

FCC TEST REPORT

For

Curv Group LLC

Product Name: Tire Hero Wireless Air Pump

Test Model(s): PUP-0590

Report Reference No. : DACE241216024RL001

FCC ID : 2AMNT-PUP-0590

Applicant's Name : Curv Group LLC

Address : 860 Bonnie Lane, Elk Grove Village, IL 60007

Testing Laboratory : Shenzhen DACE Testing Technology Co., Ltd.

Address : 102, Building H1, & 1/F., Building H, Hongfa Science & Technology Park,
Tangtou Community, Shiyan Subdistrict, Bao'an District, Shenzhen,
Guangdong, China

Test Specification Standard : 47 CFR Part 15, Subpart B

Date of Receipt : December 16, 2024

Date of Test : December 16, 2024 to December 24, 2024

Data of Issue : December 24, 2024

Result : Pass

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000002071

Apply for company information

Applicant's Name	:	Curv Group LLC
Address	:	860 Bonnie Lane, Elk Grove Village, IL 60007
Product Name	:	Tire Hero Wireless Air Pump
Test Model(s)	:	PUP-0590
Test Specification Standard(s)	:	47 CFR Part 15, Subpart B



NOTE1:

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

Compiled by:

Keren Huang

Keren Huang/Test Engineer

December 24, 2024

Supervised by:

Stone Yin

Stone Yin / Project Engineer

December 24, 2024



Approved by:

Tom Chen

Tom Chen / Manager

December 24, 2024

Revision History Of Report

Version	Description	REPORT No.	Issue Date
V1.0	Original	DACE241216024RL001	December 24, 2024

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1 TEST SUMMARY

1.1 Test Standards

The tests were performed according to following standards:

47 CFR Part 15, Subpart B: Unintentional Radiators

1.2 Summary of Test Result

Item	Standard	Method	Requirement	Result
Conducted emissions on AC mains	47 CFR Part 15, Subpart B	ANSI C63.4-2014	15.107, Class B	Pass
Radiated emissions (Below 1GHz)	47 CFR Part 15, Subpart B	ANSI C63.4-2014	15.109, Class B	Pass

2 GENERAL INFORMATION

2.1 Client Information

Applicant's Name : Curv Group LLC
Address : 860 Bonnie Lane, Elk Grove Village, IL 60007

Manufacturer : Curv Group LLC
Address : 860 Bonnie Lane, Elk Grove Village, IL 60007

2.2 Description of Device (EUT)

Product Name:	Tire Hero Wireless Air Pump
Model/Type reference:	PUP-0590
Trade Mark:	N/A
Product Description:	Tire Hero Wireless Air Pump
Power Supply:	DC11.1V from battery; charging by DC5.0V-2A from type-c port
Hardware Version:	V1.5
Software Version:	V1.0
Highest Internal Frequency:	1.705-108MHz
Classification of Equipment:	Class B

2.3 Description of Test Modes

No	Title	Description
TM1	WORKING MODE	WORKING MODE

2.4 Description of Support Units

Title	Manufacturer	Model No.	Serial No.
Adapter	PHOTON	ATXC-069AC65B	/

2.5 Equipments Used During The Test

Conducted emissions on AC mains					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Cable	SCHWARZ BECK	/	/	2024-03-20	2025-03-19
Pulse Limiter	SCHWARZ BECK	VTSD 9561-F Pulse limiter 10dB	561-G071	2024-12-06	2025-12-05
50ΩCoaxial Switch	Anritsu	MP59B	M20531	/	/
Test Receiver	Rohde & Schwarz	ESPI TEST RECEIVER	1164.6607K03 -102109-MH	2024-06-12	2025-06-11
L.I.S.N	R&S	ESH3-Z5	831.5518.52	2023-12-12	2025-12-11
L.I.S.N	SCHWARZ BECK	NSLK 8126	05055	2024-06-14	2025-06-13
Pulse Limiter	CYBERTEK	EM5010A	/	2024-09-27	2025-09-26
EMI test software	EZ -EMC	EZ	V1.1.42	/	/

