

Test Report Number:	FTS23JR-6951E	Total Page(s): 12
Applicant Name:	Zhuhai Sunlu Industrial Co., Ltd	
Applicant Address:	No.38 Yongtian Road, Trade Logistics Centre Phase Two, Qianshan, Xiangzhou District, Zhuhai, Guangdong, China.	
Test item:	UV Resin Curing Enclosure	
Model / Type Reference:	RC-2	
Date of Issue:	2023-12-22	
Testing Laboratory:	Guangdong Future Test Services Co., Ltd No.228, Min' an South Rd, Xiaolan Town, Zhongshan City, Guangdong Province, China	
Test Specification:	FCC 47 CFR Part 15:2021	
Test Result:	Passed	
Compiled by:	Reviewed by:	
2023-12-22 Clover Deng	<i>Clover Deng</i>	2023-12-22 Gordon Xie <i>Gordon Xie</i>
<i>Date</i> <i>Name</i>	<i>Signature</i>	<i>Date</i> <i>Name</i> <i>Signature</i>
Remark:		
N/A		
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Test Summary

6.1 Conducted Emission

RESULT: Pass

6.2 Radiated Emission

RESULT: Pass

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1. General Remarks

When applying the basic standards in this test report, please refer to the applied generic or product family standards for edition information:

For dated basic standards, only the edition cited applies. For undated basic standards, the latest edition (including any amendments) applies.

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix 1: Test result.

Appendix 2: Photo of EUT

Appendix 3: List of Test and Measurement Equipment

2. Measurement Uncertainty

Test Item	Uncertainty
Uncertainty for Conduction emission test	3.12dB
Uncertainty for Disturbance Power test	3.26dB
Uncertainty for Radiation Emission test	3.56 dB

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

3. Test Sites

3.1 Test Facilities

A. Guangdong Future Test Services Co., Ltd

Add: No.228, Min'an South Rd, Xiaolan Town, Zhongshan City, Guangdong Province, China

3.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Refer to attached Appendix 3.

4. General Product Information

The submitted samples are ordinary household electrical appliances.

Model list:

No.	Model	Input voltage (V) @60Hz	Rated power (W)
1.	RC-2	120	42

According to the above information, all tests were performed on following models

Model	EMC test item	Model name In appendix 1
RC-2	Full EMC tests	RC-2

4.1 Product Function and Intended Use

Refer to Technical Documentation and User Manual

4.2 Ratings and System Details

Type designation:	Refer to section 4
Rated input:	Refer to section 4
Max. power:	Refer to section 4
Protection class:	Class II
Ports:	AC mains
Cables:	Unshielded

Refer to the Technical Documentation for further information.

4.3 Independent Operation Modes

The basic operation modes are:

- A. Air drying mode + maximum RPM
- B. Air drying mode + minimum RPM
- C. UV light curing mode
- D. Automatic mode

Refer to the user manual for further information.

4.4 Noise Generating and Noise Suppressing Parts

Refer to the Technical Documentation for further information.

4.5 Submitted Documents

Difference Declaration
Circuit Diagram
PCB Layout
User Manual
Label

5. Test Set-up and Operation Modes

5.1 Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

Immunity: The equipment under test (EUT) was configured to have its highest possible susceptibility against the tested phenomena. The test modes were adapted accordingly in reference to the instructions for use.

5.2 Physical Configuration for Testing

Refer to relative paragraphs of this test report.

5.3 Test Operation and Test Software

Refer to test setup in chapter 6.

5.4 Special Accessories and Auxiliary Equipment

None.

5.5 Countermeasures to achieve EMC Compliance

No additional countermeasures to the submitted test sample(s) were employed to achieve compliance.

6. Test Results Emission

6.1 Conducted Emission

RESULT:

Pass

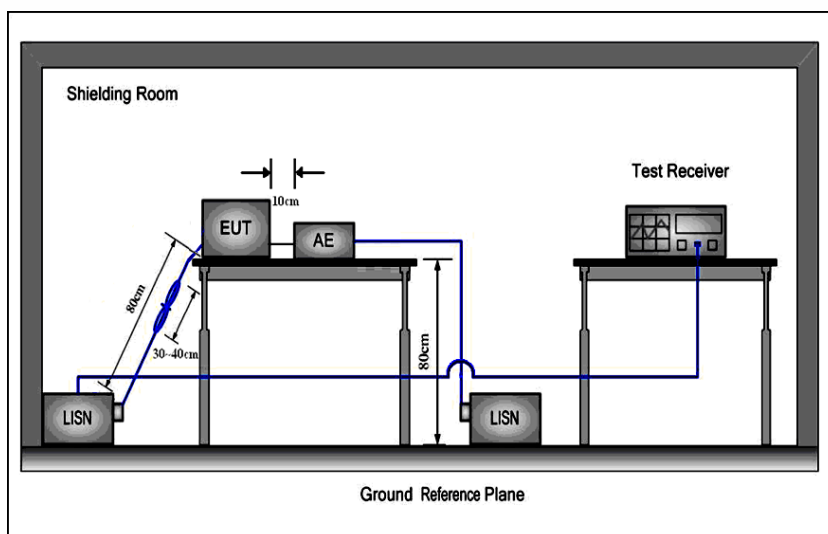
Test Specification

Family standard	: ANSI C63.4:2014
Port	: AC Mains
Frequency range of Mains	: 150kHz-30MHz
Test site	: Shielded Room
Limits	: FCC 47 CFR Part 15 Subpart B, §15.107

