Test Report

Applicant:	Yuyao Jinnan Electric Appliance Co., Ltd.
Product Name:	Multifunctional Intelligent Digital Display Electric Inflator
Brand Name:	N/A
Model No.:	JN-088, JN-058
Remark:	Only difference in Appearance
Date of Receipt :	Sep.24,2023
Date of Test:	Sep.25- Oct.08,2023
Date of Report:	Oct.09,2023
Prepared by:	Shenzhen Most Technology Service Co., Ltd.

The testing has been performed on the submitted samples and found in compliance with the council FCC Rules and Regulations Part 15 Subpart B.

Shenzhen Most Technology Service Co., Ltd.
East A, 1/F., New Aolin Factory Buiding, Langshan Erlu, North Area,
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TEST REPORT VERIFICATION

Report Number	MTEB23100033	
Applicant	Yuyao Jinnan Electric Appliance Co., Ltd.	
	No.1 Donggan South Road, Cao'e Village, Xiaocao'e Town, Yuyao City, Zhejiang , China	
Manufacturer	Yuyao Jinnan Electric Appliance Co., Ltd.	
	No.1 Donggan South Road, Cao'e Village, Xiaocao'e Town, Yuyao City, Zhejiang , China	
Product	Product Name	Multifunctional Intelligent Digital Display Electric Inflator
	Model No.	JN-088
	Power Supply	DC 12V by Car Charger DC 11.1V by Battery DC 5V by USB Port
Test Result	The EUT was found compliant with the requirement(s) of the standards.	
Standard	FCC Rules and Regulations Part 15 Subpart B Class B.	

*Note

The above device has been tested by Shenzhen Most Technology Service 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 record, data evaluation & Equipment Under Test (EUT) configurations represented are contained in this test report and Shenzhen Most Technology Service Co., Ltd. Is assumed full responsibility for the accuracy and completeness of test. Also, this report shows that the EUT is technically compliant with the requirement of the above standards.

This report applies to above tested sample only. This report shall not be reproduced except in full, without written approval of Shenzhen Most Technology Service Co., Ltd., this document may be altered or revised by Shenzhen Most Technology Service Co., Ltd., personal only, and shall be noted in the revision of the document.

Prepared by	Alisa Luo
	Alisa Luo(Engineer)
Reviewed by	Sunny Deng
	Sunny Deng(Engineer)
Approved by	Yvette
	Yvette Zhou(Manager)

SHENZHEN MOST TECHNOLOGY SERVICE CO.,LTD. APPROVED

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description	:	Multifunctional Intelligent Digital Display Electric Inflator
Model Number	:	JN-088, JN-058
Remark	:	Used JN-088 does all tests

1.2. Operational Mode(s) of EUT

Order Number	:	Test Mode(s)
1	:	Charging+ Full Load
2	:	Running+ Full Load

1.3. Test Voltage(s) of EUT

Order Number	:	Test Voltage(s)
1	:	DC 12V by Car Charger
2	:	DC 5V by USB Port
3	:	DC 11.1V by Battery

2. LABORATORY INFORMATION

2.1.Laboratory Name

Shenzhen Most Technology Service Co., Ltd.

2.2. Location

East A, 1/F., New Aolin Factory Buiding, Langshan Erlu, North Area, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, China

2.3. Test facility

3m Anechoic Chamber	:	Nov. 28, 2012 File on Federal Communication Commission Registration Number:490827
Shielding Room	:	Nov. 28, 2012 File on Federal Communication Commission Registration Number:490827
EMC Lab.	:	Accredited by TUV Rheinland Shenzhen Audit Report: UA 50149851 Mar. 12, 2009 Accredited by Industry Canada Registration Number: 7103A-1 Oct. 22, 2012 Accredited by TIMCO Registration Number: Q1460 March 28, 2010

2.4. Measurement Uncertainty

No.	Item	Uncertainty
1.	Uncertainty for Conducted Disturbance Test	1.25dB
2.	Uncertainty for Radiated Disturbance Test	3.15dB

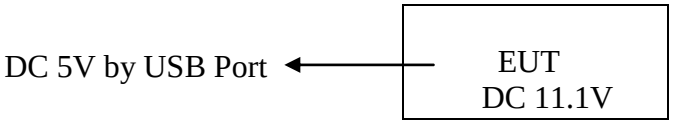
3. SUMMARY OF TEST RESULTS

EMISSION			
Test Item	**Standard**	**Limits**	**Results**
Conducted disturbance at mains terminals	FCC Part 15	Class B	PASS
Radiated disturbance	FCC Part 15	Class B	PASS
N/A is an abbreviation for Not Applicable.			

4. BLOCK DIAGRAM OF TEST SETUP

The equipments are installed test to meet ANSI C63.4:2014 requirement and operating in a manner which tends to maximize its emission characteristics in a normal application. EUT was tested in normal configuration (Please See following Block diagrams)

4.1.Block Diagram of connection between EUT and simulation-EMI



(EUT: Multifunctional Intelligent Digital Display Electric Inflator)

5. TEST INSTRUMENT USED

5.1.For Conducted Disturbance at Mains Terminals Emission Test

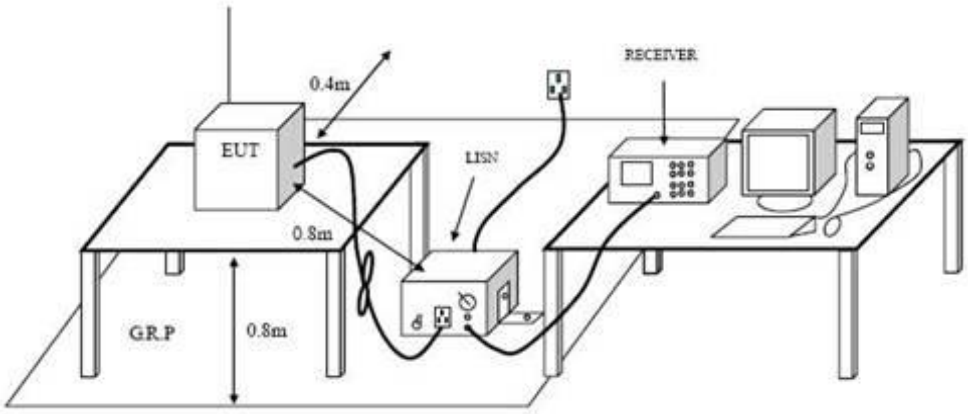
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCI	100492	Mar. 03, 23	1 Year
2.	L.I.S.N.	Rohde & Schwarz	ENV216	100093	Mar. 03, 23	1 Year
3.	Coaxial Switch	Anritsu Corp	MP59B	6200283933	Mar. 03, 23	1 Year
4.	Terminator	Hubersuhner	50Ω	No.1	Mar. 03, 23	1 Year
5.	RF Cable	SchwarzBeck	N/A..	No.1	Mar. 03, 23	1 Year

5.2. For Radiation Test (In Anechoic Chamber)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESPI	101202	Mar. 03, 23	1 Year
2.	Bilog Antenna	Sunol	JB3	A121206	Mar. 03, 23	1 Year
3.	Cable	Resenberger	N/A.	NO.1	Mar. 03, 23	1 Year
4.	Cable	SchwarzBeck	N/A..	NO.2	Mar. 03, 23	1 Year
5.	Cable	SchwarzBeck	N/A.	NO.3	Mar. 03, 23	1 Year
6.	DC Power Filter	DuoJi	DL2×30B	N/A.	N/A..	N/A..
7.	Single Phase Power Line Filter	DuoJi	FNF 202B30	N/A.	N/A.	N/A.
8.	3 Phase Power Line Filter	DuoJi	FNF 402B30	N/A.	N/A.	N/A.

