14	21.242	18.678	18.461	19.209	19.426	0.050	614
1%	14	20.738	9.646	17.659	18.871	21.610	19.173	614
99%	16	21.528	17.644	18.648	19.345	21.688	21.396	614
50%	16	18.895	14.157	18.524	19.501	19.918	19.336	614
1%	16	20.584	12.842	18.594	20.029	18.992	20.738	614
99%	18	18.778	15.840	15.710	20.237	20.337	21.335	614
50%	18	20.367	16.612	16.383	19.707	21.269	21.489	614
1%	18	21.941	17.647	18.913	19.556	19.230	18.859	614
99%	20	20.105	16.491	17.426	21.169	20.165	19.055	614
50%	20	19.224	13.144	16.829	18.802	20.732	19.311	614
1%	20	21.748	18.506	16.124	21.730	21.839	21.573	614

Note: V/m= A/m *377

H-Field Strength at 8/10/12/14/16/18/20cm from the edges surrounding the EUT

Charging Battery Level	Measured Distance (cm)	Unit	Measured H-Field Strength Values (A/m)						FCC H-Field Strength Limits (A/m)
			Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	
99%	8	uT	0.072	0.052	0.052	0.064	0.065	0.070	--
99%	8	A/m	0.058	0.042	0.042	0.051	0.052	0.056	1.63
50%	8	uT	0.065	0.052	0.053	0.072	0.071	0.066	--
50%	8	A/m	0.052	0.042	0.042	0.058	0.057	0.053	1.63
1%	8	uT	0.062	0.056	0.053	0.067	0.066	0.073	--
1%	8	A/m	0.050	0.045	0.043	0.053	0.053	0.058	1.63
99%	10	uT	0.071	0.059	0.053	0.071	0.067	0.071	--
99%	10	A/m	0.057	0.047	0.042	0.057	0.053	0.057	1.63
50%	10	uT	0.064	0.057	0.059	0.069	0.063	0.069	--
50%	10	A/m	0.051	0.046	0.047	0.055	0.050	0.055	1.63
1%	10	uT	0.067	0.057	0.059	0.064	0.062	0.063	--
1%	10	A/m	0.054	0.046	0.047	0.051	0.050	0.050	1.63
99%	12	uT	0.062	0.052	0.062	0.063	0.071	0.069	--
99%	12	A/m	0.050	0.042	0.050	0.050	0.057	0.055	1.63
50%	12	uT	0.069	0.052	0.052	0.072	0.070	0.064	--
50%	12	A/m	0.055	0.042	0.042	0.058	0.056	0.051	1.63
1%	12	uT	0.064	0.059	0.060	0.070	0.063	0.066	--
1%	12	A/m	0.051	0.047	0.048	0.056	0.050	0.053	1.63
99%	14	uT	0.073	0.045	0.060	0.067	0.069	0.069	--
99%	14	A/m	0.059	0.036	0.048	0.053	0.055	0.056	1.63
50%	14	uT	0.070	0.062	0.061	0.064	0.064	0.062	--
50%	14	A/m	0.056	0.050	0.049	0.051	0.052	0.050	1.63
1%	14	uT	0.069	0.044	0.059	0.063	0.072	0.064	--
1%	14	A/m	0.055	0.035	0.047	0.050	0.057	0.051	1.63
99%	16	uT	0.071	0.059	0.062	0.064	0.072	0.071	--
99%	16	A/m	0.057	0.047	0.049	0.051	0.058	0.057	1.63
50%	16	uT	0.063	0.047	0.061	0.065	0.066	0.064	--
50%	16	A/m	0.050	0.038	0.049	0.052	0.053	0.051	1.63
1%	16	uT	0.068	0.043	0.062	0.066	0.063	0.069	--
1%	16	A/m	0.055	0.034	0.049	0.053	0.050	0.055	1.63
99%	18	uT	0.062	0.053	0.052	0.067	0.067	0.071	--
99%	18	A/m	0.050	0.042	0.042	0.054	0.054	0.057	1.63
50%	18	uT	0.068	0.055	0.054	0.065	0.071	0.071	--
50%	18	A/m	0.054	0.044	0.043	0.052	0.056	0.057	1.63
1%	18	uT	0.073	0.059	0.063	0.065	0.064	0.063	--
1%	18	A/m	0.058	0.047	0.050	0.052	0.051	0.050	1.63
99%	20	uT	0.067	0.055	0.058	0.070	0.067	0.063	--
99%	20	A/m	0.053	0.044	0.046	0.056	0.053	0.051	1.63
50%	20	uT	0.064	0.044	0.056	0.062	0.069	0.064	--
50%	20	A/m	0.051	0.035	0.045	0.050	0.055	0.051	1.63

