Test Report

Report No.	:	**MTi250331011-0104E1**
Date of issue	:	**2025-06-30**
Applicant	:	**Huizhou Gold Rose Technology Co., Ltd.**
Product	:	**ultrasonic cleaner**
Model(s)	:	**US201, US202**
Series Model(s)	:	**US200, US100, US4, US500, US600, US700, US300**

Shenzhen Microtest Co., Ltd.

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Test Result Certification	
Applicant	Huizhou Gold Rose Technology Co., Ltd.
Applicant Address	Zone D-1, 5th Floor, No. 12 Plant, Songyang Road, Zhongkai High-tech Zone, Huizhou City
Manufacturer	Huizhou Gold Rose Technology Co., Ltd.
Manufacturer Address	Zone D-1, 5th Floor, No. 12 Plant, Songyang Road, Zhongkai High-tech Zone, Huizhou City
Product description	
Product name	ultrasonic cleaner
Trademark	N/A
Model name	US201, US202
Series Model(s)	US200, US100, US4, US500, US600, US700, US300
Standards	47 CFR Part 18
Testing Information	
Date of test	2025-06-19 to 2025-06-30
Test result	Pass

Prepared by:	Lyla Cao	
Reviewed by:	David Lee	
Approved by:	Lewis Lian	

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TEST REPORT

1 General Description

1.1 Description of the EUT

Product name:	ultrasonic cleaner
Model name:	US201, US202
Series Model(s):	US200, US100, US4, US500, US600, US700, US300
Model difference:	US202, US700, US300: All the models are the same circuit and module, except the model name. US201, US200, US100, US4, US500, US600: All the models are the same circuit and module, except the model name.
Electrical rating:	Input: 12V⎓ 2A
Accessories:	Adaptor: Model: GF120020U-2 Input: AC 100-240V~ 50/60Hz 1.0A Output: 12V⎓ 2A 24W
Test sample(s) number:	MTi250331011-01-E001

1.2 Description of test modes

No.	Emission test modes
Mode1	Normal Working(US201)
Mode2	Normal Working(US202)

1.3 Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15°C ~ 35°C
Humidity:	20% RH ~ 75% RH
Atmospheric pressure:	98 kPa ~ 101 kPa

1.4 Description of support units

Support equipment list			
Description	Model	Serial No.	Manufacturer
/	/	/	/
Support cable list			
Description	Length (m)	From	To
/	/	/	/

1.5 Measurement uncertainty

Measurement	Uncertainty
Conducted emissions (AMN 150kHz~30MHz)	±3.1dB
Radiated emissions (30MHz~1GHz)	±4.7dB
Radiated emissions (above 1GHz)	±5.1dB
Temperature	±1 °C
Humidity	± 5 %

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

2 Summary of Test Result

No.	Item	Standard	Requirement	Result
1	Conducted Emissions on AC Power Line	47 CFR Part 18	18.307	Pass
2	Radiated Emissions (30MHz-1GHz)	47 CFR Part 18	18.305	Pass

3 Test Facilities and accreditations

3.1 Test laboratory

Test laboratory:	Shenzhen Microtest Co., Ltd.
Test site location:	101, No.7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinhe Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Telephone:	(86-755)88850135
Fax:	(86-755)88850136
CNAS Registration No.:	CNAS L5868
FCC Registration No.:	448573
IC Registration No.:	21760
CABID:	CN0093

4 List of test equipment

No.	Equipment	Manufacturer	Model	Serial No.	Cal. date	Cal. Due
Conducted Emissions on AC Power Line						
1	EMI Test Receiver	Rohde&schwarz	ESCI3	101368	2025-03-14	2026-03-13
2	Artificial mains network	Schwarzbeck	NSLK 8127	183	2025-03-18	2026-03-17
3	Artificial Mains Network	Rohde & Schwarz	ESH2-Z5	100263	2025-03-18	2026-03-17
Radiated Emissions (30MHz-1GHz)						
1	EMI Test Receiver	Rohde&schwarz	ESCI7	101166	2025-03-14	2026-03-13
2	TRILOG Broadband Antenna	schwarabeck	VULB 9163	9163-1338	2025-05-23	2027-05-22
3	Amplifier	Hewlett-Packard	8447F	3113A06184	2025-03-18	2026-03-17

