TEST REPORT

For

[redacted]

Product Name	:	Hydrogen production equipment
Trademark	:	N/A
Model Number	:	TD-1
Prepared For	:	[redacted]
Address	:	[redacted]
Report No.	:	LST250598095FR
Testing laboratory	:	Shenzhen LST Technology Co., Ltd.
Address	:	Huichao Building, Yintian Industry zone, Bao'an District, Shenzhen, Guangdong P.R. China

Applicant	:	[redacted]
Address	:	[redacted]
Manufacturer	:	[redacted]
Address	:	[redacted]
EUT	:	Hydrogen production equipment
Model Number	:	TD-1
Trademark:	:	N/A
Test Date	:	May. 22, 2025 –May. 30, 2025
Date of Report	:	May. 30, 2025
Test Result:	:	The equipment under test was found to be compliance with the requirements of the standards applied.

Test Procedure Used:

FCC Part 15 Subpart B

ANSI C63.4:2014

Tested by (name + signature):

Reviewed by (name + signature):

Approved by (name + signature):

This test report is based on a single evaluation of one sample of above mentioned products. The test results in the report only apply to the tested sample. It is not permitted to be duplicated in extracts without written approval of Shenzhen LST Technology Co., Ltd.

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT	: Hydrogen production equipment
Trademark	: N/A
Model Number	: TD-1
Power Supply	: 110V-230V~, 50/60Hz

1.2. Tested System Details

N/A

1.3. Test Uncertainty

Conducted Emission Uncertainty	:	±1.82 dB
Radiated Emission Uncertainty	:	±2.51 dB

1.4. Test Facility

Site Description :

Name of Firm : Shenzhen LST Technology Co., Ltd.

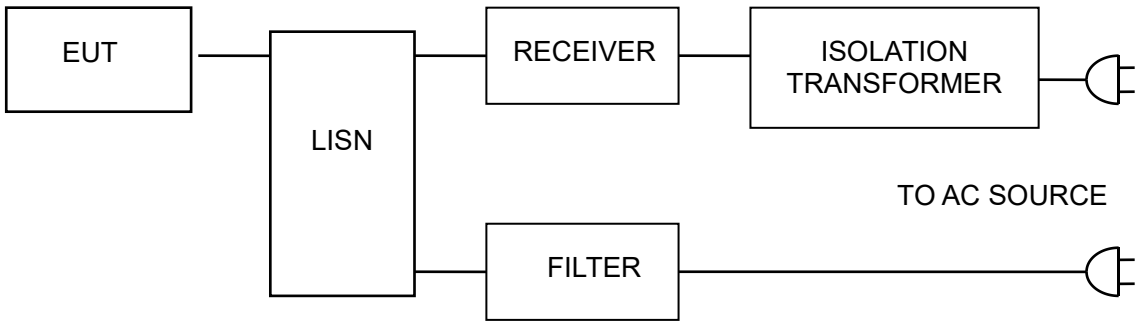
Address : Huichao Building, Yintian Industry zone, Baoan District, Shenzhen, Guangdong P.R. China

2. TEST INSTRUMENT USED

Conducted Emission Test					
Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Last Cal.**	**Cal.Due Date**
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jul. 22, 2024	Jul. 21, 2025
RF Switching Unit	Compliance Direction SystemsInc	RSU-A4	34403	Jul. 22, 2024	Jul. 21, 2025
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Jul. 22, 2024	Jul. 21, 2025
LISN	Rohde & Schwarz	ENV216	101131	Jul. 22, 2024	Jul. 21, 2025
Radiation Emission Test					
Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Last Cal.**	**Cal.Due Date**
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 22, 2024	Jul. 21, 2025
EMI Test Receiver	Rohde & Schwarz	ESPI	100010/007	Jul. 22, 2024	Jul. 21, 2025
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Mar. 20, 2025	Mar.19, 2026
Horn Antenna	ETS-LINDGREN	3117	00143207	Mar. 19, 2025	Mar.18, 2026
Pre-amplifier	Sonoma	310N	185903	Mar. 20, 2025	Mar.19, 2026
Pre-amplifier	HP	8449B	3008A00849	Mar. 26, 2025	Mar.25, 2026
Cable	HUBER+SUHNER	100	SUCOFLEX	Mar. 26, 2025	Mar.25, 2026
Positioning Controller	ETS-LINDGREN	2090	N/A	N/A	N/A

3. CONDUCTED EMISSION AT THE MAINS TERMINALS TEST

3.1. Block Diagram Of Test Setup



3.2. Test Standard

FCC PART 15 Subpart B

3.3. Power Line Conducted Emission Limit

Frequency MHz	Limits dB(μV)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66 ~ 56*	59 ~ 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.

3.4. EUT Configuration on Test

The following equipments are installed on conducted emission test to meet FCC Part 15 Subpart B requirement and operating in a manner which tends to maximize its emission characteristics in a normal application.

3.5. Operating Condition of EUT

3.5.1 Setup the EUT and simulators as shown in Section 3.1.
3.5.2 Turn on the power of all equipments.
3.5.3 Let the EUT work in test modes and test it.

3.6. Test Procedure

The EUT is put on the ground and connected to the AC mains through a Artificial Mains Network (AMN). This provided a 50ohm coupling impedance for the tested equipments. Both sides of AC line are checked to find out the maximum conducted emission levels according to the FCC PART 15 Subpart B regulations during conducted emission test.

The bandwidth of the test receiver (R&S Test Receiver ESCI) is set at 10KHz.