Radiated emissions (Below 1GHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Cable(HF)2	SCHWARZ BECK	50Ω	/	2024-03-20	2025-03-19
Cable(HF)1	SCHWARZ BECK	50Ω	/	2024-03-20	2025-03-19
Cable(LF)2	SCHWARZ BECK	50Ω	/	2024-03-20	2025-03-19
Cable(LF)1	SCHWARZ BECK	50Ω	/	2024-03-20	2025-03-19
control	MF	MF-7802	MF780208362	2024-12-09	2025-12-08
Test Receiver	Rohde & Schwarz	ESPI TEST RECEIVER	ID:1164.6607K 03-102109-MH	2024-06-12	2025-06-11
EMI Test software	Farad	EZ -EMC	V1.1.42	/	/
Positioning Controller	MF	MF-7802	/	/	/
Amplifier(18-40G)	COM-POWER	AH-1840	10100008-1	2022-04-05	2025-04-04
Horn antenna	COM-POWER	AH-1840 (18-40G)	10100008	2023-04-05	2025-04-04
Loop antenna	ZHINAN	ZN30900C	ZN30900C	2024-06-14	2026-06-13
Power amplifier(LF)	Schwarzbeck	BBV9743	9743-151	2024-06-12	2025-06-11
Power amplifier(HF)	Schwarzbeck	BBV9718	9718-282	2024-06-12	2025-06-11
Test Receiver	R&S	ESCI 3	1166.5950K03 -101431-Jq	2024-06-13	2025-06-12
Horn Antenna	Sunol Sciences	DRH-118	A091114	2023-05-13	2025-05-12
Broadband Antenna	Sunol Sciences	JB6 Antenna	A090414	2024-09-28	2026-09-27

2.6 Statement Of The Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Disturbance (0.15~30MHz)	$\pm 3.41\text{dB}$
Radiated Emission (Below 1GHz)	$\pm 5.79\text{dB}$
Note: (1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.	

2.7 Authorizations

Company Name:	Shenzhen DACE Testing Technology Co., Ltd.
Address:	102, Building H1, & 1/F., Building H, Hongfa Science & Technology Park, Tangtou Community, Shiyan Subdistrict, Bao'an District, Shenzhen, Guangdong, China
Phone Number:	+86-13267178997
Fax Number:	86-755-29113252

Identification of the Responsible Testing Location

Company Name:	Shenzhen DACE Testing Technology Co., Ltd.
Address:	102, Building H1, & 1/F., Building H, Hongfa Science & Technology Park, Tangtou Community, Shiyan Subdistrict, Bao'an District, Shenzhen, Guangdong, China
Phone Number:	+86-13267178997
Fax Number:	86-755-29113252
FCC Registration Number:	0032847402
Designation Number:	CN1342
Test Firm Registration No.:	778666
A2LA Certificate Number:	6270.01

2.8 Announcement

- (1) The test report reference to the report template version v0.
- (2) The test report is invalid if not marked with the signatures of the persons responsible for preparing, reviewing and approving the test report.
- (3) The test report is invalid if there is any evidence and/or falsification.
- (4) This document may not be altered or revised in any way unless done so by DACE and all revisions are duly noted in the revisions section.
- (5) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
- (6) We hereby declare that the laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant. the laboratory is not responsible for the accuracy of the information provided by the client(item 2.2). When the information provided by the customer may affect the effectiveness of the results, the responsibility lies with the customer, and the laboratory does not assume any responsibility.