Test Setup

Date of testing	: Refer to Appendix 1
Input voltage	: Refer to Appendix 1
Operation mode	: A (Worst mode)
Test Ports	: AC Mains
Test configuration	: Table-top
Temperature	: Refer to Appendix 1
Humidity	: Refer to Appendix 1
Air pressure	: Refer to Appendix 1

Test Connection Diagram



Test Result

Measurement uncertainty: 3.12 dB ($k=2$, $\sigma=95\%$)

If the result of the measurement with the Quasi Peak detector is below the Average limit, the measurement with Average Detector will be omitted.

Disturbances other than those mentioned are small or not detectable.

For measurement results, please refer to the attached appendix 1.

6.2 Radiated Emission

RESULT:

Pass

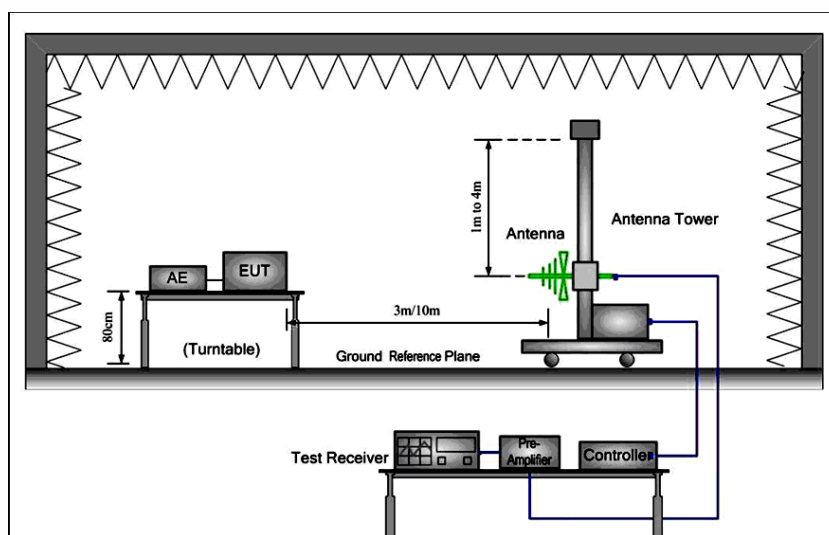
Test Specification

Family standard	: ANSI C63.4:2014
Port	: AC Mains
Frequency range of Mains	: 30MHz-1000MHz
Test site	: Shielded Room
Limits	: FCC 47 CFR Part 15 Subpart B, §15.109

Test Setup

Date of testing	: Refer to Appendix 1
Input voltage	: Refer to Appendix 1
Operation mode	: B (Worst mode)
Test Ports	: AC Mains
Test configuration	: Table-top
Temperature	: Refer to Appendix 1
Humidity	: Refer to Appendix 1
Air pressure	: Refer to Appendix 1

Test Connection Diagram



Test Result

Measurement uncertainty: 3.56dB (k=2, σ = 95%)

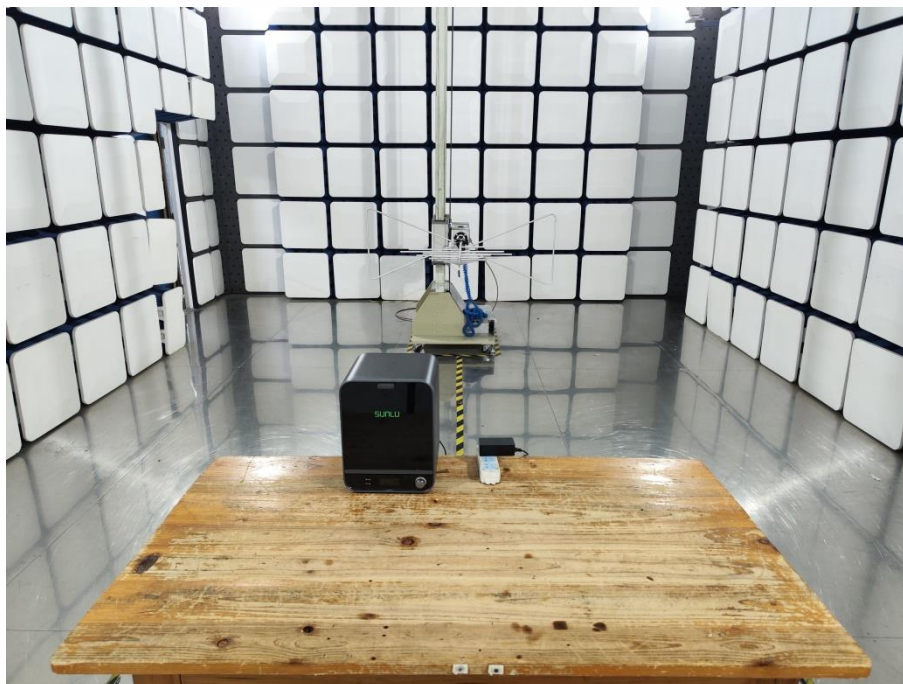
For measurement results, please refer to the attached appendix 1.