6. CONDUCTED DISTURBANCE AT MAINS TERMINALS TEST

6.1.Configuration of Test System



6.2. Test Standard

FCC Subpart 15 B Section 15.107

6.3. Power Line Conducted Disturbance at Mains Terminals Limit

Frequency (MHz)	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μV)	Average Level dB(μV)
0.15 ~ 0.50	66 ~ 56*	56 ~ 46*
0.50 ~ 5.00	56	46
5.00 ~ 30.00	60	50

Notes: 1. * Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

6.4. Test Procedure

The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power connected to the power mains through a line impedance stabilization network (L.I.S.N. 1#). This provided a 50-ohm coupling impedance for the EUT (Please refer to the block diagram of the test setup and photographs). The other peripheral devices power cord connected to the power mains through a line impedance stabilization network (L.I.S.N.#2). Both sides of power line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.4:2014 on conducted Disturbance test.

The bandwidth of test receiver is set at 9 kHz.

The frequency range from 150kHz to 30MHz is checked. The test result are reported on Section 6.5.

6.5. Conducted Disturbance at Mains Terminals Test Results

Test Results: PASS

If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

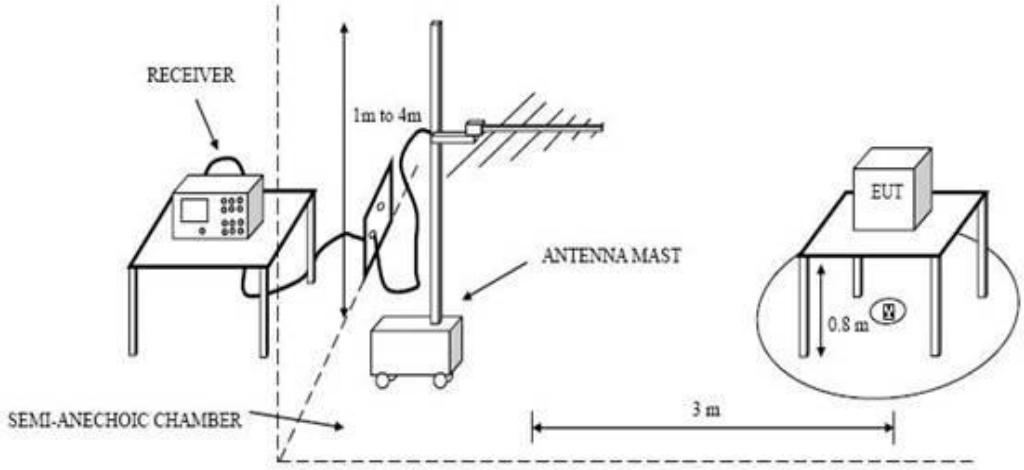
Emission Level= Correct Factor + Reading Level.

The test data and the scanning waveform are attached within Appendix I.

Note : All test modes are performed, only the worst case is recorded in this report.

7. RADIATED DISTURBANCE TEST

7.1.Configuration of Test System



7.2. Test Standard

FCC Subpart 15 B Section 15.109

7.3. Radiated Disturbance Limit

Frequency (MHz)	Distance (Meters)	Field Strengths Limits (dBμV/m)	
30 ~ 88	3	40.0	
88~216	3	43.5	
216~960	3	46.0	
960 ~ 1000	3	54.0	
1000-18000	3	74(Peak)	54(AV)

Note: 1. Emission level (dB)μV = 20 log Emission level μV/m
2.The lower limit shall apply at the transition frequencies.
3. Distance refers to the distance in meters between the test antenna and the closed point of any part of the EUT.

7.4. Test Procedure

The EUT was placed on a non-metallic table, 80 cm above the ground plane inside a semi-anechoic chamber. An antenna was located 3m from the EUT on an adjustable mast. A pre-scan was first performed in order to find prominent radiated emissions. For final emissions measurements at each frequency of interest, the EUT were rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.4:2014 on Radiated Disturbance test.

The bandwidth setting on the test receiver is 120 kHz.

The frequency range from 30MHz to 1000MHz is checked. The test result are reported on Section 7.5

7.5. Radiated Disturbance Test Results

Test Results: PASS

Emission Level= Correct Factor + Reading Level.

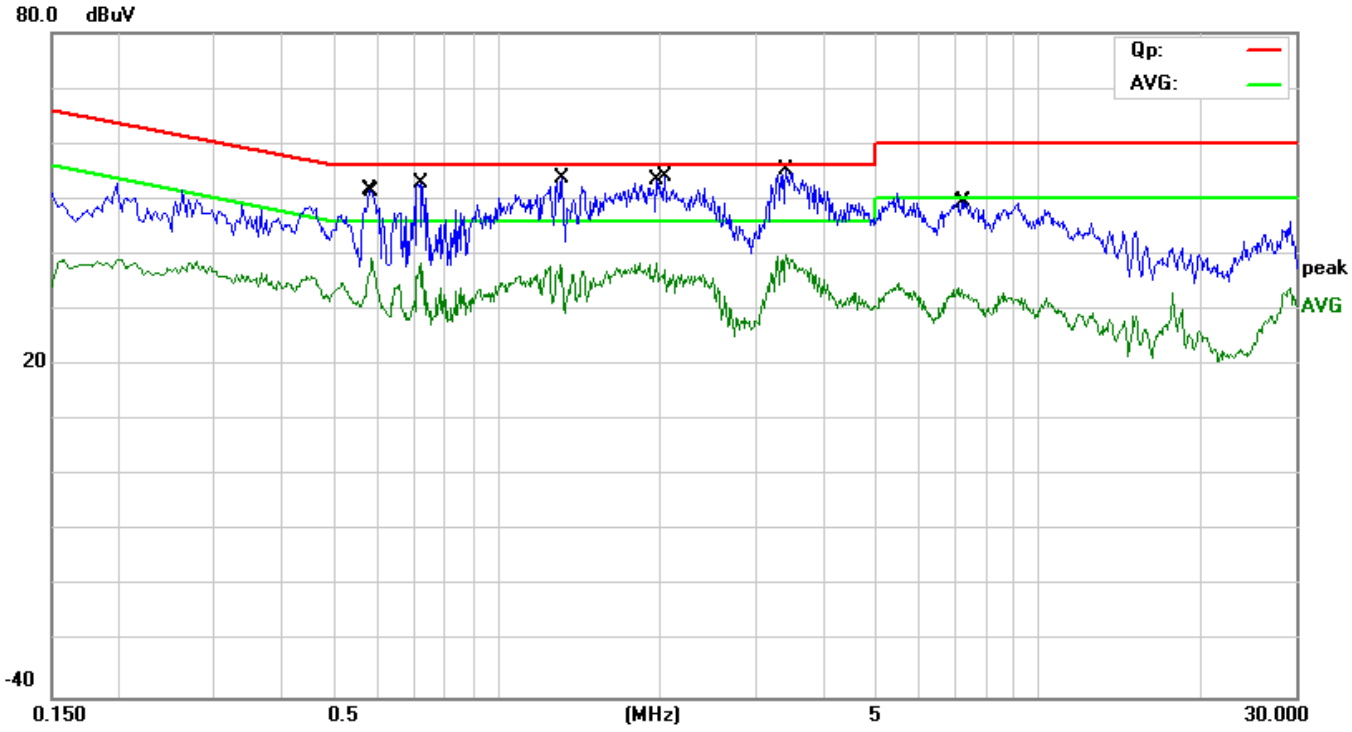
All reading are Quasi-Peak values.