3 Emission Test Results (EMI)

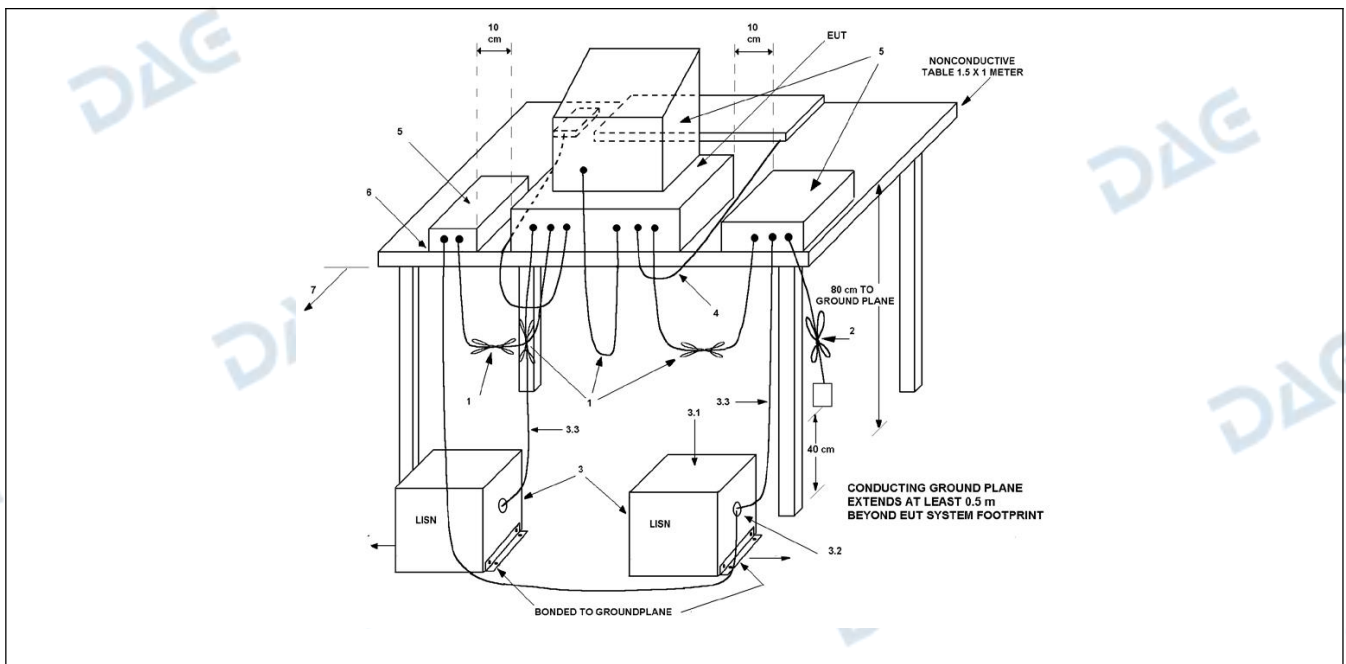
3.1 Conducted emissions on AC mains

Test Requirement:	15.107, Class B		
Test Limit:	Frequency of emission (MHz)	Conducted limit (dB μ V)	
		Quasi-peak	Average
	0.15-0.5	66 to 56*	56 to 46*
	0.5-5	56	46
	5-30	60	50
*Decreases with the logarithm of the frequency.			
Test Method:	ANSI C63.4-2014		
Procedure:	An initial pre-scan was performed with peak detector. Quasi-Peak or Average measurement were performed at the frequencies with maximized peak emission were detected. Remark: Level= Read Level+ Cable Loss+ LISN Factor		

3.1.1 E.U.T. Operation:

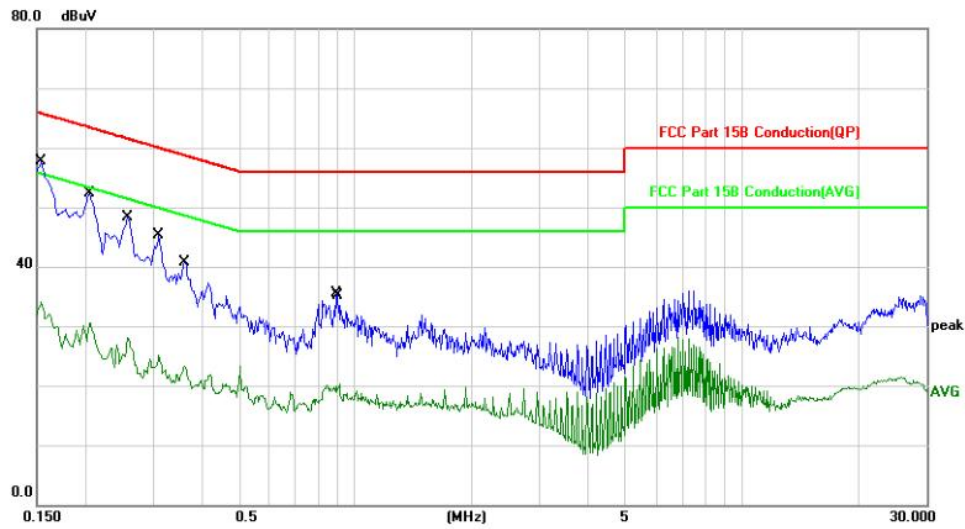
Operating Environment:					
Temperature:	23.1 °C	Humidity:	49 %	Atmospheric Pressure:	102 kPa
Pretest mode:		TM1			
Final test mode:		TM1			