7. The photos of test setting

Terminal Continuous Disturbance Voltage:



Radiated Emission:





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Tel: +86-760-22185188
Fax: +86-760-22582768

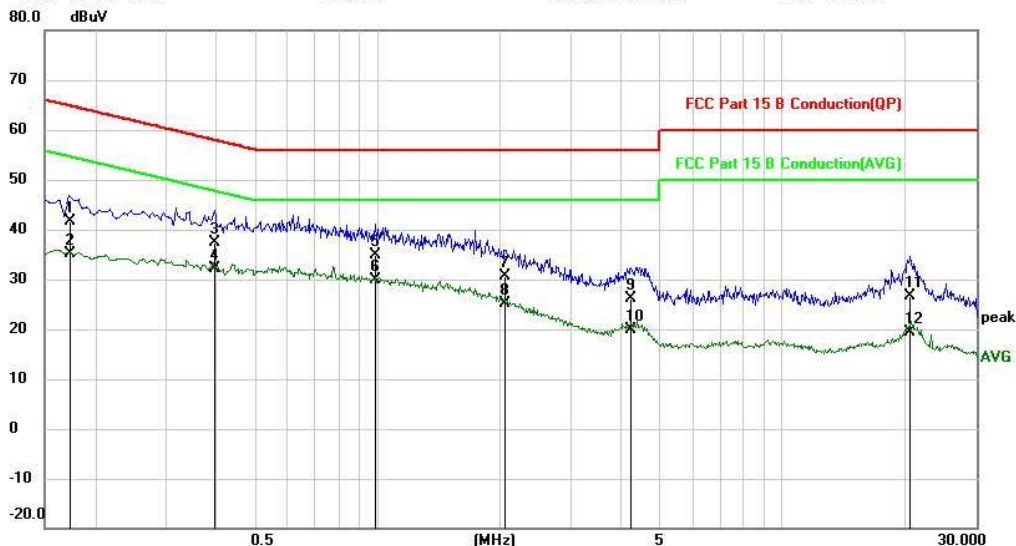
Conducted Emission Measurement

File: FTS23JP-6951

Data: #3

Date: 2023/12/19

Time: 1:41:26



Site: LAB

Phase: **N**

Temperature: 24

Limit: FCC Part 15 B Conduction(QP)

Power: AC120/60Hz

Humidity: 50 %

EUT: UV Resin Curing Enclosure

M/N: RC-2

Mode: Air drying mode + maximum RPM

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1731	21.84	19.71	41.55	64.81	-23.26	QP	
2		0.1731	15.37	19.71	35.08	54.81	-19.73	AVG	
3		0.3975	17.52	19.77	37.29	57.91	-20.62	QP	
4	*	0.3975	12.38	19.77	32.15	47.91	-15.76	AVG	
5		0.9870	14.99	19.84	34.83	56.00	-21.17	QP	
6		0.9870	10.08	19.84	29.92	46.00	-16.08	AVG	
7		2.0625	10.82	19.69	30.51	56.00	-25.49	QP	
8		2.0625	5.44	19.69	25.13	46.00	-20.87	AVG	
9		4.2404	6.39	19.77	26.16	56.00	-29.84	QP	
10		4.2404	0.01	19.77	19.78	46.00	-26.22	AVG	
11		20.6430	6.41	20.30	26.71	60.00	-33.29	QP	
12		20.6430	-0.83	20.30	19.47	50.00	-30.53	AVG	

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

(Reference Only)