1%	20	uT	0.072	0.061	0.053	0.072	0.072	0.072	--
1%	20	A/m	0.058	0.049	0.043	0.058	0.058	0.057	1.63

Note: A/m=uT/1.25

According to the formula:

The formula for the magnetic field strength at a distance r from the coil is

$$H = I/(2\pi r) \cdot \mu$$

H is A/m

I is the current intensity

μ is the permeability, and its value depends on the medium.

The other parameters are fixed, so H is inversely proportional to r.

ABCDEF direction The actual distance(r) to the antenna coil.

measured distance(cm)	Actual distance r to the antenna (cm)					
	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F
20	24.262	20.865	21.563	21.323	20.762	21.553
18	23.262	18.865	19.563	19.323	18.762	19.553
16	20.262	15.865	17.563	17.323	16.762	17.553
14	18.262	14.865	15.563	15.323	14.762	15.553
12	17.262	12.865	13.563	13.323	12.762	13.553
10	14.262	10.865	11.563	11.323	10.762	11.553
8	12.262	8.865	8.563	9.323	8.762	9.553
6	11.262	6.865	6.563	7.323	6.762	7.553
4	9.262	4.865	5.563	5.323	4.762	5.553
2	7.262	2.865	3.563	3.323	2.762	3.553
0	5.262	0.865	1.563	1.323	0.762	1.553

Note: The phone is 8.35mm thick.

The result is calculated by the above formula:

H-Field Strength at 0/2/4/6cm from the edges surrounding the EUT

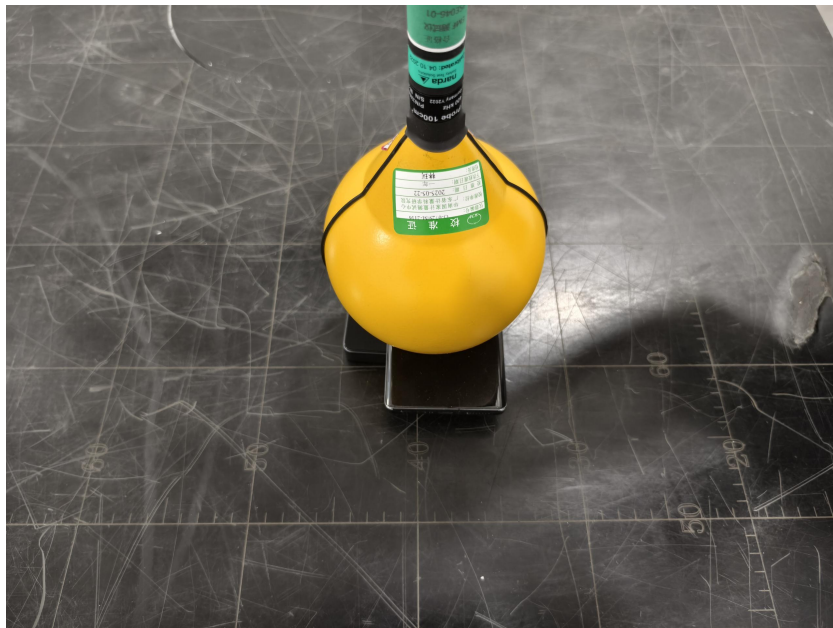
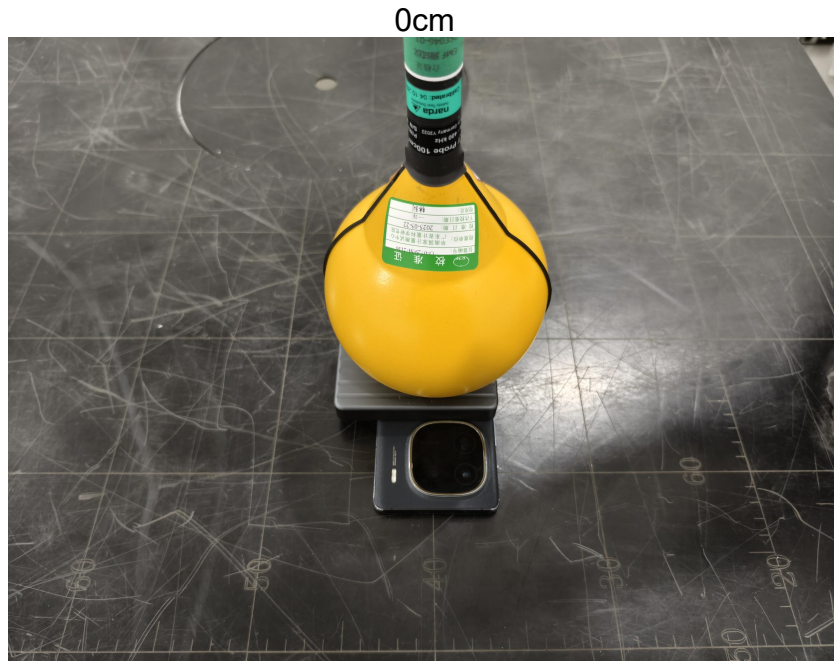
Charging Battery Level	Measured Distance (cm)	Unit	Measured H-Field Strength Values (A/m)						FCC H-Field Strength Limits (A/m)
			Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	
1%	0	A/m	0.6832	0.7306	0.6839	0.6399	0.6507	0.6939	1.63
50%	0	A/m	0.6787	0.7351	0.7153	0.7239	0.6661	0.6570	1.63
99%	0	A/m	0.6554	0.6693	0.6313	0.6708	0.6684	0.7348	1.63
1%	2	A/m	0.6878	0.6918	0.6827	0.6241	0.6287	0.7112	1.63
50%	2	A/m	0.6268	0.6661	0.6961	0.6626	0.6962	0.6490	1.63
99%	2	A/m	0.6498	0.7008	0.6635	0.7119	0.6554	0.7298	1.63
1%	4	A/m	0.6524	0.7289	0.7251	0.6448	0.6830	0.6655	1.63
50%	4	A/m	0.7161	0.6995	0.6957	0.7233	0.6963	0.7162	1.63
99%	4	A/m	0.6562	0.6505	0.7004	0.6409	0.6426	0.6636	1.63
1%	6	A/m	0.7248	0.6633	0.6388	0.6248	0.6472	0.6306	1.63
50%	6	A/m	0.6637	0.7037	0.6451	0.6961	0.7361	0.6371	1.63
99%	6	A/m	0.7101	0.6566	0.6461	0.6460	0.6963	0.6347	1.63