3.1.2 Test Setup Diagram:



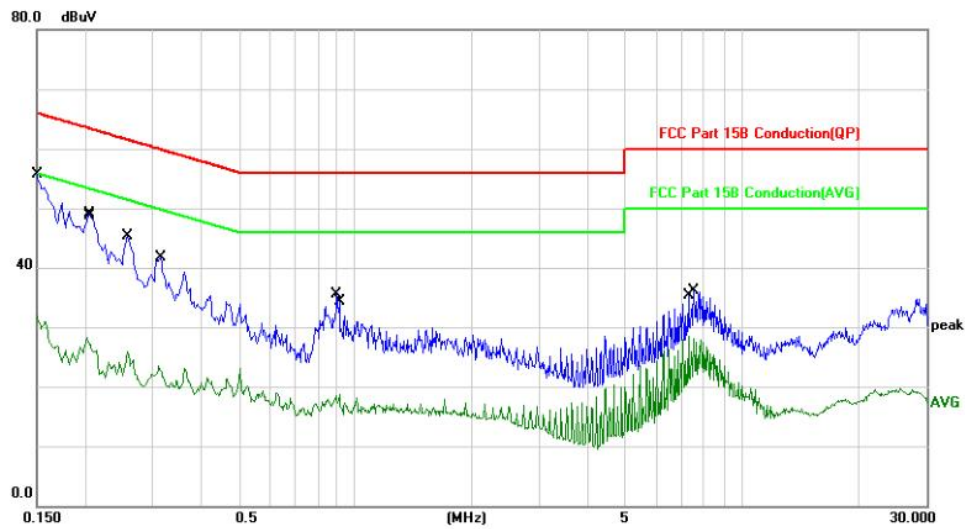
3.1.3 Test Data:

TM1 / Line: Line



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1539	47.53	10.10	57.63	65.78	-8.15	QP	
2		0.1539	24.07	10.10	34.17	55.78	-21.61	AVG	
3		0.2060	42.26	10.10	52.36	63.36	-11.00	QP	
4		0.2060	20.44	10.10	30.54	53.36	-22.82	AVG	
5		0.2580	38.13	10.09	48.22	61.49	-13.27	QP	
6		0.2580	18.08	10.09	28.17	51.49	-23.32	AVG	
7		0.3100	35.21	10.09	45.30	59.97	-14.67	QP	
8		0.3100	15.02	10.09	25.11	49.97	-24.86	AVG	
9		0.3620	30.68	10.08	40.76	58.68	-17.92	QP	
10		0.3620	13.31	10.08	23.39	48.68	-25.29	AVG	
11		0.8940	25.44	10.08	35.52	56.00	-20.48	QP	
12		0.9100	10.13	10.08	20.21	46.00	-25.79	AVG	

TM1 / Line: Neutral



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1500	45.55	10.10	55.65	65.99	-10.34	QP	
2		0.1500	21.89	10.10	31.99	55.99	-24.00	AVG	
3		0.2020	18.24	10.10	28.34	53.52	-25.18	AVG	
4		0.2060	38.95	10.10	49.05	63.36	-14.31	QP	
5		0.2580	35.12	10.09	45.21	61.49	-16.28	QP	
6		0.2580	15.77	10.09	25.86	51.49	-25.63	AVG	
7		0.3100	13.32	10.09	23.41	49.97	-26.56	AVG	
8		0.3140	31.63	10.09	41.72	59.86	-18.14	QP	
9		0.8980	25.33	10.08	35.41	56.00	-20.59	QP	
10		0.9100	8.52	10.08	18.60	46.00	-27.40	AVG	
11		7.2780	18.22	10.24	28.46	50.00	-21.54	AVG	
12		7.5100	25.82	10.24	36.06	60.00	-23.94	QP	

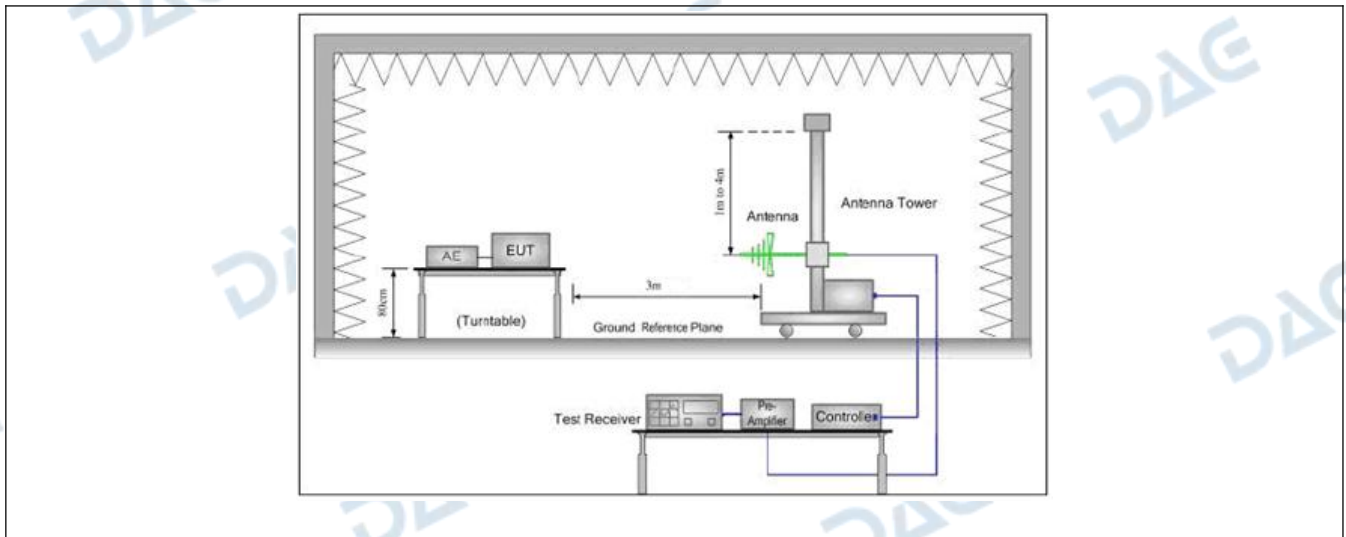
3.2 Radiated emissions (Below 1GHz)