File: FTS23JP-6951\Data: #3

Page: 1

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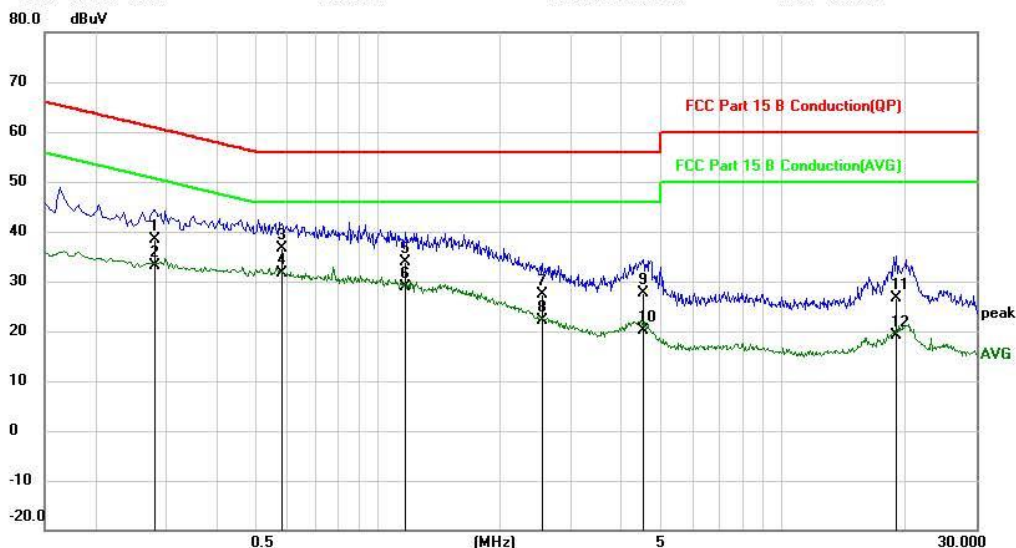
Conducted Emission Measurement

File: FTS23JP-6951

Data: #4

Date: 2023/12/19

Time: 1:45:18



Site: LAB

Phase: **L1**

Temperature: 24

Limit: FCC Part 15 B Conduction(QP)

Power: AC120/60Hz

Humidity: 50 %

EUT: UV Resin Curing Enclosure

M/N: RC-2

Mode: Air drying mode + maximum RPM

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.2805	18.81	19.67	38.48	60.80	-22.32	QP	
2		0.2805	13.54	19.67	33.21	50.80	-17.59	AVG	
3		0.5820	17.01	19.65	36.66	56.00	-19.34	QP	
4	*	0.5820	11.86	19.65	31.51	46.00	-14.49	AVG	
5		1.1670	14.04	19.80	33.84	56.00	-22.16	QP	
6		1.1670	9.15	19.80	28.95	46.00	-17.05	AVG	
7		2.5485	7.49	19.87	27.36	56.00	-28.64	QP	
8		2.5485	2.23	19.87	22.10	46.00	-23.90	AVG	
9		4.5465	7.84	19.70	27.54	56.00	-28.46	QP	
10		4.5465	0.39	19.70	20.09	46.00	-25.91	AVG	
11		19.0275	6.35	20.32	26.67	60.00	-33.33	QP	
12		19.0275	-1.13	20.32	19.19	50.00	-30.81	AVG	

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

(Reference Only)

File: FTS23JP-6951\Data: #4

Page: 1

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Radiated Emission Measurement

File: FTS23JP-6951

Data: #5

Date: 2023/12/19

Time: 23:39:56

80.0 dBuV/m



Site: LAB

Limit: FCC Part15B Radiation (QP)

EUT: UV Resin Curing Enclosure

M/N: RC-2

Mode: Air drying mode + minimum RPM

Note:

Polarization: **Vertical**

Temperature: 24.6

Power: AC120/60Hz

Humidity: 58.4 %

Distance: 3m

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	cm	degree	Comment
1	*	70.0903	16.03	12.34	28.37	40.00	-11.63	QP	100	242
2		87.1117	15.58	10.88	26.46	40.00	-13.54	QP	100	10
3		150.5378	15.43	9.39	24.82	43.50	-18.68	QP	100	10
4		249.4250	16.72	13.86	30.58	46.00	-15.42	QP	100	242
5		270.3748	17.16	14.69	31.85	46.00	-14.15	QP	100	56
6		670.4893	7.97	22.16	30.13	46.00	-15.87	QP	100	270

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

(Reference Only)

File: FTS23JP-6951\Data: #5

Page: 1

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Radiated Emission Measurement