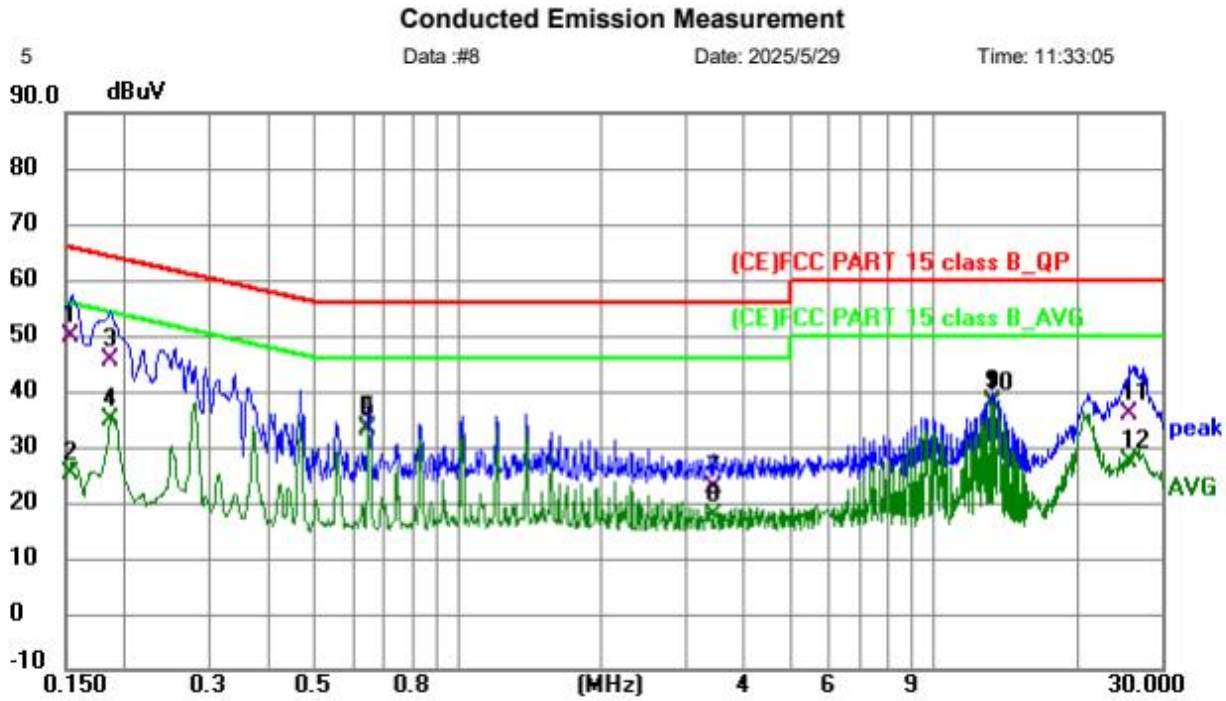
The frequency range from 150 KHz to 30 MHz is investigated.

3.7. Test Result

PASS

Please refer to the following page.

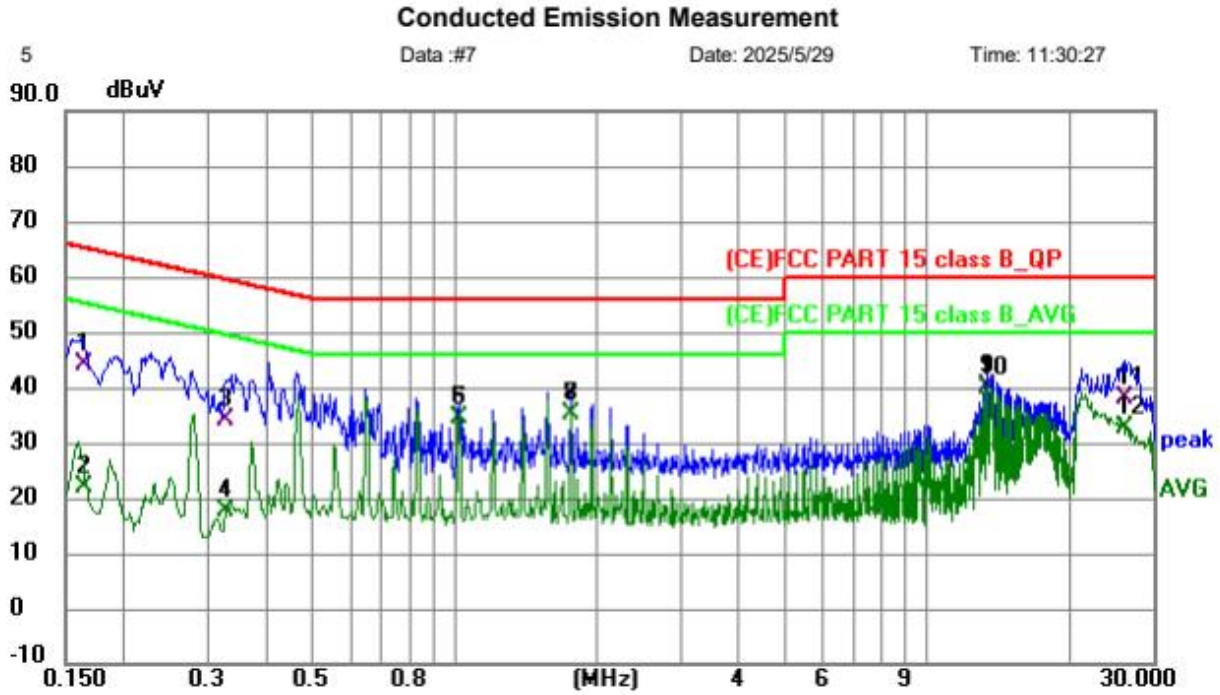
Conducted Emission Test Data			
Temperature:	24.5 ℃	Relative Humidity:	54%
Pressure:	1009hPa	Phase :	L
Test Voltage :	AC 120V	Test Mode:	Working Mode



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.154	40.16	9.60	49.76	65.79	-16.03	QP	
2		0.154	15.58	9.60	25.18	55.79	-30.61	AVG	
3		0.186	36.17	9.54	45.71	64.21	-18.50	QP	
4		0.186	25.40	9.54	34.94	54.21	-19.27	AVG	
5		0.649	23.90	9.48	33.38	56.00	-22.62	QP	
6		0.649	23.51	9.48	32.99	46.00	-13.01	AVG	
7		3.453	13.22	9.54	22.76	56.00	-33.24	QP	
8		3.453	8.19	9.54	17.73	46.00	-28.27	AVG	
9		13.272	28.53	9.65	38.18	60.00	-21.82	QP	
10	*	13.272	28.20	9.65	37.85	50.00	-12.15	AVG	
11		25.849	25.57	10.36	35.93	60.00	-24.07	QP	
12		25.849	17.09	10.36	27.45	50.00	-22.55	AVG	

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

Conducted Emission Test Data			
Temperature:	24.5 ℃	Relative Humidity:	54%
Pressure:	1009hPa	Phase :	N
Test Voltage :	AC 120V	Test Mode:	Working Mode