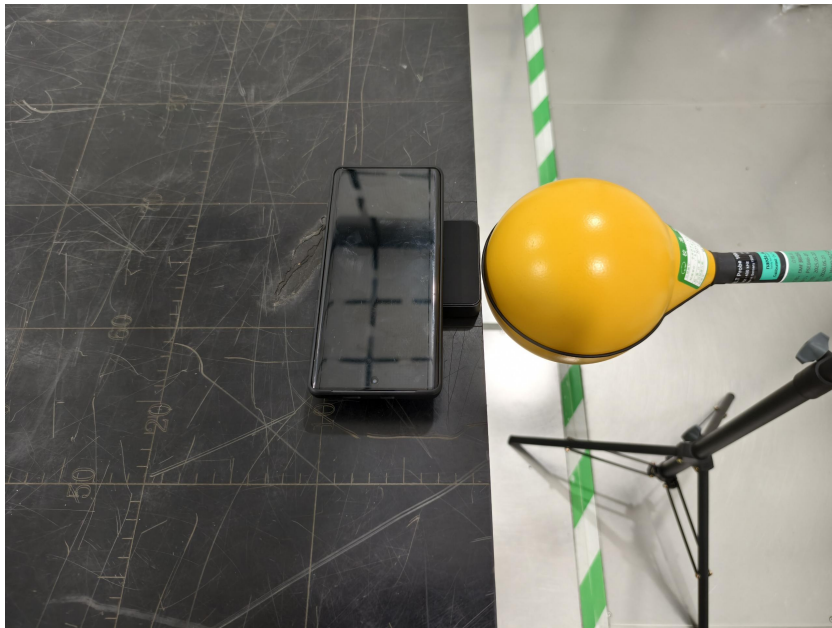
3.1.4. Conclusion

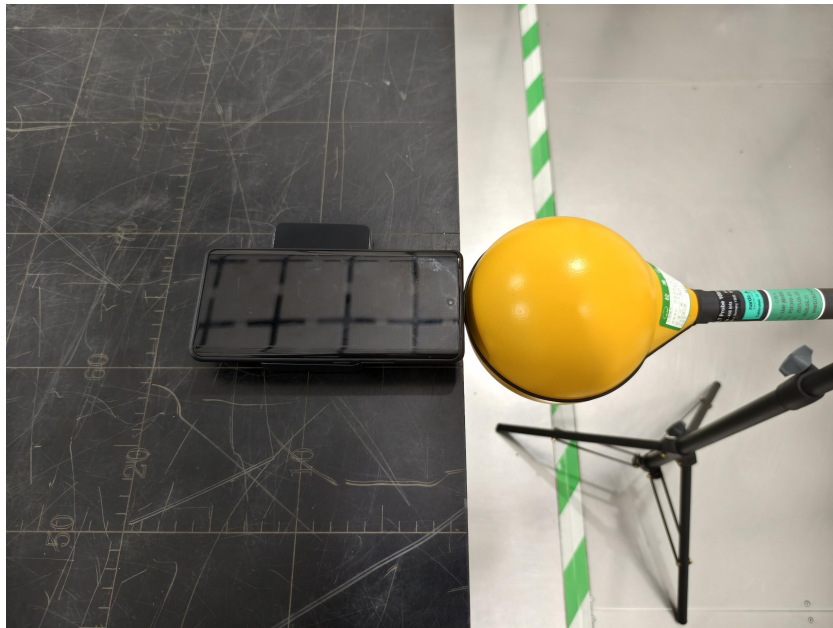
A minimum safety distance of 0 cm to the antenna is required when the device is charging a smart phone for mobile exposure. The detected emissions