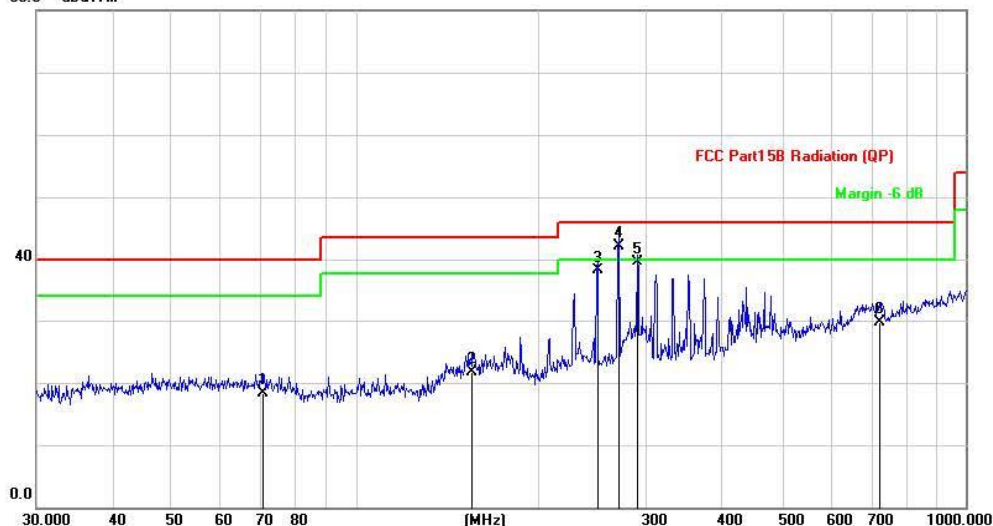
File: FTS23JP-6951

Data: #6

Date: 2023/12/19

Time: 23:41:42

80.0 dBuV/m



Site: LAB

Polarization: **Horizontal**

Temperature: 24.6

Limit: FCC Part15B Radiation (QP)

Power: AC120/60Hz

Humidity: 58.4 %

EUT: UV Resin Curing Enclosure

Distance: 3m

M/N: RC-2

Mode: Air drying mode + minimum RPM

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	cm	degree	Comment
1		70.8315	6.10	12.13	18.23	40.00	-21.77	QP	100	82
2		155.3644	12.35	9.37	21.72	43.50	-21.78	QP	100	82
3		249.4250	24.29	13.86	38.15	46.00	-7.85	QP	100	167
4	*	269.8960	27.38	14.69	42.07	46.00	-3.93	QP	100	92
5		290.0172	25.17	14.35	39.52	46.00	-6.48	QP	200	249
6		721.7259	7.35	22.33	29.68	46.00	-16.32	QP	200	314

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

(Reference Only)

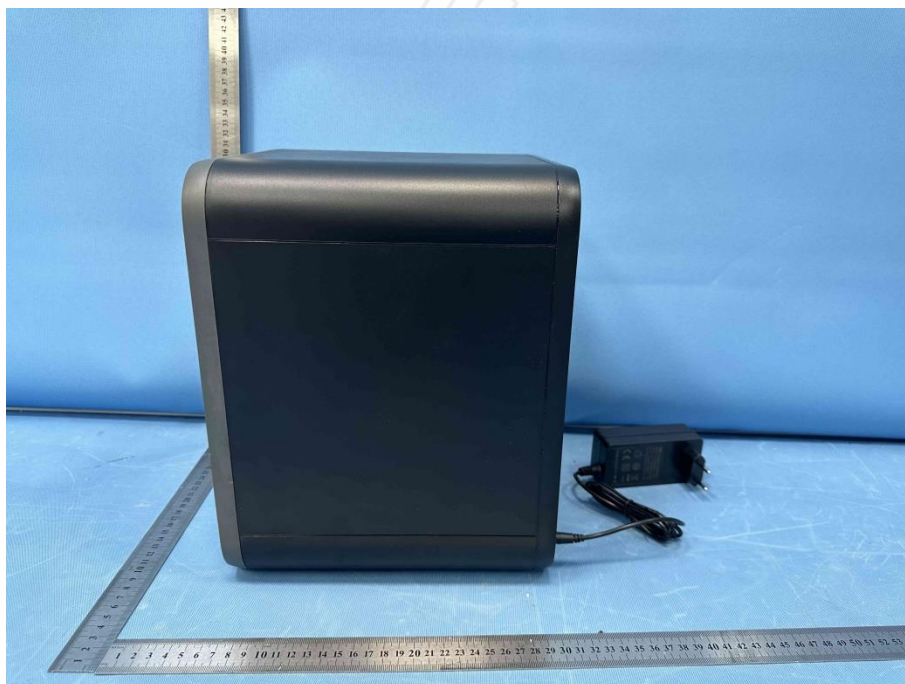
File: FTS23JP-6951\Data: #6

Page: 1

Engineer Signature:



Picture 1



Picture 2



Picture 3



Picture 4



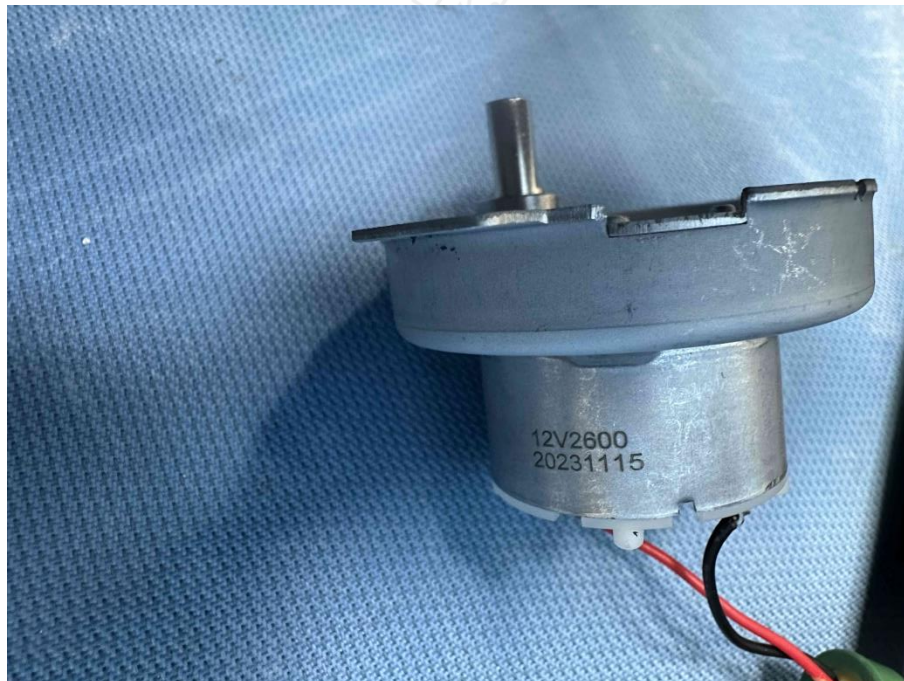
Picture 5



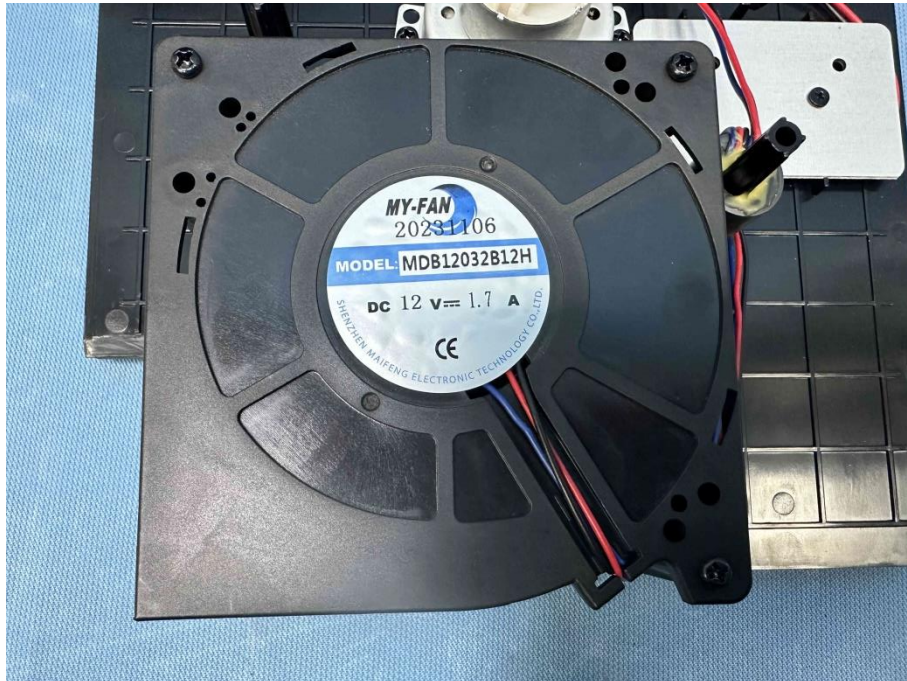
Picture 6



Picture 7



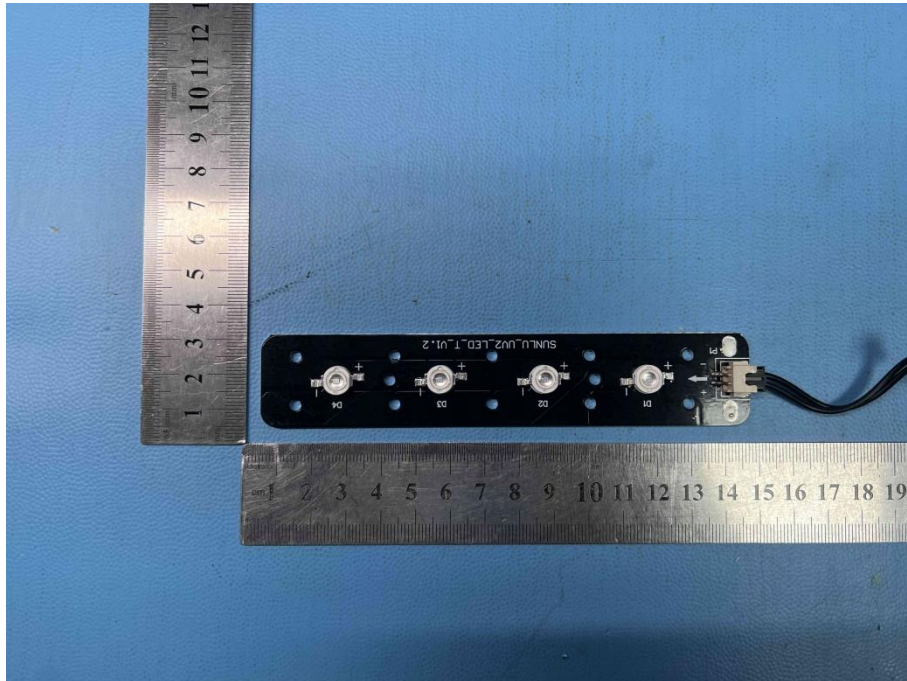
Picture 8



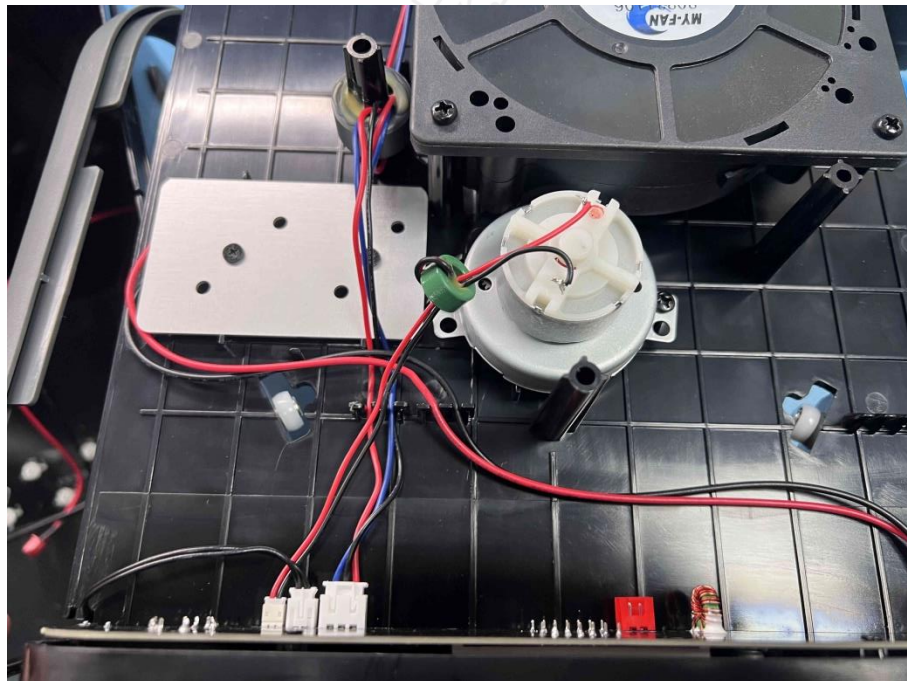
Picture 9



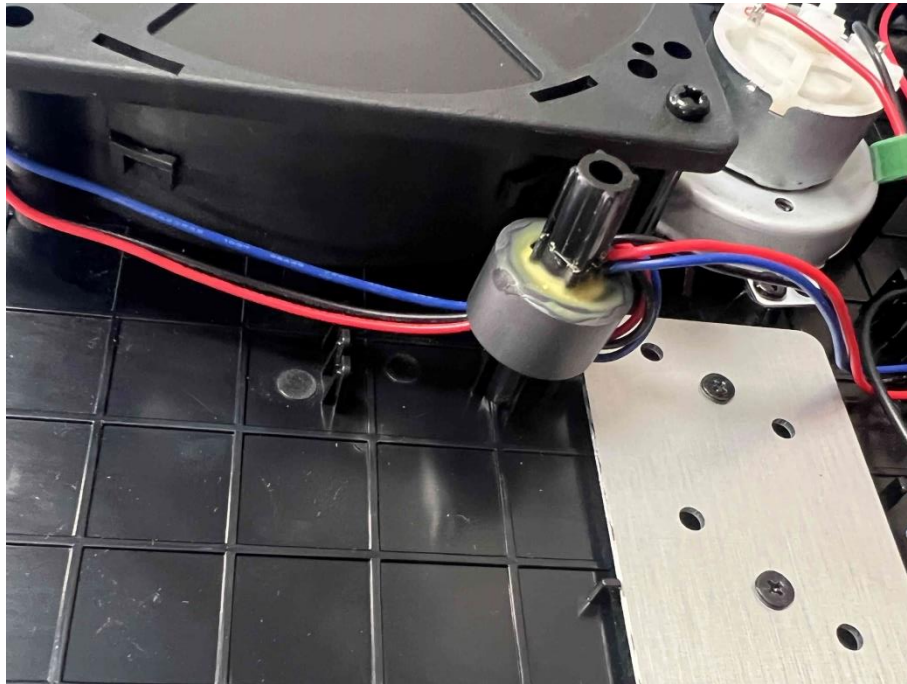
Picture 10



Picture 11



Picture 12



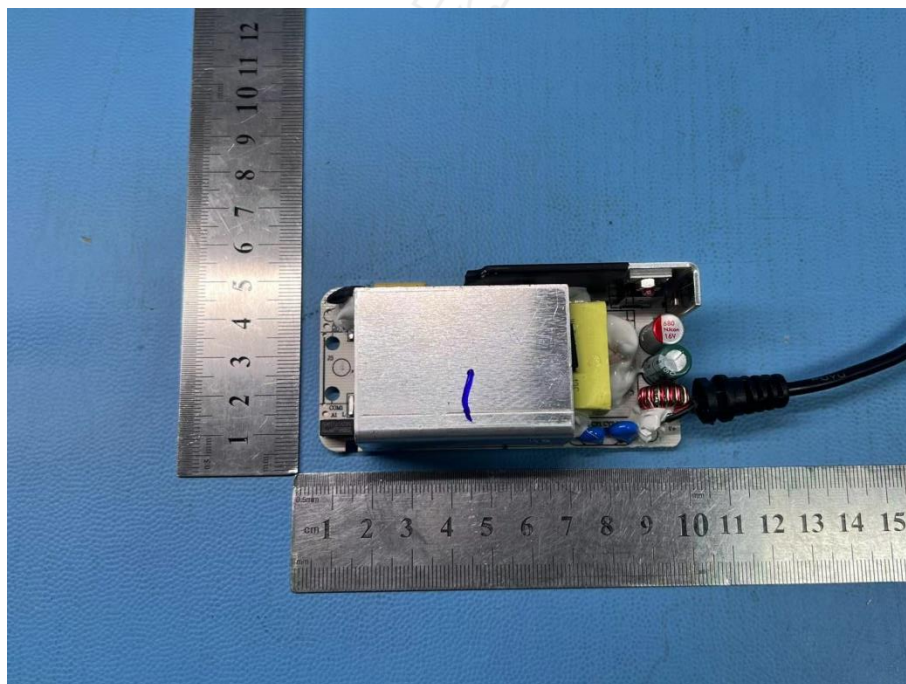