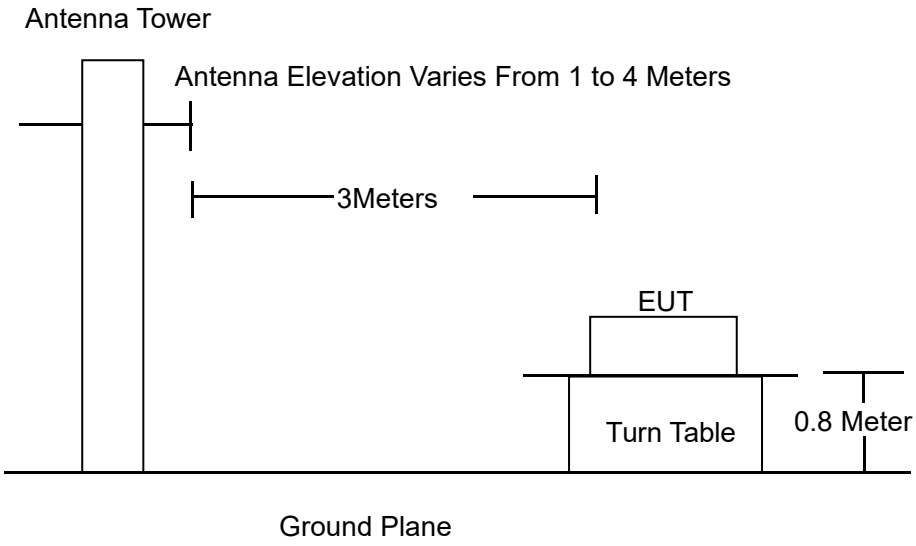


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.164	34.55	9.53	44.08	65.26	-21.18	QP	
2		0.164	12.41	9.53	21.94	55.26	-33.32	AVG	
3		0.326	24.74	9.47	34.21	59.55	-25.34	QP	
4		0.326	8.33	9.47	17.80	49.55	-31.75	AVG	
5		1.023	25.16	9.46	34.62	56.00	-21.38	QP	
6		1.023	25.02	9.46	34.48	46.00	-11.52	AVG	
7		1.761	25.85	9.49	35.34	56.00	-20.66	QP	
8		1.761	25.62	9.49	35.11	46.00	-10.89	AVG	
9		13.457	30.57	9.63	40.20	60.00	-19.80	QP	
10	*	13.457	30.24	9.63	39.87	50.00	-10.13	AVG	
11		26.079	27.46	10.46	37.92	60.00	-22.08	QP	
12		26.079	22.31	10.46	32.77	50.00	-17.23	AVG	

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

4. RADIATION EMISSION TEST

4.1. Block Diagram of Test Setup



4.2. Test Standard

FCC PART 15 Subpart B

4.3. Radiation Limit

FREQUENCY (MHz)	DISTANCE (Meters)	Class B 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
Above 1000	3	74(PEAK) 54(Average)

4.4. EUT Configuration on Test

The FCC Part 15 Subpart B regulations test method must be used to find the maximum emission during radiated emission test.
The configuration of EUT is the same as used in conducted emission test. Please refer to Section 3.4.

4.5. Operating Condition of EUT

Same as conducted emission test, which is listed in Section 3.5 except the test set up replaced as Section 4.1.

4.6. Test Procedure

The EUT and its simulators are placed on a turned table that is 0.8 meter above the ground. The turned table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna that is mounted on the antenna tower. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated biconical and log periodical antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on test. In order to find the maximum emission levels, the interface cable must be manipulated according to FCC Part 15 Subpart B on radiated emission test.
The bandwidth setting on the field strength meter (R&S Test Receiver ESCI) is set at 120KHz below 1GHz, set at 1MHz above 1GHz
The frequency range from 30MHz to 1000MHz is checked.

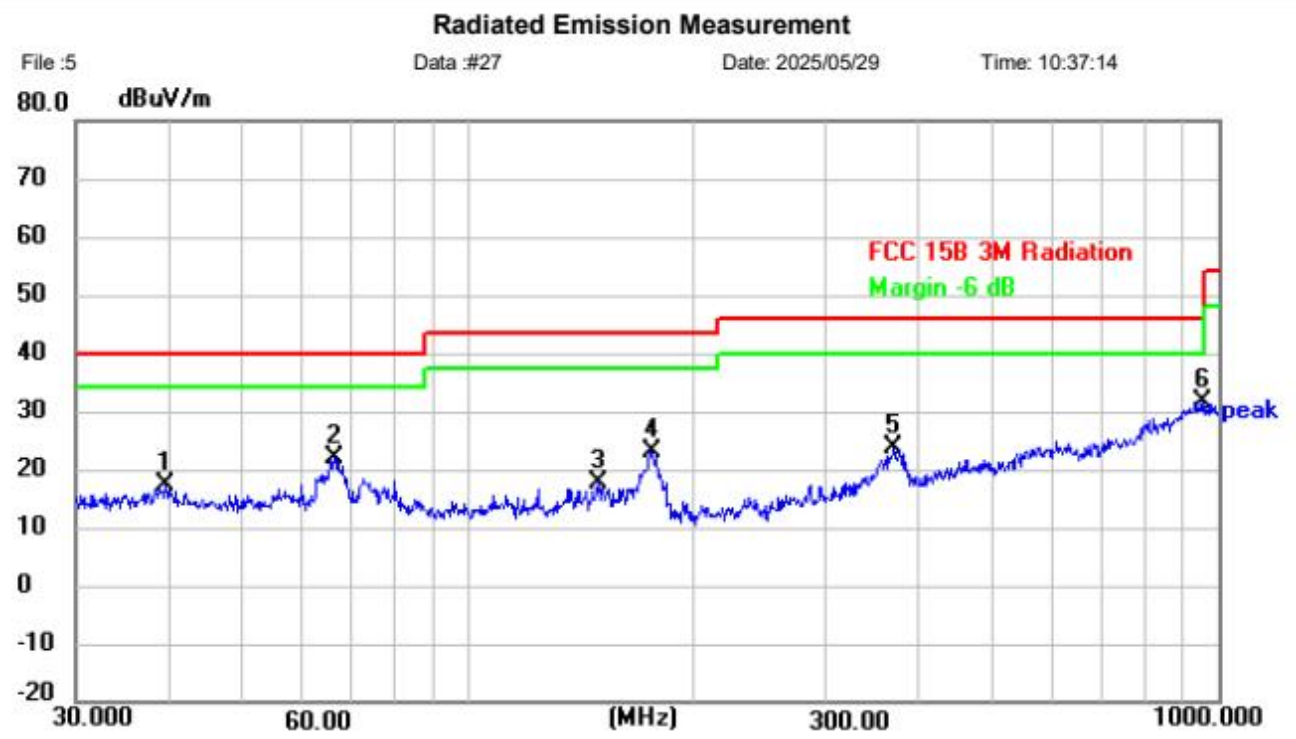
The highest frequency of the internal sources of the EUT was below 108MHz, so the measurement was only made up to 1GHz.