are below the limitations according FCC KDB 680106.

The model was established with a 30% agreement, so it was considered to be approved.

4. Photos of test setup

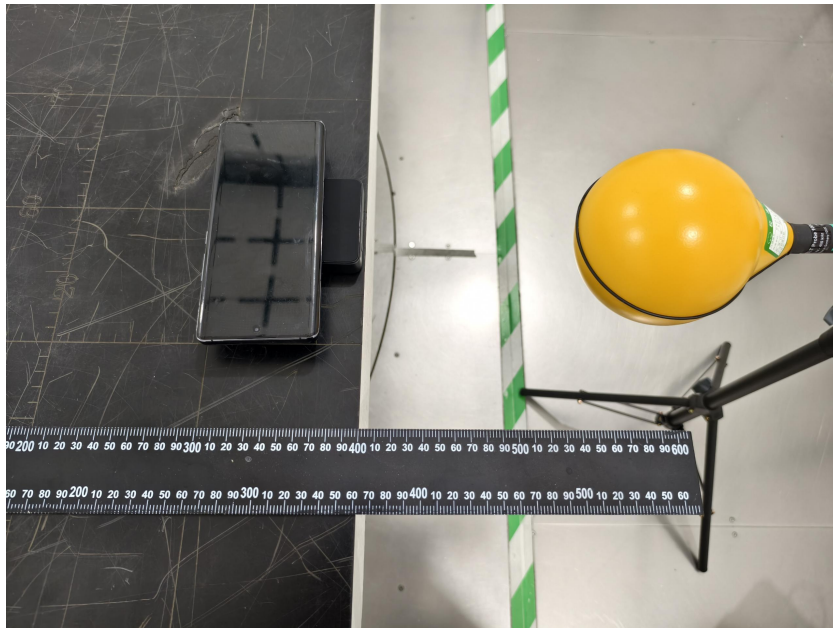
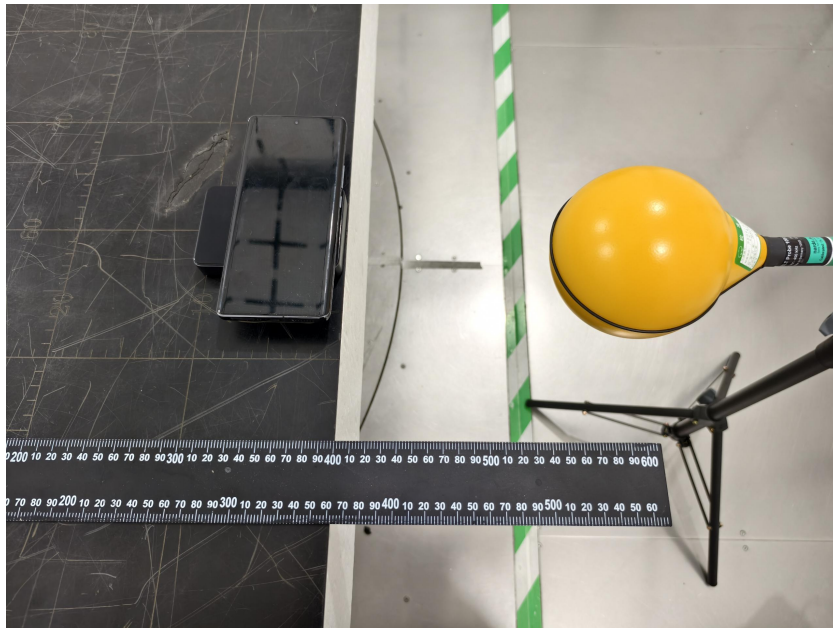