Test Requirement:	15.109, Class B																																
Test Limit:	Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values: <table border="1"> <tr> <th rowspan="2">Frequency of emission (MHz)</th><th colspan="2">Field strength @3m</th><th colspan="2">Field strength @10m</th></tr> <tr> <th>(uV/m)</th><th>(dBuV/m)</th><th>(uV/m)</th><th>(dBuV/m)</th></tr> <tr> <td>30 – 88</td><td>100</td><td>40</td><td>30</td><td>29.5</td></tr> <tr> <td>88 – 216</td><td>150</td><td>43.5</td><td>45</td><td>33.1</td></tr> <tr> <td>216 – 960</td><td>200</td><td>46</td><td>60</td><td>35.6</td></tr> <tr> <td>Above 960</td><td>500</td><td>54</td><td>150</td><td>43.5</td></tr> </table>				Frequency of emission (MHz)	Field strength @3m		Field strength @10m		(uV/m)	(dBuV/m)	(uV/m)	(dBuV/m)	30 – 88	100	40	30	29.5	88 – 216	150	43.5	45	33.1	216 – 960	200	46	60	35.6	Above 960	500	54	150	43.5
Frequency of emission (MHz)	Field strength @3m		Field strength @10m																														
	(uV/m)	(dBuV/m)	(uV/m)	(dBuV/m)																													
30 – 88	100	40	30	29.5																													
88 – 216	150	43.5	45	33.1																													
216 – 960	200	46	60	35.6																													
Above 960	500	54	150	43.5																													
Test Method:	ANSI C63.4-2014																																
Procedure:	An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities. Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor																																

3.2.1 E.U.T. Operation:

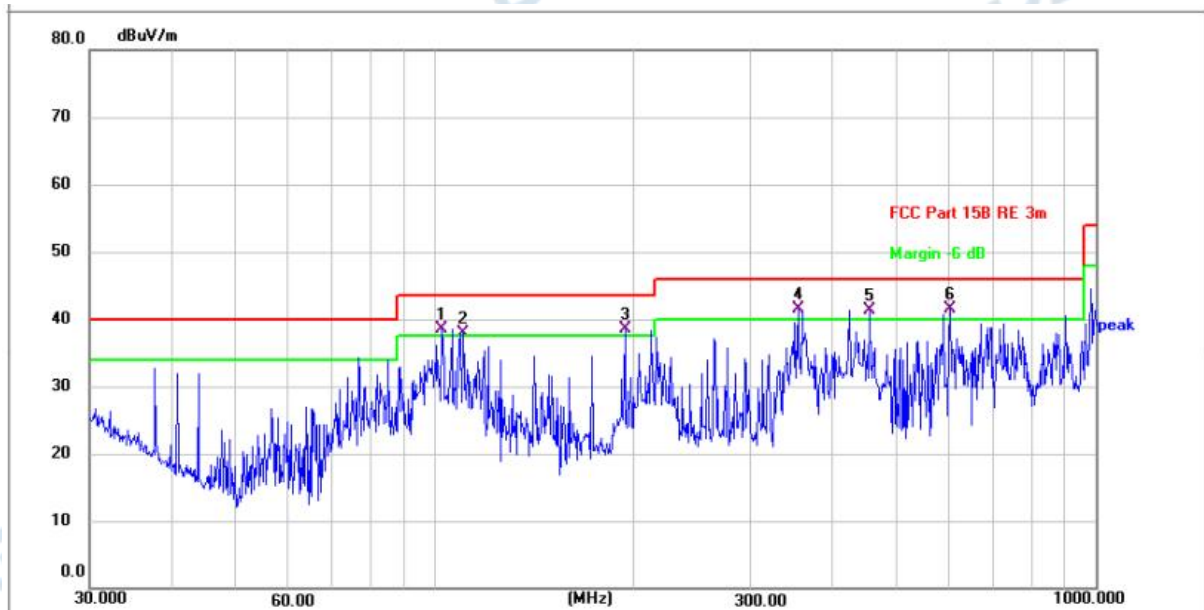
Operating Environment:					
Temperature:	23.1 °C	Humidity:	49 %	Atmospheric Pressure:	102 kPa
Pretest mode:		TM1			
Final test mode:		TM1			