4.7. Test Result

PASS

Please refer to the following page.

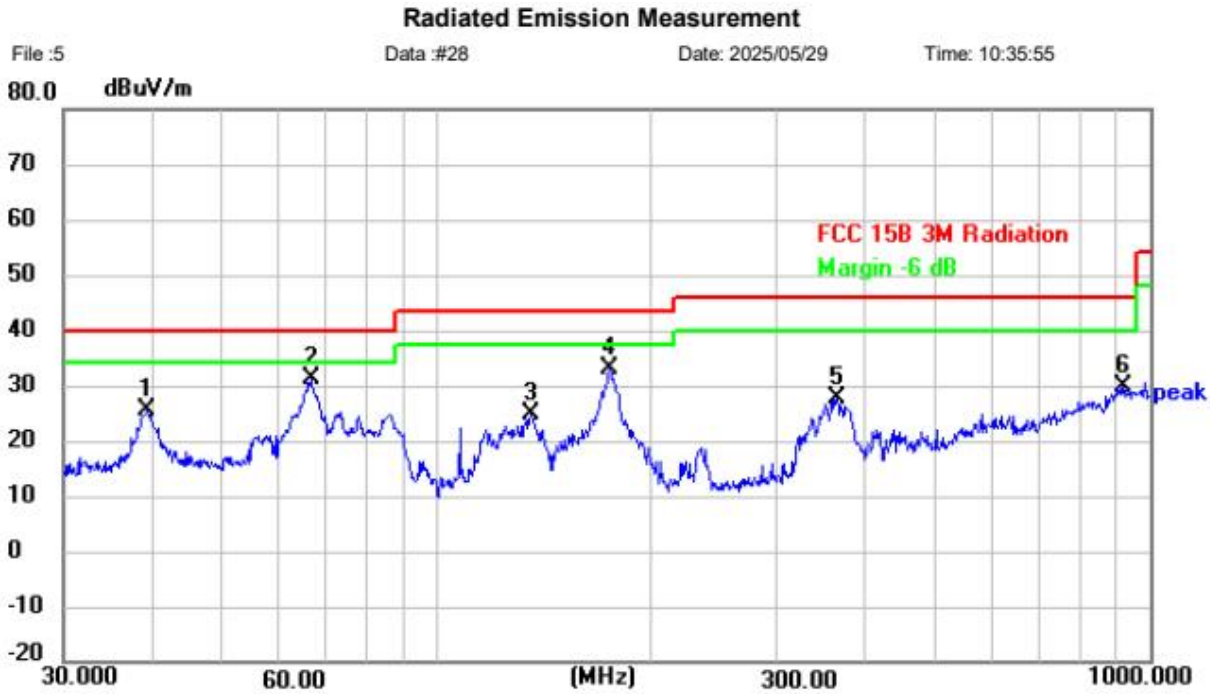
Radiation Emission Test Data			
Temperature:	24.5 ℃	Relative Humidity:	54%
Pressure:	1009hPa	Phase :	Horizontal
Test Voltage :	AC 120V	Test Mode:	Working mode



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	39.5756	40.63	-23.43	17.20	40.00	-22.80	peak	P	
2	66.4990	47.34	-25.44	21.90	40.00	-18.10	peak	P	
3	149.4857	38.60	-21.05	17.55	43.50	-25.95	peak	P	
4	175.6516	46.57	-23.56	23.01	43.50	-20.49	peak	P	
5	369.4045	43.50	-19.80	23.70	46.00	-22.30	peak	P	
6 *	955.4380	39.06	-7.47	31.59	46.00	-14.41	peak	P	

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

Radiation Emission Test Data			
Temperature:	24.5 ℃	Relative Humidity:	54%
Pressure:	1009hPa	Phase :	Vertical
Test Voltage :	AC 120V	Test Mode:	Working mode



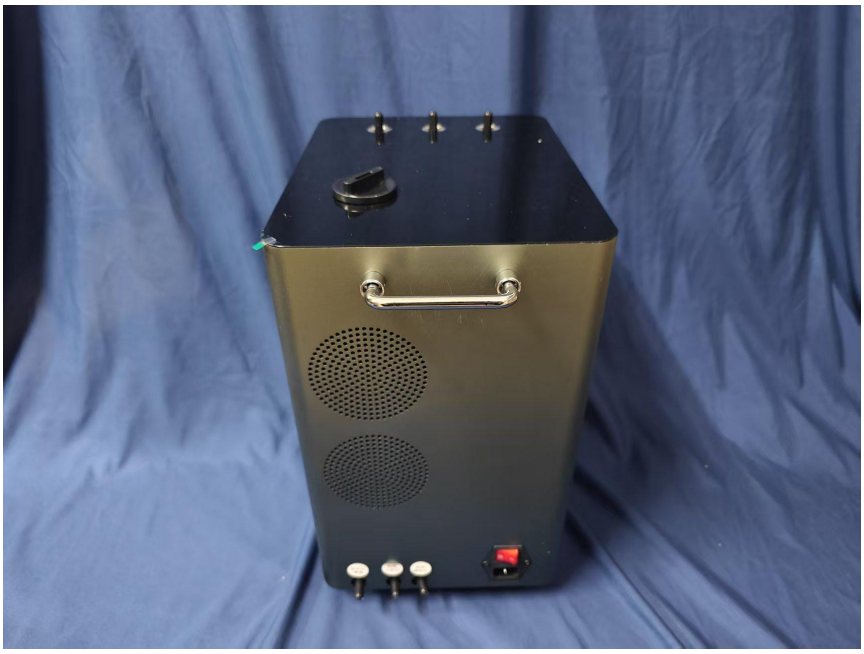
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	39.2991	49.15	-23.49	25.66	40.00	-14.34	peak	P	
2 *	66.7325	56.79	-25.69	31.10	40.00	-8.90	peak	P	
3	135.5061	47.23	-22.28	24.95	43.50	-18.55	peak	P	
4	174.4240	56.08	-23.21	32.87	43.50	-10.63	peak	P	
5	364.2595	47.01	-19.46	27.55	46.00	-18.45	peak	P	
6	919.2865	37.49	-7.66	29.83	46.00	-16.17	peak	P	