The test data and the scanning waveform are attached within Appendix II.

Note : All test modes are performed, only the worst case is recorded in this report.

APPENDIX I

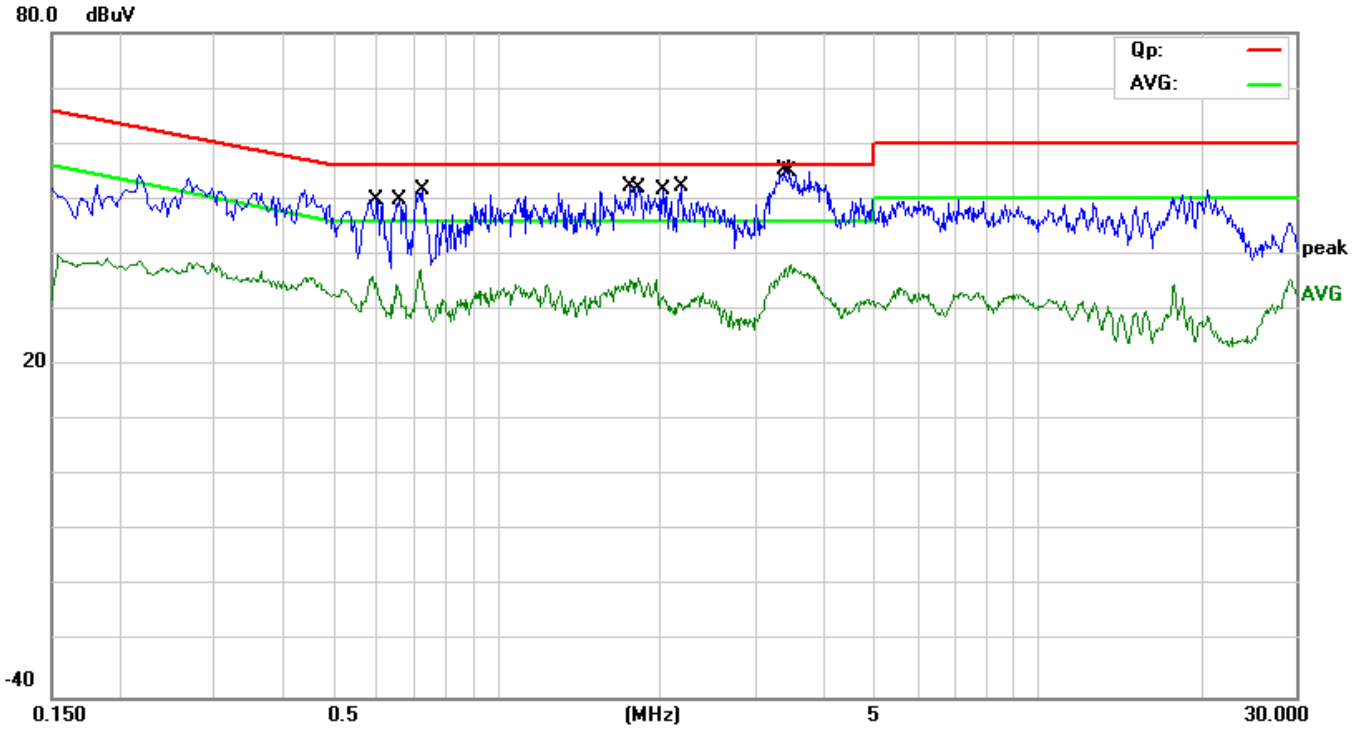
EUT:	Multifunctional Intelligent Digital Display Electric Inflator	M/N:	JN-088
Mode:	Charging+ Full Load	Phase:	L1
Tested by:	ROSA	Power:	DC 5V by USB Port
Temperature: / Humidity	27.1℃/60.0%	Test date:	2023-09-25



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.5820	42.00	9.59	51.59	56.00	-4.41	QP	
2		0.5860	29.62	9.59	39.21	46.00	-6.79	AVG	
3	*	0.7220	43.32	9.60	52.92	56.00	-3.08	QP	
4		0.7220	28.71	9.60	38.31	46.00	-7.69	AVG	
5		1.3140	28.48	9.60	38.08	46.00	-7.92	AVG	
6		1.3220	42.19	9.60	51.79	56.00	-4.21	QP	
7		1.9780	28.77	9.60	38.37	46.00	-7.63	AVG	
8		2.0420	39.76	9.60	49.36	56.00	-6.64	QP	
9		3.4300	42.36	9.61	51.97	56.00	-4.03	QP	
10		3.4300	30.38	9.61	39.99	46.00	-6.01	AVG	
11		7.1060	24.43	9.65	34.08	50.00	-15.92	AVG	
12		7.2980	39.80	9.65	49.45	60.00	-10.55	QP	

*:Maximum data x:Over limit !:over margin

EUT:	**Multifunctional Intelligent Digital Display Electric Inflator**	**M/N:**	**JN-088**
Mode:	**Charging+ Full Load**	**Phase:**	**N**
Tested by:	**ROSA**	**Power:**	**DC 5V by USB Port**
Temperature: / Humidity	**27.1℃/60.0%**	**Test date:**	**2023-09-25**