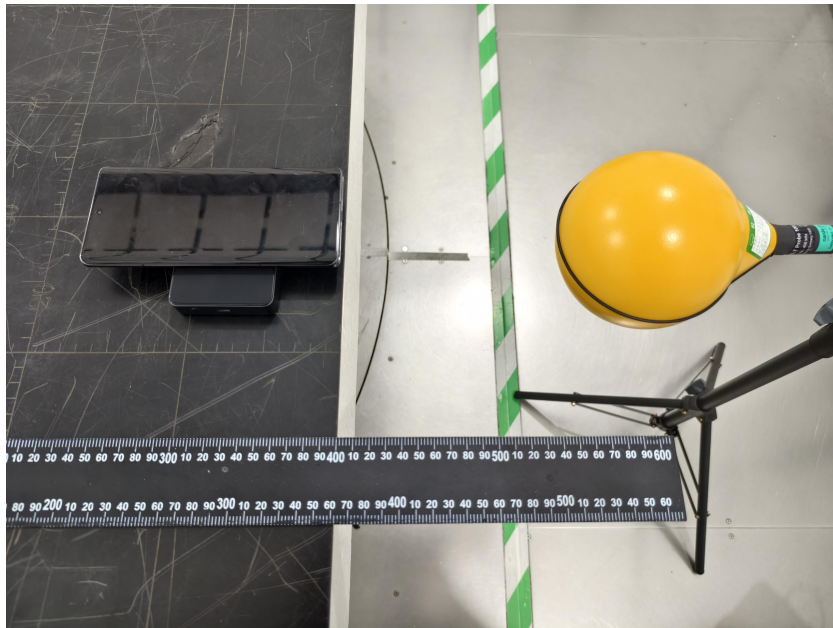
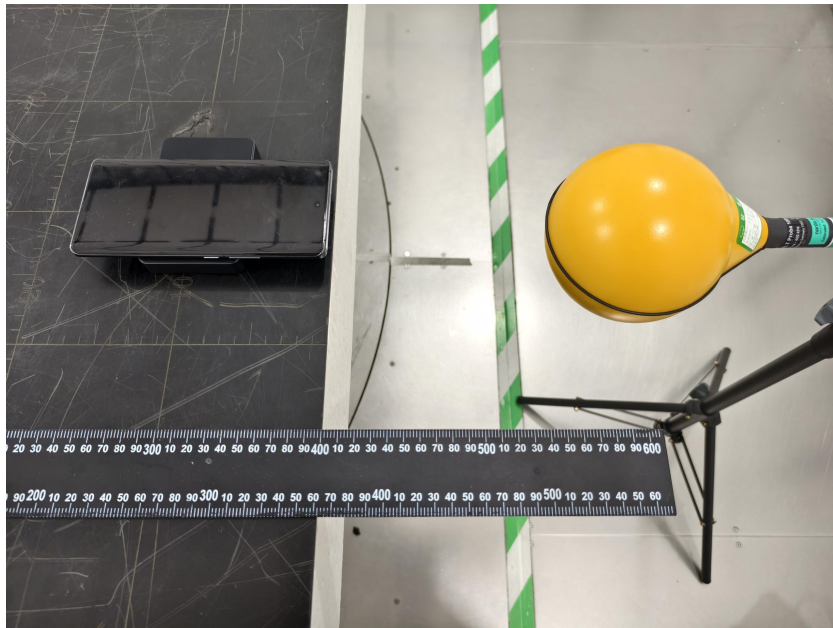




20cm







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