

Mitech Electronics Co Limited

TEST REPORT

SCOPE OF WORK

SAR Assessment– CW14 CW06, CW08, CW10, CW11,CW12,
CW13, CW15, CW16, CW17, CW18, CW19, CW20

REPORT NUMBER

230703055SZN-004

ISSUE DATE

16 August 2023

[REVISED DATE]

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PAGES

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DOCUMENT CONTROL NUMBER

RF Exposure

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Test Report

Applicant : Mitech Electronics Co Limited
Flat/Rm 1303, 13/F, Cheong Tai Building, No 287-289
Reclamation Street, KL, HK, China

Sample Description

Product : Wireless Charging Car Mount
Model No. : CW14,
Additional Model : CW06, CW08, CW10, CW11, CW12, CW13, CW15, CW16,
CW17, CW18, CW19, CW20
FCC ID : 2BB4I-CW14
Brand Name : Mitech
Electrical Rating : Input: DC 9V 2A via USB port

Date Received : 03 July 2023
Date Test Conducted : 03 July 2023 to 14 July 2023

Test Requested : Test for compliance with CFR 47 part 1
Test Method : Environmental evaluation and exposure limit according
to FCC CFR 47 part 1, 1.1307(c) and (d), 1.1310

Test Result : Pass
Conclusion : When determining of test conclusion, measurement
uncertainty of tests have been considered.

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Approved By:



Peter Kang
Sr. Technical Supervisor
Date: 16 August 2023

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Intertek Testing Services Shenzhen Ltd. Longhua Branch

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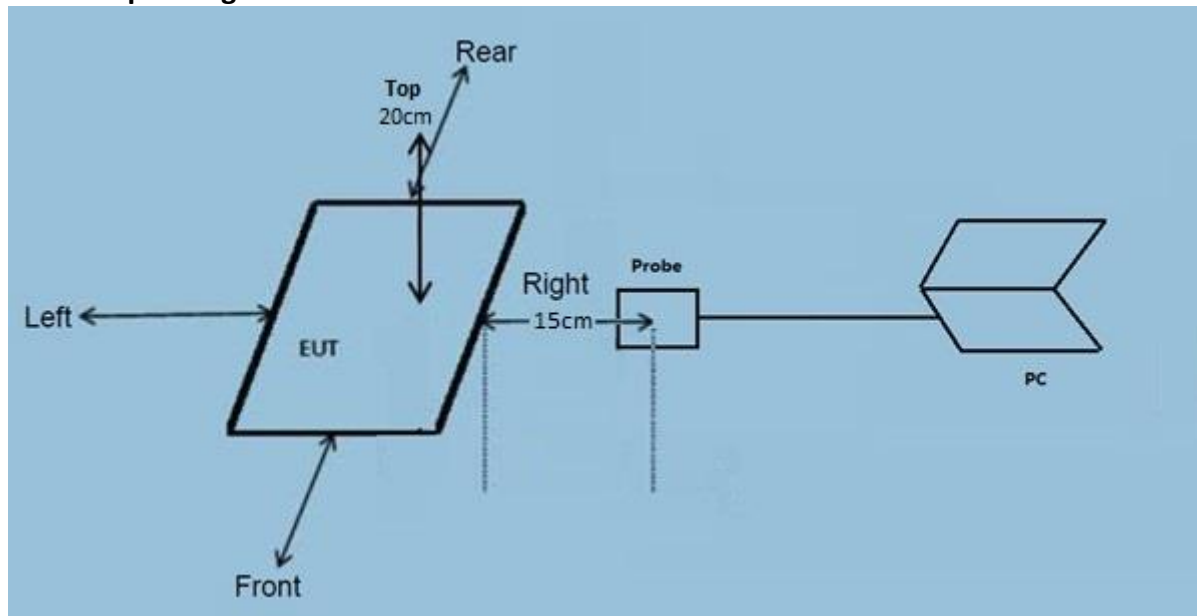
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Test Report

Test data specification

Since this report and 230703055SZN-002 is the same product, all the test data in this report are quoted from 230703055SZN-002, FCC ID: 2BCBM-CW14.