5 Emission Test Results (EMI)

5.1 Conducted Emissions on AC Power Line

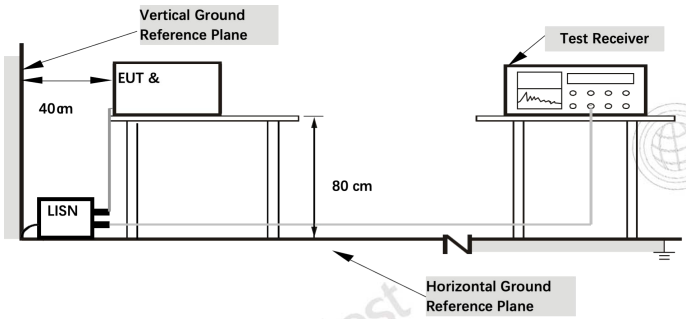
Test Requirement:	18.307
Test Method:	MP-5 Clause 7
Procedure:	An initial pre-scan was performed with peak detector.Quasi-Peak or Average measurement were performed at the frequencies with maximized peak emission were detected. Remark: Level= Read Level+ Cable Loss+ LISN Factor

Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.009-0.05	110	-
0.05-0.15	90-80	-
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.		

5.1.1 E.U.T. Operation:

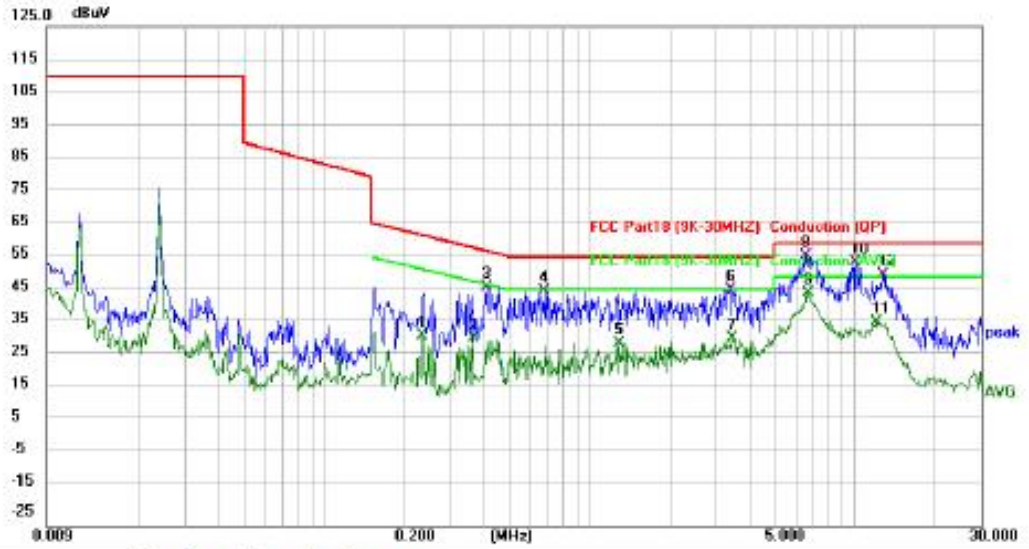
Operating Environment:					
Temperature:	25.9 °C	Humidity:	60 %	Atmospheric Pressure:	101 kPa
Pre test mode:	Mode1, Mode2				
Final test mode:	Mode1, Mode2				

5.1.2 Test Setup Diagram:



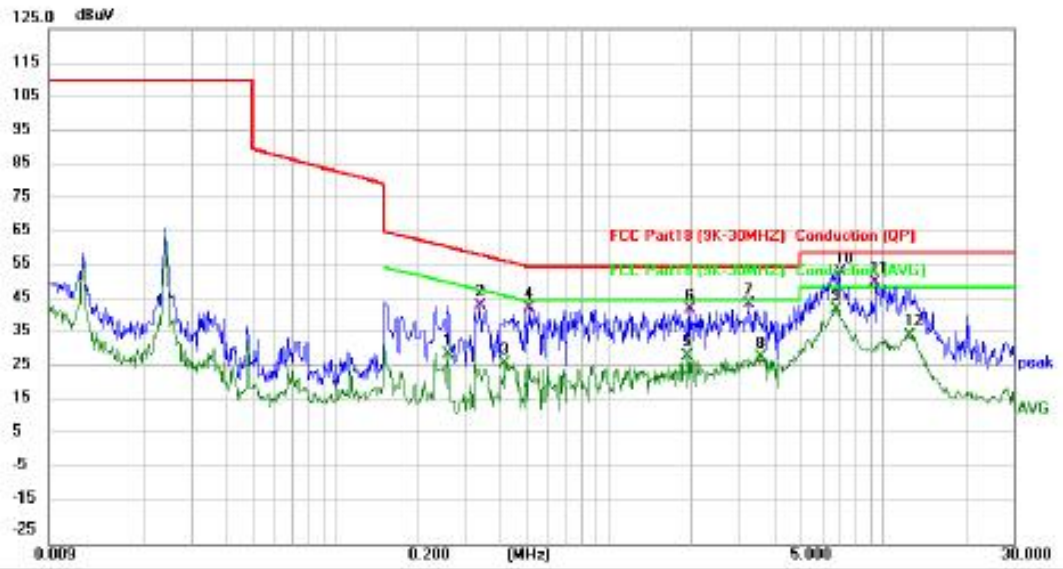
5.1.3 Test Data:

Mode1 / Line: Line



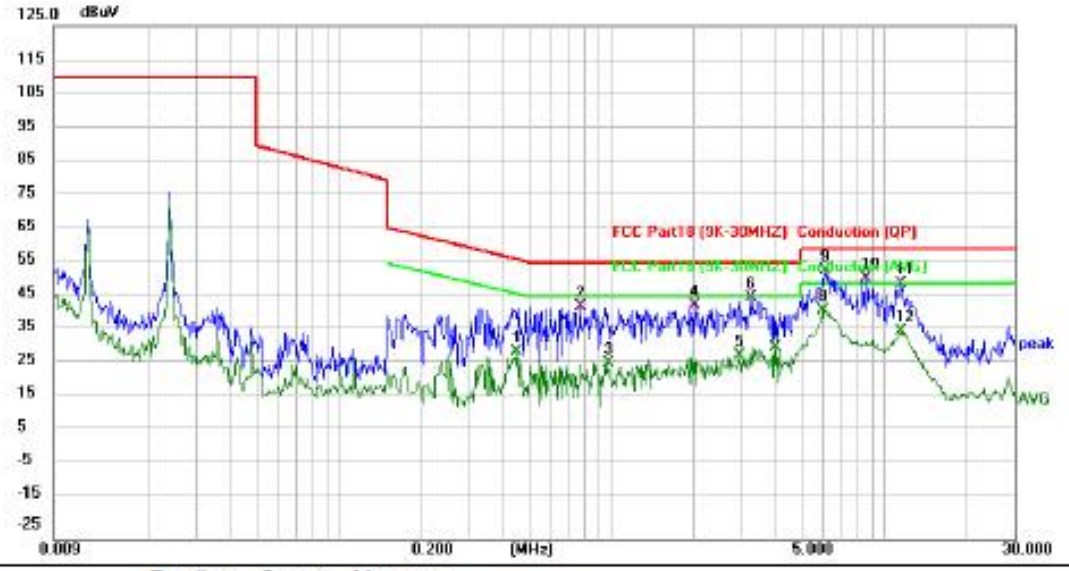
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2340	21.36	10.79	32.15	52.31	-20.16	AVG	
2		0.3620	20.81	10.77	31.58	48.68	-17.10	AVG	
3		0.4100	36.20	10.77	46.97	57.65	-10.68	QP	
4		0.6820	34.82	10.79	45.61	56.00	-10.39	QP	
5		1.2980	19.28	10.82	30.10	46.00	-15.90	AVG	
6		3.4140	35.09	10.93	46.02	56.00	-9.98	QP	
7		3.4940	20.58	10.94	31.52	46.00	-14.48	AVG	
8	*	6.5780	45.02	11.16	56.18	60.00	-3.82	QP	
9		6.6460	33.83	11.16	44.99	50.00	-5.01	AVG	
10		10.1780	42.92	11.45	54.37	60.00	-5.63	QP	
11		12.2100	24.59	11.60	36.19	50.00	-13.81	AVG	
12		12.8500	38.94	11.65	50.59	60.00	-9.41	QP	