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

ANNEX A:
Photo-documentation

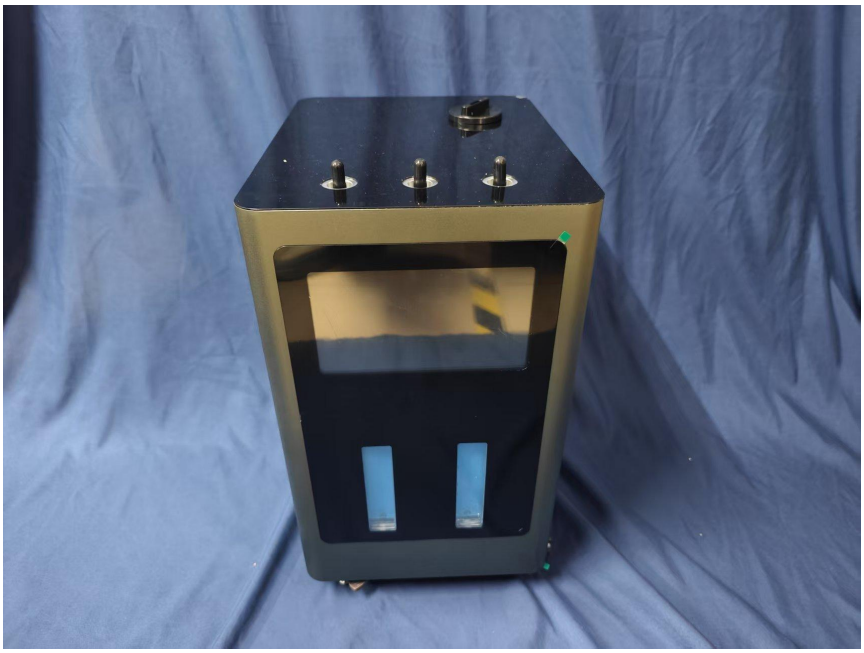
EUT Photo 1

EUT Photo 2

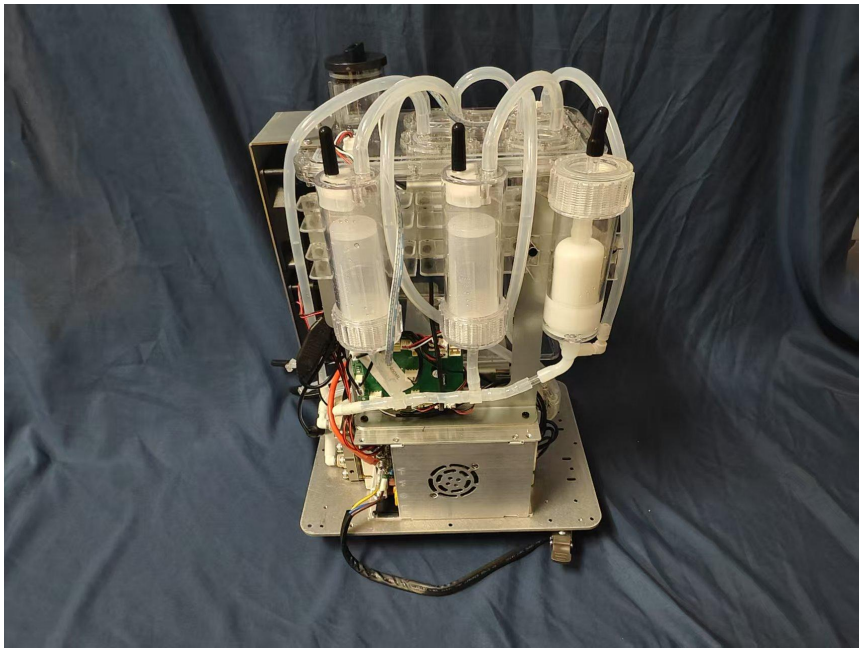


EUT Photo 3

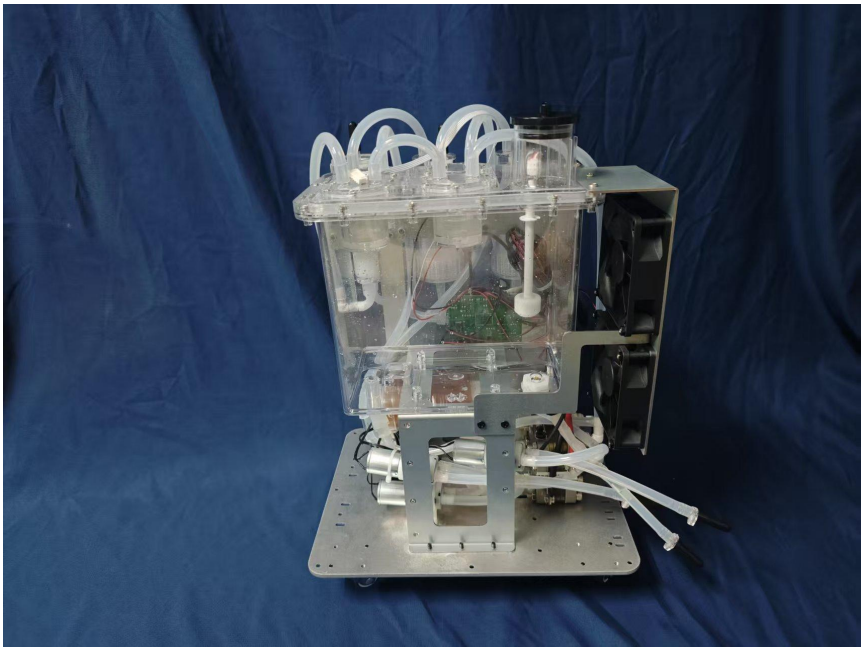