3.2.2 Test Setup Diagram:



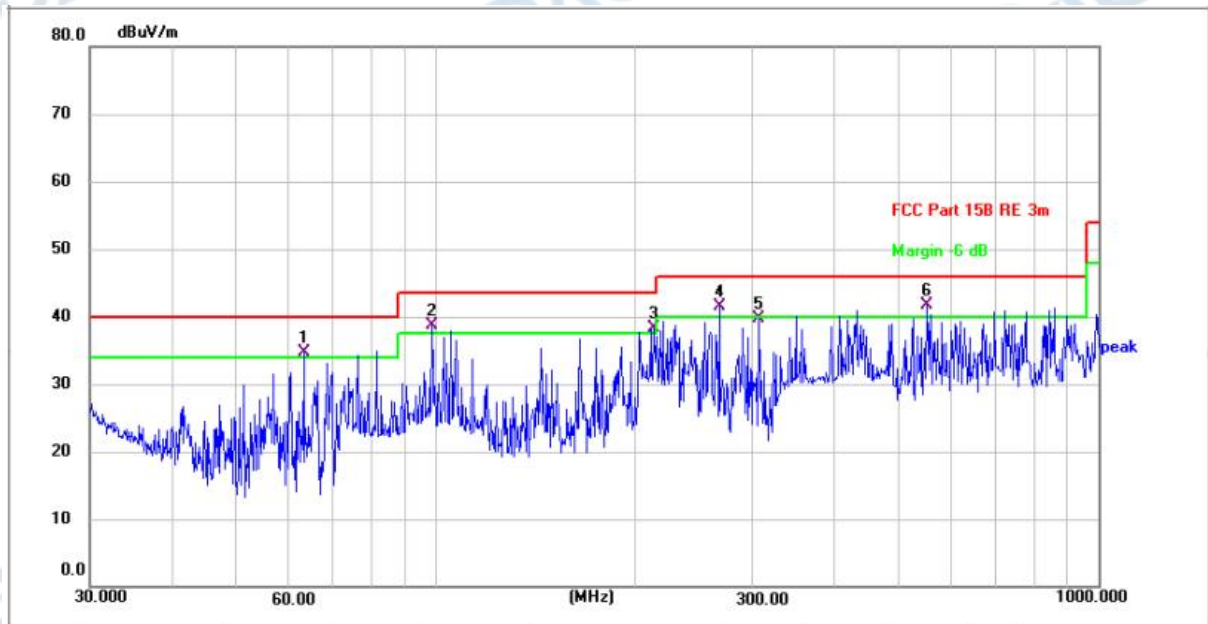
3.2.3 Test Data:

TM1 / Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 !	102.3596	46.02	-7.50	38.52	43.50	-4.98	QP			P	
2 !	110.1816	44.22	-6.22	38.00	43.50	-5.50	QP			P	
3 !	193.7727	47.32	-8.77	38.55	43.50	-4.95	QP			P	
4 !	354.1831	46.20	-4.78	41.42	46.00	-4.58	QP			P	
5 !	454.3100	43.76	-2.36	41.40	46.00	-4.60	QP			P	
6 *	601.4265	41.20	0.38	41.58	46.00	-4.42	QP			P	

TM1 / Polarization: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 !	63.0916	47.68	-12.89	34.79	40.00	-5.21	QP			P	
2 !	98.4866	47.27	-8.57	38.70	43.50	-4.80	QP			P	
3 !	213.0151	47.12	-8.79	38.33	43.50	-5.17	QP			P	
4 !	267.5454	48.43	-6.84	41.59	46.00	-4.41	QP			P	
5	306.7537	45.75	-6.03	39.72	46.00	-6.28	QP			P	
6 *	550.9480	42.75	-1.09	41.66	46.00	-4.34	QP			P	

Remark: 1.Margin= Measurement Level- Limit; Measurement Level=Test receiver reading + correction factor