Mode1 / Line: Neutral



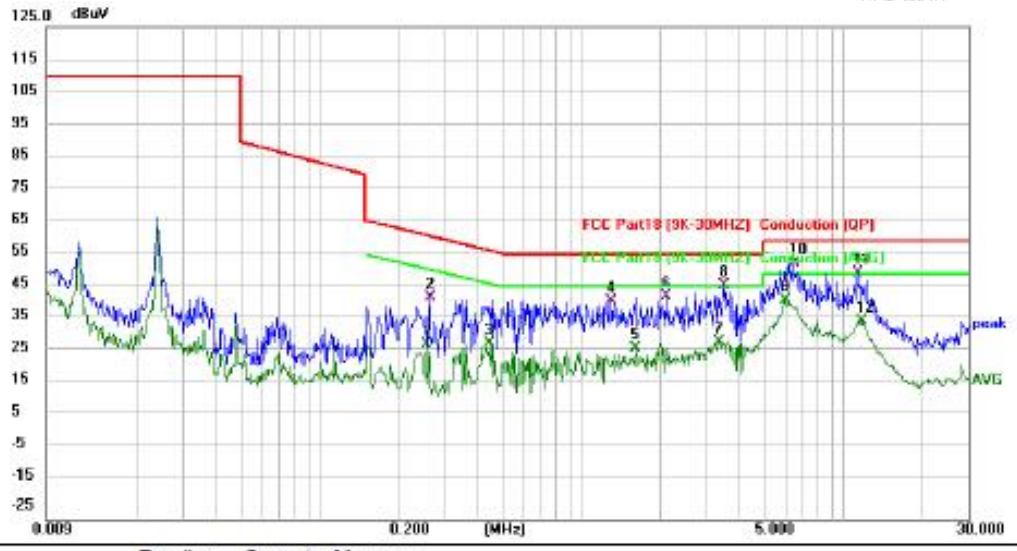
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2580	19.64	10.67	30.31	51.50	-21.19	AVG	
2		0.3379	33.83	10.68	44.51	59.25	-14.74	QP	
3		0.4140	17.10	10.67	27.77	47.57	-19.80	AVG	
4		0.5140	33.07	10.67	43.74	56.00	-12.26	QP	
5		1.9260	19.26	10.74	30.00	46.00	-16.00	AVG	
6		1.9740	32.64	10.74	43.38	56.00	-12.62	QP	
7		3.2659	34.20	10.82	45.02	56.00	-10.98	QP	
8		3.5580	18.58	10.83	29.41	46.00	-16.59	AVG	
9		6.7460	32.53	11.06	43.59	50.00	-6.41	AVG	
10	*	7.0060	43.42	11.07	54.49	60.00	-5.51	QP	
11		9.4220	40.05	11.29	51.34	60.00	-8.66	QP	
12		12.4660	24.30	11.49	35.79	50.00	-14.21	AVG	

Mode2 / Line: Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.4500	19.11	10.77	29.88	46.88	-17.00	AVG	
2		0.7700	32.09	10.80	42.89	56.00	-13.11	QP	
3		0.9780	15.92	10.80	26.72	46.00	-19.28	AVG	
4		2.0300	32.41	10.85	43.26	56.00	-12.74	QP	
5		2.9660	17.73	10.91	28.64	46.00	-17.36	AVG	
6		3.2260	34.65	10.92	45.57	56.00	-10.43	QP	
7		4.0060	20.13	10.97	31.10	46.00	-14.90	AVG	
8		6.0060	30.99	11.11	42.10	50.00	-7.90	AVG	
9	*	6.1100	42.45	11.11	53.56	60.00	-6.44	QP	
10		8.6180	39.94	11.33	51.27	60.00	-8.73	QP	
11		11.5659	38.41	11.55	49.96	60.00	-10.04	QP	
12		11.5659	24.53	11.55	36.08	50.00	-13.92	AVG	

Mode2 / Line: Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2540	17.73	10.67	28.40	51.63	-23.23	AVG	
2		0.2620	32.07	10.67	42.74	61.37	-18.63	QP	
3		0.4460	18.06	10.67	28.73	46.95	-18.22	AVG	
4		1.3060	30.67	10.71	41.38	56.00	-14.62	QP	
5		1.6140	16.40	10.73	27.13	46.00	-18.87	AVG	
6		2.1060	32.40	10.74	43.14	56.00	-12.86	QP	
7		3.3780	18.41	10.82	29.23	46.00	-16.77	AVG	
8		3.4980	35.56	10.83	46.39	56.00	-9.61	QP	
9		5.9860	31.00	10.99	41.99	50.00	-8.01	AVG	
10	*	6.4620	41.97	11.04	53.01	60.00	-6.99	QP	
11		11.4140	38.72	11.43	50.15	60.00	-9.85	QP	
12		11.7940	24.19	11.46	35.65	50.00	-14.35	AVG	