Test Setup Configuration



Note

- The RF exposure test is performed in the shield room.
- The test distance is between the edge of the charger and the geometric centre of probe.

Test Equipment List

Equipment No.	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
SZ186-04	Electric and Magnetic Field Analyzer	Narda	EHP-50F	510WY90119	2022-08-01	2023-08-01

Support Equipment List

Description	Manufacturer	Detail
Mobile Phone (Provided by Intertek)	Samsung	S7
USB cable (Provided by Applicant)	Merchsource, LLC	Unshielded, without ferrite, 100cm
Car Charger (Provided by Applicant)	Merchsource, LLC	Input DC 12/24V Output 3.6-6.5V/3A, 6.5-9V/2A, 9-12V/1.5A
Car Charger Adapter with DC undetachable cable (Provided by Intertek)	/	Unshield, 70cm
VALVE REGULATED LEAD-ACID BATTERY (Provided by Intertek)	OCEAN	12V7Ah (20HR)

Reference Limit:

Environmental evaluation and exposure limit according to FCC CFR 47 part 1, 1.1307(c) and (d), 1.1310

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation.

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3 – 1.34	614	1.63	(100) *	30

Note: * = Plane wave equivalent power density

Test Result: Pass
H-Field Strength at 0 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (A/m)	Probe Position Rear (A/m)	Probe Position Left (A/m)	Probe Position Right (A/m)	Probe Position Top (A/m)	Probe Position Bottom (A/m)	Limits (A/m)
0.110-0.205	1% Battery Level	0.1335	0.1335	0.1302	0.1326	0.1338	0.1397	1.63
0.110-0.205	50% Battery Level	0.1333	0.1334	0.1249	0.1311	0.1323	0.1342	1.63
0.110-0.205	99% Battery Level	0.1125	0.1250	0.1178	0.1141	0.1139	0.1312	1.63
0.110-0.205	Stand-by	0.1101	0.1249	0.1119	0.1104	0.1098	0.1307	1.63

E-Field Strength at 0 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (V/m)	Probe Position Rear (V/m)	Probe Position Left (V/m)	Probe Position Right (V/m)	Probe Position Top (V/m)	Probe Position Bottom (V/m)	Limits (V/m)
0.110-0.205	1% Battery Level	6.6922	6.4622	6.4805	6.2908	7.0044	6.6204	614
0.110-0.205	50% Battery Level	6.5833	6.4339	6.4582	6.1324	6.9936	6.5796	614
0.110-0.205	99% Battery Level	6.1431	6.0970	6.4306	6.1218	6.0991	6.4434	614
0.110-0.205	Stand-by	6.0767	6.0670	6.2381	6.0349	5.8151	6.2019	614

H-Field Strength at 2 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (A/m)	Probe Position Rear (A/m)	Probe Position Left (A/m)	Probe Position Right (A/m)	Probe Position Top (A/m)	Probe Position Bottom (A/m)	Limits (A/m)
0.110-0.205	1% Battery Level	0.2446	0.2387	0.2313	0.2328	0.2309	0.2351	1.63
0.110-0.205	50% Battery Level	0.2338	0.2367	0.2275	0.2311	0.2293	0.2349	1.63
0.110-0.205	99% Battery Level	0.2331	0.2354	0.2263	0.2269	0.2277	0.2328	1.63
0.110-0.205	Stand-by	0.2246	0.2300	0.2201	0.2153	0.1992	0.2301	1.63