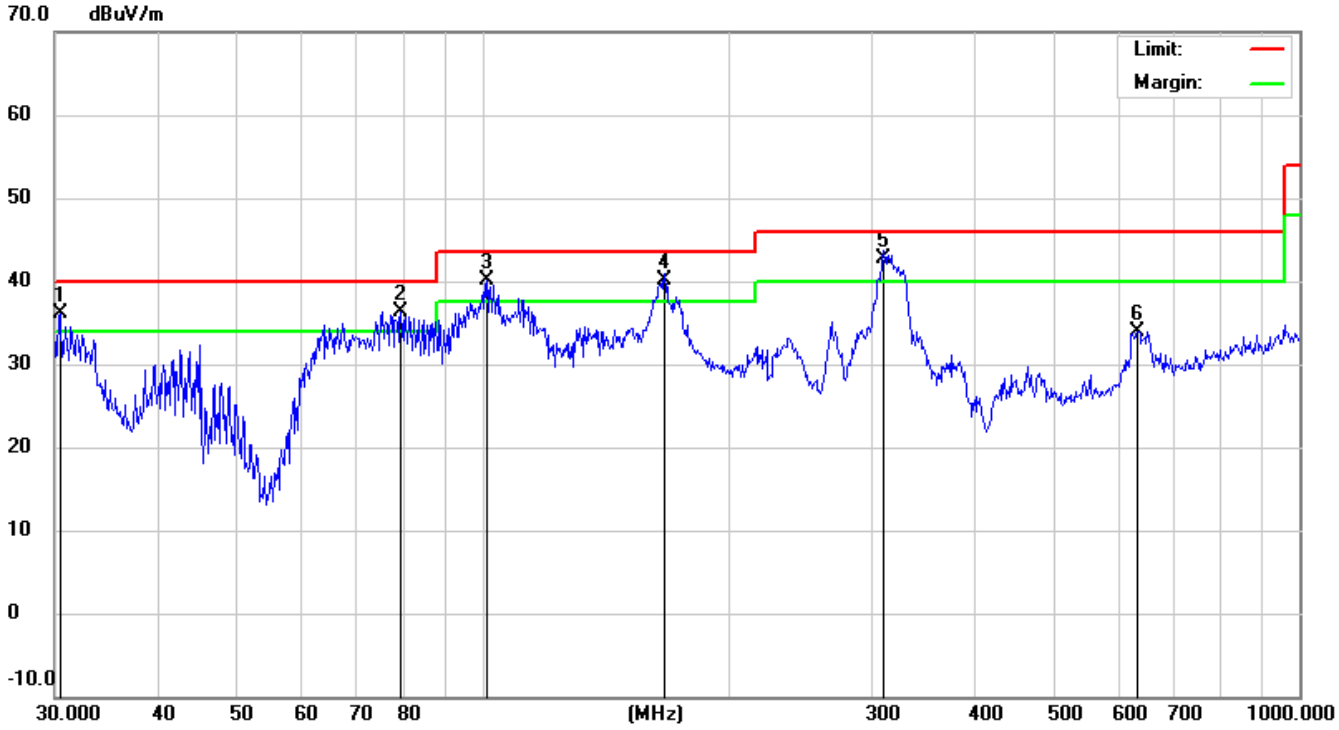


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.5900	26.56	9.59	36.15	46.00	-9.85	AVG	
2		0.5980	40.30	9.59	49.89	56.00	-6.11	QP	
3		0.5980	25.40	9.59	34.99	46.00	-11.01	AVG	
4		0.6580	40.29	9.60	49.89	56.00	-6.11	QP	
5		0.7220	27.78	9.60	37.38	46.00	-8.62	AVG	
6		0.7300	42.19	9.60	51.79	56.00	-4.21	QP	
7		1.7580	42.51	9.60	52.11	56.00	-3.89	QP	
8		1.8260	26.21	9.60	35.81	46.00	-10.19	AVG	
9		2.0260	22.94	9.60	32.54	46.00	-13.46	AVG	
10	*	2.1900	42.62	9.60	52.22	56.00	-3.78	QP	
11		3.4140	39.87	9.61	49.48	56.00	-6.52	QP	
12		3.4940	28.68	9.61	38.29	46.00	-7.71	AVG	

*:Maximum data x:Over limit !:over margin

APPENDIX II

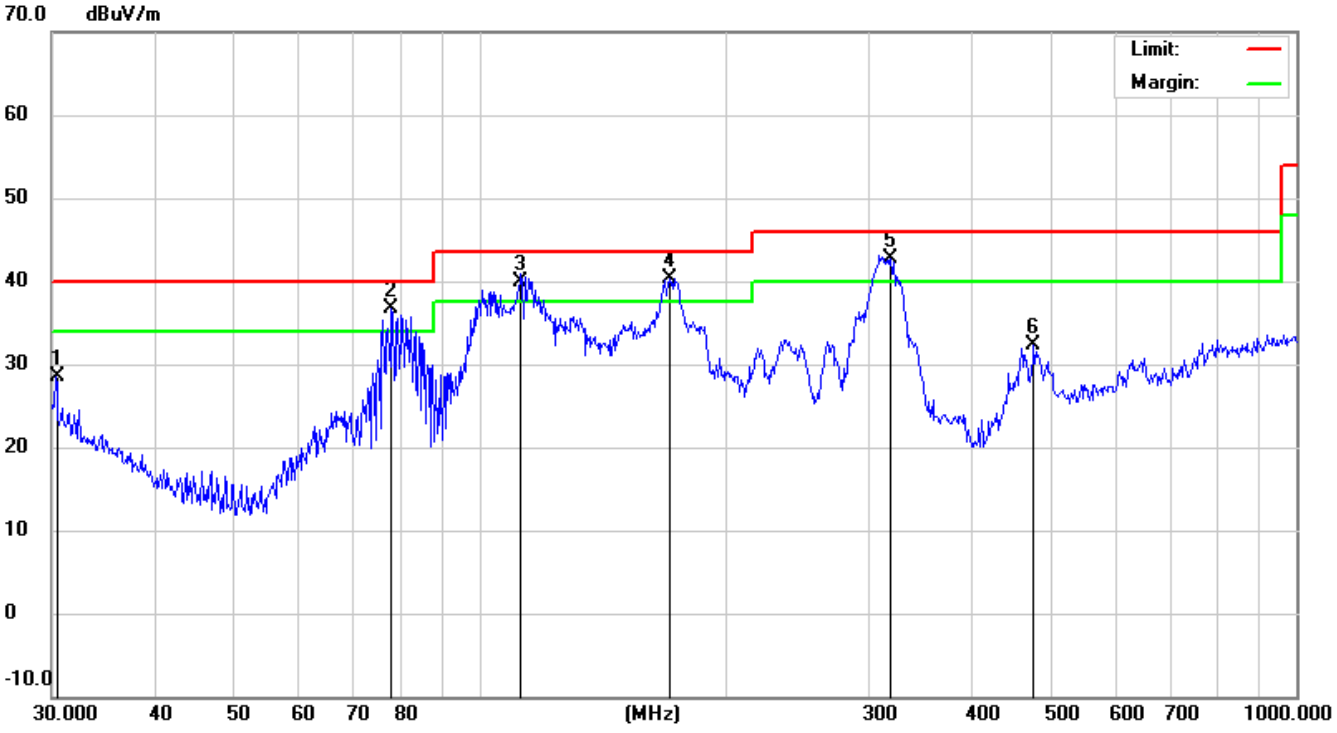
EUT:	**Multifunctional Intelligent Digital Display Electric Inflator**	**M/N:**	**JN-088**
Mode:	**Charging+ Full Load**	**Polarization:**	**Vertical**
Test by:	**Dawn**	**Power:**	**DC 5V by USB Port**
Temperature: / Humidity	**26.5℃/ 66.0%**	**Test date:**	**2023-09-25**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	!	30.4237	15.42	20.61	36.03	40.00	-3.97	QP			
2	!	79.5208	26.30	10.06	36.36	40.00	-3.64	QP			
3	!	101.2883	26.35	13.74	40.09	43.50	-3.41	QP			
4	!	167.2366	23.00	17.06	40.06	43.50	-3.44	QP			
5	*	309.9977	27.00	15.69	42.69	46.00	-3.31	QP			
6		633.9073	9.72	24.24	33.96	46.00	-12.04	QP			