EUT Photo 4



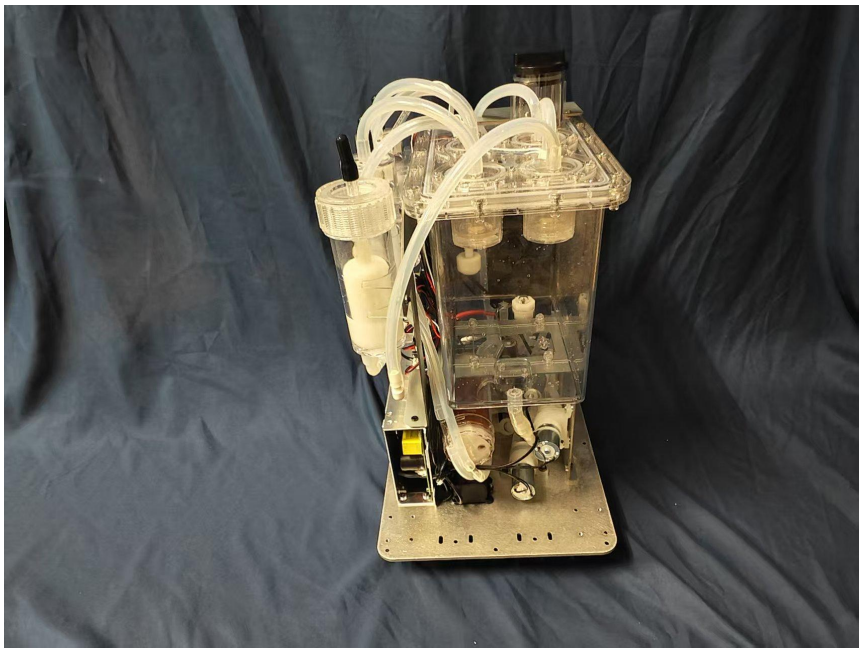
EUT Photo 5



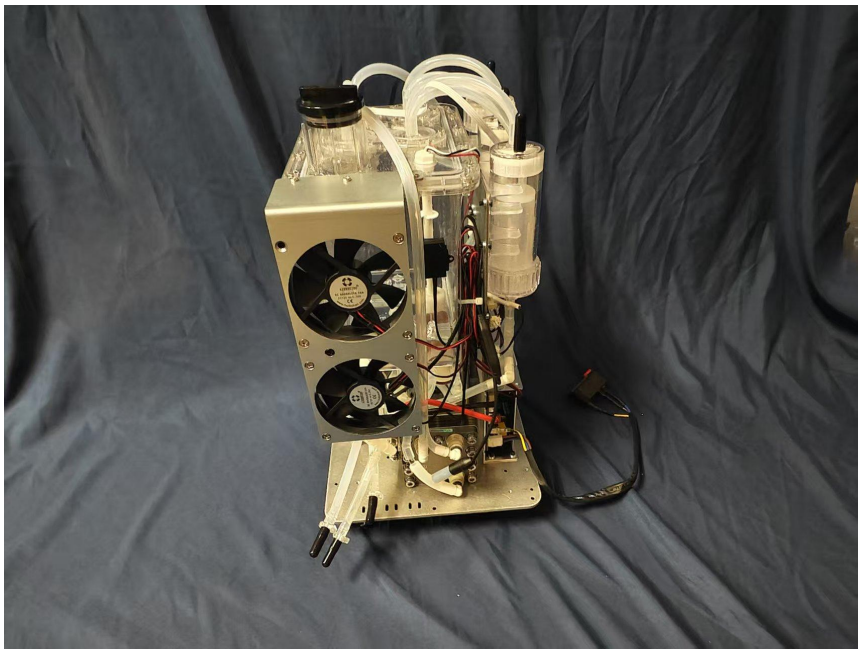
EUT Photo 6



EUT Photo 7

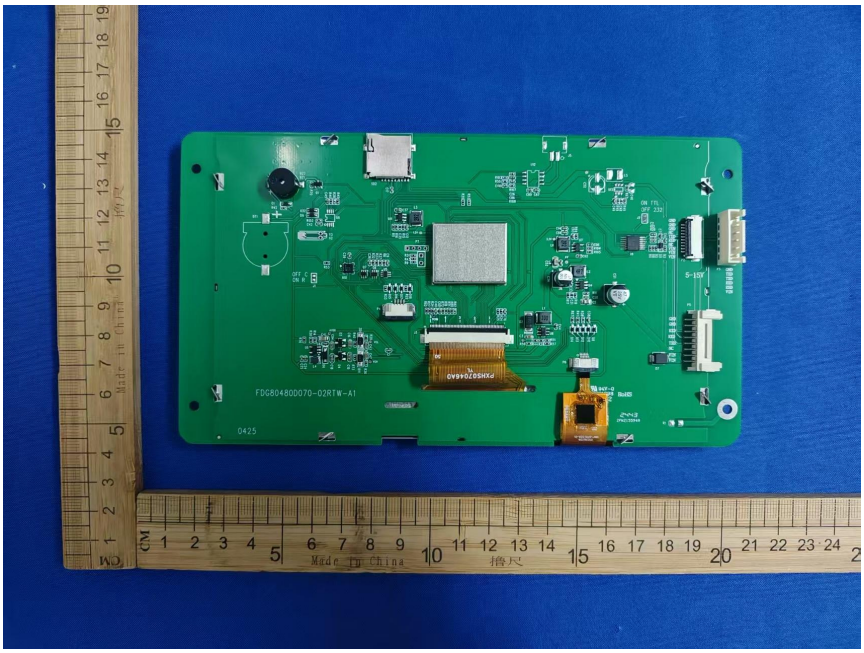


EUT Photo 8

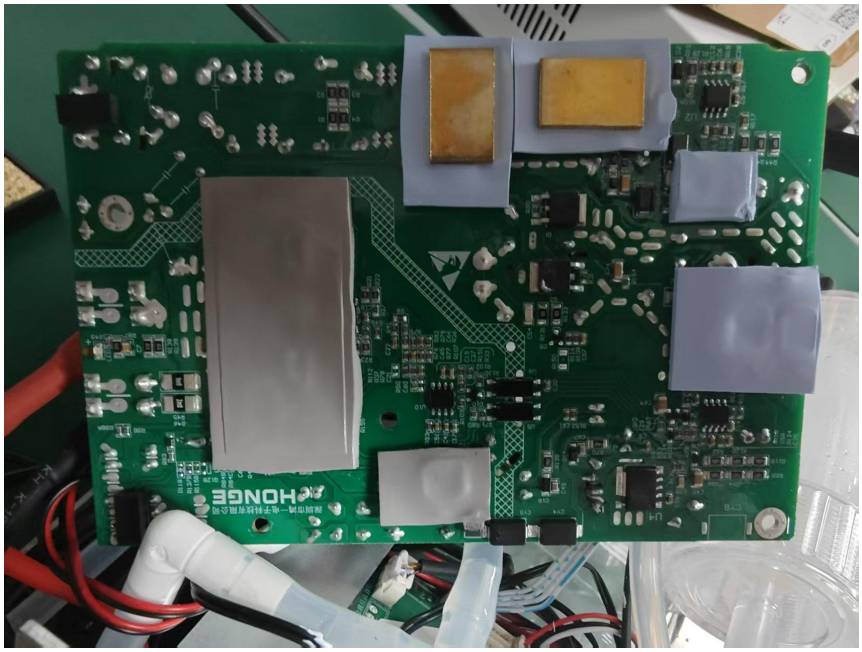