E-Field Strength at 2 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (V/m)	Probe Position Rear (V/m)	Probe Position Left (V/m)	Probe Position Right (V/m)	Probe Position Top (V/m)	Probe Position Bottom (V/m)	Limits (V/m)
0.110-0.205	1% Battery Level	4.2119	4.6216	4.0451	4.6668	4.0770	4.3007	614
0.110-0.205	50% Battery Level	4.1799	4.3084	4.0426	4.6625	4.0348	4.2425	614
0.110-0.205	99% Battery Level	4.0563	4.2838	4.0283	4.0689	4.0056	4.1883	614
0.110-0.205	Stand-by	3.9721	4.1734	3.9534	4.0466	3.8386	4.1497	614

H-Field Strength at 4 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (A/m)	Probe Position Rear (A/m)	Probe Position Left (A/m)	Probe Position Right (A/m)	Probe Position Top (A/m)	Probe Position Bottom (A/m)	Limits (A/m)
0.110-0.205	1% Battery Level	0.2276	0.2272	0.2289	0.2278	0.2275	0.2266	1.63
0.110-0.205	50% Battery Level	0.2270	0.2259	0.2274	0.2270	0.2253	0.2262	1.63
0.110-0.205	99% Battery Level	0.2254	0.2239	0.2270	0.2249	0.2252	0.2253	1.63
0.110-0.205	Stand-by	0.2215	0.2199	0.2266	0.2190	0.2218	0.1926	1.63

E-Field Strength at 4 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (V/m)	Probe Position Rear (V/m)	Probe Position Left (V/m)	Probe Position Right (V/m)	Probe Position Top (V/m)	Probe Position Bottom (V/m)	Limits (V/m)
0.110-0.205	1% Battery Level	4.3255	4.5805	4.6635	4.4878	4.4118	4.3841	614
0.110-0.205	50% Battery Level	4.2135	4.5226	4.6215	4.4572	4.4070	4.2619	614
0.110-0.205	99% Battery Level	4.0698	4.0778	4.2267	4.1208	4.3743	4.1883	614
0.110-0.205	Stand-by	3.9486	4.0394	4.1311	4.0645	4.1861	4.1772	614

H-Field Strength at 6 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (A/m)	Probe Position Rear (A/m)	Probe Position Left (A/m)	Probe Position Right (A/m)	Probe Position Top (A/m)	Probe Position Bottom (A/m)	Limits (A/m)
0.110-0.205	1% Battery Level	0.2245	0.2256	0.2240	0.2233	0.2222	0.2231	1.63
0.110-0.205	50% Battery Level	0.2220	0.2251	0.2237	0.2231	0.2210	0.2290	1.63
0.110-0.205	99% Battery Level	0.1916	0.2212	0.2224	0.2233	0.2206	0.2273	1.63
0.110-0.205	Stand-by	0.1878	0.2116	0.1910	0.2219	0.1913	0.2150	1.63

E-Field Strength at 6 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (V/m)	Probe Position Rear (V/m)	Probe Position Left (V/m)	Probe Position Right (V/m)	Probe Position Top (V/m)	Probe Position Bottom (V/m)	Limits (V/m)
0.110-0.205	1% Battery Level	4.5612	4.4115	4.1095	4.5281	4.4110	4.1416	614
0.110-0.205	50% Battery Level	4.5609	4.4083	4.0874	4.4586	4.4062	4.1347	614
0.110-0.205	99% Battery Level	4.3684	4.2287	4.0540	4.3525	4.3183	4.0950	614
0.110-0.205	Stand-by	4.0076	4.1438	3.7699	4.2013	4.3147	3.8484	614

H-Field Strength at 8 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (A/m)	Probe Position Rear (A/m)	Probe Position Left (A/m)	Probe Position Right (A/m)	Probe Position Top (A/m)	Probe Position Bottom (A/m)	Limits (A/m)
0.110-0.205	1% Battery Level	0.0355	0.0352	0.0345	0.0355	0.0354	0.0352	1.63
0.110-0.205	50% Battery Level	0.0343	0.0334	0.0337	0.0331	0.0340	0.0340	1.63
0.110-0.205	99% Battery Level	0.0305	0.0333	0.0293	0.0318	0.0336	0.0334	1.63
0.110-0.205	Stand-by	0.0280	0.0187	0.0286	0.0273	0.0284	0.0293	1.63