*:Maximum data x:Over limit !:over margin

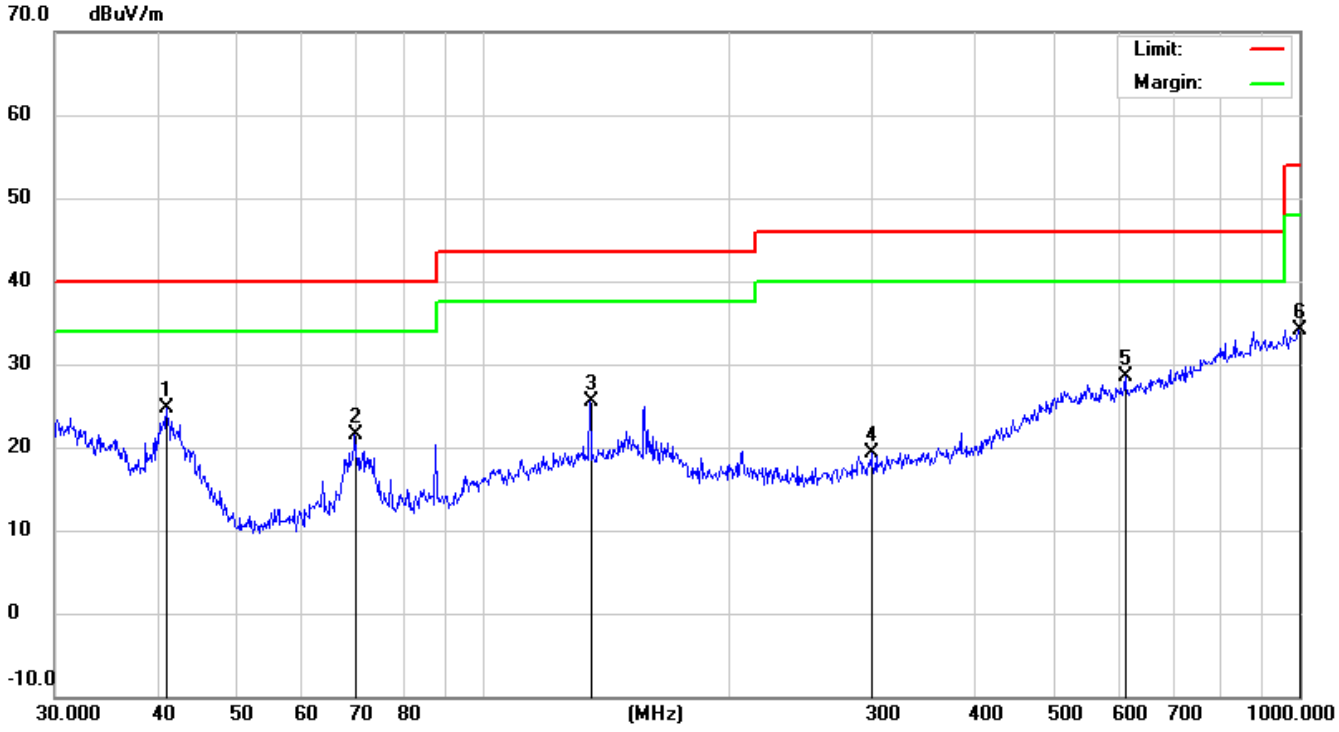
EUT:	Multifunctional Intelligent Digital Display Electric Inflator	M/N:	JN-088
Mode:	Charging+ Full Load	Polarization:	Horizontal
Test by:	Dawn	Power:	DC 5V by USB Port
Temperature: / Humidity	26.5℃/ 66.0%	Test date:	2023-09-25



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		30.3171	7.92	20.68	28.60	40.00	-11.40	QP			
2	!	78.1388	26.70	9.95	36.65	40.00	-3.35	QP			
3	!	112.5243	25.00	14.98	39.98	43.50	-3.52	QP			
4	*	171.3925	23.38	16.92	40.30	43.50	-3.20	QP			
5	!	318.8170	26.89	15.86	42.75	46.00	-3.25	QP			
6		477.1693	10.76	21.49	32.25	46.00	-13.75	QP			