EUT Photo 9

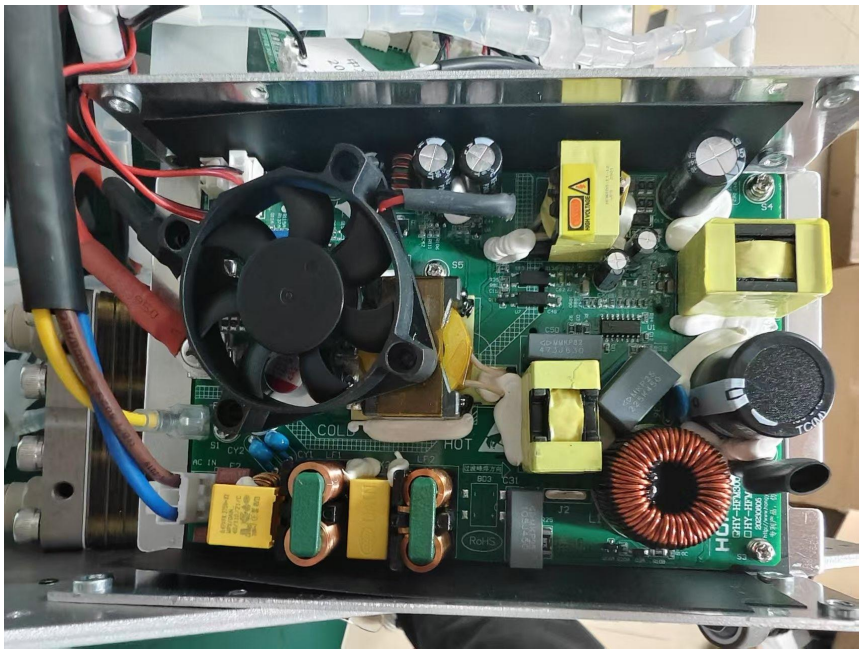
EUT Photo 10



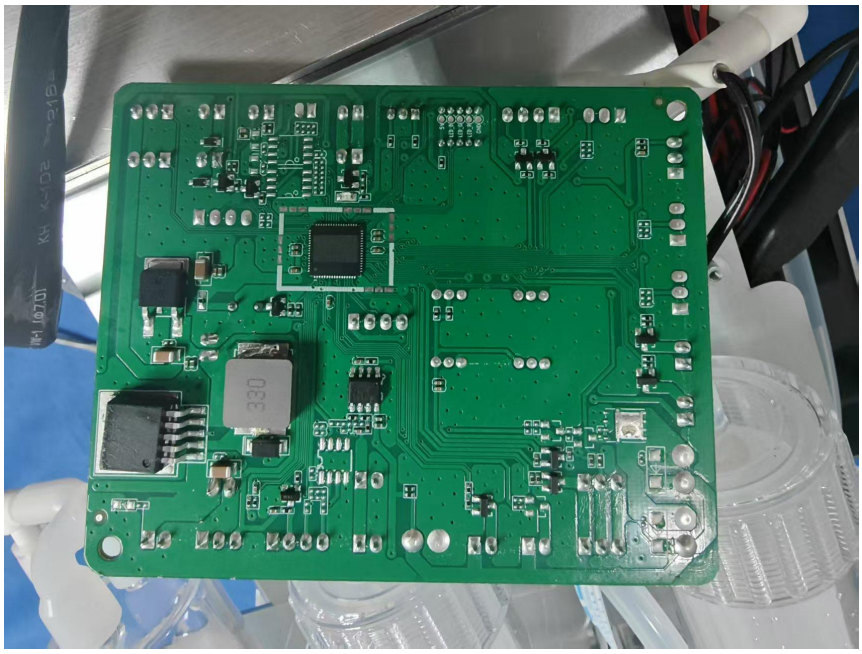
EUT Photo 11



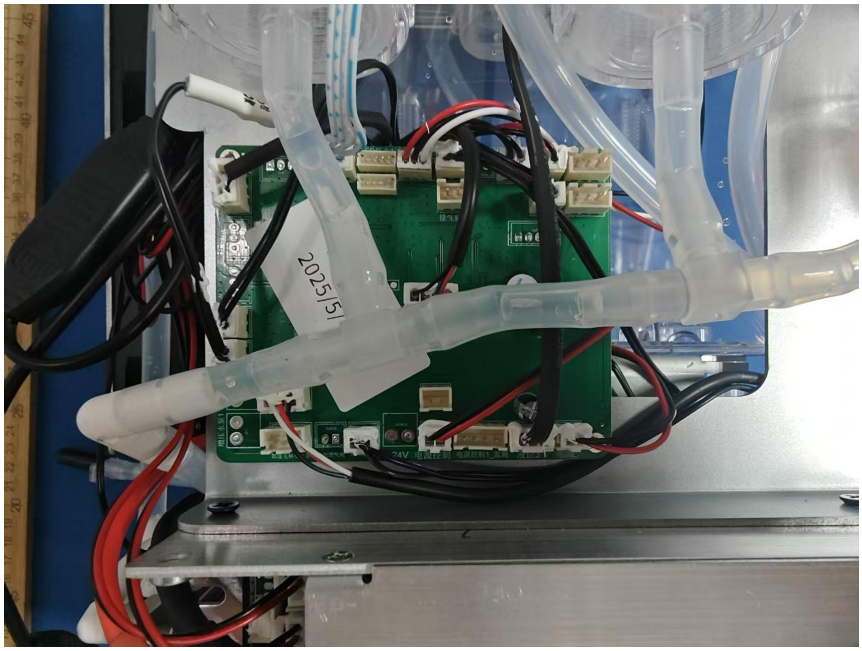
EUT Photo 12



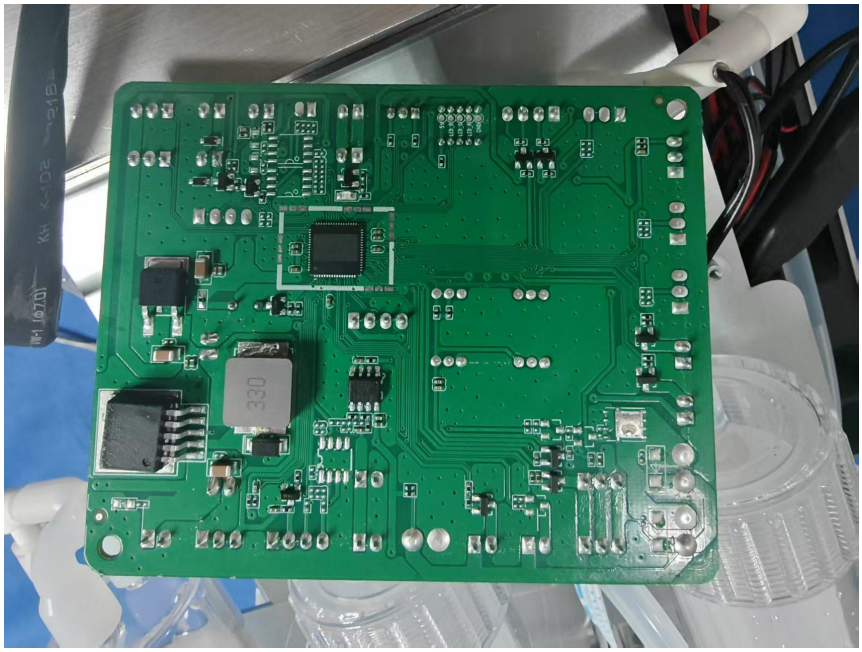
EUT Photo 13