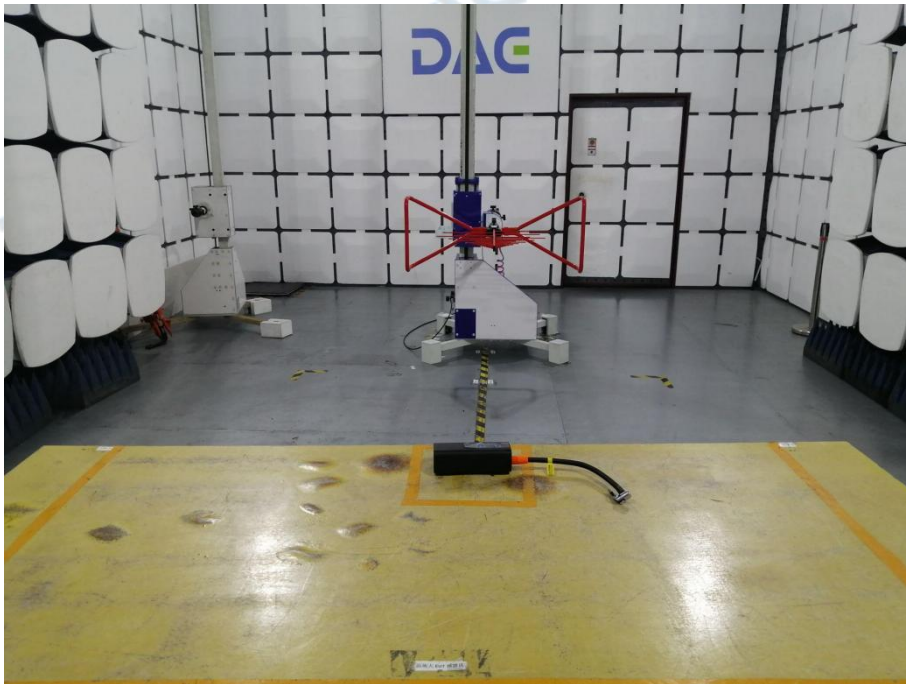
2.The EMC test software will only record the worst test angle and height, and only the worst case will be recorded in the test report.

4 TEST SETUP PHOTOS

Conducted emissions on AC mains



Radiated emissions (Below 1GHz)