Picture 13



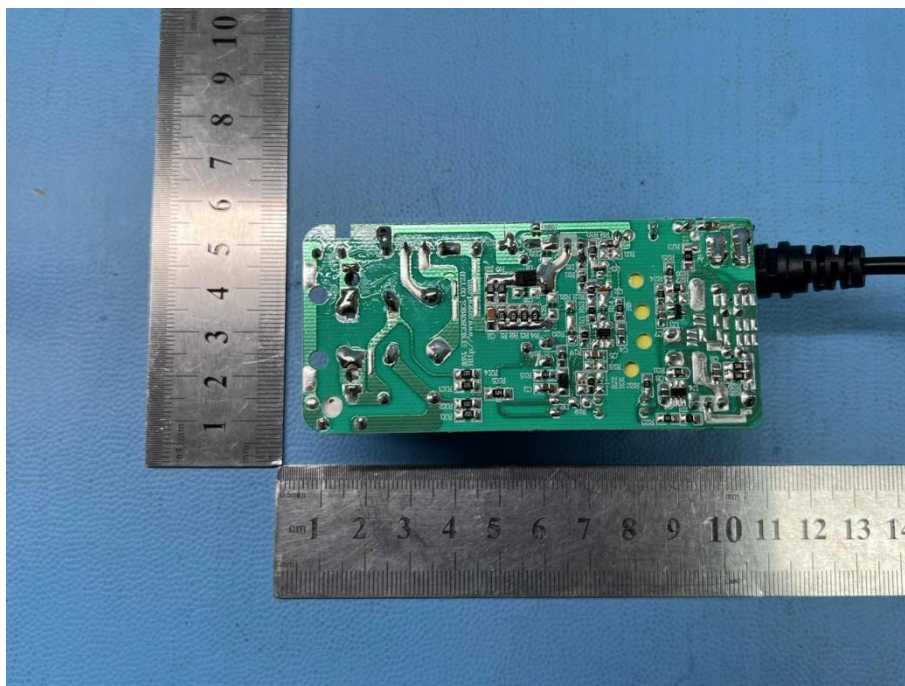
Picture 14



Picture 15



Picture 16



Picture 17

Disturbance Voltage ☒				
Equipment	Manufacturer	Model No.	Serial No.	Cal Until
EMI Test Receiver	R&S	ESCI3	1166.5950.03	30 Jul, 2024
Shield Room	YiHeng Electronics	13x4.1x3.1	ZS-YF002	28 Jul, 2025
Conducted Emission Software	FALA	EZ-EMC	N/A	N/A
Artificial Mains Network	R&S	ENV216	102609	30 Jul, 2024
10dB Attenuator	SCHWARZBEC K	ESH3-Z2	0357.8810.54-102747-NB	30 Jul, 2024
Radiated Emission (30MHz – 1000MHz) ☒				
Equipment	Manufacturer	Model No.	Serial No.	Cal Until
EMI Test Receiver	R&S	ESR7	101653	30 Jul, 2024
Broadband TRILOG Antenna	SCHWARZBEC K	VULB 9162	214	25 Feb, 2025
3m Semi-anechoic	YiHeng Electronics	9.0mx6.6mx6.7 m	N/A	31 Jul, 2024
RF Cable	FTS	FTS-235	/	30 Jul, 2024

-----End of test report-----