5.2 Radiated Emissions (30MHz-1GHz)

Test Requirement:	18.305

Test Limit:

Equipment	Operating frequency	RF Power generated by equipment (watts)	Field strength limit (uV/m)	Distance (meters)
Any type unless Otherwise specified (miscellaneous)	Any ISM frequency	Below 500	25	300
		500 or more	25 × SQRT(power/500)	300 (1)
	Any non-ISM frequency	Below 500	15	300
		500 or more	15 × SQRT(power/500)	300 (1)
Industrial heaters and RF stabilized arc welders	On or below 5,725 MHz	Any	10	1,600
	Above 5,725 MHz	Any	(2)	(2)
Medical diathermy	Any ISM frequency	Any	25	300
	Any non-ISM frequency	Any	15	300
Ultrasonic	Below 490 kHz	Below 500	2,400/F(kHz)	300
		500 or more	2,400/F(kHz) × SQRT(power/500)	300 (3)
	490 to 1,600 kHz	Any	24,000/F(kHz)	30
	Above 1,600 kHz	Any	15	30
Induction cooking ranges	Below 90 kHz	Any	1,500	30 (4)
	On or above 90 kHz	Any	300	30 (4)

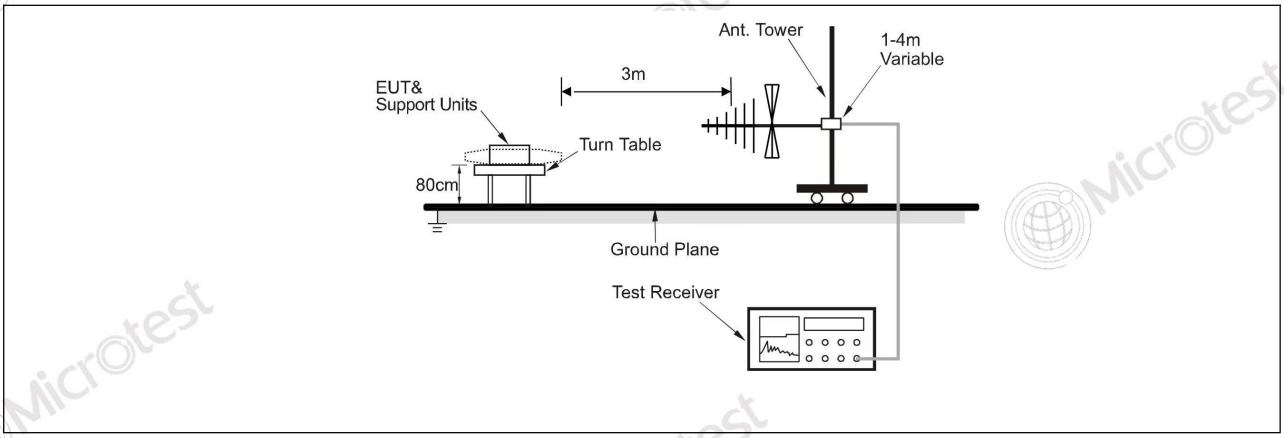
(1) Field strength may not exceed 10 μV/m at 1600 meters. Consumer equipment operating below 1000 MHz is not permitted the increase in field strength otherwise permitted here for power over 500 watts.
(2) Reduced to the greatest extent possible.
(3) Field strength may not exceed 10 μV/m at 1600 meters. Consumer equipment is not permitted the increase in field strength otherwise permitted here for over 500 watts.
(4) Induction cooking ranges manufactured prior to February 1, 1980, shall be subject to the field strength limits for miscellaneous ISM equipment.