E-Field Strength at 8 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (V/m)	Probe Position Rear (V/m)	Probe Position Left (V/m)	Probe Position Right (V/m)	Probe Position Top (V/m)	Probe Position Bottom (V/m)	Limits (V/m)
0.110-0.205	1% Battery Level	1.5803	1.6314	1.4872	1.5118	1.5144	1.5047	614
0.110-0.205	50% Battery Level	1.5747	1.4497	1.4639	1.3617	1.5118	1.5043	614
0.110-0.205	99% Battery Level	1.3276	1.4301	1.2610	1.3430	1.3211	1.3722	614
0.110-0.205	Stand-by	1.1567	1.4201	1.0661	1.3393	1.2615	1.1755	614

H-Field Strength at 10 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (A/m)	Probe Position Rear (A/m)	Probe Position Left (A/m)	Probe Position Right (A/m)	Probe Position Top (A/m)	Probe Position Bottom (A/m)	Limits (A/m)
0.110-0.205	1% Battery Level	0.0357	0.0377	0.0365	0.0367	0.0370	0.0366	1.63
0.110-0.205	50% Battery Level	0.0349	0.0359	0.0354	0.0358	0.0351	0.0342	1.63
0.110-0.205	99% Battery Level	0.0304	0.0343	0.0338	0.0343	0.0337	0.0339	1.63
0.110-0.205	Stand-by	0.0261	0.0333	0.0294	0.0302	0.0284	0.0280	1.63

E-Field Strength at 10 cm surrounding the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (V/m)	Probe Position Rear (V/m)	Probe Position Left (V/m)	Probe Position Right (V/m)	Probe Position Top (V/m)	Probe Position Bottom (V/m)	Limits (V/m)
0.110-0.205	1% Battery Level	1.2925	1.4878	1.3885	1.3192	1.4447	1.5067	614
0.110-0.205	50% Battery Level	1.2878	1.3888	1.3241	1.2869	1.4057	1.3804	614
0.110-0.205	99% Battery Level	1.1933	1.2879	1.3169	1.2791	1.3100	1.3777	614
0.110-0.205	Stand-by	1.1488	1.1134	1.2031	1.2591	1.2613	1.0963	614