*:Maximum data x:Over limit !:over margin

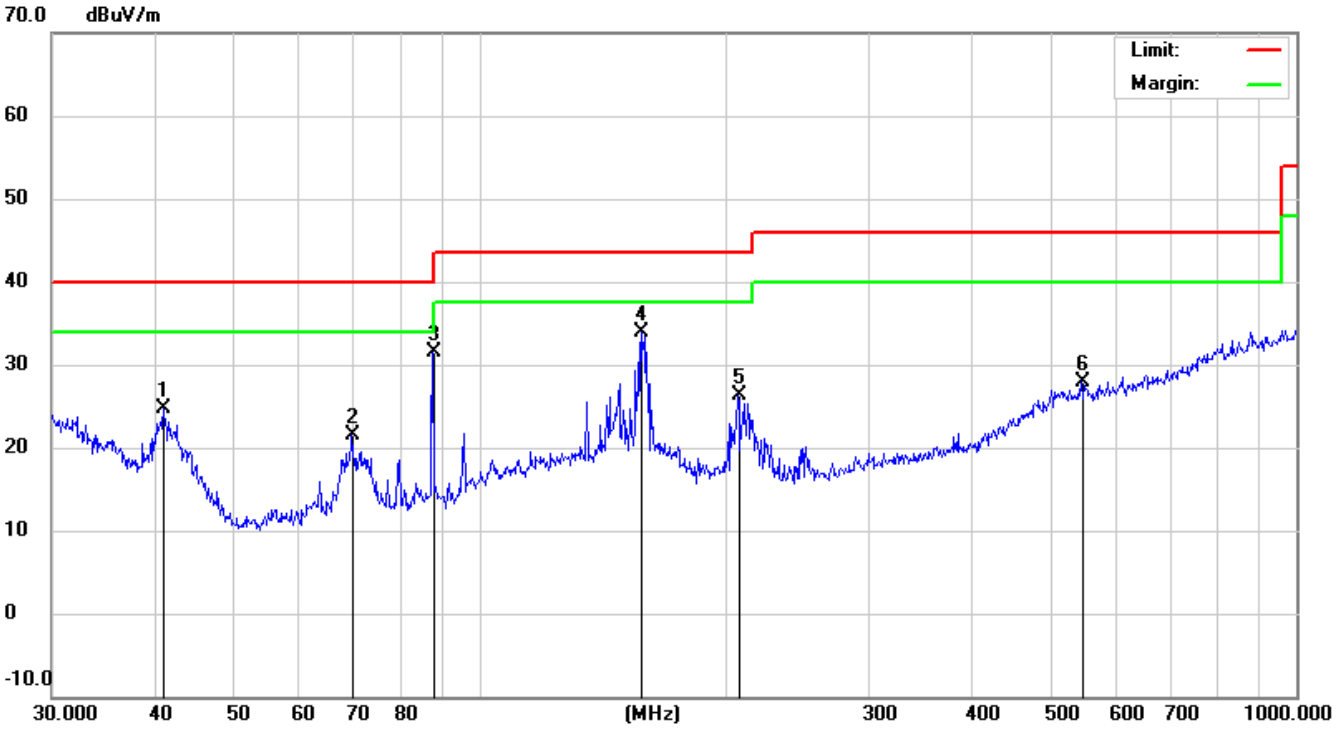
EUT:	**Multifunctional Intelligent Digital Display Electric Inflator**	**M/N:**	**JN-088**
Mode:	**Charging+ Full Load**	**Polarization:**	**Vertical**
Test by:	**Dawn**	**Power:**	**DC 12V by Car Charger**
Temperature: / Humidity	**26.5℃/ 66.0%**	**Test date:**	**2023-09-25**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	41.1320	11.68	13.05	24.73	40.00	-15.27	QP			
2		69.8450	12.23	9.29	21.52	40.00	-18.48	QP			
3		135.5062	9.25	16.28	25.53	43.50	-17.97	QP			
4		299.3158	3.74	15.48	19.22	46.00	-26.78	QP			
5		612.0642	4.54	23.96	28.50	46.00	-17.50	QP			
6		996.4996	4.07	29.96	34.03	54.00	-19.97	QP			

*:Maximum data x:Over limit !:over margin

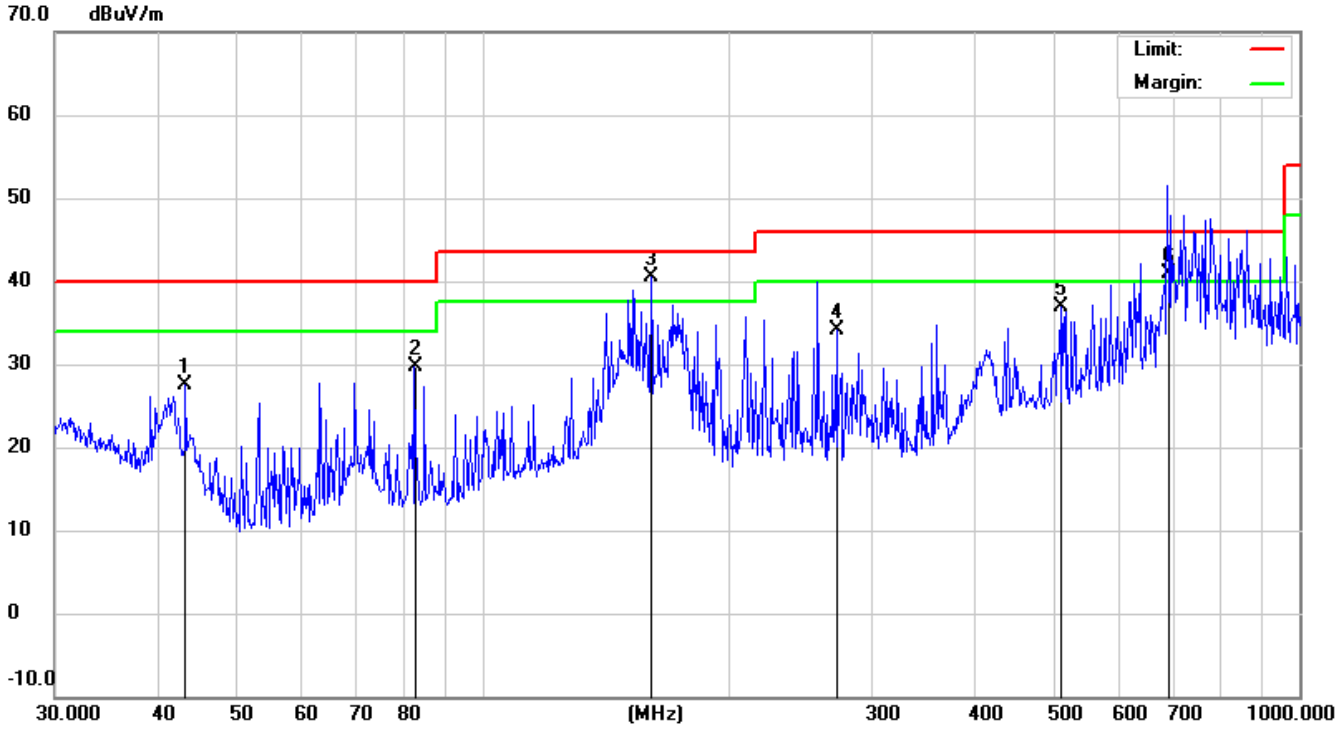
EUT:	**Multifunctional Intelligent Digital Display Electric Inflator**	**M/N:**	**JN-088**
Mode:	**Charging+ Full Load**	**Polarization:**	**Horizontal**
Test by:	**Dawn**	**Power:**	**DC 12V by Car Charger**
Temperature: / Humidity	**26.5℃/ 66.0%**	**Test date:**	**2023-09-25**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		41.1320	11.68	13.05	24.73	40.00	-15.27	QP			
2		69.8450	12.23	9.29	21.52	40.00	-18.48	QP			
3	*	87.7248	21.62	9.95	31.57	40.00	-8.43	QP			
4		158.1123	16.47	17.38	33.85	43.50	-9.65	QP			
5		207.1226	11.32	15.00	26.32	43.50	-17.18	QP			
6		545.1826	4.67	23.20	27.87	46.00	-18.13	QP			