Test Method:	MP-5 Clause 4/5/6
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

5.2.1 E.U.T. Operation:

Operating Environment:					
Temperature:	21.4 °C	Humidity:	62 %	Atmospheric Pressure:	101 kPa
Pre test mode:	Mode1, Mode2				
Final test mode:	Mode1, Mode2				

5.2.2 Test Setup Diagram:



5.2.3 Test Data:

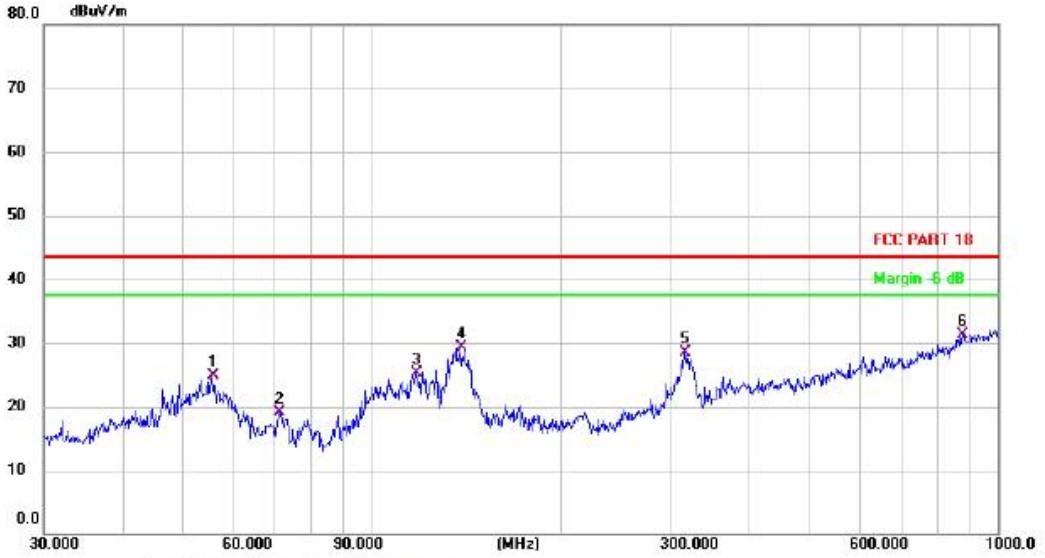
Mode1 / Polarization: Horizontal

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		51.8430	31.12	-7.16	23.96	43.52	-19.56	QP	
2		118.1862	34.12	-9.18	24.94	43.52	-18.58	QP	
3		139.8508	42.34	-12.20	30.14	43.52	-13.38	QP	
4		322.1886	31.39	-4.83	26.56	43.52	-16.96	QP	
5		374.6225	28.33	-2.70	25.63	43.52	-17.89	QP	
6	*	890.7278	26.53	5.71	32.24	43.52	-11.28	QP	

Mode1 / Polarization: Vertical

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		55.4147	41.93	-7.23	34.70	43.52	-8.82	QP	
2		69.6004	41.48	-10.44	31.04	43.52	-12.48	QP	
3	*	109.7960	47.85	-8.26	39.59	43.52	-3.93	QP	
4		143.3261	48.24	-12.00	36.24	43.52	-7.28	QP	
5		215.2678	30.46	-8.43	22.03	43.52	-21.49	QP	
6		854.0247	26.71	4.77	31.48	43.52	-12.04	QP	

Mode2 / Polarization: Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		55.8047	32.17	-7.29	24.88	43.52	-18.64	QP	
2		71.3300	29.92	-10.86	19.06	43.52	-24.46	QP	
3		117.7725	34.34	-8.98	25.36	43.52	-18.16	QP	
4		138.8735	41.50	-12.25	29.25	43.52	-14.27	QP	
5		315.4808	33.14	-4.72	28.42	43.52	-15.10	QP	
6	*	878.3214	25.48	5.83	31.31	43.52	-12.21	QP	