5 PHOTOS OF THE EUT

External



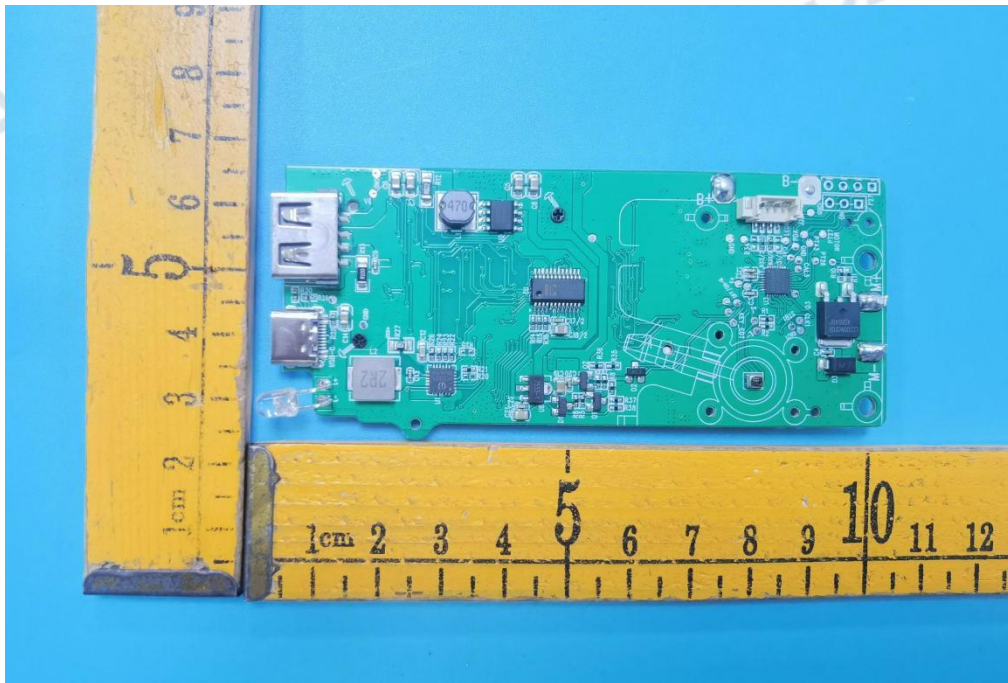
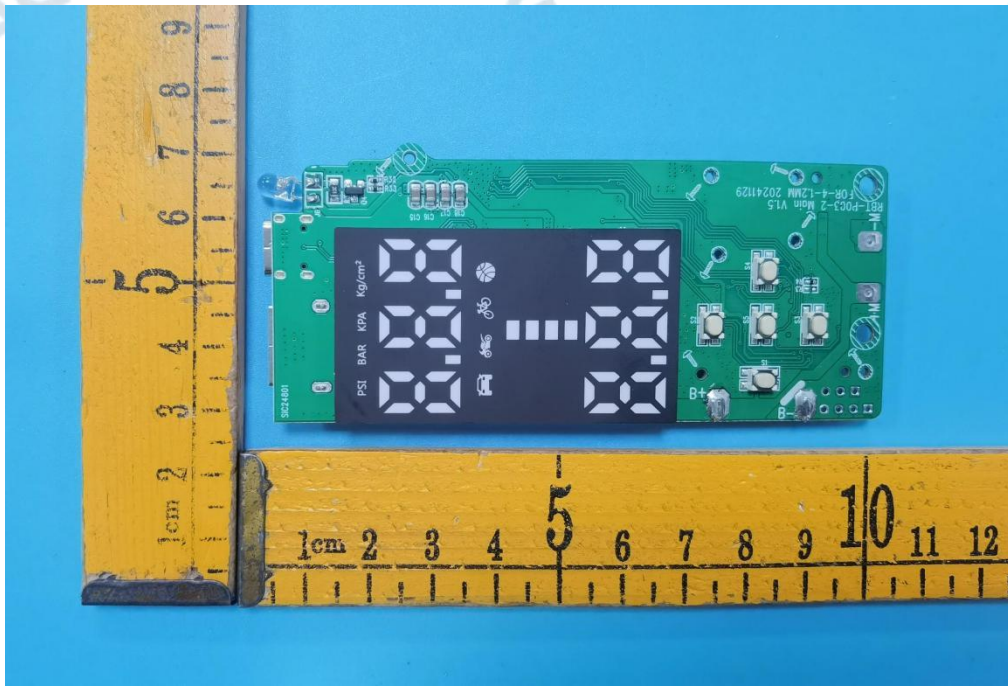


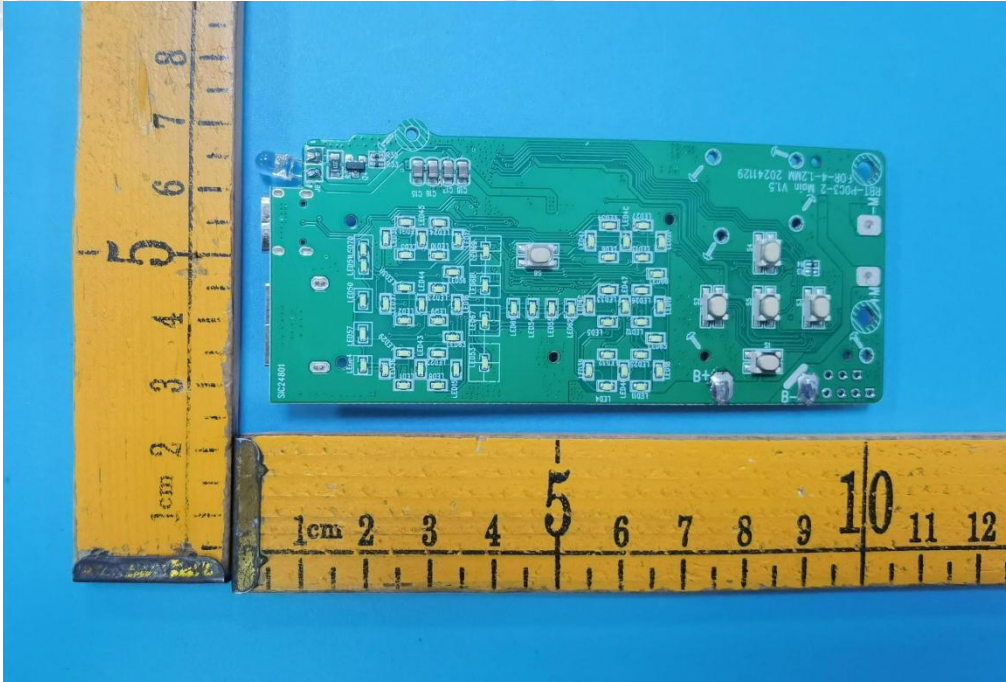




Internal







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