*:Maximum data x:Over limit !:over margin

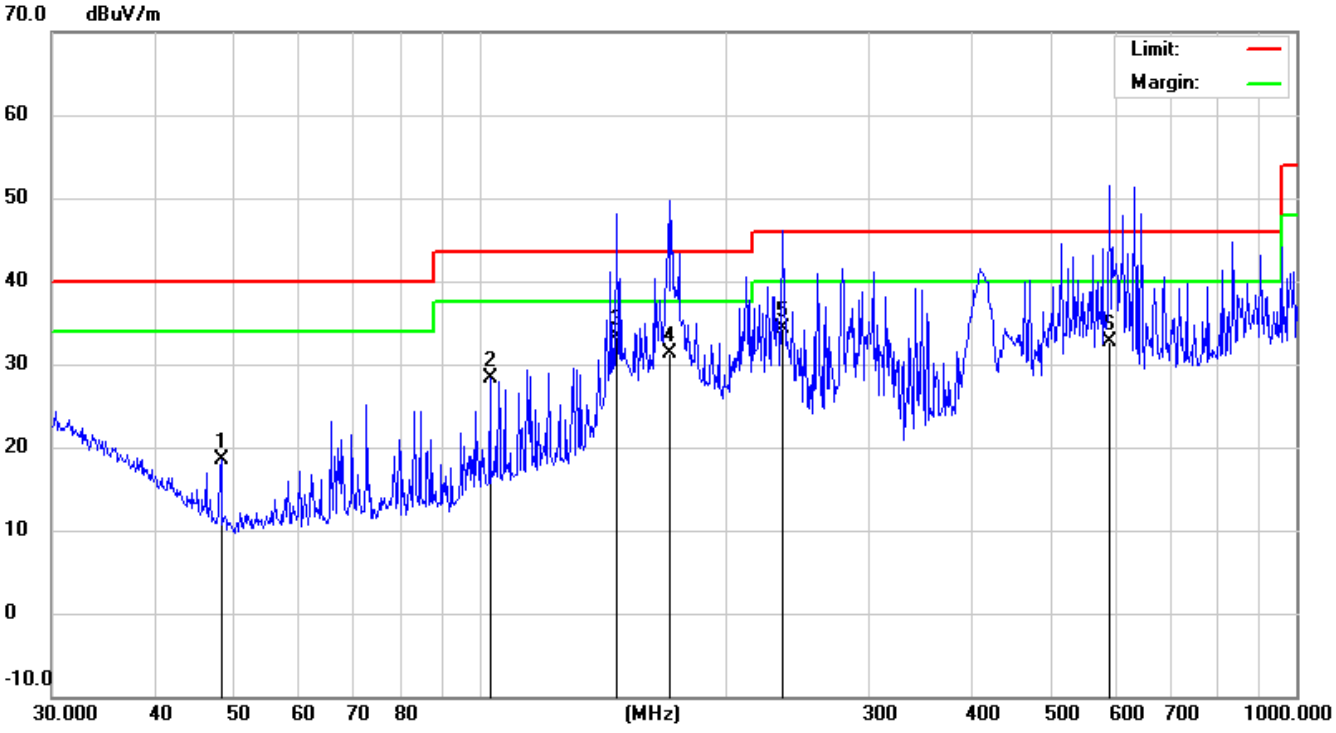
EUT:	**Multifunctional Intelligent Digital Display Electric Inflator**	**M/N:**	**JN-088**
Mode:	**Running+ Full Load**	**Polarization:**	**Vertical**
Test by:	**Dawn**	**Power:**	**DC 11.1V by Battery**
Temperature: / Humidity	**26.5℃/ 66.0%**	**Test date:**	**2023-09-25**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		43.3534	15.87	11.59	27.46	40.00	-12.54	QP			
2		82.6482	19.63	10.05	29.68	40.00	-10.32	QP			
3	*	160.9089	23.20	17.27	40.47	43.50	-3.03	QP			
4		271.3246	19.57	14.53	34.10	46.00	-11.90	QP			
5		510.0436	14.14	22.81	36.95	46.00	-9.05	QP			
6	!	689.5644	16.00	24.96	40.96	46.00	-5.04	QP			

*:Maximum data x:Over limit !:over margin

EUT:	Multifunctional Intelligent Digital Display Electric Inflator	M/N:	JN-088
Mode:	Running+ Full Load	Polarization:	Horizontal
Test by:	Dawn	Power:	DC 11.1V by Battery
Temperature: / Humidity	26.5℃/ 66.0%	Test date:	2023-09-25

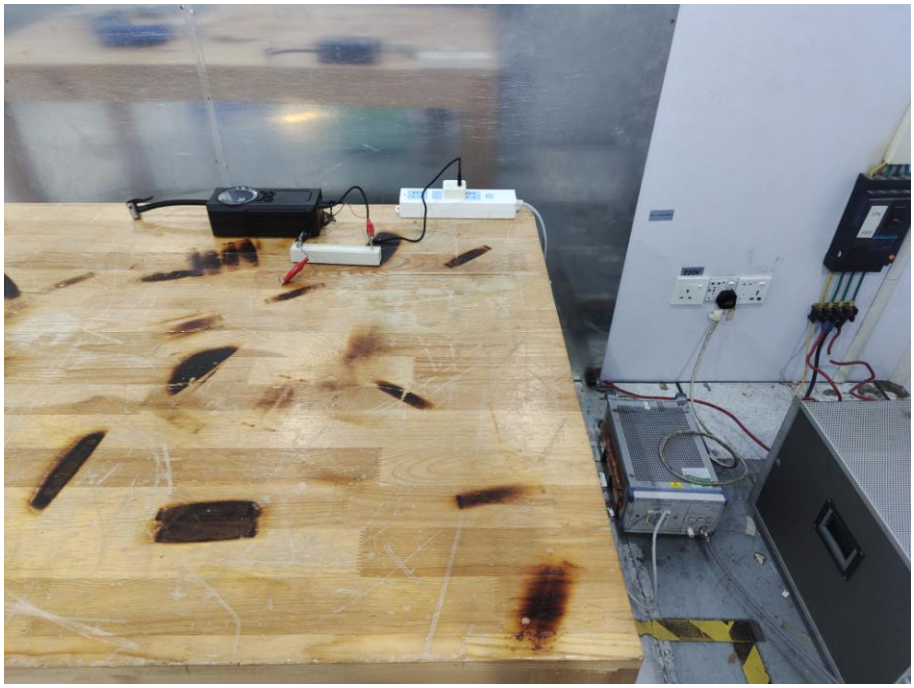


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		48.3318	9.51	8.90	18.41	40.00	-21.59	QP			
2		103.0800	14.39	13.94	28.33	43.50	-15.17	QP			
3	*	147.4036	16.00	17.36	33.36	43.50	-10.14	QP			
4		170.7926	14.40	16.94	31.34	43.50	-12.16	QP			
5		234.9909	20.00	14.22	34.22	46.00	-11.78	QP			
6		590.9737	9.00	23.70	32.70	46.00	-13.30	QP			