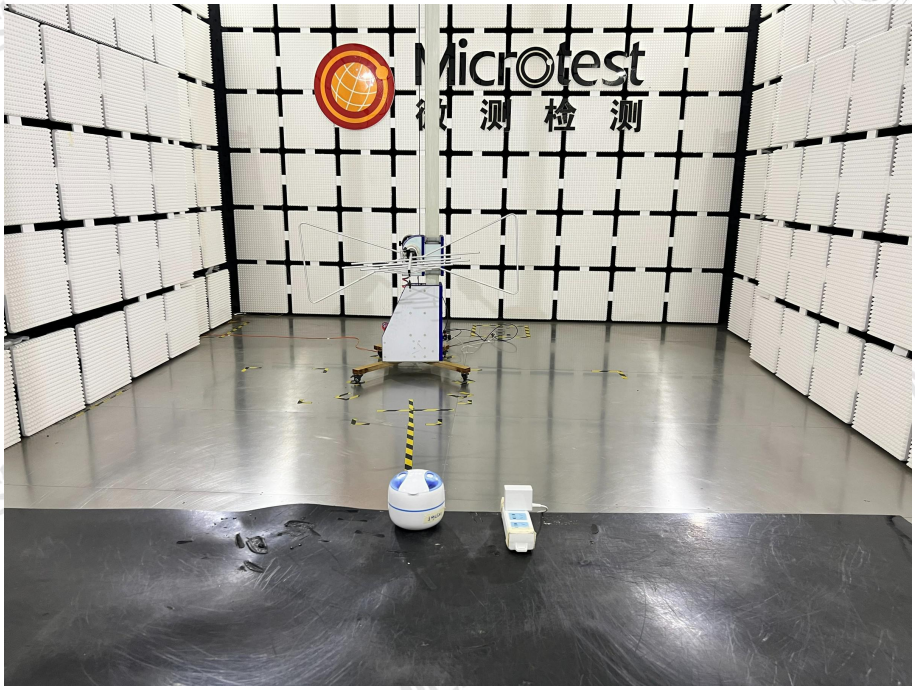
Mode2 / Polarization: Vertical

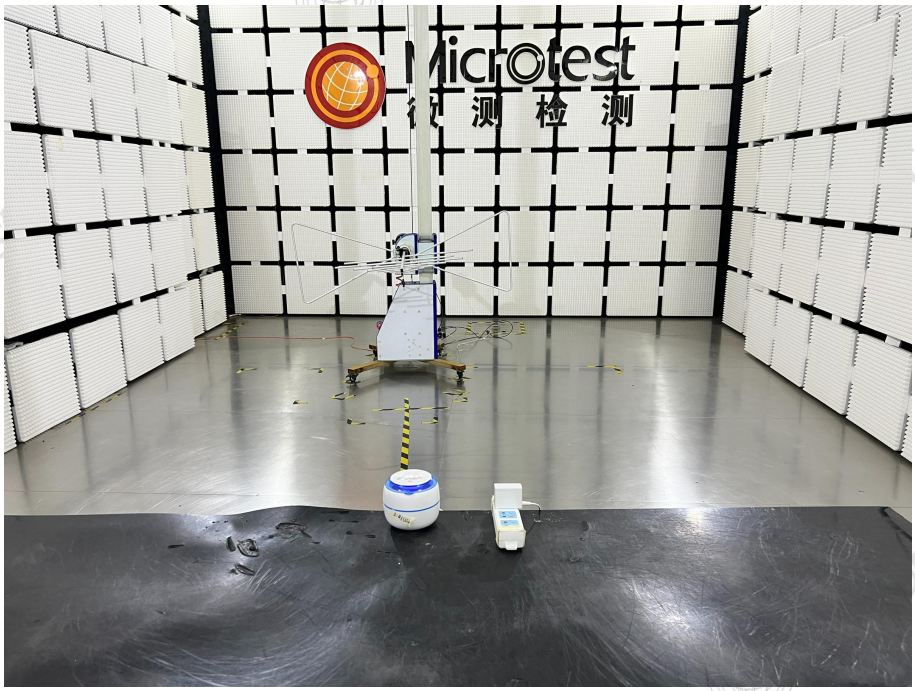
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		44.2752	44.33	-7.98	36.35	43.52	-7.17	QP	
2		55.2207	42.69	-7.19	35.50	43.52	-8.02	QP	
3	*	101.2885	47.74	-8.62	39.12	43.52	-4.40	QP	
4	!	107.1337	46.72	-7.99	38.73	43.52	-4.79	QP	
5	!	140.8351	49.83	-12.18	37.65	43.52	-5.87	QP	
6		217.5443	31.13	-8.27	22.86	43.52	-20.66	QP	

Photographs of the test setup

Conducted Emissions on AC Power Line

Radiated Emissions (30MHz-1GHz)





Photographs of the EUT

Refer to Appendix - EUT Photos

Statement

1. This report is invalid without the seal and signature of the laboratory.

2. The test results of this report are only responsible for the samples submitted.Client shall be responsible for representativeness of the sample and authenticity of the material.
3. The report shall not be partially reproduced without the written consent of the Laboratory.
4. This report is invalid if transferred, altered or tampered with in any form without authorization.
5. The observations or tests with special mark fall outside the scope of accreditation, and are only used for purpose of commission, research, training, internal quality control etc.
6. Any objection to this report shall be submitted to the laboratory within 15 days from the date of receipt of the report.

****** END OF REPORT ******