H-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT

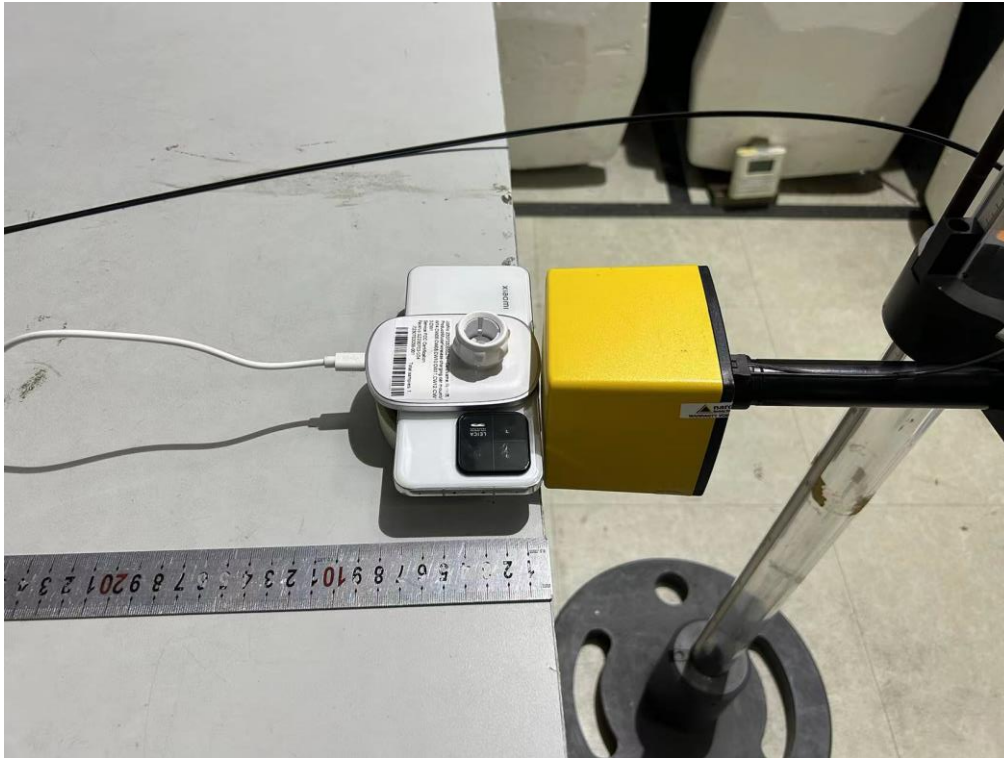
Frequency Range (MHz)	EUT Operation mode	Probe Position Front (A/m)	Probe Position Rear (A/m)	Probe Position Left (A/m)	Probe Position Right (A/m)	Probe Position Top (A/m)	Limits (A/m)
0.110-0.205	1% Battery Level	0.0236	0.0216	0.0216	0.0220	0.0222	1.63
0.110-0.205	50% Battery Level	0.0219	0.0214	0.0210	0.0215	0.0204	1.63
0.110-0.205	99% Battery Level	0.0203	0.0204	0.0191	0.0211	0.0198	1.63
0.110-0.205	Stand-by	0.0190	0.0178	0.0188	0.0185	0.0164	1.63

E-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT

Frequency Range (MHz)	EUT Operation mode	Probe Position Front (V/m)	Probe Position Rear (V/m)	Probe Position Left (V/m)	Probe Position Right (V/m)	Probe Position Top (V/m)	Limits (V/m)
0.110-0.205	1% Battery Level	1.0831	1.0842	1.1071	0.9805	1.0265	614
0.110-0.205	50% Battery Level	1.0788	1.0775	1.1024	0.9779	1.0233	614
0.110-0.205	99% Battery Level	1.0507	0.9315	0.9655	0.9590	0.9096	614
0.110-0.205	Stand-by	0.9564	0.9091	0.8369	0.7901	0.8353	614

Configuration photo of the test:

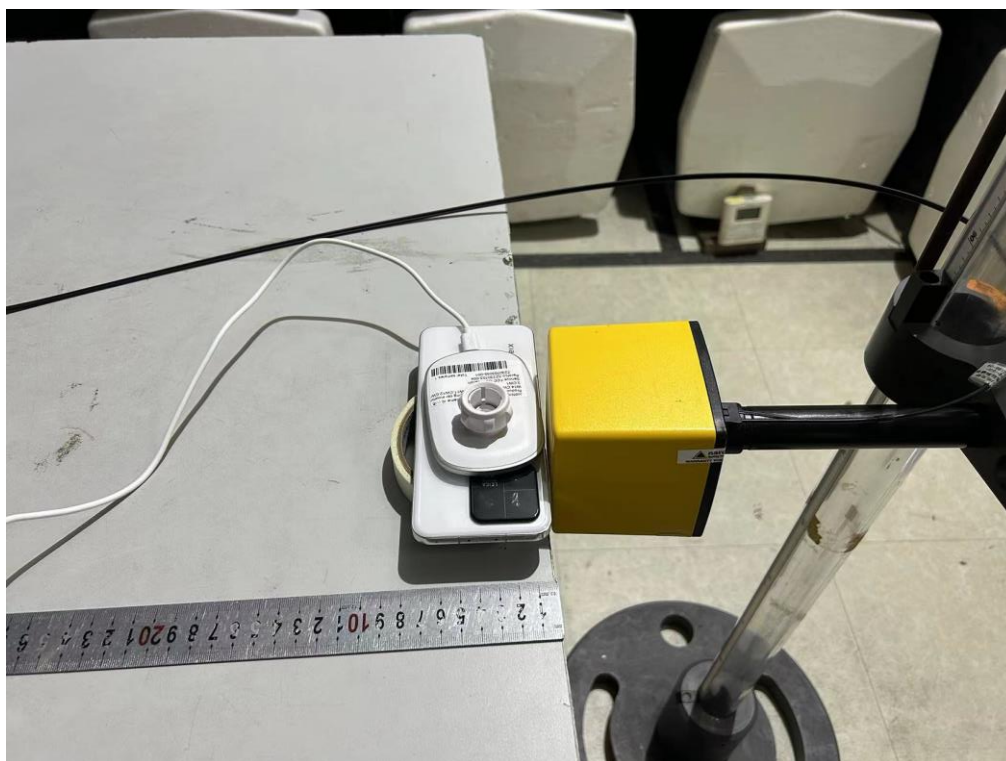
H-Field & E-Field Strength test photos



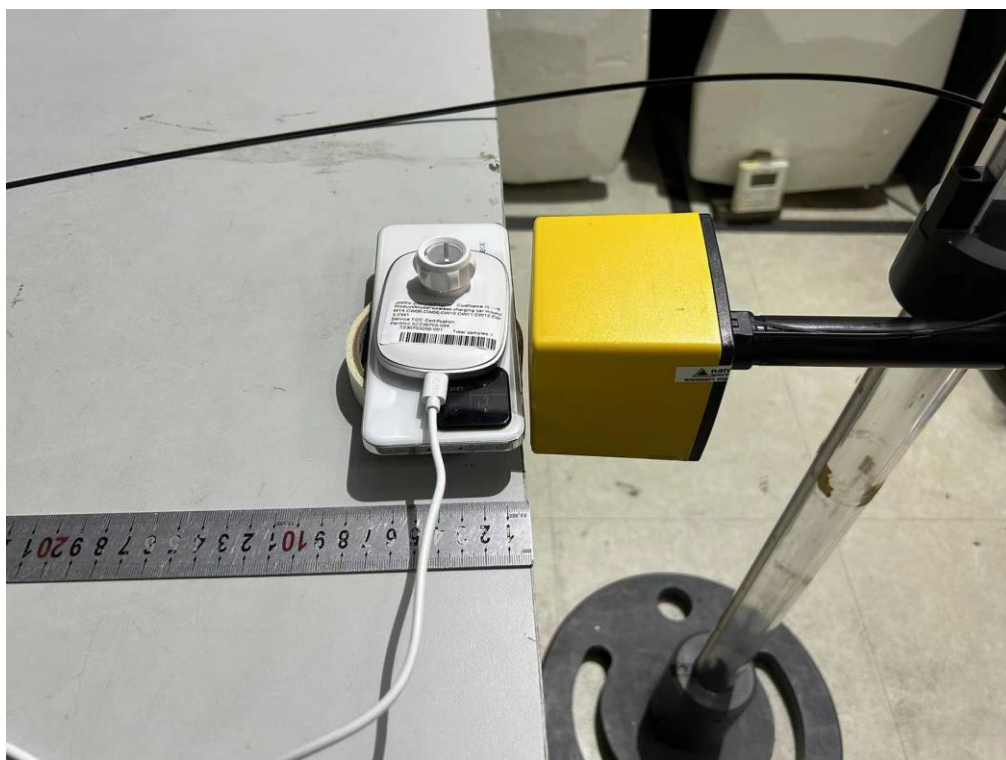
Front 0cm



Rear 0cm



Left 0cm



Right 0cm



Top 0cm



Bottom 0cm

***** End of Report*****