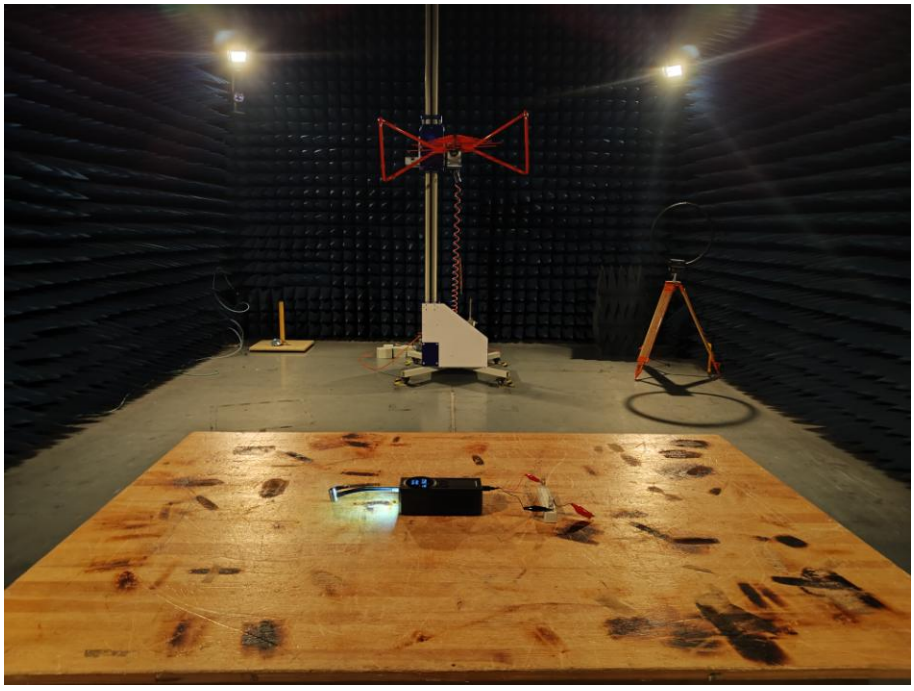
*:Maximum data x:Over limit !:over margin

APPENDIX III
(Test Photos)

Conducted Test Setup Photograph



Radiated Test Setup Photograph



APPENDIX IV
(Photos of the EUT)

Figure 1
General Appearance of the EUT

Figure 2
General Appearance of the EUT

Figure 3
General Appearance of the EUT

Figure 4
Internal of the EUT

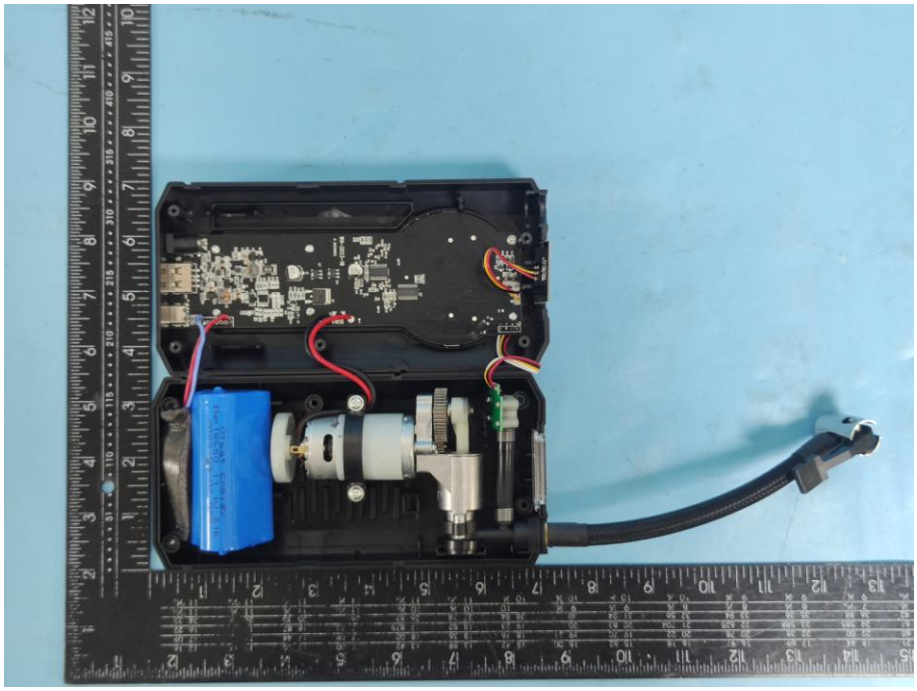


Figure 5
Internal of the EUT

Figure 6
PCB of the EUT

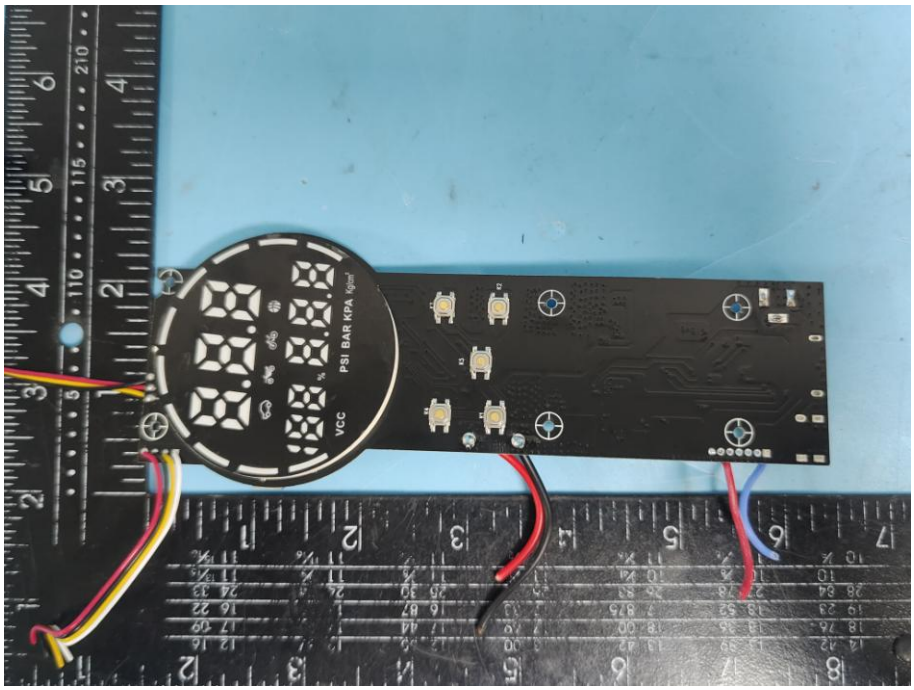


Figure 7
PCB of the EUT