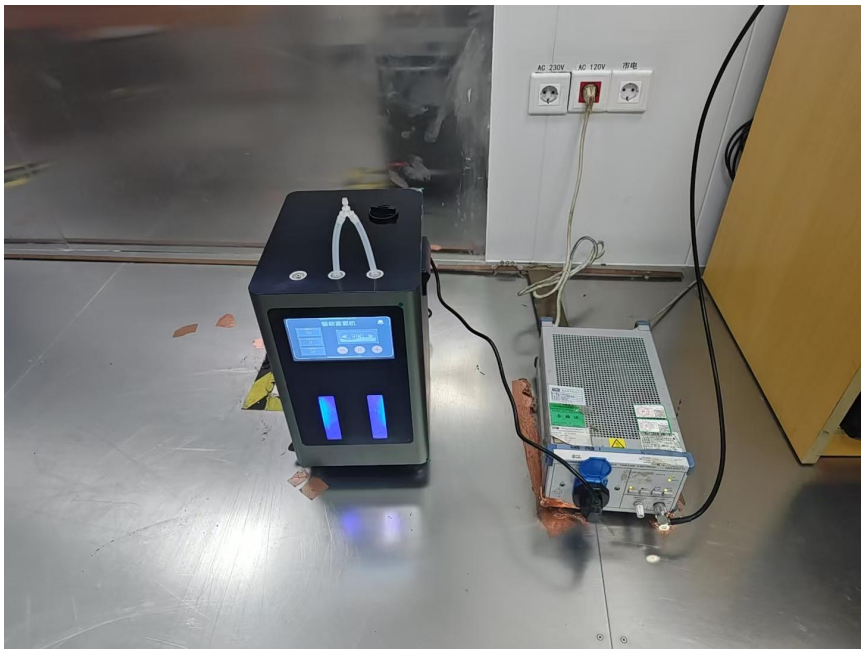
EUT Photo 14



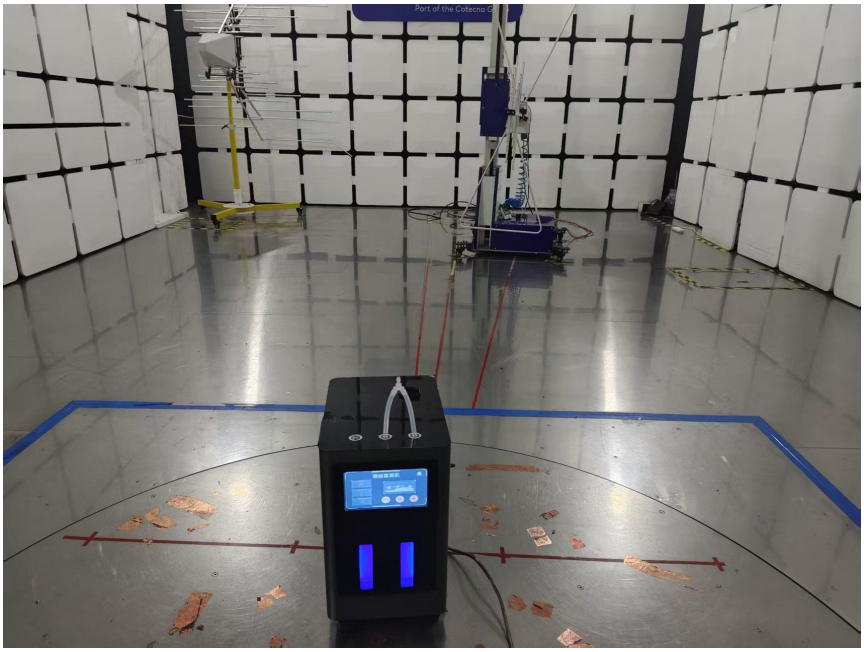
EUT Photo 15



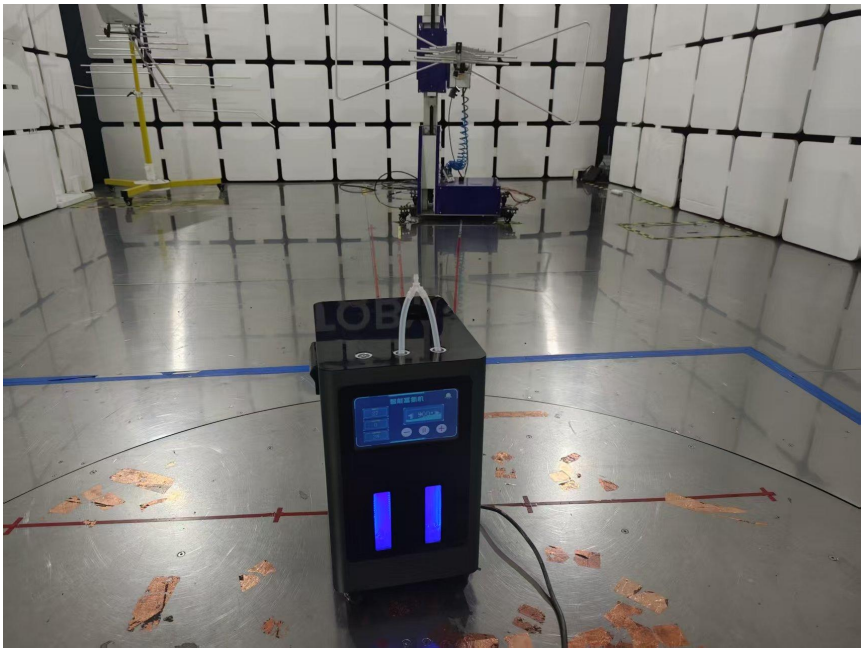
EUT Photo 16



EUT Photo 17



EUT Photo 18



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